Anthropological Contributions
to the Study of Disasters

Abstract

This chapter addresses the contributions of anthropology towards the field of disaster studies and emergency management. Anthropology's concern with the holistic study of humanity in relation to social, political, cultural, and economic contexts, as well as the breadth of its studies done internationally, seem to make it well-positioned to answer calls from within the field of disaster studies for an "expanded horizon." This article examines contemporary contributions and investigations, following the life-cycle of a disaster event, from pre-disaster vulnerability, conceptions of risk, individual and social responses and coping strategies, and relief management. It concludes by providing recommendations for future research.

Henry, D
   2005 Anthropological Contributions to the Study of Disasters. In *Disciplines, Disasters and Emergency Management: The Convergence and Divergence of Concepts, Issues and Trends From the Research Literature*. D. McEntire and W. Blanchard, eds. Emittsburg, Maryland: Federal Emergency Management Agency. http://training.fema.gov/emiweb/edu/ddemtextbook.asp

Doug Henry, Ph.D.
Dept. of Anthropology
University of North Texas
(940) 243-1515
dhenry@scs.unt.edu

Anthropology attempts to engage its subjects holistically and comparatively, placing its focus on the broader context of human interactions in contemporary, historical, and prehistorical time, as well as the interrelationships between cultural, social, political, economic, and environmental domains. In its approach to studying disasters, this has meant calling attention to how risks and disasters both influence and are products of human systems, rather than representing simply isolated, spontaneous, or unpredictable events. There is especial concern with how cultural systems (the beliefs, behaviors, and institutions characteristic of a particular society or group) figure at the center of that society's disaster vulnerability, preparedness, mobilization, and prevention. Understanding these cultural systems, then, figures at the center of understanding both the contributing causes to disasters as well as the collective responses to them.[1] A holistic approach examines the complex interrelationships between humans, culture, and their environment, from the human actions that may cause or influence the severity of disaster, to the position of social vulnerability that defines disaster impact, to the range of socio-cultural adaptations and responses, including the impact of aid and the infusion of donor money. The comparative, relativistic approach of the discipline has often given it a critical stance, privileging local knowledge and local ways of management, while problematizing the dominant models of relief.

Given calls within disaster studies for an "expanded horizon" more inclusive than the current domestic, natural hazards focus, anthropology seems ideally situated to make a contribution to the field. Its own broad perspective includes what Dynes (2004) calls "slow-onset" disasters, public health epidemics, and complex emergencies. Because anthropologists

---

[1] Besides the focus on "systems" I have taken here, two other anthropological approaches to disasters bear note: 1) a typological approach, categorizing disasters by their logical type, such as drought, flood, cyclone, earthquake, chemical disaster, etc. (Franke 2004), and 2) a "processual" approach, which highlights that pre-disasters, disasters,

often work in the developing world, where vulnerability to disasters is the highest, they have been positioned to comment on issues like risk, change, management, and assistance. Some of the most complete reviews of the field have been done by Anthony Oliver-Smith (see, for instance, his 1996 "Anthropological Research on Hazards and Disasters," and 1999 *The Angry Earth: Disaster in Anthropological Perspective* (edited with Susanna Hoffman), which provide much of the basis and inspiration for this current review); many of the conceptual categories that follow are his. The chapter is organized to follow anthropology's contributions to the complete life cycle of disaster, from issues of vulnerable and perceived risk, to individual and social responses and coping strategies, to relief and recovery efforts.

Pre-Disaster Risk and Vulnerability

Culture influences that some people within the social system are more vulnerable to disasters than others. Ethnic minorities, disempowered castes or classes, religious groups, or occupations may live or work in physical areas that are relatively disaster-prone (Torry 1979, Zaman 1989, Haque and Zaman 1993, Bankoff 2003). For example, the mortality from the 1976 earthquake in Guatemala so disproportionately impacted the poor (unable to afford standard construction, and forced to live in landslide-susceptible ravines and gorges) that the disaster was called a "classquake" (Blaikie et al. 1994). In addition, cultural ideas about gender occupations and gender roles may predispose women (and often, by association, children) to be disproportionately represented among groups whom disasters strike, or who are most vulnerable to its effects (Agarwal 1992, Shaw 1992, Fothergill 1996, Bari 1998). Studies of vulnerability and risk have thus focused largely on environmental and technological susceptibility, such as at living near waste disposal sites (Johnston 1994, Pellow 2002), water contamination (Fitchen

and relief are continuous events which serve as instigators of social interactions, transformations, and reorganization

1988), workplace contact with toxic chemicals or dust (Sharp 1968, Michaels 1988, Petterson 1988), and industrial accidents (Wallace 1987). Pre-disaster inequalities within social relationships have also been shown to exacerbate tensions and discrimination during times of crisis or relief (Jackson 2003). Torry (1986), for instance, showed how pre-disaster religiously sanctioned inequality existing in India structured the provision of relief during famine in such ways that reinforced the cultural model of customary discrimination. He notes that social adjustments during crisis "are not radical, abnormal breaks with customary behavior; rather they extend ordinary conventions" (1986: 126). Working with Bangladeshi communities resettled from erosion prone riverine areas, Haque and Zaman (1993) suggest that relief efforts that ignore broader cultural institutions like religious and sociopolitical organization, may do so at their own peril, in that they ignore factors that influence or limit how communities are able to organize and respond to their own situation.

In parallel with work in other disciplines, anthropology has sought ways to call attention to (and alleviate) structural conditions of predisaster vulnerability that predispose some communities to experience disaster or that increase the severity of disaster impact. Such conditions include gender inequality, global inequities, endemic poverty, racism, a history of colonial exploitation, imbalances of trade, and underdevelopment. Poor or ethnic minority groups may have little choice but to live in sub-standard housing on or near unstable land prone to flooding, drought, disease, or environmental pollution (Bodley 1982, Johnston 2001). The developing world experiences three times the disaster-induced death rates of the developed world (UNDRO 1984). Paul Farmer, a medical anthropologist, takes stock of the profound and spreading social disaster within the poorest countries of the world that HIV/ AIDS and tuberculosis infection represent (1999, 2004). With millions dead and tens of millions of

---

(Hoffman and Lubkemann 2005).

children left orphaned in Africa alone, Farmer places the blame for the epidemic squarely on structural forces: the poverty and racism that heighten vulnerability by preventing the poor from receiving education and health care access, the multinational greed that prevents life-prolonging treatment drugs from reaching the poor, and neo-liberal economic policies that force governments to slash safety nets and reduce spending on crucial social services (see also Schoepf et al. 2000).

Research from the African Sahel has shown that economic pressures associated with colonialism and global trade induced unsustainable practices that increased the local vulnerability to desertification, famine, and starvation (Turton 1977, Fagan 1999). Oliver-Smith notes the "socially created pattern of vulnerability" that Spanish-induced changes in building materials, design, and settlement patterns induced in Andean cultures, that contributed to higher mortality during a 1970 earthquake in Peru (1994). The pressure for economic development, modernization, and growth through means such as mining, deforestation, urbanization, and hydroelectric dams, can lead to dramatic environmental degradation, loss of food security, and increasing disease vectors, thus elevating vulnerability to natural and infectious hazards (Scudder and Colson 1982, Simonelli 1987, Cernea 1990, Shipton 1990, Hunter 1992, Lerer and Scudder 1999).

