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The Expansion and Contraction of Time and Memory in Disaster Response

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CONTENTS

Abstract

Disaster response is a process that entails neutralizing a biophysical hazard while mitigating effects sustained by humans, animals, and their property and environment. These are sites in which histories of relationships among communities, institutions, and in environments are thrown into relief, where parties to disaster response draw on memories in acts of narrative construction in discourse with the past. This paper explores how these memories are produced, negotiated, and translated in multiple contexts by contrasting two bundles of stories drawn from studies of disaster-induced resettlements in highland Ecuador and wildfires in the northwestern United States. In Ecuador, I identify ways in which practice informed memory; among wildfire responders, I find memories informing practice. They draw on existing cultural repertoires and recollections that are simultaneously compressed under the weight of time, retelling, and shared cultural meanings that reduce difference and idiosyncrasy in individual experience. This study also points to the ways in which the spatiotemporal expansions and contractions of memory affect practice in neutralizing hazards, mitigating impacts, and resettlement and recovery.

INTRODUCTION

Catastrophic events often register as cultural traumas, threatening a palpable loss of identity on top of the frequently staggering material losses. Inevitably, following cataclysmic events, stories of the experience emerge and circulate among survivors and others. While remembrances may serve many functions, the shared recollections and retellings of common experiences, places, and times are often sources of healing for disaster survivors. Retelling and recollection may be means to recover identity and a sense of both personal and shared cultural wholeness (Eyerman 2004;

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Hawdon and Ryan 2008; Komac 2009). Memories are also social reconstructions wrought by present concerns (Halbwachs 1992; Trouillot 1995), reaffirming, as Ricoeur (2004) says, that the recursive process of memory (re)construction makes the distinction between recall and imagination an often elusive pursuit.

I have found that invocations of memory are common among the people I have studied in post-disaster resettlement in the Andean highlands of Ecuador and in wildfire response in the American northwest. In this paper, I consider their significance for the interpretation of human behavior in disaster response and recovery. I have been concerned primarily with investigating the ways in which memories inform practice and, perhaps, the ways in which practice informs memory. Here, I contrast two stories to point to the ways in which the parties to disaster response engage in what Ogden (2011, p. 25) calls "remembering as critical practice."

In my analysis, remembering, as critical practice, takes shape in several ways. First, as Ogden (2011, p. 26) points out, these rememberings are not deconstructing critiques. Rather, they are acts of construction of narratives in discourse with both the past and the present. Second, memories of disaster frequently undergo a sort of compression or noise reduction, largely brought on through social retelling and forgetting over time, such that nuance and variation in individual experience are often blended into collective versions. In this way, tragedies can be sources of cohesion and solidarity for a community and a means of recovery from cultural trauma (Hawdon and Ryan 2008; Moulton 2015). Third, in the moments in which a disaster is unfolding, people scan their mental catalogues and cultural repertoires for cues to inform action.

METHODOLOGY

This chapter is based on data collected as part of two separate studies of networks of social relationships in disaster contexts. Data for the Ecuadorian case were collected as part of an ethnographic study of two disaster-induced resettlements and multiple displaced communities around Mt. Tungurahua in the central Andean cordillera. Data for this chapter come from focus groups I conducted in 2009, although the ethnographic context is based upon 10 months of fieldwork in 2009 and another 6 months of fieldwork in 2011. During this time, I conducted dozens of ethnographic interviews and administered approximately 230 semistructured interviews, which contribute to my contextualization of the focus group case.

Data from the American Pacific Northwest are drawn from my participation in the Fire Chasers' Improving Community Response to Wildfire project, a larger study of wildfire response network in Idaho, Montana, Oregon, and Washington. Data for this chapter are drawn from 25 key informant interviews with experienced wildfire responders in the study region. These interviews were conducted by myself and two colleagues (Branda Nowell and Toddi Steelman), with members of federal and state Incident Management Teams (IMTs),* US Department of Agriculture Forest Service fire staff, county fire chiefs, county sheriffs, and county government from September 2012 through March 2013.

