

TRAVERSING CATASTROPHE: EXPLORING THE CULTURAL COMPONENTS  
OF RISK, UNCERTAINTY AND FUTURE IMAGININGS AFTER CALAMITY

by

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Traversing Catastrophe: Exploring the Cultural Components of Risk, Uncertainty and  
Future Imaginings after Calamity

A Thesis submitted in partial fulfillment of the requirements for the degree of Master of  
Arts at George Mason University

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## **DEDICATION**

This is dedicated to Professor Susan Crate, who inspired me to in some way answer the question as to why people have difficulty recognizing the dangers of Climate Change, to Professor Satsuki Takashi who helped me find subject that would answer it best, to Professor Susan Trencher, who holds a treasure trove of information and good humor, to Professor Andrew Bickford who made me realize that Anthropology is extremely flexible, even in the case of *Zombie Apocalypse*, to my roommates who fed me, to my family who encouraged me, my dog who seemed to have enjoyed staring and sighing at me throughout this entire process.

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**LIST OF ABBREVIATIONS**

Nevada Test Site .....NTS

## **ABSTRACT**

### **TRAVERSING CATASTROPHE: EXPLORING THE CULTURAL COMPONENTS OF RISK, UNCERTAINTY AND FUTURE IMAGININGS AFTER CALAMITY**

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Disaster has plagued humanity since the beginning of time, and yet, despite the recurrence of calamitous events, human societies still continue to display patterns of vulnerability. This is due to the complex nature of disasters and how humans relate to them, often shaped by the culture in which the impacted community resides. This thesis engages interdisciplinary literature which informs the Anthropological perspective of disaster in order to explore how communities experience, remember and interpret disasters and address the role of catastrophe in future construction. This literature reveals that belief systems, memory, temporality, distance and the concepts of risk, hope and future imaginings serve as key cultural factors which influence the social conditions of disaster and the construction of uncertainty. These factors likewise play a significant role in how a community responds to and prepares for future disasters.

## **INTRODUCTION: THE ANTHROPOLOGY OF DISASTER AND DEFINING CALAMITY**

Calamity is a part of the human condition: occurring with unnerving frequency on the timeline of human history and in the midst of current events (Rozario 2007).

Disasters, as defined by humans, take place wherever humans reside. They are derived from nature, from humanity, or some combination of both. And once they have occurred, they often live on in the social terrain, understood and lessons from them transmitted in culturally specific ways. Although each event may be familiar, no two experiences of disaster, whether individual or communal, are exactly the same (Cashman and Cronin 2008). In light of the fact that disaster means different things to different people, it is important to define disaster as it pertains to this discussion.

For most people, disaster consists of an unpredictable and unknowable main event and the massive disruption it causes. The average person usually considers the circumstances leading up to the event and the aftermath separately. Conversely, experts have a variety of definitions for what constitutes a disaster as they try to encompass more of what these events entail in association with their work. The approach of social scientists and other disaster researchers diverges from mainstream concepts as they view disasters as a multi-dimensional entity. Disasters are sets of interwoven events and circumstances. In trying to understand the interaction between disaster events and human populations, disaster researchers take into account the contested, contextual, and shifting

nature of what catastrophe means to different people. The acknowledgement of this ambiguity shows in the work of researchers who, in their efforts to clarify their positions while addressing definitional flexibility, employ related words interchangeably (disaster, catastrophe, and calamity) or use different words according to scale and to context in order to create situationally specific diction. Interdisciplinary disaster researchers tend to categorize harmful events in certain orders, i.e. the least to most disruptive, such as emergency, disaster and catastrophe respectively (Egner, Schorch, and Voss 2014). In their own work, Egner, Schorch and Voss (2014) use “calamity” as the general umbrella term for all of these events. This is largely the result of their observation that scales too often overlapped and were not particularly helpful to their subject (Egner, Schorch, and Voss 2014). In this thesis, the term “disaster” will similarly share common semantic space with catastrophe and calamity, thus the three terms will be used interchangeably.

Outside of the semantics domain, disasters remain difficult to confine to a singular definition as their meaning shifts according to perspective, thus a flexible, all-inclusive approach has been selected for use in this work. Oliver-Smith, one of the leading disaster researchers in Anthropology utilizes such an approach while also acknowledging the specificity of context. As a means of addressing disasters in general, Oliver-Smith (1999: 19) defines disasters as “totalizing events” which occur at the intersection of a potential hazard existing in the environment and a society with preexisting vulnerability. These “totalizing events” impact all aspects of that community’s existence, whether the source is manmade or natural, slow onset or immediate. That is, they are just as much a function of human-environmental

interactions, continuing social orders, and preexisting structural processes, as anything else (Oliver-Smith 1996; Oliver-Smith 1999; Oliver-Smith 2002). This is the central concept or definition of disaster used here.

Anthropological researchers have observed that disasters have the potential to dissolve many of the socially constructed lines between nature and culture, humans and environment; that is, lines that frequently represent safety and stability viewed through the lens of modernity (Hoffman 2002; Bloch 2012). Societies impacted by disaster events may have to overcome intense social disruption and immense physical destruction to survive and recover. Disaster anthropology utilizes a holistic approach and by necessity, draws from multiple scientific and historical sources, engages direct and indirect responses and experiences stemming from the intersection of culture and nature (Hoffman 2002; Bloch 2012). In so doing, the anthropology of disaster is better able to tackle difficult questions regarding how different societies construct, perceive and interact with disasters, from onset to aftermath, and address the socially and culturally constructed characteristics of these events, including scale, relevance, impact and importantly, the nature of uncertainty (the state of “unknowing.”) Through these efforts, disaster anthropologists hope to deliver a better understanding of how disaster events occur – not in terms of predicting potential threats, but in understanding how the preexisting conditions in which human populations exist allow for the intersection with a potential threat to exceed the capacity of that population to survive and adapt, while also recording adaptive responses that minimize damage and maximize recovery.

Human history is riddled with disasters that happen more regularly than generally perceived. A number of cultural adaptations that have occurred over time were derived from humankind's encounters with nature's more violent aspect, as well as the consequences of human failure to plan for and counter known hazards (Ekström 2012; Hoffman 1999; Rozario 2007). Oliver-Smith (1996:26) considers disasters as signs of a society's inability to fully and sustainably adapt to its environment, based on the possibility of less impact had the population been more aware of, or better adjusted to their physical surroundings (understood from this perspective as preexisting vulnerability) (Oliver-Smith 1996:26). In addition, conditions of vulnerability and adaptation also arise from a society's physical and cultural capacity to manage, mitigate, and to some extent, avoid uncertainty (Button 2010; Paine 2002). For example, societies found in Japan and New Zealand have successfully adapted to conditions in which potential disasters regularly occur, yet even they have encountered events that exceed their expectations and adaptive capacity (Bestor 2013; Cashman and Cronin 2008). If the goal is to eliminate all possibility of disaster, humankind has much work to do. The environment is changing in ways that present more challenges than in the past. Contemporary societies now face an uncertain future of global climate change which has and is expected to continue to result in more extreme weather events and natural disasters, even as processes of globalization alter the political, cultural and economic landscapes in which disasters will occur (Egner, Schorch, and Voss 2014; Oliver-Smith 1996:29).

Modern technology has proven to be an incomplete defense against disasters, both natural and man-made, creating doubt in the efficacy of modernity to deal with these events (Allison 2013:174; Bestor 2013). In fact, in the context of manmade disasters, technology and the artificial instruments of the modern age have risen to the fore as the sources of disaster, more often than their cure. But technologies are embedded in the social world and the assertion that technology is the problem is challenged by others who place the blame squarely on the political, economic and social contexts in which technology is situated (Button 2010; Dyer 1999; Phillips 2004). Further vulnerability derived from disparities in class, income, resources and voice affect the impact of disaster in ways that make the experience of disaster worse (Oliver-Smith and Hoffman 2002:3). The conditions that make for increased vulnerability also tend to prolong recovery, including the prevention of access to recovery resources on one hand, the allocation of resources to other areas by those in influence (Dyer 1999). Questions thus arise about what role disasters play in how societies construct their future. These questions require a hard look at how communities experience, remember and interpret disasters, and how the social construction of disasters figures into how people adapt to and plan for future disasters. This thesis draws on interdisciplinary texts that inform the Anthropological perspective of disaster. These texts engage with key socio-cultural processes, comprised of belief systems, memory, temporality, distance and the concepts of risk and uncertainty, hope and future imaginings, with which humans learn from and respond to disaster and prepare for future calamities. Through an exploration of these aspects of culture and catastrophe, this thesis contributes to the field of the anthropology of disaster by

expanding current discourses to encompass the contexts by which humanity situates itself in relation to catastrophe and the future through the socially constructed windows of the past and present.

## **CHAPTER ONE: THE LANGUAGE AND MEANING OF DISASTER**

Due to their level of influence on modern culture and memory, key components of the human processes of disaster, belief systems, comprised of religion, spiritual beliefs and ideology take precedent here. Beliefs systems are important cultural phenomena that, even for the secular and nonreligious members, influence a society's worldview and how each society perceives and processes disaster. As part of the cultural language, these religious and ideological beliefs supply many of the symbols, analogies and metaphors, used in meaning-making of, as well as communicating and remembering calamity (Hoffman 2002). They also influence the shaping of attitudes towards disaster and serve as a guide for dealing with risk, uncertainty and the future in many societies, in some cases through the promise of justice or eventual enlightenment, and in others, through imaginings of the final apocalypse and redemption (Boyer 2008; Gamburd 2014; Rozario 2007). Sometimes, particularly for those who have secular beliefs, they simply provide a guide for defining normalcy. Belief systems may also entrench cultural traditions and taboos that can enhance or inhibit preemptive adaptive mechanisms, and ensconce social structures that either reduce or increase vulnerability (Rozario 2007; Gamburd 2014; Ullberg 2010). Understanding how beliefs influence a community's approach to disasters

provides insight into the social conditions that produce vulnerability or resilience prior to disaster, the criteria by which societies evaluate risks, guides responses and expectations during disaster events, as well as how communities conceptualize disaster in the aftermath, and influences preparations for disasters in the future.

### **Justice, Blessings, and Opportunities**

Not surprisingly, because of religion's practical impact on disaster trauma, mourning and recovery, the relationship between religion and disaster has been the focus of social psychologists who consider access to spiritual beliefs as critical for enabling a society to recover from disaster, as well as a stabilizing factor in the cultural construction of resilience (Miller 2012). These beliefs serve as a main source for the social structures and rituals that manage life and death, establishing a framework that, in the aftermath of calamity, proscribes community roles in mourning, how bodies are handled, funeral arrangements, direction in the expression of grief, all of which are important for a community's recovery (Miller 2012). In anthropology, the impact of religion on the human processes of disaster has not been well studied. Anthropologists looking at these relationships often pull from interdisciplinary sources rather than performing seminal research. Rozario (2007) also uses interdisciplinary research in *The Culture of Calamity* in which he shows how evangelical Christianity has informed the American cultural perspective of disasters throughout history.

Social psychologist Joshua Miller (2012) and anthropologists Cashman and Cronin (2008) argue that the immensity of natural disaster can overwhelm and challenge

individual and community worldviews. Along with Cashman and Cronin (2008), Miller (2012) contends that natural disasters may cause spiritual beliefs to be questioned that in turn may lead to social change. Miller (2012) is more focused on the communities' need for these beliefs to facilitate the mourning process but his work lacks an examination of why those beliefs are being challenged, while Cashman and Cronin (2008) recognize that such challenges most likely occur when a set of beliefs may not adequately explain a disastrous event in a satisfactory way. It has also been found that disaster may make a population even more devout, even if it is only for a limited time (Gamburd 2014:34; Rozario 2007:42).

During times of calamity, people will hold events to the mirror of their religious beliefs in their efforts to find meaning. Depending on how well events hold up to reflection in this mirror, they may be found in religious or spiritual narratives, molding beliefs into the event narrative, or rejecting some or all of their beliefs (Cashman and Cronin 2008; Rozario 2007). Gamburd (2014) identified these choices during interviews with Sri Lankan tsunami victims and witnesses in her exploration of religious rationale in response to disaster. Neither religious beliefs nor the extent of adherence to those beliefs are homogenous, and as Cashman and Cronin (2008) argue, not everyone seeks the same explanation for the disaster, even within the same community (*ibid*). Outside of religion, a community may also look to the supernatural or to science for answers but the ways in which religion and spiritual beliefs are imbedded in culture means they are likely to influence how answers from these other sources are received (Cashman and Cronin 2008; Gamburd 2014; Rozario 2007).