There is also research on how various actors involved in pre-disaster situations assess and define risk and vulnerability. Anthropologists have emphasized local models of risk construction, and stressed the importance of understanding the sociocultural context of judgments and indigenous linguistic categories and behaviors about what is dangerous and what is not. They note that public perceptions about risk and acceptability are shared constructs; therefore, understanding how people think about and choose between risks must be based on the

study of culturally-informed values as well as their social context of poverty or power (Wolfe 1988, Cernea 2000). Douglas and Wildavsky (1982) note, for instance, that scientific ratios that assess levels of risk are incomplete measures of the human approach to danger, since they explicitly try to exclude culturally constructed ideas about living "the good life." Risky habits or dangerous behaviors are conformations to lifestyles, and thus become evaluated within other socially and culturally evaluated phenomenon. Food, money, or lifestyle may outweigh perceived vulnerability. People live in Los Angeles, for example, not because they like breathing smog, but to take advantage of job opportunities, or because they value natural beauty, a warm climate, etc. Altering risk selection and risk perception, then, depends on changing the social order. From the point of view of sociology, Mileti (1999) similarly argues that any shift in vulnerability-preparedness must include a shift in cultural premises that privilege technological solutions, consumerism, and short-term, non-sustainable development. He notes that in the U.S., centralized attempts to guard against natural disasters, especially those that employ technological means to control nature, may ultimately create a false sense of security that can exacerbate the risk of even more damage occurring. For instance, dams and levees meant to protect communities from flooding along the Mississippi River basin actually encouraged denser settlement patterns and industrial development in flood-prone areas, which inflicted much greater losses during a large flood that caused the levees to fail. Paine (2002), in writing about Israeli citizen responses to violence from the Palestinian uprising, notes that consciousness of risk can actually be socially negated. Particularly for Zionist Israelis, the acceptance of religious identity and collective mission supersedes any rational calculation of vulnerability. Finally, Stephens (2002) writes how political culture can shape risk assessment. In Europe in the years following the Chernobyl disaster, risk assessment has been effectively delegated away from individual or

personal level to the realm of scientific "authoritative experts." Stephens' work shows the pressure among these experts to both inform an anxious public about the levels of risk surrounding nuclear energy, nuclear accidents, and radiation danger, and simultaneously assuage the public that everything is "normal" and "under control."

Responses to Disaster

Individual and Organizational Responses

As Oliver-Smith notes, hazards and disasters challenge the structure and organization of society. Much anthropology, therefore, examines the behaviors of individual actors and groups within the events surrounding a disaster. The anthropology of disaster response has focused on changes occurring within cultural institutions like religion, ritual, economic organization, and politics, especially concerning the relative degrees of local cooperation or conflict, the ability of local institutions to mitigate the impact of a disaster, and the differential capabilities of response due to ethnicity, gender, age, and socioeconomic status (Das 1997). Pannell (1999), for instance, notes that inland resettlement of a coastal community because of volcanic activity involved dramatic and destabilizing changes in subsistence, organization, and identity. Research has also focused on how vulnerable populations variously respond to both the crisis and the provision of aid, in particular the aged (Guillette 1993), women (Vaughan 1987, Shaw 1992, Alexander 1995, Bari 1998), and children (Gordon et al. 1996, Tobin and Whiteford 2001, Shepler 2003). Each of these populations may have different coping mechanisms, different vulnerabilities, and different capabilities (Anderson 1994, Nordstrom 1998, Skelton 1999). Research has also focused on the interactions and interrelationships between donors, providers and recipients of aid (Oliver-Smith 1979).

With the rise in occurrence and severity of technological disasters such as oil spills and chemical explosions have come anthropological studies of community and corporate responses. Research into the Exxon-Valdez Alaska oil spill uncovered how communities recover from the stress and impact of the spill. Some of these have shown that disasters can stimulate a range of social responses, from initial anger and denial to social integration and cohesiveness, as new groups form to initiate bargaining for responsibility and obligation (Button 1992). Loughlin's work on responses to the Bhopal, India, chemical explosion shows how corporate and community definitions as to disaster, culpability, and accountability can be at odds, and that disasters may stimulate new forms of local activism and social consciousness (Loughlin 1996). Such research provides grounding for the concept of "environmental justice" (Johnson 1994), which attempts to define rights for those communities whose subsistence is primarily dependent on an ecological relationship with their surrounding natural resources.

Though disaster-literature typically focuses on the population-level, disaster-related trauma may have individual effects that become expressed in culturally informed ways, in response to fire (Maida et al. 1989), earthquake (Bode 1989, Oliver-Smith 1992), technological disaster (Palinkas et al. 1993), or complex emergencies (Jenkins 1996, Caruth 1996, Young 1997, Henry 2000a). Anthropologists have come to use the analytical term "embodiment" to focus on the complex meanings of disaster-related trauma that become manifest in individuals, as the lived experiences of disaster, and the creative ways that survivors use to comprehend the trauma done to their lives, and attempt to move on (Kleinman et al. 1997, Green 1999, Anderson 2004, Scheper-Hughes and Bourgois 2004). Henry, for instance, notes how *haypatensi* (from the English medical condition "hypertension") evolved in the war-torn areas of Sierra Leone as a new kind of local sickness experienced by refugees and internally displaced persons in response

to their experiences of violence, displacement, and the provision of relief aid (Henry 2000b).

Cathy Caruth (1996) notes that when traumatic experience is remembered, a "historical

narrative" is created in which the events become restructured and resituated in ways that help the

survivors understand and make sense of what happened, and move forward (see also Malkki

1990). The analyses of trauma narratives have been recognized as valuable in helping illuminate

how people come to make sense of the violence done within disaster (Poniatowska 1995, Jenkins

1996, Coker 2004). As Coker points out, the references within that narrative need not be

straightforward, but become locally understood and expressed indirectly in culturally defined

idioms (somatization, a new kind of sickness, Divine punishment, supernatural wrath, spirit

possession, etc.).

Anthropologists have often been critical of the dominant Western classification-

diagnoses "PTSD," or Post-Traumatic-Stress-Disorder, especially its claim to represent universal

"human" responses to extremely traumatic situations. They trace the diagnosis through the

historical construction of "trauma," especially in its transformations by 19th and 20th century

scientists, and the study of war-traumatized WWII soldiers and Vietnam veterans (Hermann

1992, Young 1997, Petty and Bracken 1998). Bracken notes that PTSD was created through

Western categories, and that the therapy it entails is shaped by Western ideas of cognitivism, in

which trauma is located as an event inside a person's head, rather than representing a social

phenomenon, where recovery might be bound up with the recovery of the wider community.