Analysis of both bodies of data followed the same procedure. I collected passages of interviews and observations where people spoke of the memories and past experience and examined them for themes. I inductively coded passages of text according to salient themes and recursively revisited passages to correct and confirm my coding as new themes emerged (Krippendorf 2012). I revised my coding continuously until no new themes were detectable.

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* IMTs provide a paramilitary management infrastructure for the logistical coordination of state, local, and federal emergency responders and government and nongovernmental agencies. IMTs are primarily for wildfire response but may be deployed in response to other hazards. Type I and Type II wildfire incidents are of the largest and most complex, requiring national resources in response. Type I IMTs are state or federally certified and have the highest levels of training and experience. Type II teams are also state or federally certified and their training and experience are second only to Type I teams.

THE COMPRESSION OF MEMORY AFTER A VOLCANIC ERUPTION

In March 2009, my colleagues and I hosted a series of focus groups in the Penipe Nuevo resettlement in the Andean highlands of Ecuador. Roughly six months prior, the 287 houses in this small, periurban township had been granted to 1500 agro-pastoralists displaced from their villages by the eruptions of Mt. Tungurahua in 1999 and 2006. This tripled the predisaster size of the town (Faas 2015). The first focus group discussed several important events and processes that had occurred since the catastrophe. Families had been separated during evacuations, and separations often lasted months or years. Most resettlers now lacked access to land, productive resources, or employment. The group noted that a host of other all-too-common postdisaster and resettlement hardships had also taken place.

In the second group, an unexpected quarrel broke out after our first several questions. In response to the query, "How did you first become aware that the volcano was erupting?" Rafael Ocaña,* a soft-spoken, portly farmer who was pushing 70, began to tell the story of hearing sirens as soon as he felt tremors from the eruptions. He indicated that the time was roughly 9 am on October 15, 1999. He had barely uttered these words when eight men from the other side of the room protested, rudely shouting that the tremors were felt first several minutes prior to 9 am, and the sirens did not wail for another 20 minutes. Sr. Ocaña politely reiterated that these were the facts as he recalled them, that he and his family had spent no small amount of time recalling them, and that the local bus service arrived near his home within 20 minutes of hearing the alarms. Again, the chorus of angry voices rose from the other end of the room, yelling that Ocaña was in gross error and that the buses did not arrive for more than an hour.

As my study progressed, I came to see the dynamics of the focus group quarrel as pertaining to local processes through which practice informed memory. While Sr. Ocaña was from the village of Pungal de Puela, on the southern flank of the volcano and nearer the parish's main road, the other men in the room were from Manzano, a smaller village on the southwest flank of the volcano, on an auxiliary extension of the main road. What later became clear was that memories of these experiences were central to ongoing political conflict and competition between villages, and most especially in the resettlements, for access to state, nongovernmental, and private resources since the disasters. Neighboring villages had long competed for access these scarce resources as part of the clientelist political system that characterizes Ecuador's rural periphery (Faas 2017), but competition was more heated and frequent in the wake of the eruptions and displacement.

In 2008 and 2009, a few years after the last great eruptions, displaced villagers often engaged in a "politics of deservingness," contesting distinctions between those deemed deserving and undeserving of aid in the form of housing, relief goods, and program inclusion by contrasting their suffering with that of others. Having just started fieldwork with the focus groups, I did not anticipate the relative importance of the times and spaces of the initial disaster events and evacuation processes in marking these domains of suffering and, hence, deservingness. When households from one village displaced by the eruptions were perceived to be deprived of a form of aid, a typical rejoinder was "everyone from [some other village] receives houses and aid and they never suffered the way we did!"