Religious beliefs often delineate categories of disasters in that they may prescribe the understanding of what a disaster is, what attitude a society should have towards it, and what can and should be done about it. Additionally, they mitigate uncertainty by providing an initial course of response. Categories of belief may also provide the framework for how justice is expected to be achieved. There are many examples of religion providing a justice narrative to the processes of disaster. In Christian ideology and other religions, disasters are either an “Act of God” or an “act of man,” essentially dividing disasters into divine and profane events. The “Act of God” category consists mainly of natural disasters such as tornadoes, or of series of seemingly coincidental or unexplainable events involving manmade structures such as a building collapse. By contrast, a disaster caused by an “act of man” is a disaster that results from human action or inaction, with fault and liability lying with humans. A course for justice is set by the category into which a disaster falls. In the United States, the difference between the causes of disaster as understood in these ways has significant legal ramifications. An “Act of God” disaster is not considered litigable, while an “act of man” is. Lawyer Gerald M. Stern (2008) provides a noteworthy example of this type of deliberation in his narration of the consequences and legal actions taken in the aftermath of the 1972 Buffalo Creek disaster, caused by the collapse of a dam holding back coal mine waste water, resulting in a flood that killed over a hundred people and caused many more to lose their homes and livelihoods. In this case, the negotiation of legal attempts to define the disaster as an “Act of God” versus an “act of man” was a defining legal moment as it allowed Stern and his cohort to pursue actions against their more earthly opponent in the form of the

mining company that built and monitored the dam that collapsed (Stern 2008:11). Today, many U.S. home insurance companies still do not cover damages from disasters that are seen as “Acts of God”, and there is much legal wrangling over the grey areas where manmade structures exacerbate natural disasters.

In other cases, a society may perceive an “Act of God” as resulting from, or influenced by, an “act of man.” In this type of religious justice narrative, disasters categorized as “Acts of God” are considered an execution of judgment in terms of punishment and reward, such as the act of a vengeful God or through the checks and balances of Karma. In this context, a society may ruminate upon the blessings of the spared, and the deserving of the victims based on the standards of religious faith. A significant example can be found in Gamburd’s ethnography *The Golden Wave* (2014), which highlighted the concept of Karma in the Sinhala Buddhist tradition as the central theme for the most devout believers, and a peripheral but still existent theme for more moderate ones. (Gamburd 2014:33). Gamburd (2014) observed that Karma provides the rationale for social inequality and the caste system that structured Sri Lankan society: those with good Karma did good things in the past life or present received good things (social status, wealth, health) while those who did bad things or associated with people who did bad things paid for it by being disadvantaged, vulnerable and subject to dying or losing someone to disaster (2014:34). In this way, survival was seen as part of the justice narrative: those with good Karma survived the tsunami. In this way, the relief of survival can tie into the narrative through a sense of righteousness. Survivors, especially in a

near-miss situation may rationalize their survival as a reward for their faith or that they survived to fulfill a 'divine purpose' (Gamburd 2014:34; Rozario 2007:40)

The justice narrative can be seen in other major religions, such as Christianity, Judaism and Islam, where disasters are often seen as God's judgment. Survival is a sign of God's favor while the disaster provides a warning against future transgressions where their visions of the future culminate in a final judgment (Boyer 2008; Rozario 2007:21). Similar to the view of more fundamentalist Sinhala Buddhism's Karma, Evangelical Christians in the United States may also hold that an individual's position in life is derived from either divine punishment or divine reward. Those who lose their position or wealth have received a sign of a lack of adherence to Christian values and beliefs, and those who receive material wealth consider it a sign of God's favor, a reward for their faith (Rozario 2007:39).

Rozario's *The Culture of Calamity* (2007) is particularly insightful in laying out the groundwork for modern American cultural perspectives of disaster through a history in which religion is the key factor in how these perspectives evolved. The evangelical style of Christianity of the English pilgrim settlers presented disasters as both chastisements and blessings by an involved God. Seeing mankind as steeped in and inseparable from imperfection and sin, the pilgrims saw disasters as tests. Based in this set of beliefs, God could destroy mankind in a moment and His decision not to do so was a sign of His favor (Rozario 2007:40). The perception of disasters as "blessings" in this religious framework was reinforced by economic advancement during recovery, resulting in improved economic conditions, at least for those who could afford it. For the affluent disasters

became not just “blessings” but opportunities, as it cleared the way for investment, renewal, and monetary returns (Rozario 2007:51). Rozario (2007) points out that those who could not afford to rebuild were often the immigrants, the slaves, and the poor, those who were the most vulnerable to and affected by disaster, and the least likely to recover. This pattern is oft-repeated in history and in contemporary times. Evidence suggests that these disadvantaged and vulnerable people were more likely to have a fatalistic outlook, likely due to having fewer resources in which to gain control over their environment and living conditions (Oliver-Smith and Hoffman 2002; Rozario 2007; Ullberg 2010). This insight into disasters as judgments, blessings and opportunities is threaded throughout many of the texts discussed in this thesis, in ways intentional and unintentional, and signify how influential these attitudes are.

### **Beliefs, Where Disaster History Meets the Future**

In some religions, particularly the Abrahamic religions of Judaism, Christianity and Islam, there is the concept of a divinely ordained future and visions of apocalypse. In both anthropology and history, researchers acknowledge that the concept of “apocalypse,” (what is also known to some as “Millennialism” in its most recent iteration), has colored disaster thinking since ancient times. The Judeo-Christian version of Millennialism was first established in Europe with the early churches, and it is one of the main influences that the Pilgrims brought with them when they settled in New England in the 17th century (Boyer 2008; Jennaway 2008; Rozario 2007:33). Boyer (2008), a historian, shows how the apocalyptic views in America and Christianity are not unique, and has broadened the discussion to the impact of the Abrahamic religions, Judaism,

Christianity and Islam, regarding apocalyptic thought and future imaginings (Boyer 2008). In his journal article, Boyer (2008) sets out the ways in which the historical roots of these religions provide the context for the belief in a preordained future. Boyer (2008) argues that "Abrahamic religions, firmly grounded historically, see humanity's emergence at a specific moment in time, an unfolding plan of salvation, with an endpoint when God's plan is fulfilled" (Boyer 2008:61). Further, this is presented in contrast with Hinduism and Buddhism, both of which have endpoints of enlightenment, but neither of which have a time scale by which enlightenment is achieved (Boyer 2008). However, missing from Boyer's analysis is that both Hinduism and Buddhism are individual paths: they do not necessarily have a "chosen people" or collective destiny.

In his discussion regarding the history of Apocalyptic concepts in Abrahamic religions, Boyer (2008) notes that the apocalypse begins with a set series of disaster events that hails the return of a prophet or "anointed one," for example, the Messiah in Judaism, Christ in Christianity, or in Shi'ite Islam, the Mahdi. Fundamentalists in each religion tend to seek this "redeemer" as a physical entity (Boyer 2008). The more moderate sects, such as liberal reformed Jews, see the "redeemer" as a metaphor for a "more human social order" attained via practicing good religious values (Boyer 2008). This "redeemer" is an important aspect of apocalyptic thought, as the return of this individual or concept renders the whole of human history as irrelevant, past human actions insignificant.

A look into the principle apocalyptic beliefs of the influential evangelical denominations of Christianity reveals how religious beliefs may influence perceptions of

uncertainty (Boyer 2008; Rozario 2007). The Christian apocalyptic text, Revelations, was originally written to encourage the Christians of Asia Minor, who were threatened by Rome "the beast"; Christ's portended return would come in the form of a warrior king to cast the beast and his army into fire; however, as Boyer (2008) observes, every time the prophesied events did not happen, they were pushed further into the future. Even so, this vision was very influential in history: end-time interpretations and Revelations stirred rebellion in those who believed end-times "Kingdom of God" were upon them, such as German peasants in the 1520s and 17th century English religious radicals, as well as inspired Taiping Rebellion in the mid-19th century (Boyer 2008). It also defined the ultimate "enemy" in the form of the Anti-Christ, the symbolic embodiment of all bad things, who would be defeated with the second coming. The "Kingdom of God" refers to the end of normal time, and the beginning of a new time, depending on Christian denomination to determine the timeframe, starting with the onset of Jesus's second coming or resurrection and subsequent thousand year rule which is a period of peace that occurs before or after the "Tribulations," a period of calamity, wars and sickness and after the defeat of the Anti-Christ (Boyer 2008).

There are several different types of millennialism still influential in Christianity today. Postmillennialism is the belief that the reign of righteousness can be achieved in current times via Christian effort to fight evil and injustice through prayer and evangelism. Though postmillennialism is still strong in New England, it has faded since the civil war, giving way to Premillennialism, where Human effort cannot bring age of righteousness; mankind must first become more sinful before Christ returns to destroy all

evil (Boyer 2008:60; Harding 1994:14). Harding (1994) identifies Premillennialism, with its pessimistic outlook, as the main disposition held by most contemporary American Bible-reading Protestants. The prayers led by Reverend David Wilkerson at the site of 9/11 had this tone, when he called for repentance and that if people did not turn to God, things would become much worse (Rozario 2007:185). This is a jeremiad, similar to that used in environmental advocacy and some disaster films in relation to global climate change (Campbell 2013; Rozario 2007:63). According to Rozario (2007), the “evangelical imagination of disaster” owes much to the “conditions of modernity” and that it is not incidental that apocalyptic literature, marketed as solace for the disasters of modernity, has prospered in times of war, catastrophe, the threats of environmental collapse and nuclear destruction (Rozario 2007:187).

Premillennialism attracted more attention after WWI with the disillusionment with waning of progressive reform enthusiasm and no peace after the war and a version of Premillennialism, dispensationalism, started in England and became popular in America through the efforts of Dwight L. Moody and Cyrus Scofield in the early 20<sup>th</sup> century (Boyer 2008; Rozario 2007:165). Dispensationalism breaks down the bible into time periods organized by chronological biblical events that represent man’s relationship to God (Genesis and Eden, for instance, is in some denominations called the Dispensation (time) of Innocence). It indicates that the present age (dispensation) will end with the Rapture: true believers will join Christ in the air (literally), followed by seven years of Great Tribulation, ends with the Anti-Christ’s defeat at Armageddon, and hails the beginning of Christ’s thousand year reign, after which is the final judgment and end of

human history; all who ever lived will either end up in heaven or hell. (Boyer 2008; Jennaway 2008) Dispensationalists scour current events for signs of approaching Rapture and support events that fill the criteria as prophesied, such as the Zionist movement promoting Jews return to Palestine, i.e. the Holy Land (Boyer 2008).

Boyer (2008) explains that the reason why these ancient beliefs are relevant is because they never died out and still attract millions today. According to Rozario (2007), a poll taken after 9/11 revealed that 25% of Americans believed that this event was predicted in the Bible, and that 59% claimed belief that the world would end as prophesied in the Book of Revelations; although he states that these numbers are not certain, they prove that these beliefs are relevant for any study of the “post-modern culture of calamity” (Rozario 2007:185). Comparable to the “cognitive erasure” in Masco’s (2005) work, Boyer (2008) suggests that the reason these apocalyptic beliefs attract so many is because they offer a means for adherents to construct a preferential narrative that has a positive conclusion and ultimate fulfillment, even if that is achieved through horrible conflict. These beliefs have the additional benefits of bestowing adherents with a privileged prescience of the future, while synonymously resolving the paradox of free will and God's omnipotence (Boyer 2008). Those who believe in apocalypse prefer it to a bleak and endless timespan that has no meaning.

Throughout his work, Boyer (2008) describes Christian apocalyptic beliefs in some detail, and explains that Islam did inherit the concepts of the last judgment, resurrection, and end-time natural catastrophes of Judaic and Christian apocalyptic traditions. This can be seen in the example of the “Twelvers,” a Shi'ite branch of Islam

whose members are waiting for their Twelfth Imam (Mahdi) to return from hiding (Boyer 2008). One of the shortcomings of Boyer's (2008) work is that he does not fully engage with the impact of modern apocalyptic thought on the Sunni branch of Islam nor contemporary political Judaism in Israel, although these are central to the political stances and actions in the Middle East. This also highlights the need for further research in order to understanding how apocalyptic beliefs in Judaism and Islam actually impact their adherents' perceptions of calamity and influence human action. Even so, Boyer (2008) does express the understanding that there are many evangelicals, orthodox Jews, and other believers in apocalyptic views that influence politics, and by influencing politics, initiate actions to fit this world view (Boyer 2008).

Apocalyptic beliefs are tied up in contemporary politics and media; they have fascinated the public through book series like *Left Behind* and disaster films (Campbell 2013; Rozario 2007:189). They have led some to withdraw from world and inspired some to confrontation, rebellion and activism as believers tried to bring on the endgame of prophesied millennium, or inspired them to commit to certain actions that fulfilled the prophetic requirements (Boyer 2008). Jennaway (2008) notes how millennialism influences current climate change debates, through conflicting accusations by deniers who try to associate climate change with fringe millennialist cults, while at the same time believing that predestination preempts action on environmental issues and questions the seriousness of disaster preparation (Jennaway 2008). Millennialism has also inspired movies on disaster and the end-of-days that serve calamity as both entertainment and prophetic events (Campbell 2013; Rozario 2007:196).