Instead, in line with the Western model, children and adults are universally encouraged to talk

about traumatic experiences, or draw, paint, or use storytelling, in effect provoking them to relive

the trauma. Not surprisingly, anthropologists have been critical of this kind of approach; it

conflicts with the holistic and relativistic approaches of anthropology described above—"Talking

cures" or counseling that ignores other family or community members may be cross-culturally inappropriate, especially in other parts of the world, where conceptions of individuality and person may be much more connected to the social context than in the Western world (Young 1995, Brett 1996). Parker (1992) further notes that any implication that traumatic disaster is "temporary" ignores the fact that many people live with chronic insecurity, economic frailty, and extended states of trauma.

Responsive Belief Systems and Coping Strategies

Since the beginning of the discipline, anthropologists have been interested in how people draw upon and alter their belief systems in efforts to come to terms with events of catastrophic change, violence, loss, resettlement, and even humanitarian relief (Lindstrom 1993, Maida 1996). These events can involve changes in social institutions like religious beliefs or customs (Stewart and Harding 1999), social organization (Colson 1973, Oliver-Smith 1977), attitudes and values (Bode 1977, Oliver-Smith 1992), even marriage institutions (Loizos 1977).

Anthropologists have shown some of the adaptive coping strategies that even relatively isolated world populations have traditionally used to respond and cope with disasters from the environment, such as flood, drought, conflict, earthquake, volcanic explosion, and disease (Turton 1977, Torry 1978a, Zaman 1989, Tobin and Whiteford 2002). Archaeology, for instance, has used the material record to provide long-term depth for understanding the human-environment relationship in both historical and pre-historical time. This has involved using flora, fauna, and material remains to examine the relationship between contextual variables like the magnitude or speed of a disaster with social variables such as population density, wealth distribution, and political complexity, in order to assess how disasters have impacted human response and social adaptation over time (McGuire et al. 2000, Bawden and Reycraft 2001).

Some of the work here notes how disasters can instigate cultural evolution (Minnis 1985, Mosely and Richardson 1992); others note the disastrous consequences of unsustainable environmental practices that human behavior can cause (Fagan 1999, Redman 1999, Dods 2002). In contemporary time, Elizabeth Colson has pointed out the creative coping mechanisms that can occur within social systems as a result of the upheaval of forced relocation, such as flexible forms of social organization, familial obligations, occupations, and belief systems (1973, 2003). Monica Wilson notes how the cultural norms of hospitality in southern Africa enabled shipwrecked explorers and traders to be welcomed and integrated into the social order of local communities (1979). Davis echoes this, noting that the suffering involved in traumatic experience is social—"the experience of war, famine, and plague is continuous with ordinary social experience; people place it in social memory and incorporate it with their accumulated culture (1992: 152). For Davis, suffering results not so much from a "breakdown" in the proper functioning of the social order, but rather is itself a painful part of the social organization. This includes the culturally diverse ways that people mourn, and how they draw upon culturally and religiously defined symbols to find strength (Bode 1989, Hoffman 1995).

In some areas of the world, people have long had to deal with social disruption, such as areas in the African Sahel, where drought, famine, and political insecurity have become somewhat common, if not always anticipated, events. In Sudan, for example, Van Arsdale (1989) coins the term "adaptive flux" to refer to the indigenous self-help tactics and long-term coping strategies that have evolved to enable people to survive under fluctuating, harsh, and erratic conditions in what is a socio-economically and geographically peripheral area. People may activate migration networks that send some family members to urban areas, farmers may enact systems of crop rotations or sharing of draft animals to increase the chance of a successful

harvest, or they may rely on grass-roots political councils to mobilize food resources or security during scarcity or political instability. In Ethiopia, for example, Hailu et al. (1994) note that these kind of local council decisions were able to mobilize 6,000 peasants to build a dry-weather road to eastern Sudan in a short time. This later enabled relief-assistance to reach the area during famine.

Adaptive strategies can, however, become strained under the larger-scale of vulnerability that has frequently accompanied the transformations inflicted on indigenous societies since Western contact, colonialism, industrialization, and incorporation into the world market. Already mentioned was how British colonialism and economic pressures in the East African Sahel eroded (and in some cases, outlawed) preexisting indigenous methods of drought survival, and increased the local vulnerability to desertification, famine, and starvation (Turton 1977, Fagan 1999).

Responses Within Political Organization

Anthropologists have noted how disasters can alter political organizations and power relations between individuals, the state, and international actors. Disasters may provide a kind of structuring idiom that allows people to more clearly apprehend their own political situation and their own position of power (or marginality) relative to that of the state (Chairetakis 1991, Button 1992). Chairetakis notes that where states or political parties are able to exploit the situation by being seen as a major player in relief, relief efforts can bolster the dominant political interests of those already in power (see also Blaikie et al. 1994). Davis, writing about the consequences of earthquake and tsunami in Alaska, notes that disaster assistance functioned to increase the integration of native groups into the state (Davis 1986). Alternately, disaster and relief can

stimulate the development of subaltern means, identities, or interests. Robinson et al. (1986), for

instance, writing about local responses following the 1985 Mexico City Earthquake, note how

neighborhood and student organizations recovering from the quake felt empowered to mobilize

and demand more accountability from the political party in power.

Responses Within Economic Systems

Anthropologists have always been interested in the material and economic exchange of

peoples, especially in terms of production, distribution, consumption, the allocation of scarce

resources, and the cultural rules for the distribution of commodities. Because disasters and

disaster relief can so dramatically impact material subsistence and exchange, anthropologists

have looked at the changes that disasters can bring to economic systems and related mechanisms

like employment, sharing, egalitarianism, and morality (Dirks 1980). Torry, for example,

studying Hindu responses to famine, notes that social inequalities situated within caste or other

sanctioned structures can produce marked inequalities in access to resources, and the unequal

distribution of relief items (Torry 1986). Oliver-Smith, writing about immediate responses to

avalanche and earthquake in Peru, notes that previously existing stratifications like class and

ethnicity can temporarily disappear in a short-lived wave of altruism. Once national and

international aid appears, however, old divisions can reemerge, and conflicts over access to

resources begin again (1979, 1992).

Providing Relief: Development and Power

As mentioned above, anthropology has sought ways to alleviate the structural conditions

of predisaster vulnerability that predispose individuals, groups, or societies to experience

disaster, or that increase the severity of disaster's impact. Targeting these structural conditions,

then, has often involved a search for ways to incorporate the goals and mechanisms of "sustainable development" into the paradigm of "relief" (Cuny 1983, Kibreab 1987, Slim and Mitchell 1992, Zetter 2003, Anderson and Woodrow 1998). The relief paradigm is criticized for being externally managed and non-participatory, or for failing to recognize and affirm local institutions or skills with which communities might be involved in the management of their own disasters. Critics note the singular tendency of the relief model to implement top-down strategies which preclude situational flexibility or genuine local participation, or for biases which pathologize the victims or survivors and encourage aggressive, external interventions, or for the "restricting logic" that relief bureaucracies impose on the recipients of aid, thus creating dependent, helpless, powerless populations (Harrell-Bond 1993, Adams and Bradbury 1995, De Waal 1997, Platt 2000). They posit that a more developmental approach is ultimately more beneficial in helping prevent future disasters, in that development is more likely to target the structural forces attributed to be at the root causes of vulnerability. Developmentalists assert that emergency relief should be temporary, and that any aid should be quickly followed by rehabilitation, focusing on "capacity building" and "supporting local structures" (see Boutros-Ghali 1992). Critics of this counter that these words can be merely excuses for reducing food and medical entitlements, which then shift the burden to local communities without properly assessing their capacities to manage it (Macrae et al. 1997, Bradbury 1998, Macrae 1998).