It is not uncommon for memories to undergo a smoothing process, minimizing variation and indeterminacy to provide a sort of stabilization that may aid in healing processes (Moulton 2015). Things imagined, remembered, and experienced can become "time stories" that form schematics for organizing thoughts and practice (Fincher, Barnett, Graham, and Hurlimann 2014, p. 203). Disaster memories in Penipe solidified around definite times, spaces, and events among, and sometimes in contrast to, certain groups.

To a limited extent, the different locations of villages along the flanks of Mt. Tungurahua can explain some degree of variation in what Komac (2009) called "geographical memory" or memories

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* All names of individuals and wildfire incidents are pseudonyms.

whose vantage points are affected by spatial relationships with a given phenomenon. However, I know from numerous ethnographic interviews with members of each village that most were not at their homes or village centers when the eruptions occurred. Many were scattered in their fields or among their animals in the hills around the volcano. Others were in neighboring villages. Yet, within each village, strikingly consistent renditions of the time stories of the events, alarms, and the arrival of evacuation assistance emerged.

The spatiotemporal details of memory in these villages compressed under the weight of perpetual retelling. They became political instruments frequently deployed in the competition between villagers from different villages for scarce resources in resettlement and recovery. Disaster memories were invoked in contexts of competition over the flows of outside aid as well as local resources. For example, in a parish council meeting in August 2011, nearly three years after resettlement, a local delegate stood up to accuse members of the council from neighboring villages of corruption, claiming that people who did not truly suffer from the volcano received houses in the resettlement while other deserving families went without. Another woman later stood up at the same meeting, claiming that some villages get selected for aid projects because they appear more organized, not because they are particularly deserving as a result of their suffering.

In her ethnography of the impacts of the 2004 tsunami in Sri Lanka, Gamburd (2013) found that accusations of corruption were common where local leaders are active agents in the distribution of aid. Like those noted by Gamburd, the accusations I recorded were rarely, if ever, substantiated. However, they did have the impact of imposing a sort of moral economy over aid administration processes by forcing leaders to be exceedingly transparent in their dealings to avoid any accusation of impropriety.

Back in the Penipe Nuevo resettlement, two women from Manzano, emboldened by the politics of deservingness that is so animated in local affairs, gained notoriety for spying on other resettlers and reporting them to the corresponding agencies for failing to fulfill occupancy requirements. In truth, many residents, including the reconnoitering women themselves, frequently abandoned the resettlements for days on end to tend to their fields and animals on the slopes of the volcano. Yet, the passionately held view, bolstered by retelling of disaster suffering, was that these women and their neighbors were simply more deserving of these resources than the others. This resulted in several of those accused being threatened with eviction and heightened acrimony between neighbors from different villages in the resettlements.

WILDFIRE AND THE EXPANSES OF MEMORY

While practice informs memory in postdisaster resettlements in Ecuador, I encountered the inverse when I began studying wildfire response in the American Northwest. I noted the ways in which memory informs practice for decision making and help seeking. When communities experience a wildfire and complex responder networks (local, state, federal) mobilize, both responders and those affected are focused on the present and emerging conditions, but thoughts also fan out into the past. People scan their memories for experiences that help make sense of what is currently happening. They recall past fires and interactions with various personnel and agencies involved in response. They remember how those interactions shaped and affected their livelihoods and culture. One IMT Incident Commander, with 30 years of fire management experience, notes,

> Communities have amazing memories. I mean, oh my gosh, you come into some of these communities and there was a bad fire 20 years ago—for instance, if you go fight fire in Augusta, Montana, you will hear about the Canyon Creek fire in 1988. It is fresh in their memories and there's a lot of other places like that with a lot of other fires.

I joined the Fire Chasers Project at North Carolina State University in 2012. We launched a large-scale study of interorganizational networks in wildfire response. We began by conducting

dozens of interviews with national (Type I and Type II) IMT personnel and others in wildfire service. We wanted to map the contours of the ways in which wildfire team leaders identified, prioritized, and managed relational risks (the interpersonal, cultural, and political aspects of fire management) in the social life of wildfire incident response. One of the more salient issues that stood out during these interviews was that IMT and other wildfire personnel were often quite attuned to the ways in which memories shape perceptions, relations, and action for themselves and the individuals, groups, and organizations with whom they communicate and coordinate in an incident. In what follows, I identify some of the themes that emerged in their chronicles of wildfire response.