Outside the apocalyptic end-of-all-days paradigms, which have a definitive beginning and a final end, Hoffman (2002) identifies another type of divinely ordained predestination, where disaster events are part of a larger never-ending cycle, whether through death and rebirth, destruction and creation or through series of ‘expected’ events, especially in religions such as Buddhism and Hinduism (which, ironically, incorporate the concept of Karma); rather than symbolizing the end of the world, apocalypse symbolized the end of eras that in some cultures were/are rigidly calculated, and in others not (Hoffman 2002:131). The best known in Western society outside of the Abrahamic religions (and some could argue, beloved) is that of Ragnarok of Norse mythology, in which a major war between gods and their followers culminates in the deaths of many powerful gods, the onset of major calamities and the end of Middle Earth; the world would then arise anew from immersion along with the surviving gods, reborn and ready for the next part of the cycle, the age of man and the ultimate triumph of life over death. Ragnarok’s best known modern iteration is “The Lord of the Rings” trilogy by J.R.R. Tolkien, though not everyone is familiar with the lore to recognize it as such. For the survivors of Hoffman’s (2002) firestorm, it was not so much Ragnarok, nor “The Lord of the Rings” but a mix of patterned calendarized events answering to expected intervals as “due” and informal Judeo-Christian beliefs in the regularity of disasters either as a form of God’s punishment for sins such as gluttony or pride, similar to Noah’s flood (Hoffman 2002). The survivors of disasters in 17<sup>th</sup> Century Jamestown viewed disasters in a very similar fashion (Rozario 2007:40).

What the Abrahamic religions and concepts like Karma and cycles provide most of all is certainty in the face of uncertainty, an underlying order to the chaos. Belief systems afford societies a sense of foreknowledge, a privileged knowing of the grand plot behind future and past events (Boyer 2008). In the face of catastrophe, religions and ideology give reason to the unreasonable, and provides an outlook that, however bleak the circumstances, delivers a positive outcome for the righteous and justice to the deserving. They also give those who perceive themselves devout as having directed their personal outcome by divine recognition. In this light, it is logical that those who attribute the future to God's will, regardless of plans, and a preordained end, may view preparation for disaster as futile. As both Rozario (2007) and Campbell (2013) have shown, in locations such as the United States where there has been a long-term religious influence by those who hold such apocalyptic beliefs, that futility can become entrenched in local culture and passively held even by those who consider themselves as disconnected from religion.

### **Constructions of Risk and Normalcy**

Belief systems often reflect human decision-making processes in the formulation of risk and what societies consider their everyday normal, a state to which they actively seek to return in the aftermath of disaster. Avoiding disaster, as previously noted, is often seen as God's favor, which believers may take into account when calculating risk (Paine 2002; Rozario 2007). In many societies, there is also common belief in the both secular and divine providence of "luck." Underlying these social constructs is humanity's cognizance of a world filled with possible threats that they must navigate cognitively and physically

(Boholm 2003). Risk is a part of the everyday. Understanding how risk is constructed would not only reveal how everyday threats are managed, but would also expose how communities weigh decisions before, during and after a disaster occurs.

Boholm's (2003) article is pertinent to this discussion because it looks deeper into the definitions and meanings of risk and uncertainty, while also pointing out potential weak points in how we currently look at risk in Anthropology. The main point of the article is to expand the understanding of what risk actually is beyond the somewhat restrictive parameters of social anthropology and scientific calculations of risk. Boholm (2003) criticizes both the tendency of social anthropology to assume that only culture elects and defines that which would be considered a 'risk' as too simplistic, and the scientific calculation of risk as statistical probability as being ineffective in engaging how people actually think and act in response to uncertainty; Boholm posits cognitive theory should be included to create a middle ground when assessing the formulation of risk (Boholm 2003).

The words used to describe risk usually occur in the form of statistical probability, as well as severity of probable outcomes, which are termed as 'cost' - death, illness, money. Scientists typically use probability versus cost in a technical fashion that allows them to compare different risks (Boholm 2003). Boholm (2003) shifts away from the archetypical cost-benefit analysis and rational choice theory, which suggest "that estimates and comparisons can be made to serve as guidelines for decision-makers, national regulatory bodies and policy makers as well as individual citizens in their daily lives" (Boholm 2003). Boholm (2003) argues that a middle ground must be found

between ‘subjective’ culturally constructed risk and calculated ‘objectivist’ risk, and that this middle ground comes in the form of a realist position that recognizes risk as a combination of the two, not strictly one or the other (Boholm 2003).

Boholm (2003) includes sociologist Gene Rosa’s analytical but non-technical definition of risk as ‘a situation or event where something of human value (including humans themselves) is at stake and where the outcome is uncertain’ (Boholm 2003). This definition is derived from the understanding that human beings establish themselves through a world of values and meanings; the concept of risk comes into play when someone becomes aware that something they value is under threat (Boholm 2003). No risk exists if there is nothing at stake, or no threat to anything valued by people. In the same vein, Hoffman and Oliver-Smith (1999) assert that the assessment of risk is universal, that prior to and in the aftermath of disasters, people calculate potential threats against the value and disposition of their surroundings (Hoffman and Oliver-Smith 1999). Of interest is Boholm’s claim that the concept of risk centers on uncertainty and does not consist of inevitable occurrences; when harm is assured, this would be fate or inevitability, not a matter of risk (Boholm 2003). These components of risk can be associated with both the chances and character of potential outcomes, both positive and negative (Boholm 2003).

Part of understanding the concept of risk through Anthropological literature and that from other disciplines is recognizing that what constitutes risk is both perspective dependent and evolving from one stage of the disaster to the next. The assessment of risk is subjective and therefore, by no means, static. The risks that existed prior to disaster

shift and adapt along with changes in the environment, as well as the values assigned to each set of circumstances that present themselves. How people prioritize their values at any given time guides behavior and impacts judgment. Oftentimes, in weighing external threats versus values, people gamble (Hoffman and Oliver-Smith 1999). What further complicates the conceptualization of risk is that it varies from person to person, group to group, organization to organization, and can change according to the observer's position in reference to the threat. What one may perceive as a threat will not be the same for another as what they value and how they prioritize that value will likely be different. After determining what they consider a risk, people will then construct a course of action or non-action. This incorporates another component of risk: how people assess and frame their vulnerability, which also includes denying vulnerability altogether as some societies are wont to do (Hoffman and Oliver-Smith 1999). According to Hoffman and Oliver-Smith (1999), humans use multiple methods to govern how much the "flow of danger" enters their "sense of risk," from the perception of dangers that cannot be independently confirmed to the nullification of objective threats (Hoffman and Oliver-Smith 1999). What this means is that people are selective regarding which threats to perceive and or respond to in their calculation of risk, whether those threats exist in their mind or in their environment

Paine (2002) proposes that when the response to risk is a non-response, especially if 'risk' not even taken into account, this can be attributed to the "no-risk thesis." In his work, Paine (2002) defines those who embrace "No Risk" culture as a "person or group...that proceeds and persists with its enterprise despite its associated danger and

does so without risk calculations...,” with such characteristics as insularity, ignoring conflicting perceptions of reality and disregarding criticism from outsiders (Paine 2002:76). For examples of different styles of “No-Risk” culture, Paine (2002) uses the Basque, the Spanish Deep Sea Fisherman, and the Zionists. According Oliver-Smith (2002), Paine’s “No-Risk” cultures construct normalcy in a way that contradicts the analysis of aid agencies and other outsiders who assume risk; in this light, risk policies are adaptations which pivot on the perception of adaptation (Oliver-Smith and Hoffman 2002:18). What Paine (2002) observes is that the construction of normalcy is an intrinsic issue; people will go to amazing lengths to preserve their sense of normalcy, even if that means that they have to suppress and ignore risk as part of their decision making processes, with ‘normal’ being “selective constructions” (Paine 2002:79). The Yungay people return to the home under the mountain despite the risk of another avalanche; Hoffman and her neighbors rebuild their homes, with the ever-present risk of another firestorm, while being thankful for the one store with predictable hours.

It does not take too much of a stretch of the imagination to apply Paine’s theory of “No Risk” more broadly, to the assumed risks of everyday life, the general expectations and ignoring of constant and ever-present potential hazards that are imbedded within the context of culture and society; one example being potential car accidents, though people drive every day; others include failing infrastructure, work hazards, food risks, illness – all these and more are steadfastly dismissed or ignored (Boholm 2003). Though some effort is made avoid some of these, it is an expected eventuality that one of these hazards will become someone’s last event. The assumption of “No-Risk” as a counter for

uncertainty makes sense; if every individual lived in uncertainty, “prognosis time” would become prevalent, life could not truly continue as it is now, decisions over simple things could become insurmountable. The “No-Risk” cultures of Paine’s (2002) essay are extreme, but one could say that all individuals, to different extents, live in “no-risks” societies. Another aspect is when something is deemed worthy of the risk, especially if the risk is perceived as small or remote (Boholm 2003; Hoffman and Oliver-Smith 1999). People will sometimes base their decisions of the unlikeliness of something occurring rather than likeliness. They will weigh unlikeliness of something occurring against the likeliness of something occurring using whatever statistics are available: the 500 year flood, the 1 in 1000 chance, every thousand years, and every 50 years (De Vries 2011).

Another concept worth exploring regarding the management of uncertainty and risk is “tactical amnesia” or rather, “cognitive erasure,” presented by Masco, as he explores culture in the modern American desert in his essay regarding what he terms as “desert modernism” (Masco 2005:24). What is important about this work is that it cultivates an understanding of how people create certainty by “fine tuning” their sense of reality and how they can imagine the future in a state of constant profound and perplexing duress. Although the essay describes this phenomenon as uniquely American, there is something universally human about it. It shows how fragile the sense of safety really against the backdrop of known and possible dangers and it gives substance to the thought that even if certainty is artificial, it provides the stability people need to move forward. From the perspective of disaster, this highlights the vulnerability of never truly

being at peace with one's environment if even, and perhaps especially if, we create it ourselves.

Masco's (2005) essay covers four topic areas: the Nevada Test Site (NTS), the Yucca Mountain Storage Facility, the town of Rachel which lies just outside of the NTS, the mysterious Area 51, Nellis Air Force Base, and the peculiar phenomena of Liberace as representative of the desert dreamland of Las Vegas, all of which bear the attributes of what the author calls "desert modernism," described as a constant process that leverages "cognitive erasure," a sort of "tactical amnesia" plus "temporal sutures" in order to recreate/reinvent the desert as a blank-slate frontier while also fueling ideological frameworks of continuous progress (Masco 2005:24). The "amnesia" consists of overlooked details, the sins of omission of that which frightens, incorporates unfathomable consequences and creates uncertainty. In this way of thinking, one can live in a house with cracking foundations as long as those cracks are unacknowledged. Acknowledgement entails having to commit to undesirable and possibly costly action, such as rebuilding or moving before one is ready financially. In this case, one weighs the costs of acknowledgement against the potential risk embodied in the cracks, an example of the contention that people weigh value against perceived threats (Boholm 2003). "Cognitive erasure" would take this one step further by changing the narrative to a more amenable outcome. The hypothetical cracks may become part of the story, a part of the house's endearing history; they may be rationalized, such as "if these cracks existed for 10 years, they will not do anything for another ten." This thought process assists the transformation of disasters into opportunities. It is what takes the desert and environs,

which have long been utilized by the U.S. government for secret military operations and bomb testing both nuclear and chemical, and turns it into a frontier, a story that is still in the writing – one that existed since the 20<sup>th</sup> century in its current iteration as a “paradigm” state of progress (Masco 2005:24).

During his tour at the NTS, Masco experienced an example of how this “cognitive erasure,” in the form of edited narration, in the form of the reaction of Masco’s guide to questions regarding the adverse consequences of contamination (Masco 2005:29). The guide uses himself and of people he knows were exposed with no adverse consequences (that he knows of) as the rule versus exceptions to the rule; the narrative of his experiences trumps that of the broader population of which he knows seemingly little; in that narrative, survival was considered the “absolute victory” and technology was flawless, regardless of the actual consequences (Masco 2005:28). Those consequences were relegated to the dark box of “unimportant things” – for the guide, an entire timeframe was cognitively erased, as he responded to questions by the author regarding such things as fallout as being “before my time” (Masco 2005:29). At this point in his tour, the author already knew the impact of the fallout and likely suspected what the response would be, for it was the guide’s beloved project after all, and the guide’s review of the NTS was glowing.

Masco (2005) notes the combination of risk, secrecy, utopian expectation and paranoia as being the main driver behind desert modernism (Masco 2005:24). Ultimately, “desert modernism” is a contemporary type of mythmaking, an extension of traditions that reach long into humanity’s past. In order for these myths to unfold, one has to work

to fit the near-incomprehensible world around them into frameworks that are more easily digested (Masco 2005; Cashman and Cronin 2008). These myths may take the form of a metanarrative, but can just as easily be constructed and fed into social frameworks by local communities and individuals. Such phenomena can be seen in places such as the Nevada Test Site. Masco perceived the Test Site as where the intense epic of the Cold War, the United States as superpower, and the power of nuclear weapons continue regardless of how the outside world intrudes with the contrary. Even if the world has moved on, the NTS plods along. In Rachel, where people live in close proximity to military operations and the near-mythological Roswell (Area 51), the myths which fill the vacuum caused by a lack of information take on the form of conspiracies, while in Las Vegas, Liberace fans overlook the fact that he is gay in favor of the ‘masculine’ narrative of modernity, even though being gay was considered on par with being a communist at the time (Masco 2005:44).