The international system of relief can dramatically impact previously remote or marginal areas, and create new and previously inconceivable kinds of employment, education, opportunity, even aspirations, for people. As noted, however, new opportunities tend to fall along preexisting restrictions of gender roles and expectations, class, nationality, or religion (Ferguson and Byrne 1994, Anderson and Woodrow 1998, Sommers 2001, Shepler 2002), and

can even result in heightened tension or conflict (Jackson 2003). As mentioned above, the comparative and relativistic stance of the discipline has given it an often critical stance towards dominant Western models of relief, often giving voice instead to local knowledge and local ways of management (Harrell-Bond 1993, De Waal 1997). Others have analyzed the media, and how those affected by disaster are portrayed in popular print. This includes a critique of the media for appropriating images and stories of others' experiences of pain and suffering as a commodity to be bought, sold, manipulated, or marketed in order to attract more donations (Feldman 1995, Kleinman and Kleinman 1997, Gourevitch 1998).

Some have directly confronted the structural imbalances embedded in the relationships between refugees and the humanitarian community. This calls attention to the fact that the very field of "emergency management" often involves an a priori assumption that local people are in need of external managers, and are unable to provide for themselves (Torry 1978b, see also Mileti 1999). Though not an anthropologist, Platt (2000) argues that U.S. disaster policy since 1950 has supplanted moral and community concern with government subsidies and financially-expressed compassion that fosters co-dependency, effectively providing disincentives to local governments in their own attempts to create disaster-resistant communities. Ino Rossi, in studying the long-term reconstruction following an earthquake in Italy, notes that local priorities can be overlooked when they differ from those of donors, and relief agents, and governments (Rossi 1993). The control of information by donors may be linked to anxiety, frustration, and feelings of powerlessness among recipients (Button 1995, Henry 2000a). Malkki, in her work with Rwandan refugees in the Congo, notes that humanitarian knowledge is discursively powerful, and may operate to silence local agendas that run contrary to its own (1996). The recipients of aid are not completely powerless, however; Henry (2002) notes how refugees living

in remote, marginal, border areas learned to adapt to the system providing relief aid by interchanging identities between "citizens" and "displaced" in order to maximize benefits and empower themselves on an international stage dominated by foreign relief efforts.

Because one of the most common social reactions to a crisis is flight, problems associated with the management of post disaster population upheaval and resettlement have been examined in considerable detail. One avenue of productive exploration has been with populations fleeing complex emergencies, obtaining shelter in camps set up for refugees and internally displaced people (IDPs) (Colson 2003); this includes the effects of camp policies on the displaced themselves. A growing body of research questions the international community's motivations in persistently encouraging the placement of refugees in separate, demarcated camps (Harrell-Bond 1986, 1994, Van Damme 1995), as opposed to self-settlement. Infectious disease rates may be higher in camps, despite aggressive, centralized public health interventions; nutritional problems may be higher, especially where there is no individual access to means of subsistence, and environmental damage is greater. Morbidity and mortality may be underreported, as camp dwellers have an interest in concealing any drop in their numbers in order to maintain relief-supply entitlements. There may be further "invisible" damages from introducing a foreign aid system, which undermines local values of sharing, cooperation, or hospitality, that hold society together. Yet despite this research, local and international agencies, usually under UN auspices, use relief supplies to encourage the settlement of displaced people into camps, with the rationale that centralized groups of displaced people are easier to distinguish from the general population and manage.

Starting from Foucault's *Discipline and Punish* (1979), Malkki notes how camps for displaced people can be seen as discrete loci of asymmetric power—set apart, clearly bounded,

15

and with formalized, hierarchical structures. Almost as in a hospital, mobility in the camps may

be restricted by numerous identification stations and check points. The "sick" are the displaced,

uncertain of the necessary course of events to get them back to a desired state, at the mercy of the

authoritative knowledge of camp administrators, and secure in their residence only by

maintaining a demonstration of helplessness (Hitchcox 1990, Malkki 1995, Muecke 1992).

Harrell-Bond (1986, 1993), Mazur (1988), and Kibreab (1993) document how the paradigms in

use by the UNHCR tend to characterize the displaced as "helpless," despite abundant evidence to

the contrary. This bureaucratic conceptualization may be reinforced by an ideological belief that

refugees lack the motivation or capacity to work out solutions for their own self-sufficiency (Van

Arsdale 1993, Gibbs 1994). Such characterization has severe implications for how refugees are

treated: camp authorities may react negatively when refugees demonstrate their own

competence, as personal initiative is seen as interfering with the "smooth functioning" of the

camps (Williams 1990). Camps may thus impose a kind of "restricting logic" on its members;

powerless to take charge of events affecting their lives, the displaced often become dependent on

aid agencies for their basic subsistence (Marchal 1987).

The history of the modern system of international humanitarian relief has received recent

attention, as has the ambivalent nature of its entry into disaster affected areas (Crew 1998,

Middleton and O'Keefe 1998). De Waal (1993, 1997), for example, in his critique of the self-

serving nature of humanitarian interventions in Africa and Asia, implicates the "relief industry"

as perpetuating (and exacerbating) the very famines and conflict they purportedly try to alleviate

(see also Jackson 2003). Also noted is the inappropriateness of some aid, especially food relief.

Henry (2000a) notes that supplying cornmeal and boxed breakfast cereal to West African

refugees whose staple is rice may have satisfied regional political and economic pressures within

the World Food Program, but did little to alleviate local hunger. Having no idea how to prepare

cornmeal into recognizable "food," Sierra Leonean refugees were forced to sell the cornmeal to

local traders in exchange for bags of rice. Unfortunately, this was a bad deal for those in need, as

the poor exchange rate in a cash-poor environment meant worsened malnutrition and hunger.

Finally, a growing literature looks at the impact of disaster resettlement on host country

populations. Gebre (2003) notes that while displaced populations receive aid, research coverage,

and policy attention, those hosting the displaced can themselves undergo extreme strain and

upheaval, though their plight remains largely unnoticed. Similarly, Leach (1992) and Henry

(2002) note that relief efforts for Liberian and Sierra Leonean refugees could upset and sour

traditionally cordial host-guest and extended family relationships and obligations.

Assessment

In summary, anthropology offers the field of disaster studies broad comparative,

contextual, and cross-cultural perspectives, particularly from its extensive work in the

developing world. Its holistic approach frames disasters within their social, cultural, political,

economic, and environmental relationships, from the human behaviors that can cause or

influence the severity of disaster, to culturally informed adaptations and responses, to the relative

social vulnerabilities that mitigate or magnify a disaster's impact.