First, some IMT personnel speak of entering communities where bitter memories of past incidents and IMTs linger; they discuss how they have to actively work to build and repair relationships with local agencies and communities who felt they had been unfairly treated by outside agencies in the past (see also Carroll, Cohn, Seesholtz, and Higgins 2005; Carroll, Higgins, Cohn, and Burchfield 2006). One local fire chief, with experience working on IMTs for dozens of Type I fires, recalls a story:

> We had a fire in…"07" I think it was—called the Pole Summit Fire in Montana, that burned over the continental divide and we ended up catching it on the Indian Reservation. They had had a fire there several years before called the Eagle Ridge fire, which ended up with…very poor relationships, not just between the [Native American Group] and the Forest Service, but even between different forests on the Forest Service….So going into the Pole Summit fire, that was…an absolute priority to not have a similar experience as had occurred on the Eagle Ridge fire.
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> The catalyst to bring them all together to communicate again was the Pole Summit Fire. So prior to that they struggled to even find common ground…to work to fix the communication and it ended up being the fire that became the catalyst. And it ended up very well, very positive in fact.

On the other hand, the absence of memory and a lack of wildfire culture can be a source of tension. Several IMT personnel told us that fear and uncertainty run deep and wide in communities without previous experience with wildfire. One Fire Management Officer, who also served as an Incident Commander for the past seven years, spoke of returning to Colorado for a fire three years after having been there for the Terrapin Fire. He noted that no one except for the sheriff remembered him or how they had worked effectively together in the past to avoid disaster.

> So the first press conference I'm thinking these people are scared. I mean, they were fearful that the fire was coming right in to the edge of town. It was going to take out all the neighborhoods. So my first press conference, the first thing I said was my team's goal is to alleviate the effects on this community as quickly and as effectively as we can…We're not going away until it's taken care of. People said, "Okay. It was good. I'm glad you said that." And next thing, you've got to work to kind of build up some credibility that you understand their issues, that you understand their fears, all that stuff. And I think if you can figure out how to do that, you're going to get up to speed in terms of community support quicker.

In some places, memories extend to bygone times when livelihoods and culture were tied to local resources to which the US Forest Service now restricts access. Although changes in Asian export demands and the globalization of lumber markets in the late 1980s and 1990s contributed significantly to the decline in logging (Daniels 2005), many continue to point reductions in timber harvesting in Pacific Northwest forests as the result of the US Fish and Wildlife Service listing the northern spotted owl as "threatened" in 1990 under the 1973 Endangered Species Act. These reductions were enforced by the US Forest Service. Thus, when Forest Service personnel and IMTs, many of whom also work for the Forest Service in their day jobs, enter a community during a wildfire, memories of the roles their agencies have played in people's lives are still very central. One IMT Operations

Chief with 24 years of experience on the US Forest Service fire staff tells a story that reflects popular memory of the decline in logging and attendant animosity toward the agency.

> As you well know, the Forest Service used to cut a lot of timber and was typically well inserted into small communities throughout the West as a result. Now, right, wrong, or indifferent, and because of the discovery of the Spotted Owl and the lack of numbers of Spotted Owl…and the requirement for us to protect the habitat for the Spotted Owl, obviously, we pretty much stopped cutting timber. And that goes everywhere from the corner of Oregon all the way down there to the southeast corner of New Mexico.
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> So, as a result, we had a lot of small communities whose livelihood depended on the logging industry. Their economies basically fell apart…So there was a lot of animosity against the Forest Service because all they knew is that the Forest Service stopped cutting timber…all they remember is that the Forest Service was responsible for their lack of the livelihood that they knew for generations. Because, in a lot of those small towns, it was the grandfathers, the fathers, and the sons—they were all loggers, and they were proud of what they did.