These myths are, as they have always been, constructs that enable people to explain that which is not understood. It is not always an attempt to understand the world around them, as that understanding may be beyond their conceptual reach, i.e. our ability to build exceeds our ability to understand what we build. This lag creates a space that must be filled –the future abhors a vacuum. Such as it is with the Yucca Mountain Project, where the potential for catastrophe is great, but the method to truly counteract this potential is like chasing a vaguely seen figure running ahead in the dark. Masco (2005) points out that the Nevada Test Site is seen as the positive side of desert modernism, a symbol of progress, while the Yucca Mountain Project is the “dark side” of that coin, as it

exposes the cracks in the foundation of the ideal, of technological mastery and national stability (Masco 2005:33).

The Yucca Mountain Project, which contains radioactive waste which will not decay into harmlessness for hundreds of thousands of years, there is a ten thousand year safety plan; meaning, that this storage facility is supposed to be structured to contain the extremely dangerous waste of our national nuclear power structures, both weaponized and not, far longer than any nation state has existed on Earth, which still would fall far short of the amount of time before the substances contained within would cease to be a danger (Masco 2005:36). Piling onto the shaky foundation that this safety plan entails, the engineers who are responsible for building and maintaining the containment facilities are only able to project a safety margin of only one hundred years with the technology that is currently available (Masco 2005:37). Again, this is the creation of certainty by purposefully overlooking uncertainty – the certainty that the nation will continue indefinitely, the certainty that the future is somehow controllable, that technology as an instrument for human progress is infallible; it is not technology that guides this mode of thinking, but culture. These places have the benefit of distance, created by both the physical and cognitive spaces that separate these locations from the ‘mainstream’ American and disassociates risks from the everyday. This, in part, is what allows the “desert modernism” to flow unabated – out of sight, while also feeding the subtle paranoia regarding governmental subterfuge and the tremendous presence of Cold War technologies and ideas (Masco 2005). According to Masco (2005), the quest for a metanarrative of the future that rejects its uncontainability thrives in modern American

life; this metanarrative would replace prophecy with a different sort of mythos based on technology and modernist ideals, something that Rosenberg and Harding (2005) mentioned in the introduction (Rosenberg and Harding 2005:5; Masco 2005:37). Communities may be heavily invested in these myths as part of their senses of identity and may dismiss, however cumulative, information that contradict their story as a disruption. Through these myths, people are able to pull together meaning and structure, grace themselves with traits they admire, such as the masculinity and innovation, and through these beliefs put into action, erase counterproductive states of mind, such as “prognosis” time and mitigate perceived risks through the course of the everyday.

### **Symbols and the Language of Disaster**

Derived from both religious and secular sources, symbols appear in almost every human society. Symbols provide the language by which common understanding and meaning is established, and the means by which ideas are transmitted using preexisting allegorical and ideological frameworks; they carry ideas through time. For individuals faced with the often overwhelming events of disaster, symbols allow them to describe the indescribable and to communicate disaster events in a way that someone who did not experience the disaster themselves can understand. According to Bestor (2013), symbols are a way of “knowing” and there is some agreement amongst disaster researchers that disasters are known events, occurring in contexts both cultural and historical, and familiar in both hindsight and forethought (Bestor 2013; Hoffman 2002; Ullberg 2010). Bestor (2013) observes that this is despite the fact that disasters are often framed as unexpected and out of nowhere; when in actuality, disasters are expected events coming at

unexpected times (Bestor 2013:768). Rosario (2007) also points out this inconsistency between reality and how disasters are portrayed by the media, which tends to frame common disasters as uncommon events (Rosario 2007:7). In actuality, frequency with which catastrophic events occur has led to continued linguistic familiarity and it has ensured that the disaster symbols of centuries before still resonate today (Bestor 2013; Cashman and Cronin 2008).

What Bestor's 2013 essay regarding the 2011 disaster events in Japan provides is an insightful glance into the rich world of symbolism and metaphor that accompanies disaster in Japan and how the catastrophic events of 3/11 reflected both the symbolism of the past and a reactive symbolism specific to those events, and yet arising from the existing culture (Bestor 2013). Bestor (2013) notes how, for the Japanese, earthquakes are culturally familiar, showing in historical and current symbolism (even though Bestor's focus is on the Japanese, he implies that they are not an exception in this familiarity) (Bestor 2013). The author provides several examples of earthquake symbolism and metaphor in Japan that carried this familiarity through time, such as the catfish or "Namazu": the ancient folklore tells of a restless catfish "Namazu" beneath the earth's surface which causes it to shake; after the 1855 earthquake near present-day Tokyo, prints of catfish being subdued became popular, and the symbol was later used on a 2003 museum poster to commemorate the 1923 earthquake (Bestor 2013:769). Another example of disaster symbolism Bestor (2013) highlights is the Japanese proverbial warning to fear four things: earthquake, thunderbolt, fire, and father – the ever present danger of natural calamities and the violence of human fury (Bestor 2013:768). This last

element of human danger as the source of natural disaster is not well represented in Western society. Western literature usually sets it apart from nature, as when it was mentioned in passing in Hoffman's 2002 essay (Hoffman 2002). This is a categorical difference, as this proverb indicates that from a cultural perspective, the Japanese see man as a part of nature and the inherent dangers within, while most Western societies pointedly distinguish man from nature, with nature being the more dangerous of the two.

In his essay, Bestor (2013) asserts that Japanese history is threaded with disasters, both natural and manmade (Bestor 2013:768). Some of these are seen as the unintended outcomes of human activity, similar to the "man's sins against nature and God" aspects of Phillip's 2004 essay on the cultural impact and perceptions of Chernobyl in the Ukraine and Hoffman's 2002 essay on the California firestorm that destroyed many suburban homes, as in, both of these cases were viewed as the product and consequences of man's modernity and actions against nature, God's domain (Bestor 2013; Hoffman 2002; Phillips 2004). Bestor (2013) argues that this familiarity with disaster events has allowed for a symbolism that presents a common narrative, making the trajectory of disaster events comparable to that of cultural objects across time, as cultural events, possessing "cultural biographies" similar to the theory presented by Appadurei and Kopytoff (Bestor 2013:768). This part of the essay could have been extrapolated a bit better, for though the explanation is neatly framed, it tries to pack too much into too few words, not allowing the reader to "see" his argument, which is that a culture's relationship to an event goes through a series of select phases coinciding with the phases of unfolding disaster events: from before it happens, as it is happening, to after it happens

(Bestor 2013). Before the event happens, a society either knows that it is going to happen or does not, and if it does know that it is going to happen, the society realizes the event (“realize” in this case can either be cognitive or physical, and describes gamut of emotions and actions dependent upon what sort of disaster is coming, for instance, in the case of a hurricane, does one evacuate or not, panic or not, respond or not), then as the disaster occurs, the society experiences the event, an observer watches or “consumes” the event, and after the event, a society either mourns the deaths and/or damage, or celebrates survival; the step after that is to memorialize and share memories of the event, in which some may exaggerate the importance of the event (Bestor 2013:768). This view, that disaster events culturally evolve in phases, can provide a useful framework against which to compare both historic and current disaster events. If used in a general way, it permits for overlap and transition, as well allows for one to see how a disaster event evolves culturally and symbolically. Out of these phases presented by Bestor (2012), the “realization” phase, during which a society knows that an event is going to happen or realizes that it is happening, may be one of the most intriguing, as it is a society’s most immediate response to an actual disaster event and possibly reveals the efficacy of past preparation and what actions are taken when there is no prior preparation or the inability to prepare.

Like Bestor, Cashman and Cronin (2008) use phases in their approach to symbolism, however, their article focuses mainly on the aftermath and retrospective analysis that applies across multiple cultures; therefore, it is more all-encompassing. Bestor (2013) describes the “what” of symbolism in his essay, while Cashman and

Cronin (2008) seek the “how.” Using concepts involving psychology and cognitive science, they make the case that a community’s resilience to natural hazards and ability to recover from a disaster is largely dependent upon that community’s ability to accept and comprehend the occurrence of catastrophe. This comprehension is garnered through the community’s access to simple explanations (stories, language, descriptions) which they can assimilate into their world view or place into existing frameworks of cosmology, myth, science, or some combination thereof (Cashman and Cronin 2008:408). Cashman and Cronin (2008) postulate that these types of explanations are universal in the way that all human societies develop and sustain their identity through origin stories, or rather, through explanations of “how things came to be” (Cashman and Cronin 2008:408). In their comparison of non-literate (those who use oral traditions as a means of transmitting information and maintaining community memory) and literate societies (those who use written means of recording and transmitting historic information), Cashman and Cronin (2008) notes that there is little difference between the two in regards to how they formulate their explanations for disaster events, and that the only real difference is in that written information is less prone to change over time (Cashman and Cronin 2008:408). Cashman and Cronin argue, through their study of “volcano cultures” that societies in the constant presence of potential and deadly hazards will often have a rich and complex mythology and symbolism relating to that threat. In non-literate cultures, this mythology is usually passed on through oral traditions. The traditions may serve multiple purposes, such as describing appropriate behavior and the cultural and geographical landscape. This essay provides critical insight into meaning and myth-making processes in oral traditions.

The symbolism that peppers the belief systems of those expecting or experiencing disaster, as portrayed in Hoffman's essay, "The Monster and the Mother: The Symbolism of Disaster," is a significant component in that framing. The use of symbols and metaphors provides the language to describe the indescribable, to interpret, shape, categorize and understand calamity (Hoffman 2002). Symbolism contributes significantly to those explanations that allow people to come to terms with disaster, establish and communicate meaning and to rebuild 'normality', i.e. to recover; this is similar to Cashman and Cronin's (2008) cultural model for disaster events of acceptance and assimilation as an important component for recovery (Cashman and Cronin 2008; Hoffman 2002). Hoffman (2002) argues that symbols are extremely relevant to a community's response to calamity, as they reflect collective mental processes, influence shared behavior, and provide "an ethnological picture of how a disaster is seen, interpreted, and utilized prior to, after, and in preparation for an event" (Hoffman 2002:115). Through symbols, communities ritualize and memorialize, seeking to return to their former place. Although societies may share symbolic concepts at different scales, some of the symbolism as represented by Hoffman's 2002 essay is localized, as in, some symbols served as part of a special code for a particular event (in this case the firestorm) that is shared amongst those who have a direct relationship with an event, deepening local memories and serving as a bonding agent for local connections, something also recognized by other anthropologists, such as Bestor, Cashman and Cronin in this thesis.

One of Hoffman's main arguments is that people tend to resort to a kind of dualism in symbolic schemes regarding disaster; these schemes may shift from their

traditional meaning as they stretch to fit their current circumstances (Hoffman 2002:114). Many cultures, especially those in or influenced by Western society, make the distinction between humanity and animality, the safety of order and the danger of wilderness, thus creating an illusionary “fundamental opposition between nature and culture” (Hoffman 2002:120). And yet, this central theme is too monochromic, as if it tries too hard to fit this into singular narrative while excluding alternative ideas. For instance, one wonders if it could be argued that at least some of the logical paradoxes noted by Hoffman (2002) as plaguing this duality of culture and nature are not actually paradoxes, but coexisting facets within a personified and shifting, but singular entity, and that some of the dichotomies perceived in disasters may actually reflect the dualities that people perceive themselves as possessing. In many mythologies, the mother *is* a monster, such as Echidna in Greek mythology and the Morrighu in Celtic mythology, capricious, dangerous, and even worse: unpredictable, and because “mother” is an idealist framework of expectations placed upon fallible human beings, this makes betrayal of this framework horrific but at the same time, expected. In the light of both myth and reality, “mother” shares the ambiguity of form as “monster” (Hoffman 2002). The mothers in mythology are both the caretakers and destroyers of children and of innocence. These types of stories seem to embody the horror of nature gone terribly wrong. The mother of Grendel in Beowulf was such a monster, one which attempted to kill Beowulf to avenge her son. This would explain why the Japanese proverbs noted in Bestor’s essay added the element of human rage as part of the list of natural disasters to beware and could illuminate why this dualism may permeate symbolic language so extensively, and thus, could serve as an

alternative explanation for the idea that people overcome the cognitive dissonance of separating culture and nature by employing “symbolic codes” using features pulled from the physical world as models for “cultural arrangements,” but instead, these “symbolic codes” may impose “cultural arrangements” on the physical world (Bestor 2013; Hoffman 2002:212). Even so, the symbology of the monster and the mother as dual sides to the same coin only increases its viability as the symbol of disaster, nature and humanity’s place between the two.