The anthropology of disasters works under the assumption that those suffering under

crisis are not empty vessels stripped bare of their cultural make-up; on the contrary, cultural

institutions figure at the center of a society's disaster vulnerability, preparedness, mobilization,

and prevention. It follows then, that disaster preparedness as well as relief and reconstruction aid

could be more appropriate, efficient, and economical if an understanding of the experiences and

perspectives of local communities and institutions were taken into account. This includes understanding the larger social and organizational cultures that may interfere with practices of sustainable, long-term development. Given the top-down biases of emergency relief, anthropology needs to continue to seek practical ways to incorporate local technical knowledge, insight, skills, desires, and needs into the management of disaster situations, so that local people and institutions might be affirmed in identifying problems and offering solutions towards the management of their own situation, and that local capacities may be strengthened to resist future emergencies. Morren (1983), for instance, notes that Kalahari Bushmen in Africa, on the front lines of disaster as first responders to drought, can be remarkably effective in limiting loss and facilitating relief (see also Torry 1988).

In addition, more ethnographic research is needed on the organizational cultures and constraints of relief agencies themselves, along the lines of Kent's *Anatomy of Disaster Relief* (1987). This should move beyond the merely critical, to offer practical solutions as to how to address the gap between research and practice, perhaps focusing on how bureaucratic barriers might be transcended in order to encourage situational flexibility and generate genuine grass-roots participation. This should include the moral, social, political, and economic values that the recipients of aid attach to the items being provided in relief (Prendergast 1996).

Finally, there are methodological concerns that need to be addressed. More critical research is needed into how social scientists can professionally yet ethically conduct research during and in the midst of disasters. The professional concerns include the identification of methodological biases, such that our work can remain both academically sound and yet policy relevant. There are also ethical concerns that arise from the researcher's position of relative privilege and power (Nordstrom and Robben 1995, Greenhouse et al. 2002, Jacobsen and Landau

18

2003). This is particularly true for international disasters that occur in developing countries,

whose people experience more extreme forms of vulnerability and stress. Through its concern

for local sensitivities, anthropology needs to ask how it may better structure questions and better

seek information in ways that inflict the least harm from people under situations of severe duress.

References

Adams, M. and M. Bradbury. 1995. *Conflict and Development: Organizational Adaptation in Conflict Situations.* Oxfam Discussion Paper 4. Oxford: Oxfam.

Agarwal, B. 1992. "Gender Relations and Food Security: Coping with Seasonality, Drought, and Famine in South Asia." Pp. 181-218 in *Unequal Burden: Economic Crises, Persistent Poverty and Women's Work*, edited by L. Beneria and S. Feldman. Boulder: Westview Press.

Alexander, E. 1995. *Gender and Emergency Issues: A Synthesis of Four Case Studies: Malawi, Mozambique, Angola, and Zaire.* Report prepared for the World Food Programme.

Anderson, M. 1994. "Understanding the Disaster-Development Continuum: Gender Analysis is the Essential Tool." *Focus on Gender* 2 (1): 7-10.

Anderson, M. and P. Woodrow. 1998.   *Rising from the Ashes: Development Strategies in Times of Disaster*. Boulder: Lynne Rienner.

Bankoff, G. 2003. "Constructing Vulnerability: the Historical, Natural, and Social Generation of Flooding in Metropolitan Manila." *Disasters* 27 (3): 224-238.

Bari, F. 1998.   "Gender, Disaster, and Empowerment: A Case Study from Pakistan." Pp. 1-8 in *The Gendered Terrain of Disaster: Through Women's Eyes,* edited by E. Enarson and B. Hearn-Morrow.   London: Praeger.

Bawden, G. and R. Reycraft. 2001. *Environmental Disaster and the Archaeology of Human Response Anthropological Papers No. 7.* Albuquerque: Maxwell Museum of Anthropology and University of New Mexico.

Blaikie, P., T. Cannon, I. Davis and B. Wisner. 1994. *At Risk: Natural Hazards, People's Vulnerability, and Disasters.* London: Routledge..

Bode, B. 1977. "Disaster, Social Structure, and Myth in the Peruvian Andes: the Genesis of an Explanation." *Annals of the New York Academy of Sciences* 293: 246-274.

Bode, B. 1989. *No Bells To Toll: Destruction and Creation in the Andes*. New York: Scribners.

Bodley, J. 1982. *Victims of Progress (second ed.).* Menlo Park-California: The Benjamin/Cummings Publishing Company, Inc.

Boutros-Ghali, B. 1992. *An Agenda for Peace.* New York: United Nations.

Bradbury, M. 1998. Normalising the Crisis in Africa. Disasters 22 (4): 328-338.

Brett, E. 1996. "The Classification of Posttraumatic Stress Disorder." Pp. 117-128 in *Traumatic Stress: the Effects of Overwhelming Experience on Mind, Body, and Society.* Edited by B. van der Kolk, A. McFarlane, and L. Weisath. New York: Guilford Press.

Button, G. 1992. *Social Conflict and Emergent Groups in a Technological Disaster: the Homer Area Community and the Exxon-Valdez Oil Spill*. Unpublished Ph.D. thesis. Brandeis University.

Button, G. 1995. "What You Don't Know Can't Hurt You: the Right to Know and the Shetland Islands Oil Spill." *Human Ecology* 23: 241-257.

Caruth, C. 1996. *Unclaimed Experience: Trauma, Narrative, and History*. Baltimore: Johns Hopkins University Press.

Cernea, M. 2000. "Risks, Safeguards, and Reconstruction: a Model for Population Displacement and Resettlement." Pp. 11-55 in *Risk and Reconstruction Experiences of Settlers and Refugees*, edited by M. Cernea and C. McDowell. Washington, D.C.: The World Bank.

Cernea, M. 1990. "Internal Refugee Flows and Development Induced Population Displacement." *Journal of Refugee Studies* 3: 320-329.

Chairetakis , A. 1991. *The Past in the Present: Community Variation and Earthquake Recovery in the Sele Valley, Southern Italy, 1980-1989.* Unpublished Ph.D. thesis presented to Columbia University.

Coker, E. 2004. "Traveling Pains: Embodied Metaphors of Suffering Among Southern Sudanese Refugees in Cairo." *Culture, Medicine, and Psychiatry* 28: 15-39.

Colson, E. 1973. *The Social Consequences of Resettlement*, Kariba Studies IV. Manchester: Manchester University Press.

Colson, E. 2003. "Forced Migration and the Anthropological Response." *Journal of Refugee Studies* 16 (1): 1-18.

Crew, E. 1998. *Whose Development? An Ethnography of Aid*. New York: Zed Books.

Cuny, F. 1983. *Disasters and Development*. New York: Oxford University Press.

Das, V. 1997. *Social Suffering.* Berkeley: University of California Press.

Davis, N. 1986. "Earthquake, Tsunami, Resettlement, and Survival in Two North Pacific Alaskan Native Villages." Pp. 123-154 in *Natural Disasters and Cultural Responses*, edited by A. Oliver-Smith. Williamsburg: College of William and Mary.

Davis, J. 1992. "The Anthropology of Suffering." *Journal of Refugee Studies* 5 (2): 149-161.