This rendition is an exaggeration of the historical influence of the role of the Forest Service in the decline of logging. However, it is illustrates the ways in which tensions over resource extraction and conservation stand out as salient features in land and wildfire management in the American West (Faas, Jones, Whiteford, Tobin, and Murphy 2014). These tensions occasionally flare up and make national news, as with the armed confrontation of Bureau of Land Management personnel on the Bundy Ranch in Nevada in 2014.

People's attachments to their past are often tied to senses of place that are intimately bound to the landscape (Frake 1996). Landscapes themselves often "reflect a buildup of memory, history, and experience that is as compositional to landscapes as are layers of rock" (Ogden 2011, p. 28). Sawmills, now abandoned and dilapidated, are key memorial fixtures in the landscape. In these places, the perception of the Forest Service and other outside federal agencies as responsible for loss of livelihood can loom large. One seasoned Operations Chief explained,

> And so what I've seen…is that we go into some of these small communities that used to be timber-based—and you can still see the mills in the towns, so that the mills are closed and everything is falling apart. And because of that animosity against the Forest Service, there is not a good relationship between the private citizen and the Forest Service. And those are the communities where we have a really hard time.

Perceptions and practice in the social environment of incident response are borne of multiple jurisdictional, functional, cultural, and social differences in disaster response networks. Breakdowns in one part of response networks cascade into other areas, with potentially devastating effects (Nowell and Steelman 2015). When the fire is over, the flames vanish, and the smoke is cleared, the social life of the incident lingers in people's recollections. These memories endure and change through retelling and reconstruction and will become features of the social lives of future incidents. An Incident Commander with 23 years of experience in fire service notes,

> Let me tell you something, it's very critical that I learned a long time ago. Wildfires have one thing in common, they are all going to go out, whether you put them out, whether the weather puts them out, and burns itself out…they are all going to go out. What an IMT gets remembered for is how we conduct to the business of the fire.

An IMT Public Information Officer with 28 years of experience in wildfire management in the northwest states,

> The fire goes out and it's over and people don't you know they remember the smoke and flames especially if they lost their homes. But what they're gonna remember more is how did you deal with me

when I lost my home. How quickly was I evacuated, how good was the information that you gave me, how much did I feel that you cared. All of those things are the feeling that are left a long time after… you to squirt water on the fire and put it out.

DISCUSSION

Human relationships with the past may be no more definite and no less precarious than our relationships with the future. In Penipe, practice informed memory, whereas among disaster responders and IMTs, memories informed practice. While it would be unwise to generalize too broadly from these cases, it is important to note that these patterns should not be seen as mutually exclusive. Rather, I encountered moments of practice informing memory at a particular time in the Ecuadorian resettlements and recollections of memory informing practice in wildfire response in the American northwest. In both instances, people's thoughts radiate outward and expand the spatiotemporal scale of emerging response contexts. They draw on existing cultural repertoires and recollections that are simultaneously compressed under the weight of time, retelling, and shared cultural meanings that have reduced difference and idiosyncrasy.

The contraction of time and memory postdisaster can become political, as shared recollections can foster solidarity around who gets what, when, and how (after Lasswell 1936). Likewise, in an ongoing crisis, memories may be anchored to the politics of resource management, extraction, and conservation; they affect interaction, communication, and relationships rooted in human–environmental entanglements. These memories occupy the interstices between individual experience and the shared interpretive and behavioral repertoires we refer to as culture. One interesting dynamic can be found in the ways people anticipate working with other agencies in wildfire response networks (Faas, Velez, Nowell, and Steelman forthcoming). The interpretive frames constructed from shared experience and retellings have fostered preferences for working with local and familiar leaders and agencies during the response. This is often to the exclusion of federal and other external agencies. However, effective coordination requires working across jurisdictional and other insider/outsider divisions. While there is some evidence that people are able to reframe these cognitive preferences in practice during actual wildfires and cooperate across preexisting divisions, there is a great deal of room for improvement in these relationships that could be better dealt with prior to emergency operations (see Lessons Learned below).