Another aspect of symbolism that may influence the nature versus culture debate is the difference between communities and cultures regarding what the signs for a return to “normalcy” mean, “normalcy” being some semblance of the preexisting “everyday” after calamity and for a sense of connectedness in their efforts to recover (Javornik 2014; Oliver-Smith 2002). When Bestor visited Japan in the aftermath of the 3/11 disasters, he noted the impact of the continued existence of a convenience store in Shizugawa: it was a node in a network of convenience stores that allow products to be delivered to the areas that needed them, a portal that allowed survivors to participate in national life (Bestor 2013:775). This connectivity reflected a sense of normalcy for the people who lost so much (Bestor 2013). For Hoffman and her community, a convenience store built after the firestorm with normal hours was also a sign of a return to normalcy, though framed as the triumph of culture over nature, natural time returning to cultured time, rather than a source of connectivity (Hoffman 2002:124). Beyond the symbolism of the convenience store, there is another similarity between the essays of Hoffman (2002) and Bestor (2013) in that communities and individuals built shrines and memorials from the debris left

behind from disaster. Bestor (2013) observes that these communities and individuals created the shrines and memorials for the victims and for themselves; the organization of the debris was an effort to create order from chaos, and to rebuild connections. This took place outside of the industrial-sized organization of debris which would become turf-covered parks, with people building their own memorials out of the rubble, establishing pockets of order with broken pieces, a reminder that cleaning up after calamity occurs on a very local scale (Bestor 2013:777). For Hoffman (2002), the building of shrines and memorials was a personal effort, one with which people hoped to build an interface with events, while at the same time recreating the separation of culture and nature (Hoffman 2002:123). The picture painted by Bestor (2013) in his work indicates that the Japanese found normalcy in a sense of community and togetherness, while Hoffman's community sought normalcy in a sense of control and routine; the steps toward recovery were similar, but the underlying perception of what recovery meant was very different (Bestor 2013; Hoffman 2002). This may indicate that the perceived dichotomy of culture versus nature has more to do with culturally specific sense-making in the face of intense fear and uncertainty, than a blanket sentiment.

The discussion of Hoffman's and Bestor's symbolism reinforces the idea presented by Phillips (2004) in her essay on Chernobyl: symbols do not just reflect reality, they make up the "diverse worlds in which we experience and have knowledge of reality" (Phillips 2004:160). In essence, symbols are a means by which we describe and understand reality which varies across individuals and populations. The symbolism in Phillips' work (2004) shows us how a singular catastrophic event can thread itself

through the identity and culture of an entire community for an extended period of time. However, unlike the natural catastrophe in Hoffman's (2002) essay, where the life of the disaster in the physical realm eventually comes to an end, though it may still be felt in the social realm, Chernobyl was a man-made technological catastrophe, where the event itself continues and will continue to reside as a physical and social reality until time undeterminable. This permanence gives a sense of uniqueness to the contexts of nuclear disaster.

Phillips (2004) follows the temporality and shifts in culture through symbolism and notes that a rise in the interest in religion in the Ukraine (accompanying the release of constraints on religious practices) resulted in interpretations inundated with religious expressions (Phillips 2004:162). Chernobyl was seen as God's punishment for the neglect of religion, corrupted officials, or the scientist's manipulation of God's domain, nature – all of these were a part of the ongoing debates and problems in the Ukraine (Phillips 2004). Phillips (2004) presents an interesting overlap in the nature versus culture debate, highlighting the term "Chernobyl," meaning wormwood in Russian, which so happens to be the name of the star cast down at the trumpeting of the third angel during Revelations which turned the world's waters into bitter poison, killing numerous people (Phillips 2004:162). [Revelations 8:10-11] Already a symbol in Ukrainian culture, as the dark and bitter plant used for medical purposes and to ward off evil, this particular symbol took on new and deeper meaning (Phillips 2004:162). This symbol is pulled from the realm of nature into the unnatural, similar to the dualistic concept presented by Hoffman (2002), and yet, in seemingly contradictory terms, nature is considered the domain of God and

victim of the unnatural; a symbol is pulled from the natural to the unnatural that victimizes the natural (Phillips 2004:165; Hoffman 2002:126). Chernobyl's symbols assist in the production of memory and sets the stage for the creation of a new society, indicates that part of that "new" likely consists of the incremental changes made in response in disaster, the new "traditions" that stay, and the contributions symbols make to ongoing social conflicts and debates that occur in the wake of disaster that lead to change (Hoffman 2002; Phillips 2004). Because of its continuing existence as a threat, Chernobyl is an unrelenting and threatening presence in both physical and social spheres, a presence which Phillips (2004: 160) describes aptly as a "sixth sense" that connects "bodies, memories, and place."

Ideologies and belief systems, whether religious or secular, are imbedded in the social landscapes in which humans live and disasters occur, influencing the expectations of what everyday entails, how we formulate risk and perceive extraordinary events. Regarding disasters, they often provide ready-made contexts in which the disaster events will be interpreted. By doing so, belief systems help to counter uncertainty by assigning meaning and purpose to seemingly unpredictable and unknowable occurrences, an important aspect of risk calculation especially when that calculation amounts to a gamble dependent on "luck" or divine favor (Hoffman 2002; Boholm 2003). Ideologies also reinforce preconceived notions of normalcy, social orders and justice while providing symbolic frameworks that augment the language of disaster through shared analogies, customs, and representations. Symbols give voice to shared meaning, which facilitates the social discourses and connections in relation to disaster which in turn assists recovery

processes through community action (Phillips 2004; Bestor 2013). However, belief systems sometimes have a maladaptive influence. By presenting calamity as a predetermined chapter of a divine narrative or as a sign of divine wrath rather than something based in nature, some ideologies encourage their adherents to believe that planning would be an exercise of futility and/or refuse to take actions that could mitigate disaster vulnerability (Boyer 2008; Rozario 2007). If they view a catastrophe as a sign of a god's wrath, they may become less empathetic with disaster victims and not so readily offer assistance (Rozario 2007; Gamburd 2014). Preexisting ideologies and beliefs systems that coexist with social stratification also make it easier to reestablish systemic vulnerability imbedded in class structures which determine who is able to access safer living conditions and resources for recovery (Gamburd 2014; Ullberg 2010). At the same time, through the creation of simple narratives that explain and allow societies to accept disaster events, belief systems create mental and social resilience by instilling a sense of certainty and by assisting the building and maintaining of social connections (Cashman and Cronin 2008). Their role as a source of mental and social resilience, which is arguably just as important as physical resilience, however, is largely understudied, and more research is needed to better understand their impact on disaster framing and risk calculation, not just in Western cultures, but the world over, especially in regions where vulnerability is persistent.

## **CHAPTER TWO: DISASTER MEMORY, COMMUNICATION, THE PATH OF LEARNING**

Many of the writings on disaster, regardless of discipline, contain the underlying question as to whether societies learn from disaster. If the answer is yes, then the next questions of how societies learn, then implement what they learn, and how do societies adapt beyond recovery, naturally follow (Bestor 2013; Hoffman 1999). Conversely, if the answer is an apparent 'no,' then the question as to why should be asked. The negative answer to that question may be more revealing than the affirmative regarding how different societies process and prioritize disaster information, as well as how they synthesize their environment. Hoffman's (1999) response to the question of whether or not a culture or society changes as a result of experiencing and learning from calamity disaster illuminates the complexity underlying the question of change. She explains that whether or not any change occurs as a response to disaster events depends on the actors involved, the environment and the social contexts in which that change would or would not occur (Hoffman 1999:303). Hoffman (1999) also noted that those outside a society may not be able to observe incremental and subtle changes being made in response. For those closer to the victims of disaster, such as rescue workers, the more apparent any changes would be (Hoffman 1999:303). Simply put, distance prejudices the outsider. The

changes a society makes are not just based on having information regarding past events, but the ability to turn that information into a form that has practical use with available resources. The exploration of what it means to learn from past disasters, especially in social contexts, calls for an investigation into memory, an intrinsic component of the process in which the information to be learned is gained, stored and transferred, even when direct experience is not available.

### **The Mechanics of Disaster Memory**

The Anthropology of Memory is noted as a growing and popular field and there are numerous works that associate memory with culture, trauma and calamitous events which might provide insight into the human processes of disaster; however, anthropological literature that directly links the impact the actual processes of disaster and memory in a clear and concise way is rare. However, as David Berliner (2005) of Harvard University wrote in his critique of the Anthropology of Memory, Anthropology has in many cases so over-generalized the meaning of “memory” that it has become almost synonymous with “identity” and “culture,” terms that have already fallen prey to definitional vagueness (Berliner 2005). “Memory” becomes an idea that can be applied to anything and interchangeable with everything. For example, such concepts as “vicarious memory,” in which someone or community “remembers” events that they have not experienced personally, are dubious as they could be considered synonymous with aspects of culture such as reenactment, ritualized storytelling, the interaction between a story being told and the imagination of the listeners as they try to “see” what happened in their minds as they follow the story’s events (Berliner 2005). Berliner (2005) argues that

even the term “cultural memory” has too similar a meaning to “tradition” in some contexts. Because tradition does not necessarily require the context that memory does, memory should be considered on its own merit in association with tradition, and as a function of culture because it is the fundamental reason behind why many things in culture are created (Berliner 2005). Overall, Berliner (2005) makes a reasonable case for clarification and caution when utilizing the term “memory.” Placed in clearer contexts, one can see that memory impacts how a community understands the past, provides context for the present and the basis for conceptualizing the future (Bloch 2012)..

Bloch (2012) argues that in addition to being a function of culture, memory is also a function of individual cognition (Bloch 2012). He disagrees, like Berliner (2005), with the overuse of the term “memory” to apply to general but unlike phenomena (Bloch 2012:187; Berliner 2005). Like other Anthropologists who incorporate cognitive elements into their theory, such as Boholm, Bloch (2012) seeks the middle ground between two ‘extremes,’ culture and individual; this is similar to Boholm’s drawing together objective and subjective constructs of risk (Boholm 2003; Bloch 2012). In fact, Bloch (2012) uses many of the terms and concepts utilized in psychology, integrating them with Anthropological modes of thought, such as remembering, recollecting and evoking. Remembering is the imprinting of information regarding the past in the individual’s brain, recollecting is the recognition of this information, recalling is the act of communicating this information, and evoking is talking about past events that are not part of the individual experience (Bloch 2012:190). Bloch’s (2012) interest in the actual mechanics of memory is similar to that of Ullberg’s, but it would seem that Ullberg

(2014) uses slightly different terminology, such as “memoryscapes.” The lesson to be learned here is that there are many ways in which social scientists utilize the term “memory,” some of them more useful than others in addressing particular circumstances. When addressing disasters and memory, it is important to understand what kind of memory that the researcher is talking about and how it differs from other forms of memory (Bloch 2012:190). In this particular thesis, it is the shaping and conveyance of past information through social interactions which is deemed the most important cultural and cognitive aspect of memory in regards to disaster, that which is termed “collective memory” by Ullberg and others in this thesis. This “collective memory,” however, is not the same that used to describe the concept of “shared memory” which Bloch (2012:213) criticized.

Memory, or rather how human societies process the memories associated with disasters, including loss, and how cultures influence and reflect this process are key elements to the discussion of how humans process disasters (Farinosi and Micalizzi 2013; Ullberg 2014). One would think that the memory of disaster would last forever; that humans, highly intelligent animals with myriad tools at their disposal to store and use information, with technology that grows more powerful every year, would be adept at not just surviving disasters or adapting, but would learn from the past and excel at being prepared for the next disaster that storms our shores, rocks our cities, or crashes down from the heavens above (Egner, Schorch, and Voss 2014). However, there is little evidence that is so, at least not without sustained reminders or the belief that said reminders have enough current relevance as to be considered worthy of investment

(Pfister 2014). Even in this day of the internet, where subjects, ideas, and events seem to be immortal, we forget; as Bestor points out, archiving is not the same as remembering (Bestor 2013).

In light of that forgetfulness, events lose relevance, and human memory drifts in the archival nether until another, similar and perhaps as devastating disaster event occurs, inspiring us to retrieve those very things that were once lost in the fields of data, if only to say, “Yes, this has happened before” (Bestor 2013). This reflects the temporality of disaster through history, where the current events are reflected on previous events to provide temporal contexts, while at the same time, indicating that temporality is a significant component of memory (Ekström 2012). It can be called into the question the general assumption that disasters are memorable due to their unique impacts, by noting that all disasters are not remembered the same way, nor to the same extent. In the wider scope of mass media, disasters become ordinary (Ekström 2012). Remembering is a selective process, as is forgetting, both dynamic and situated in time and space in specific contexts. Memories have different temporalities: they have history but are also shaped by viewpoints, priorities, and principles with respect to the present and attached to expectations of the future (Ullberg 2014).

Throughout the social sciences, it is well known that memory is not just an individual phenomenon; it is a social one. Social or collective memory is established through intersubjective social relations and communication taking place within and between communities (Ullberg 2014). Intersubjective in this case refers to the fact that most, if not all, information received and transmitted by human agents is pulled through a

filter of judgment comprised of emotions, interests, viewpoints, and moral perspectives. Memories are no different: they are conveyed, arbitrated and socialized through such mediums as conversations, stories and official forums, all subject to the same, if not a more nuanced, filter (Cashman and Cronin 2008; Ullberg 2014). In addressing memory and forgetfulness, we develop a better understanding of how humans process disasters over time; for these things determine not just what humans learn from the past and how they shape the present, they are formulate the platform from which future conceptualization springs (Cunningham 2014; Ullberg 2014).

Experiences are events which communities encounter and observe. These experiences, either personal or collective, also formulate the basis for memory through information that provides a particular knowledge and understanding of events (Ullberg 2014). The means by which experiences are sorted over time, remembering and forgetting, plays a considerable role in constructing and reducing risk, vulnerability and community resilience to disaster (Ullberg 2014). It is important to recognize the role that culture plays in these processes: culture often serves as a guide by which communities will determine their future course in relation to disaster (Cashman & Cronin 2008). Although Ullberg (2014) notes that disaster experiences result in meaning making and life reorganization for individuals and communities that lead to meanings, practices and policies that give direction for the present and future, culture will often determine the contexts in which these processes take place. Culture can have significant influence on whether a society decides to change its overall course or to revert back to their previous course once a new normal is established (Cashman & Cronin 2008).