De Waal, A. 1993. "In the Disaster Zone: Anthropologists and the Ambiguity of Aid." *Times Literary Supplement* 4711 (5): 5-6.

De Waal, A. 1997. *Famine Crimes: Politics and the Disaster Relief Industry in Africa*. Oxford: African Rights and James Currey.

Dirks, R. 1980. "Social Responses During Severe Food Shortages and Famine." *Current Anthropology* 21: 21-44.

Dods, R. 2002. "The death of Smokey Bear: the Ecodisaster Myth and Forest Management Practices in Prehistoric North America." *World Archaeology* 33 (3): 475 - 487.

Douglas, M. and A. Wildavsky. 1982. *Risk and Culture: an Essay on the Selection of Technical and Environmental Dangers.* Berkeley: University of California Press.

Dynes, R. 2004. "Expanding the Horizon of Disaster Research." *Natural Hazards Observer* 28 (4): 1-2.

Fagan, B. 1999. *Flood, Famines, and Emperors: El Niño and the Fate of Civilizations*. New York: Basic Books.

Farmer, P. 1999. *Infections and Inequalities: the Modern Plagues*. Berkeley: University of California Press.

Farmer, P. 2004. *Pathologies of Power: Health, Human Rights, and the New War on the Poor*. California Series in Public Anthropology. Berkeley: University of California Press.

Feldman, A. 1995. "Ethnographic States of Emergency." Pp. 224-253 in *Fieldwork Under Fire.* Edited by A. Robben and C. Nordstrom. Berkeley: University of California Press.

Ferguson, P. and B. Byrne. 1994. *Gender and Humanitarian Assistance: A Select Annotated Bibliography.* Bibliography compiled for the Office of Women in Development, U.S. Agency for International Development.

Fitchen, J. 1988. "Anthropology and Environmental Problems in the U.S.: the Case of Groundwater Contamination." *Practicing Anthropology* 10 (5): 18-20.

Fothergill, A. 1996. "Gender, Risk and Disaster." *International Journal of Mass Emergencies and Disasters* 14 (1): 33-56.

Gebre, Y. 2003. "Resettlement and the Unnoticed Losers: Impoverishment Disasters among the Gumz in Ethiopia." *Human Organization* 62 (1): 50-61.

Gibbs, S. 1994. "Post-war Social Reconstruction in Mozambique: Re-framing Children's Experience of Trauma and Healing." *Disasters* 18 (3): 268-276.

Gordon, N., N. Farberow, and C. Maida. 1996. *Children and Disasters*. New York: Brunner/ Mazel.

Gourevitch, P. 1998. *We Wish to Inform You That Tomorrow We Will Be Killed With Our Families: Stories From Rwanda.* Farrar, Straus, and Giroux.

Green, L. 1999. Lived Lives and Social Suffering: Problems and Concerns in Medical Anthropology. *Medical Anthropology Quarterly* 12 (1): 3-7.

Greenhouse, C., E. Mertz, and K. Warren, eds. 2002. *Ethnography in Unstable Places: Everyday Lives in Contexts of Dramatic Political Change.* Durham: Duke University Press.

Guillette, E. 1993. *The Role of the Aged in Community Recovery Following Hurricane Andrew*. Boulder, CO: Natural Hazards Research and Applications Information Center Quick Response Program.

Hailu, Tsegaye, Tsegay Wolde-Georgis, and Peter Van Arsdale (1994). Resource Depletion, Famine, and Refugees in Tigray. In *African Refugees: Development Aid and Repatriation*. H. Adelman and J. Sorenson, eds. Boulder: Westview Press: Pp. 21-42.

Haque, C., and M. Zaman. 1993. "Human Responses To Riverine Hazards in Bangladesh: a Proposal for Sustainable Development." *World Development* 21: 93-107.

Harrell-Bond, B. 1986. *Imposing Aid: Emergency Assistance to Refugees*. Oxford: Oxford University Press.

Harrell-Bond, B. 1993. "Creating Marginalised Dependent Minorities: Relief Programs for Refugees in Europe," *Refugee Studies Program Newsletter* 15: 14-17.

Harrell-Bond, B. 1994. "Pitch the Tents: an Alternative to Refugee Camps." *The New Republic.* September 19th and 26th.

Henry, D. 2000a. *Embodied Violence: War and Relief Along the Sierra Leone-Guinea Border*. Unpublished Ph.D. thesis presented to Southern Methodist University. Dallas, Tx.

Henry, D. 2000b. *Hypertension: Somatic Expressions of Trauma and Vulnerability During Conflict*. Paper presented at the annual meetings of the American Anthropological Association, 99th. San Francisco, CA.

Henry, D. 2002. Réfugiés Sierra-léonais, et aide humanitaire en Guinée: la réinvention d'une "citoyenneté de frontière." *Politique africaine*. 85 (mars 2002): 56-63.

Herman, J. 1992. *Trauma and Recovery*. New York: Basic Books.

Hitchcox, L. 1990. *Vietnamese Refugees in Southeast Asian Camps*. Hampshire: St. Anthony's/ Macmillan Press.

Hoffman, D., and S. Lubkemann. 2005. Warscape Ethnography in West Africa and the Anthropology of "Events." Anthropological Quarterly 78 (2): 315-327.

Hoffman, S. 1995. *Culture Deep and Custom Old: the Reappearance of a Traditional Cultural Grammar in the Aftermath of the Oakland-Bekeley Firestorm*. Paper presented at the annual meetings of the American Anthropological Association, 94th. Washington, DC

Hunter, J. 1992. "Elephantiasis: A Disease of Development in North-East Ghana." *Social Science and Medicine* 35 (5):627-649.

Jacobsen, K. and L. Landau. 2003. "The Dual Imperative in Refugee Research: Some Methodological and Ethical Considerations in Social Science Research on Forced Migration." *Disasters* 27 (3): 185-206.

Jackson, S. 2003 Freeze/ Thaw: Aid, Intervention, Uncertainty, and Violence in the Kivus, Eastern DR Congo. Paper presented at the annual meetings of the American Anthropological Society, 102nd. November 19, 2003. Chicago, IL.

Jenkins, J. 1996. "The Impress of Extremity: Women's Experience of Trauma and Political Violence." Pp. 278-291 in *Gender and Health, an International Perspective*. Edited by C. Brettell and C. Sargent. New York: Prentice Hall.

Johnston, B. 1994. *Who Pays the Price? The Sociocultural Context of Environmental Crisis*. Washington, DC: Island Press.

Johnston, B. 2001. "Function and Dysfunction: Human Environmental Crisis and the Response Continuum." Pp. 99-121 in *Thinking and Engaging the Whole: Essays on Roy Rappaport's Anthropology,* edited by E. Messer and M. Lambeck. Ann Arbor: University of Michigan Press.ds

Kent, R. 1987. *Anatomy of Disaster Relief: the International Network in Action.* New York: Pinter Publishers.

Kibreab, G. 1987. *Refugees and Development in Africa: the Case of Eritrea*. Trenton, NJ: Red Sea Press.

Kibreab, G. 1993. "The Myth of Dependency Among Camp Refugees in Somalia: 1979-1989." *Journal of Refugee Studies* 6 (4): 321-349.