It is well established that processes of disaster planning, preparation, mitigation, response, and recovery are fundamentally relational processes. In many ways, actors in disaster response networks are engaging in relationships with relationships (after Dombrowski 2014). Community members, local responders, and IMTs are engaging not only in relational interactions with each other but also with relationships between publics and local, state, and federal agencies, past IMTs, people and resources, and, significantly, people and their memories. For IMTs and emergency managers, these memories become objects of study and intervention (Foucault 1990), part of cognitive and relational fields that inform action.

LESSONS LEARNED

In studying wildfire response, my colleagues and I were constantly impressed with the degree of attention paid by members of outside IMTs to local cultures and locals' memories of and experiences with past wildfire incidents and the ways in which these phenomena affect disaster response practices. Local sensitivity emerged as a very salient issue in the majority of our conversations with IMT personnel. And yet, there is reason to point to relational risks that can persist in spite of, perhaps even because of, this awareness. One is the risk of committing the error I made in focus groups in the postdisaster resettlements in Ecuador—a failure to appreciate the alternatively subtle and stark differences in the perceptions, memories, and practices of key stakeholders. All too often, scholars, policy makers, and practitioners imagine local

culture as static, unchanging, or holistic, which blinds us to the variegated, shifting, and contingent compositions of culture(s) in a given locale (Faas and Barrios 2015; Hoffman 2014). A priori characterizations of local cultures limit our ability to get to know and build relationships with real people and increase the likelihood of problems in communication and coordination. Operational priorities (i.e., neutralizing hazards and securing populations and values at risk) are also likely to place certain limits on the capacity of outside agencies to work with all parties immediately.

The divisions of social interaction and perception described throughout this chapter often result in the (re)production of sociotechnical systems of disaster response and recovery operations where scientific instruments, expert knowledge, and organizational practices are in discord with the social, cultural, and biophysical contexts in which they are applied (Faas and Barrios 2015). While no one strategy for overcoming enduring divisions is feasible or even desirable, there are at least three broad approaches worth suggesting. The first would be to work through local actors who can serve as social bridges to facilitate coordinated action across preexisting divisions (Faas, Velez, Nowell, and Steelman forthcoming). Bridging actors connect otherwise disconnected groups and individuals, facilitating the flow of information and resources in emergency and recovery contexts. This has been documented as vital to successful incident response (Steelman, Nowell, Bayoumi, and McCaffrey 2014) and recovery (Faas, Jones, Whiteford, Tobin, and Murphy 2014; Faas, Jones, Tobin, Whiteford, and Murphy 2015; Halvorson and Hamilton 2007).

The second recommendation would be to identify ways to build and maintain relationships between groups and organizations involved in disaster response and recovery outside of disaster context. This could help foster the development of familiarity, trust, and shared knowledge. Simple meetings and retreats involving community members in hazard-prone communities and members of organizations involved in planning, prevention, response, and recovery could aid in the establishment of relationships outside emergency context that could facilitate more effective communication and coordination in emergency and recovery contexts. Preseason relationship-building activities could help reduce insider/outsider tensions that arise during response operations by helping attune external actors to local concerns and capacities in response. It can also familiarize locals with the response capabilities and priorities of outside actors.

Finally, bringing communities and agencies together can and often does entail going beyond simple meetings to conducting tabletop exercises and other response drills and planning activities, including recovery. These contexts allow people and agencies to share tools such as maps, archives, reports, symbols, and instruments that can serve as boundary objects (Star and Griesemer 1989). Such objects may originate in seemingly distinct social or epistemological domains but may serve to facilitate communication and translation of knowledge in ways that span these boundaries.

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