So far, Ullberg's (2014) description of memory in relation to disaster is the most comprehensive and takes on Bloch's (2012) "cognitive challenge" by integrating cognition in the overall cultural schema, such as when Ullberg (2014), in "Thinking disaster through memory," explains how memory works, with different modes of remembering: memories that can be recalled immediately and memories which take effort and will to remember. Ullberg (2014) notes that the act of recall constitutes two modes: commemoration, which is the systematic, patterned and/or ritualized act of remembrance often taking place in public settings; the other is reminiscence, which is the simple act of recollection. Both modes interact, though one may dominate at any given time due to context. This is a fairly in-depth description that can also apply to the individual. How it applies to culture is more in the way that one thinks about culture and how it recalls disaster. It is important to recognize that a large part of learning is memory. Many believe that social memory is important in the study of disasters because it serves as an agent through which shared disaster experiences become knowledge, which in turn, enables communities to decrease vulnerability, increase resilience, and better respond to future disasters (Ullberg 2010). Although Ullberg (2010) does not attribute this belief to any rationale, it is a similar view to that held throughout the Western world, usually by those least impacted by disaster and often influenced by Christian ideology (Rozario 2007; Ullberg 2010). The problem with that memory-to-knowledge-to-resilience concept, as Ullberg (2010) points out, is that this is not always applicable for the most vulnerable to disaster.

Memoryscapes, as described by Ullberg (2010), seem to be similar to the concept of “narrative,” or rather, an all-encompassing theme that includes time and space. In the example that Ullberg gives, the 2003 flood in the Sante Fe De le Vera Cruz, Oliver-Smith’s and Hoffman’s (2002:3) concept of “historically produced pattern of vulnerability” plays out. In contrast to the one-time middle-class flooding victims who remember the flood as a singular experience, the poor not only remembered the past 30 floods, but were defined by them in rather fatalistic terms; in Sante Fe De le Vera Cruz, the poor have long been known as “los inundados” (the flood victims) and lacking the resources to adapt and prevent future catastrophe, they have learned to cope instead (Ullberg 2010). This makes the naming of the middle-class activist group “los Inundados” ironic, considering that it likely excludes poor participants. Like Hoffman’s middle-class community in Oakland, “Los Inundados” the middle class in Sante Fe De le Vera Cruz, built memorials, created commemorative rituals, and memorial days; however, there is no indication that los inundados had any of these (Hoffman 2002; Ullberg 2010). Although building memorials and such are not the sole providence of the middle to upper-classes, but it indicates that when are portion of society in struck by repeated disasters and lacking the resources to fully recover, memorials and monuments may not be high on their list of priorities. What Ullberg (2010) is highlighting is that when certain voices are privileged over others, so are memories. The version of events narrated by those who are infrequent victims but with greater access to communication networks, politicians and government officials is more likely to be considered part of the public and official memory. And yet, those who are most likely to have detailed

memories of disaster are the least likely to be heard. The memories of the disadvantaged were “about coping as a fact of life and about loss and social suffering” that did not reach beyond their status (Ullberg 2010:15).

What is missing in Ullberg’s (2010:15) narration is a fuller description of what she meant when she wrote that the flood memories of the disadvantaged “los inundados” were “embodied in everyday living and extraordinary flood coping practices embedded in local places and landscapes.” Coping is not considered the same as adapting and if Ullberg provided observations of how “los inundados” coped, it would have added depth to the conversation, and further expounded upon the author’s assertion that researching “how past events and experiences are remembered will also tell us more about how vulnerability and resilience to disaster are produced” (Ullberg 2010:12).

As Bestor (2013) presents the “cultural biographies” of disasters as processes in and of themselves, that combines the events, whether expected or unexpected, imagery, reactions, and solutions, he incorporates similar ideas as Ullberg (2014) in his assertion that disasters involve processes of “sense-making, meaning-making, memory-making, and forgetting” and that these processes ensure that a calamitous event lives on in ways both subtle and not, through those who survive and experience it, respond and prepare for it, observe, memorialize and try to make meaning of it. Bestor (2013) reasons that calamity is “always within living memory” of the contemporary Japanese and provides the yearly 01 September commemorative earthquake safety drills the Japanese conduct on the anniversary of one of its most grievous earthquake events. This is also similar to Phillips’ (2004) “sixth sense” regarding Chernobyl: disaster always leaves an impression

as it stays with those who remember, reflects in the cultural memory surrounding those who do not; one can be unknowing and still feel disaster's effects (Phillips 2004).

In reflecting on Ullberg's work, particularly "Disaster Memoryscapes: How Social Relations Shape Community Remembering of Catastrophe," one recognizes a theme emerging that can be seen throughout the chronicles of calamity: those who experience disaster most devastating effects are generally the most economically and socially vulnerable, and because they are usually at the bottom or near the bottom of the socioeconomic ladder, they tend to be ignored by those on the rungs above them (Ullberg 2010). Despite individual media accounts, the memories of disadvantaged and vulnerable communities may not be disseminated in a useable form, while the damage they sustain may be lumped into anonymous, colorless statistics. At the same time, those who have better access to resources to reduce risk and the technological resources to convey information, though they may be impacted by disaster to a lesser extent, are more likely to pass on their experiences of disaster to a broader audience. Those like the Los Inundados, versus the los inundados, are more likely to experience disaster to a much lesser degree than the latter, but it is their watered-down, disaster-is-rare-devastating-to-but-a-few version that will be passed to the next generations. This formulation of disaster events may reduce the ability of those who receive the information to take particular disasters seriously, thereby also reducing the incentive to provide assistance to those who need it most.

Comparing Oakland, Sante Fe De le Vera Cruz, Chernobyl, and Japan also provides useful insight, as it is clear that the transmittance of disaster memory depends on

not just the number of survivors, but on “who” was impacted. In Oakland, it's Hoffman's middle-class narration that dominates; if there were any poor that suffered similar consequences, we know not of them. In Sante Fe De le Vera Cruz, the story of the Los Inundados likely continues to dominate that of the los inundados, regardless of Ullberg's mention. In Japan, earthquakes and tsunamis have impacted a broad spectrum of Japan's communities and social classes, with the most recent even more so, creating not just a localized class memory, but a national memory; Chernobyl is similar to the national memory of Japan, in that, although it was a “singular event,” the number of people that event has impacted encompasses the nation, not just the vulnerable, or an isolated unlucky few. One could say perhaps that those who experience the persistent or frequent disaster consequences directly are in a constant state of learning (or resignation, depending on available resources); and those who experience disaster infrequently, or peripherally are less likely to learn from them. And ultimately, whose memories of, and incentives to learn from, disaster are passed on, depends on who has the resources and access to do so.

### **Monuments, Memorials and Warnings**

Monuments are the physical social and political symbols of disaster. There are several commonly used definitions, i.e. Merriam Webster, for the word “monument.” Of particular interest to this thesis are the definitions that cover not just the architectural or geographic variety such as “a memorial stone or a building erected in remembrance of a person or event” but that which also defines it as “a lasting evidence, reminder, or example of someone or something notable or great,” or written legal documents, records

or tribute (“Monument” 2015). In short, monuments are constructed symbols that encompass memory, the memorable, and the communication of memory in specific contexts, with the intention of making a permanent impression and constant reminder. Although the dictionary definition is being used here, people tend to associate the concept of “monument” with specific architectural objects, rather than such things as documents, while describing those things that leave similar impressions as “monumental”; they also draw distinctions between monuments and memorials shaped by meaning: specific versus general, triumphant versus sad (OECD - NEA 2014). In a way, this is an example of how language shapes memory and how memory shapes learning: people normally learn languages and transfer meaning socially, not through dictionaries (Bestor 2013). However, the use of the formal, more encompassing definition works best for the subject of disasters: they are themselves monumental, and monuments built as reminders of them also serve the purpose of memorials in common vernacular. Due to their temporary nature, shrines were included in the symbolism portion of this thesis, rather than this section.

The National Police Agency of Japan report tells us that, on March 11 2011, the earthquake off the coast of Japan sent a tsunami over the Pacific coastline of Japan’s northern islands, resulted in 15,889 dead, 6152 injured and 2,597 persons missing (National Police Agency of Japan 2014). However, these statistics do not tell us about context, or how this tsunami, in light of Japan’s history of earthquakes and tsunamis, became the worst so far. Bestor (2013) brings home the idea that remembering disaster is local, and that earthquakes and tsunamis had cultural familiarity in Japan. One of the

things that caught Bestor's (2013) attention when he visited Japan in the aftermath of the 3/11 disasters were the cultural markings of disaster: tsunami stones, which commemorate the dead and stand to warn future generations; more of these stones were erected in Tohoku after 2011 tsunami to commemorate the dead, along with road signs that warn motorists of areas vulnerable to flooding (Bestor 2013). What Bestor (2013) did not indicate, and he may not have had any data, was whether or not these tsunami stones did what they were supposed to: imprint upon the current generation the warnings of the past, and whether or not they saved anyone. According to Alabaster (2011), a journalist who wrote extensively about Japan and Japanese culture, they did: for instance, those in the hamlet of Aneyoshi, part of Miyako City, of which Alabaster writes, remembered the warning their monument conveyed, heeded and lived (Alabaster 2011). Aneyoshi has experienced multiple disasters of the similar nature, including the 1896 Sanriku earthquake which resulted in two tsunamis, an event considered one of the most destructive in Japan's history (Alabaster 2011). Because Aneyoshi's tsunami stone, a monument shaped like a tablet, warned those living there not to build below that point, all residents built their houses on higher ground; in March 2011, the school built 500 feet below that point was destroyed (Alabaster 2011).

In his article "Tsunami-hit towns forgot warnings from ancestors," Alabaster (2011) reported that Japan has hundreds of markers, particularly along the coastlines, to serve as monuments, constant reminders of previous tsunamis, often with warnings written on them; some of these markers are over 600 years old (Alabaster 2011). Alabaster (2011) implies that modernity and modern life have much to do with a sort of

forgetfulness: “In the bustle of modern life, many forgot.” He also noted the faith people had in modern technology to protect them from disaster, such as the more recently built tsunami walls (Alabaster 2011). Because of that faith, people did not leave the area as the markers warned them to do, but trusted that they would remain safe. When that technology failed, there was no time to prepare for the devastation to come. What this tells us is that even memories carved in stone are not failsafe; it also tells us that there is a negative side effect of modern life that may create more vulnerability. What Alabaster provides in his article is not just storytelling but shows how journalism itself can inform the Social Sciences by asking similar questions and seeking answers; but of course, the article is too short to provide a more holistic perspective. However, the connection Alabaster makes between the constant data streams produced by modern life and forgetting reflects the opinion of a number of Anthropologists in both the fields of memory and disaster (Berliner 2005; Bloch 2012; Button 2010). It is likely that Anthropology would be able to answer the questions posed by Alabaster in a more in-depth fashion; however, first, they have to be asked.

During the 2011 Tsunami in Japan, the villages tended to heed warnings represented by tsunami stones monuments. Those in the cities and more urban areas did not. This brings to the forefront the differences in meaning the monuments have for different communities, and also highlights the vulnerability that may come with modern, urban development and the lack of information prioritization that characterizes modern life (Bestor 2013). Warnings of the past may simply be drowned in the noise of the present; being “busy” may overtake awareness of vulnerability (Alabaster 2011). The

impact of monuments on survival in Japan during the March 2011 Tsunami was significant enough to attract the attention of The Organization for Economic Cooperation and Development - Nuclear Energy Agency, an inter-governmental organization of industrialized nations based in Paris, France, who stated goal is to provide assistance to its member nation in the safe development and use of nuclear energy (OECD - NEA 2014).

In the Pfister's (2014) work, repetition is a crucial aspect of disaster memory (Pfister 2014). The essay repeats the lessons brought to us by Ullberg (2010) and Bloch (2012): remembering and learning are not just individual processes, but social processes pertaining to the transmittal of shared experiences, as "collective memory." However, if the disaster event is a onetime event, Pfister (2014) contends that the social memory of that event often dies with the last witness; memories of such events, then, can only be accounted for through documents and records, such as newspapers, and photos. Pfister (2014) does not take into account oral traditions; however, one must consider that he is a historian and that written records are more within the realm of his expertise. Documents and records can only confirm knowledge of events, but they cannot provide the experiential reality. It can be argued that without repetition, or witnesses of an event, that the two dimensional rendering of disaster events may have a much more limited impact on the response of contemporary actors (Pfister 2014).