Kleinman, A. and J. Kleinman. 1997. "The Appeal of Experience; the Dismay of Images: Cultural Appropriations of Suffering in Out Times." Pp. 1-24 in *Social Suffering*, edited by A. Kleinman, V. Das, and M. Lock. Berkeley: University of California Press.

Kleinman, A., V. Das, and M. Lock., eds. *Social Suffering*. Berkeley: University of California Press.

Leach, M. 1992. *Dealing With Displacement. IDS Research Reports 22*. Sussex, England: Institute of Development Studies.

Lerer, L., and T. Scudder. 1999. "Health Impacts of Large Dams." *Environmental Impact Assessment Reviews* 19: 113-123.

Lindstrom L. 1993. *Cargo Cult: Strange Stories of Desire from Melanesia and Beyond*. Honolulu: University of Hawaii Press.

Loizos, P. 1977. "A Struggle for Meaning: Greek Cypriots." *Disasters* 1: 231-239.

Loughlin, K. 1996. "Representing Bhopal." In *Late Editions 3: The Net, News, and Videotape.* Edited by G. Marcus. Chicago: University of Chicago Press.

Macrae, J. 1998. "The Death of Humanitarianism?: An Anatomy of the Attack." *Disasters* 22 (4): 309-317.

Macrae, J., S. Jaspars, M. Duffield, M. Bradbury, and D. Johnson. 1997. "Conflict, the Continuum, and Chronic Emergencies: A Critical Analysis of the Scope for Linking Relief, Rehabilitation, and Development Planning in Sudan." *Disasters* 21 (3): 223- 243.

Maida, C., N. Gordon, G. Srauss. 1989. "Psychosocial Impact of Disasters: Victims of the Baldwin Hills Fire." *Journal of Traumatic Stress* 2: 37-48.

Maida, C. 1996. *Crisis and Compassion in a World of Strangers*. New Brunswick: Rutgers University Press.

Malkki, L. 1990. "Context and Consciousness: Local Conditions for the Production of Historical and National Thought Among Hutu Refugees in Tanzania." Pp. 32-62. In *Nationalist Ideologies and the Production of National Cultures,* R. Fox, Washington, DC: the American Anthropological Association.

Malkki, L. 1995. "Refugees and Exile: From 'Refugee Studies' to the National Order of Things," *Annual Review of Anthropology* 24: 495-523.

Malkki, L. 1996. "Speechless Emissaries: Refugees, Humanitarianism, and Dehistoricization," *Cultural Anthropology* 11, 3: 377-404.

Marchal, R. 1987. "Production sociale et recomposition dans l'éxile: le cas Érythréen." *Cahiers d'études africaines* 27, 3/4: 393-410;

Mazur, R. 1988. "Refugees in Africa: The Role of Sociological Analysis and Praxis," *Current Sociology* 36: 43-60.

McGuire, W., D. Griffiths, P. Hancock, and I. Stewart. 2000. Archaeology of Geological Catastrophes Geological Society Special Publication, No. 171). London: Geological Society of London.

Michaels, D. 1988. "Waiting for the Body Count: Corporate Decision-Making and Bladder Cancer in the U.S. Dye Industry." *Medical Anthropology Quarterly* 2 (3): 215-232.

Middleton, N. and P. O'Keefe. 1998. *Disaster and Development: the Politics of Humanitarian Aid.* Chicago: Pluto Press.

Mileti, D. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Washington, DC: Joseph Henry Press.

Minnis, P. 1985. Social Adaptation to Food Stress: a Prehistoric Southwestern example. Chicago: University of Chicago Press.

Morren G. 1983. "A General Approach to the Identification of Hazards and Responses." Pp. 284-297 in *Interpretations of Calamity*. Edited by K. Hewitt. New York: Allen & Unwin.

Moseley, M, and J. Richardson. 1992. Doomed by Disaster. *Archaeology* 45: 44-45.

Muecke, M. 1992. New Paradigms for Refugee Health Problems. Social Science and Medicine 35 (4): 515-523.

Nordstrom, C. 1998. Girls Behind the (Front) Lines. Pp. 80-89 in The Women and War Reader. Edited by L. Lorentzen and J. Turpen, eds. New York: New York University Press.

Nordstrom, C., and A. Robben, eds. 1995. Fieldwork Under Fire: Contemporary Studies of Violence and Survival. Berkeley: University of California Press.

Oliver-Smith, A. 1977. "Disaster Rehabilitation and Social Change in Yungay, Peru." *Human Organization* 36: 491-509.

Oliver-Smith, A. 1979. "Post Disaster consensus and Conflict in a Traditional Society: the Avalanche of Yungay, Peru." *Mass Emergencies* 4: 39-52.

Oliver-Smith, A. 1992. *The Martyred City: Death and Rebirth in the Peruvian Andes*. Prospect Heights, IL: Waveland Press (2nd edition).

Oliver-Smith, A. 1994 "Peru's Five-Hundred Year Earthquake: Vulnerability in Historical Context." Pp. 3-48 in *Disasters, Development, and Environment*. Edited by A. Varley. London: Wiley.

Oliver-Smith, A. 1996. "Anthropological Research on Hazards and Disasters." *Annual Review of Anthropology* 25: 303-328.

Oliver-Smith, A., and S. Hoffman, eds. 1999. *The Angry Earth: Disaster in Anthropological Perspective*. New York: Routledge.

Paine, R. 2002. "Danger and the No-Risk Thesis." Pp. 67-90 in *Culture and Catastrophe: the Anthropology of Disaster*. Edited by S. Hoffman and A. Oliver-Smith. Santa Fe: School of American Research Press.

Palinkas, L., M. Downs, J. Petterson, and J. Russell. 1993. "Social, Cultural, and Psychological Impacts of the Exxon-Valdez Oil Spill." *Human Organization* 52: 1-13.

Pannell, S. 1999. "Did the Earth Move for You? The Social Seismology of a Natural Disaster in Maluku, Eastern Indonesia." *The Australian Journal of Anthropology* 10 (2): 129-144.

Parker, M. (1992). Social Devastation & Mental Health in Northeast Africa: Some Reflections on an Absent Literature. In *In Search of Cool Ground: War, Flight and Homecoming in Northeast Africa*. Edited by T Allen. Pp. 262-273. London: James Currey.

Pellow, D. 2002. *Garbage Wars: The Struggle for Environmental Justice in Chicago.* Cambridge, MA: MIT Press.

Petterson, J. 1988. "The Reality of Perception: Demonstrable Effects of Perceived Risk in Goinia, Brazil." *Practicing Anthropology* 10: 8-12.

Petty, J. and P. Bracken. 1998. *Rethinking the Trauma of War*. London: Free Association Books

Platt, R., ed. 2000. *Disasters and Democracy: The Politics of Extreme Natural Events*. Washington, D.C.: Island Press.

Poniatowska, E. 1995. *Nothing, Nobody: the Voices of the Mexico City Earthquake.* Translated by A. Camacho de Schmidt and A. Schmidt. Philadelphia: Temple University Press.