"Remembering Natural Disaster: Politics and culture of memorials in Gujarat and Sri Lanka" is a well-written exploration of memorial practices that arose in the wake of two separate disasters, the 2001 earthquake in Gujarat, India, and the 2004 tsunami that

struck the coastal regions of Sri Lanka (Simpson and De Alwis 2008). In both countries, the conditions under which these memorials were built were heavily influenced by politics, largely due to the fact that the monuments, in their construction and presentations, were powerful symbols directly linked to reconstruction and recovery (Simpson and De Alwis 2008). In Gujarat, these memorials would become displays of regional loyalties and religious affiliations, as well as conventional Hindu nationalism; while in Sri Lanka, memorials were homegrown exhibitions of ethnic identity and state primacy (Simpson and De Alwis 2008). In both places, politics expanded the timeframe to be represented by the memorials; they would not just be memorials of the disasters, but would contain a more general past brought forward. (i.e. instead of just memorializing the disasters, they may link the grief created by the disaster to other disasters other grievances, and with past victims, possibly focused on certain groups of people) (Simpson and De Alwis 2008). Memorials have histories, and mean different things to different sets of people; they are “social objects” open to interpretation; however, Simpson and De Alwis (2008) challenge the assumption that memorials are built for remembering events, but rather serve as a focus for memory “as a form of politics in which different domains of knowledge and experience are brought together unpredictable ways (Simpson and De Alwis 2008).”

Memorials, by being monolithic symbols, tend to flatten and replace memories, displacing diverse and at times, horrible, memories with a single, more pleasant object, translating “the unthinkable into the thinkable (Simpson and De Alwis 2008).” Simpson and De Alwis (2008) also note that the memorials in Gujarat and Sri Lanka were rarely

built by the people who experienced disaster, but were often built for them by people who had nothing to do with the original tragedy. And although Simpson and De Alwis do not deny that there is some connection between memorials and culture, they challenge those assumptions that memorials, their building and ceremony, location or design, actually can fully embody the nature of past tragedies. This article brings to light the things that are often taken for granted about memorials – as they are not guaranteed to represent the memories or cultures of those who built them or those they represent; however, the processes that bring them about are more revealing of the cultural and political processes of particular societies following disaster than the objects themselves.

### **Social Memory versus Personal Memory**

Although anthropologists have long drawn a sharp distinction between the public and the personal, especially in regards to spheres of knowledge and symbolism, Bloch (2012), who focuses on the valence of cognition to the field of anthropology, highlights the importance of understanding that shared cultural phenomena are derived from individual phenomena. This can be said particularly of memory; it is an individual process formed and communicated socially (Ullberg 2010). What Cunningham's (2014) article brings to the table is the notion of "prognosis time," an aspect of memory formulation applicable to societies, not just to individuals (Cunningham 2014). Cunningham discussed the work of Sarah Lochlann Jain, who originally conceptualized "prognosis time" in an ethnographic study of cancer patients who have yet to receive their prognosis. These patients often live in a constant state of uncertainty, where there is not enough information by which the patient can assess the future, much like vulnerable

communities which are constantly in between disasters. In this “prognosis time,” risk considerations and envisioning likely futures, even mourning one’s own death, are nigh impossible (Cunningham 2014). In this state, the patient, or rather, community, being unable to preempt future risk, becomes even more vulnerable to unanticipated threats. Cunningham seeks to understand what happens to memory during this “prognosis time,” which moves in space more so than linear direction due to its context of uncertainty (Cunningham 2014). “Prognosis time” is ‘nowhere-time,’ a breath suspended – indefinitely and not; a matter of when, but not if.

The concept of “prognosis time” is relatable to the anthropological perspective of disaster in that many communities could be considered as living in the same time space between disasters, those who live in vulnerable regions prone to earthquakes, floods, and other catastrophes both natural and unnatural. These communities may already be susceptible to disaster due to social circumstances. Oliver-smith (1999) pointed out that populations subjected to a disaster become even more vulnerable with each successive disaster, if the next disaster strikes before recovery from the last; in this way disaster becomes like an epidemic, such as AIDs or, as in this case, cancer (Oliver-Smith 1999). An individual or community in a state of “prognosis time” would be unable to preempt a future, and according to Cunningham (2014), this leads to inaction through not knowing what to do next. This term would be apropos for Button’s work, in which he describes how corporations, government, and the media exploit uncertainty to ensure that those who would get in their way, whether it be the public, the judicial system, or any contradictory voice, do not gain traction.

As described by Ullberg (2014), memory is a key component of human conceptualization of the future. This shows, as Cunningham (2014) explains, how memory, too, gets caught in the temporal contradictions of “prognosis time,” suspended but moving through the reflection and reproduction of uncertainty. A society in a constant state of crisis could be said to be living in such a time. As Cunningham points out, in this post 9/11 world of increased climate disaster and economic decline, preemptive governance has become the new normal; however, there is no way to preempt every possible crisis: terrorists can strike anywhere, anytime, and the next major hurricane is always just around the corner (Cunningham 2014:462).

### **Trauma, Grieving, and Recovery as Cultural and Memory Processes**

Trauma is both a psychological and social phenomenon, as it is reflected in and conveyed through social interactions. Although Button (2010) does not expound upon trauma or grief specifically in *Disaster Culture*, it is mentioned throughout his work in a number of different ways, especially in regards to the 1989 Exxon-Valdez oil spill and the multitude of oil spills since then, threading a narrative of loss, illness, and protracted recovery. Button’s description of the trauma and stages of PTSD suffered by aid and emergency workers meets the criteria for what is commonly known (at least in psychology) as “empathy fatigue.” This leads to prolonged stress, and an eventual gradual decline of empathy overall. Aid workers and communities alike were traumatized and overwhelmed by the enormity of these disasters and the damage they caused (Button 2010). The disregard given to the concerns of disaster recovery workers and communities resulted in the loss of economic viability for many communities, with

the unjust death of animals upon which livelihoods depended, and the time it took for the oil companies and contractors to do nominal cleanup, thus creating a combination of palpable sadness and a recovery process that dragged on and in some cases never started (Button 2010).

Cashman and Kronin (2008) assessed that how well a community recovers from a disaster depends mainly on that community's access to simple explanations for overwhelming events, and in order for that to happen, two steps must occur: the first step being acceptance that the event has occurred and the second step is the development of explanations (stories, language, descriptions) which enable a community to make sense of the event and incorporate the new phenomena into its world-views (Cashman & Cronin 2008). However, that is only the beginning of the path to recovery, and many things, including grief and trauma.

Cunningham's (2014) version of "Prognosis time" lends itself to the understanding of how memory connects to trauma, grieving and recovery (Cunningham 2014). A good illustration of this connection is Daraniyagala's experiences of time and memory in *Wave*, a firsthand account of loss in the 2004 Sri Lankan tsunami: unable to envision a future without her family, Daraniyagala is in a constant state of remembering, a state where the present also gets lost (Daraniyagala 2013). Daraniyagala (2013) is between times, but like in "prognosis time," the author is moving forward, but not in a linear fashion. She is cognizant of time's passage, but her perception of it wobbles; to her, the future does not exist (Daraniyagala 2013). Recovery begins, not when the memories fade, but when they become less painful to face as part of the past. One could

see this as different from how a society would live in “prognosis time,” as a society may not be capable of such a narrow and focused reminiscing. However, as do individuals, societies also seek closure, the return to normal, and the mitigation of memory.

Stewart’s (2005) essay also addresses the temporality of uncertainty. The writing style she used in this essay is somewhat disjointed, using phrases as a sort of punctuation, small stories of people she met and or knows; this is purposeful, attempting to capture the disconcerting nature of events, the highs and lows of shifting uncertainty, all a part of her representation of “trauma time (Stewart 2005).” This makes it difficult, however, to consolidate the ideas that are exhibited in the text, but in essence, “trauma time” is the constant state of being in what is commonly known as “survival mode,” when the energy that would normally go to future planning is siphoned off by the stress of everyday crises, large and small. Stewart (2005) writes of the 1990s; these times were a part of her present and expectant future; a future that, by the time of this thesis, has already passed. However, the trials and tribulations she writes about are all too common; a myriad of gambling, poor decisions, unexpected turns in events. The excitement and disappointments are not unique to the essay’s timeframe, but are a continuance of the past that drives into the future – the human experience and modernity. These conditions make it seem that “trauma time” is similar to the “prognosis time” of Cunningham (2014), in that both are considered the temporal conditions under which current populations are living; they both impact decision-making and are ruled by uncertainty (Stewart 2005; Cunningham 2014). Stewart (2005) notes that “trauma time” is where the present floats between an imagined future and a half-forgotten dreaded past, where time does not make

steady progress, but instead lurches forward and back unevenly (Stewart 2005:325). Concepts such as “trauma time,” express the underlying instability and risks of the everyday, the ideas that gnaw at the foundations of modernity when safe is a selling point at the same time that trusted vendors peddle fear (Stewart 2005). In the case of disasters, “trauma time” would be the temporality caused by constant state of vulnerability experienced by those who are continuously at a social and economic disadvantage, while “prognosis time” tends to be applicable across social and economic lines, and is the in-between state that exists before and after a calamity where the lack of information undermines decision-making capability and the ability to plan for future.

Further study into disaster memory would likely reveal the multiple ways that previous disasters have been communicated through culture, how uncertainty and the resolution of uncertainty travels through time through social interactions, and how people incorporate disaster experiences in their current iteration of the everyday (Ullberg 2014). Although monuments and memorials provide physical and formal evidence of memory, these are built inside cultural contexts, influenced and shaped by politics and social forces (Simpson and De Alwis 2008). Memory is the source upon which humans draw to learn from disastrous events, and it is important to understand that these memories are selective. In the case of societies, learning most often occurs via the most privileged experiences, as those are the ones that are often prioritized and recorded for the purpose of learning (Ullberg 2010). The experiences of the vulnerable, which would provide more valuable material for learning, are also the ones that will be most likely overlooked. In vulnerable populations, memory tends to be influenced heavily by “trauma time,” and

“prognosis time,” as they are caught in the constantly shifting ground of uncertainty (Cunningham 2014; Stewart 2005). These populations do not have the resources to relieve themselves of vulnerability. This creates a vicious cycle, as vulnerability creates uncertainty and vice versa. Uncertainty disrupts the formulation of memory as a means of learning, as the circumstances the lie ahead are unpredictable to the extent that the lessons previously learned are inapplicable. In this light, uncertainty creates and perpetuates trauma. Ultimately, memory is the doorway to understanding how societies learn and adapt after being exposed to calamity, and also provides the contexts for when a society fails to do so.

### **CHAPTER THREE: CROSSING DISTANCES, CROSSING TIME**

The term “distance” used here can be defined as the space, either physical or of awareness, that separates a social group and a location, object, source of information, another community or event, or any combination thereof; it is governed by both real and perceived horizons. This is the space that presides over the difference between global and local, connectedness versus isolation, visible and invisible, knowing and unknowing. The greater the separation, the less visible, accessible and, often less relevant the details become to the viewer, or audience, as opposed to the participant; it can also produce and reproduce uncertainty and vulnerability, key components in the onset of disaster (Oliver-Smith 2002)). Distance plays a significant role in a community’s perception of risk, for themselves and others; as Hoffman (1999) notes, the closer one is to the victims of disaster (such as rescue workers), the more obvious the changes being made in response; these changes become less visible the further out one becomes (Hoffman 1999). Media, particularly mass media, plays a significant role in the cultural mediation of distance and perception in regards to disaster, creating and closing these spaces often with surprising alacrity.

## **The Temporality of Disaster**

Time is another form of distance, as it is yet another space through which disasters traverse that changes significance and meaning according to how “close” one is to events as they unfold. “Temporality” is how one experiences time as a frame of reference and, according to Ekström (2012), a fundamental structure of calamity that deserves examination as to why and how it operates. For disaster events, temporality consists of the interconnection of moving parts, influencing each process of disaster from start to finish. It is a complex schematic in which there are multiple objective and subjective components at work, with the most basic being the temporality of a disaster’s physical events as they actually occur and the timeline of disaster response and recovery. There is also the temporality of experience, both individual and social, which is how people frame disasters in relation to their own timeline and defines the limits of obstacles they face. For instance, “prognosis time” is an example of when the perceived natural chain of events is disturbed and shows how temporality is a key component of post-disaster trauma (Cunningham 2014). In addition, the temporality of culture consists of how a society interprets the timeline of perceived disaster events and incorporates those events into their cultural understanding of time, such as through prophecy or disaster cycles or how one formulates risk and engages uncertainty (Hoffman 2002; Rosenberg and Harding 2005; Boholm 2003). As Oliver-Smith (2002) has stated before, calamity occurs where a potential hazard in the environment meets with a human population; however, both the hazard and the population had independent temporal trajectories prior to their meeting. Upon intersection, those two timelines become intertwined both

objectively and subjectively. In other words, the temporality of culture refers to the cultural context in which a disaster occurs, and the temporality of disaster is the physical and social timeframe through which a disaster transitions; these two concepts often overlap.

Temporality impacts our awareness via a complex interconnected frame of reference, influenced by history, the media, and our concept of normalcy amongst other things. Luebken (2014:112) echoes Ullberg (2010) in the sentiment that it is a rare occasion when the common belief that disasters provide immediate knowledge for use by communities as tools to prepare for the next disaster proves true. Even so, Luebken (2014) notes there are a few instances that provide a good example of learning after disaster. The complex ways in which societies deal with disasters over time can be understood more as the development of a socio-ecological system, where humankind and the environment are in a constant state of co-evolution (Luebken 2014:112). According to Luebken (2014:113), this co-evolution takes place in the transfer of knowledge about disasters through the generations over decades and even centuries; this knowledge often changes throughout this process. Thus, disaster memory is also transported through time by a wide variety of media such as personal recollection, photographs and literature (Luebken 2014:117).