Prendergast, J. 1996. *Frontline Diplomacy: Humanitarian Aid and Conflict in Africa.* Boulder, CO: Lynne Rienner.

Redman, C. 1999. *Human Impacts on Ancient Environments.* Tucson: University of Arizona Press.

Robinson, S., Y. F. Hernandez Franco, R. Mata Catrejon, H. Bernard. 1986. ""It Shook Again--The Mexico City Earthquake of 1985." Pp. 81-123 in *Natural Disasters and Cultural Responses*. Edited by A. Oliver-Smith. Williamsburg, VA: College of William and Mary.

Rossi, I. 1993. *Community Reconstruction After an Earthquake*. Westport: Preager.

Scheper-Hughes, N. and P. Bourgois, eds. 2004 *Violence in War and Peace: an Anthology*. Oxford: Blackwell Publishing.

Schoepf, B., C. Schoepf, and J. Millen. 2000. "Theoretical Therapies, Remote Remedies: SAPs and the Political Ecology of Poverty and Health in Africa." Pp. 91-125 in *Dying for Growth: Structural Adjustment and the Health of the Poor.* Edited by J. Kim., J. Millen, A. Irwin, and J. Gershman. Monroe, ME: Common Courage Press.

Scudder, T., and E. Colson. 1982. "From Welfare to Development: a Conceptual Framework for the Analysis of Dislocated People." Pp. 267-287 in *Involuntary Migration and Resettlement: the Problems and Responses of Dislocated People.* Edited by A. Hansen and A. Oliver-Smith. Boulder, CO: Westview Press.

Sharp, G. 1968. *Dust Monitoring and Control in the Underground Coal Mines of Eastern Kentucky*. Master's thesis submitted to University of Kentucky Department of Anthropology.

Shaw, R. 1992. 'Nature,' culture, and disasters: floods and gender in Bangladesh." Pp. 200-217 in Bush Base: Forest Farm: Culture, Environment, and Development. Edited by E. Cross and D. Parkin. London: Routledge.

Shepler, S. 2002. "Les Filles-Soldats: Trajectoires d'apres-guerre en Sierra Leone." *Politique Africaine* 88: 49-62.

Shepler, S. 2003. "Educated in War: The Rehabilitation of Child Soldiers in Sierra Leone." Pp. 57-76 in *Conflict Resolution and Peace Education in Africa*. Edited by E. Uwazie. Lanham, MD: Lexington Books.

Shipton, P. 1990. "African Famines and Food Security: Anthropological Perspectives." *Annual Review of Anthropology* 19: 353-394.

Simonelli, J. 1987. "Defective Modernization and Health in Mexico." *Social Science and Medicine* 24 (1): 23-36.

Skelton, T. 1999. "Evacuation, Relocation, and Migration: Monserratian Women's Experiences of the Volcanic Disaster." *Anthropology in Action* 6 (2): 6-13.

Slim, H. and J. Mitchell. 1992. "Towards Community Managed Relief: a Case Study from Southern Sudan." *Disasters* 14 (3): 265-269.

Sommers, M. 2001. *Fear in Bongoland: Burundi Refugees in Urban Tanzania*. New York: Berghahn Books.

Stephens, S. 2002. "Bounding Uncertainty: the Post-Chernobyl Culture of Radiation Protection Experts." Pp. 91-112 in *Culture and Catastrophe: the Anthropology of Disaster*. Edited by S. Hoffman and A. Oliver-Smith. Santa Fe: School of American Research Press.

Stewart, K, and S. Harding. 1999. "Bad Endings: American Apocalypsis." *Annual Review of Anthropology* 28: 285-310

Tobin, G., and L. Whiteford. 2001. "Children's Health Characteristics under Different Evacuation Strategies: The Eruption Of Tungurahua Volcano, Ecuador," *Papers of the Applied Geography Conferences,* Vol. 24, pp. 183-191.

Tobin, G., and L. Whiteford. 2002. "Community Resilience and the Volcano Hazard: The Eruption of Tungurahua and the Evacuation of the Faldas, Ecuador." *Disasters* 26 (1): 28-48.

Torry, W. 1978a. "Natural Disasters, Social Structure, and Change in Traditional Societies." *Journal of Asian and African Studies* 13: 167-183.

Torry, W. 1978b. "Bureaucracy, Community, and Natural Disasters." *Human Organization* 37: 302-308.

Torry, W. 1979. "Anthropological studies in Hazardous Environments: Past Trends and New Horizons." *Current Anthropology* 20: 517-541.

Torry, W. 1986. "Morality and Harm: Hindu Peasant Adjustments to Famines." *Social Science Information* 25: 125-160.

Torry, W. 1988. "Famine Early Warning Systems: the Need for an Anthropological Dimension." *Human Organization* 47: 273-281.

Turton, D. 1977. "Response to Drought: the Mursi of Southwestern Ethiopia." *Disasters* 1: 275-287.

United Nations Disaster-Relief Coordinator (UNDRO). 1984. Disaster Prevention and Mitigation, Vol. II, Preparedness Aspects. New York: United Nations.

Van Arsdale, P. 1989. "The Ecology of Survival in Sudan's Periphery: Short Term Tactics and Long-term Strategies." Africa Today 36 (3/4): 65-78.

Van Arsdale, P., ed. 1993. *Refugee Empowerment and Organizational Change: a Systems Perspective*. Arlington, Va: American Anthropological Association Committee on Refugee Issues.

Van Damme, W. 1995. "Do Refugees Really Belong in Camps? Experiences from Goma and Guinea." *Lancet* 346: 360-362.

Vaughan, M. 1987. *The Story of an African Famine: Gender and Famine in Twentieth-Century Malawi*. Cambridge: Cambridge University Press.

Wallace, A. 1987. *St. Clair: a Nineteenth-Century Coal Town's Experience with a Disaster Prone Industry*. New York: Knopf.

Williams, H. 1990. "Families in Refugee Camps." *Human Organization* 49 (2): 100-109.

Wilson, M. 1979. "Strangers in Africa: Reflections on Nyakyusa, Nguni, and Sotho Evidence. Pp. 51-66 in *Strangers in African Societies*. Edited by A. Shack and E. Skinner. Berkeley: University of California Press.

Wolfe, A. 1988. "Environmental Risk and Anthropology." *Practicing Anthropology* 10: 1.

Young, A. 1995. *The Harmony of Illusions. Inventing Post-Traumatic Stress Disorder*. New Jersey: Princeton University Press.

Young, A. 1997. "Suffering and the Origins of Traumatic Memory." Pp. 245-260 in *Social Suffering*. Edited by A. Kleinman, V. Das, and M. Lock. Berkeley: University of California Press.

Zaman, M. 1989. "The Social and Political Context of Adjustment to Riverbank Erosion Hazard and Population Resettlement in Bangladesh." *Human Organization* 48: 196-205.

Zetter R. 2003. *Shelter Provision and Settlement Policies for Refugees: A State of the Art Review* Studies Nordiska Afrikainstitutet (The Nordic Africa Institute)/Swedish International Development Agency, Studies on Emergencies and Disaster Relief Report No. 2, Uppsala, Sweden.