A good example of the temporality of experience can be found in “Time stories: Making sense of futures in anticipation of sea-level rise,” by sociologists Ruth Fincher, et al (2014), which takes us to small seaside villages and communities in Gippsland, Australia, where sea-level rise poses both a short and long-term threat. As the title

indicates, the report uses the term “Time stories” to describe narratives which connect “pasts, presents and futures (Fincher et al. 2014:202).” For the purposes of understanding disaster, “time stories” would be an apt term in the understanding of how humans perceive and connect events through a temporal framework. What this article highlights is the way local communities, through their residents, narrate their existence in terms of temporality and how they organize their priorities in relation to that temporality. This temporality can be viewed through the lens of generations, as cottages get handed down, and seen through the looking glass of personal memories of times spent there. “Time stories” also relate to events and how they are framed; for instance, residents would gauge time by the last flooding event in association to infrastructure complaints. The article also exposes the differences in temporal perceptions between individual communities and higher levels of government. Luebken’s essay “explores how people’s lived experiences of time, of the material, local, environmental changes over time that have occurred within their lifetimes and those of their familiars, are related to the ways they respond to information about a distant future” (Fincher et al. 2014:201). It argues “that such imagined futures are conceived of with reference to presents and pasts, and that people link futures, present and pasts in particular ways in ‘time stories’ that they use to make sense of the time trajectories in which they are involved” (Fincher et al. 2014:201). Like other narrative terms such as memoryscapes and cultural landscapes, the concept of “time stories” provide an almost ethnographic perspective on how communities and individuals perceive time.

In the vein of the temporality of experience and culture, Kanchana Ruwanpura (2008), in the article “Temporality of Disaster” shows how time and temporality impact a gendered landscape; however, this article could use more focus and extrapolate how it defines temporality in the context of its subject (Ruwanpura 2008). This article discusses the everyday livelihood of Sri Lankan women after the 2004 tsunami against the backdrop of prolonged war, ethnic tensions and gender inequality and argues that the temporality of the tsunami was constructed in numerous and inequitable ways through entrenched social relations (Ruwanpura 2008). The temporality in this article has to do with the comparison of the everyday time of women in Sri Lanka from different ethnic backgrounds that are in a constant state of vulnerability with limited options, in an already unstable inequitable environment (Ruwanpura 2008). Many opted to take economic opportunities offered them by aid agencies over disaster assistance, as if to draw a line in time between themselves and their traumatic past experiences, to keep moving forward while not looking back (Ruwanpura 2008). Although temporality impacts different societies and social classes differently, especially in the aftermath of disaster, the women in Ruwanpura’s (2008) study had various levels of agency which they leveraged depending on their background and experiences. Like Ruwanpura, Daniel de Vries points out that “vulnerability has a strong temporal component” (De Vries 2011).

In the study "Temporal vulnerability in Hazardscapes", Daniel De Vries (2011) argues that temporal dimensions affect how we understand and deal with vulnerability to natural disasters especially since this vulnerability is historically and socially produced

(De Vries 2011:154). A study of temporality that pays attention to the history of vulnerability would provide insight into the worrying trends that lead to ominous predictions regarding the future. In essence, De Vries is stating that the future is often framed as a continuance of past trends, and that insight into the past would allow further understanding on how an individual or group negotiates possible futures (De Vries 2011:154). According to De Vries (2011), the past century has seen a global increase in the number of natural disasters at national levels, mainly due to the increasing number of people who are living in high risk areas, particularly in third world countries; these conditions of risk are aggravated by poverty, an increased population, political tensions, government failures, and faulty environmental practices (De Vries 2011:154). The study that De Vries conducted is based on 2002- 2006 ethno-historic research in the flood-prone region of eastern North Carolina (De Vries 2011:155). Temporal vulnerability was estimated as being higher in one area than another, due to the damming of the Neuse River decades ago, floodplain maps that were outdated, and uncontrolled development on the floodplain, etc.; De Vries observed that the space-time risks of Hurricane Floyd in 1999 were misrepresented to the local stakeholders before and after Hurricane Floyd in 1999, increasing uncertainty (De Vries 2011:156). In place of this uncertainty, those who wished to return to their everyday readily embraced that statistical analysis which estimates that Hurricane Floyd was an event that occurs once in 500 years.

Many contemporary disasters are seen as events both sudden and unexpected; however, these natural disasters are part of a pattern of long term vulnerability and not truly natural as they are a result of social, economic and technological decision-making

(Mosley 2014:94). This view is similar to that of Oliver-Smith as like Oliver-Smith, Mosley points out that disaster can occur in slow-motion (Mosley 2014; Oliver-Smith 2002). Mosley (2014) discusses the highly visible coal-smoke in the United Kingdom's cities as slow-motion disasters that began in the early 19<sup>th</sup> century. The temporality of this disaster took place in the weighing of the negative health effects against the positive economic benefits; a campaign to end the burning of coal in the United Kingdom was first ignored but grew in popularity (Mosley 2014). Until that popularity intersected with the large number of deaths associated with carbon smoke, this campaign did not make much progress; this suggests that disaster has its own temporality, one that may be influenced to some extent by human agency (Mosley 2014). Mosley (2014) observes that it was mostly the working poor that suffered the most casualties from the smoke, as the middle class moved out to leafy suburbs; sometimes victims took years to die (Mosley 2014:98). Because of this slow-onset timeframe, it took some time before communities could come to terms with the risk; improved technologies may have helped.

The overall temporality of disaster, if one tries to fit it into a semi-linear timeline, can be imagined as series of overlapping and connected phenomena, each phase consisting of concurrent and often stacking events. There would be multiple ways to delineate this timeline, such as potential hazard/risk/vulnerability, Onset/catalyst, disaster event(s), aftermath, recovery, normalcy; or history/memory of past disaster, creation of potential threat, knowledge of potential threat, assessment of risk/vulnerability, with another example being preemptive response (or lack thereof), hazard intersects with human population (disaster event), aftermath, recovery, normalcy/learning. This

demonstrates temporality's flexibility. It takes on the form of however we think of time, and frame events in the past, present and future. In the study of disaster processes, it soon becomes apparent that temporality is relative, as disasters operate on different timescales for individuals, communities, institutions and nations.

“Distance” in relation to disaster is a multi-dimensional concept that warrants further examination in the realm of Anthropology. Whether that distance takes the form of physical, cognitive, socio-economic, portrayal or time, it is the space between events and perception.

### **Distance, Uncertainty and the Media in Disaster Framing**

In his 2013 essay, Bestor discusses media as being both beneficial and detrimental to the social production of disaster. Social media in particular can be beneficial in the sense that in being rapid and prolific, it offers the chance to see the real-time unfolding of events at multiple scales (Bestor 2013). It can also close the distance between an outside view, which lacking details, gives the false impression of cultural and geographical homogeneity caused by the inability to discern unequal local patterns of impact and that of the local view. At the same time, it is detrimental because it can exacerbate that distance when the media gets caught up with the fast and spectacular events, while those events that are slow and out of sight are not taken into account (Bestor 2013). Bestor (2013) noticed that this outside view made it easy for the American media to fit the aftermath of the 3/11 Fukushima disaster events into the context of preconceived and ill-fitting notions regarding Japanese society and government, applying the stereotypes of

highly structured obedient, well-behaved conformity to the former and of unprepared dysfunction to the latter. According to Bestor (2013), there is no *longue duree* mode in the 24 hour news cycle. The event, massive and faceless destruction, gets all the focus while the context is not given much attention and is rarely explored; in this outside view, the media uses the language of distance, pluralities to encompass the geography of disaster's impact without details: devastation, coastline, island, area, region, populations, and death (Bestor 2013).

Just as generalizations and stereotypes of cultures prove themselves inaccurate when up close, the same is true with calamity. That is why understanding the effect of distance is so important: that how it is shaped, particularly through the media and by those who frame disaster in distant terms, can steal away and obfuscate its true meaning for those who are further away, while isolating the victims before the disaster is over. Bestor explains these phenomena fairly well, that from a distance, a catastrophe is easy to see as uniform in impact; however, all catastrophes are local - they do not impact everywhere evenly - as Bestor (2013) states, "locality matters." The three disasters of 3/11 struck different regions differently; it devastated 400 Kilometers of coastline, but within that 400 Kilometers was great variety of severity and extent (Bestor 2013). It is difficult to disagree with Bestor's argument that catastrophes do not happen in one place; effects are neither evenly distributed on the physical landscape nor on the people. Distance and locality, and lack of conformity contribute to the differences between analyses that focus on different social, political and geographic scales and that which

focuses on the micro-local ethnographic level; disasters are local as much as its first responders are local (Bestor 2013).

Bestor (2013) sought overcome some of this distance by capturing the realities on the ground through tracking and archiving the digital record written by those physically closest to the "ground zeroes" and survivors as it was being created. Rather than imposing a narrative (of distance), he essentially created an ethnography from the local through those who lived the disaster and posted their stories and information to the internet (Bestor 2013). But this is not always done, and one has to wonder how many perspectives were lost since then, and with disasters before that, as the media leaps from disaster to disaster, rarely looking back, while the rest of the world looks on.

Social-media may provide insight into and a means to archive events as they happen, but according to "Googlemapping and Sharing Digital Memories after a Natural Disaster: Community, Places and Digital Media to Remember the City of L'Aquila (Italy)" by Manuela Farinosi and Alessandra Micalizzi, another service that the internet and social-media provides is the means for the victims of calamity to share their stories, and provide narrative contributions to the "collective memory" of a community; it provides a venue that allows those traumatized to overcome their hesitancy to speak of painful events through a protective barrier of anonymity (Farinosi & Micalizzi 2013). However, the website "Noi, L'Aquila" examined by the article was designed specifically for those who had connections to L'Aquila, even if they did not have direct experience of the 2009 earthquake, making it the domain of the local. It would be interesting to compare a locally geared website such as "Noi, L'Aquila" and one that tries to do the

same thing but for a larger community of participants, observing the differences in designs and effectiveness. This may show how the local transitions to the global, if it does at all.

Button (2010) explains how the emphasis on expertise and the frames offered by corporations and government in the media can distance the public from disaster victims; the de-contextualization that occurs in these frames can also distance the public through the lack of information and a means to completely understanding the ramifications of what occurred (Button 2010). Those watching and hearing of a disaster from afar are already challenged by geographical distance; the distance created by media frames can push a disaster out of the sight of the public and isolate the victims. According to Button (2010), there is also temporal distance, as disasters are often represented as isolated events, while media analysis of disaster is “episodic” rather than systemic, thereby placing disaster events outside larger social contexts; disasters also remain headlines for short periods of time, no matter how catastrophic, making room for newer events, creating visible distance by removing the disaster from sight (Button 2010). When the journalist Jonathan Katz (2013) wrote on the political, economic, and social conditions of Haiti before and after the 2010 earthquake, he noted how the geographical and social distances existing between Haiti and its donor states influenced disaster recovery; the media framing of the Haitians and Haiti through historic assumptions of social and political chaos and disease risk in the aftermath, rather than the actual conditions of the ground resulted in slower disaster recovery through the lack of necessary assistance (Katz 2013). When the cholera epidemic hit the Haitian population, medical experts from inside

and outside the country refused to believe that it was the result of the United Nations security team fouling the river with sewage, but rather assumed that the Haitians themselves were fouling the river from which they drank. The UN also made the same assumptions, and refused to investigate, while accusing the Haitians as being ungrateful. At the same time, rather than to provide assistance to mitigate the number of cholera cases, the UN and other donor nations reacted to the epidemic with security concerns over possibly ensuing riots. Although Katz is a journalist, he provides this information with a local and clear gaze, with a close up view of events in contrast to the distance of media framing, and one of the things that he clearly expresses is that the distance created via the privileged vehicles of wealth, expertise, physical and social distance alienated the people in Haiti and exacerbated the already worsening post-earthquake conditions and subsequent cholera epidemic (Katz 2013).

Wachtendorf and Penta (2014) discuss distance as created by the media through disaster assistance; they argue that the response to disaster needs tends to be subjective rather than objective, and that much of this has to do with the way media frames disaster needs by prioritizing coverage of some information over others. The authors also point out something that other social scientists have not: that frames are necessary for learning and are a means by which people organize and comprehend the material presented. When the public does not have firsthand experience with a disaster event, the media's narrative has the possibility of overtaking the complete assessment of actual need, while presuming needs on the behalf of the victims that might not actually exist; i.e. the media fills the narrative space, or rather the distance between possible donors and disaster

victims, while lacking a factual account of the victims' actual needs (Wachtendorf and Penta 2014). In doing so, the media could make significant mistakes in their calls for disaster relief, and the influx of assistance may not meet the needs of victims at all, and even inundate the victims with unnecessary goods (Wachtendorf and Penta 2014). This may isolate a community impacted by disaster by not allowing the victims' voices to be heard and create a circumstance where they cannot receive the necessary assistance. This essay provides a good example of how distance can distort communication between a disaster stricken community, the media, and the public.

### **Political and Economic Distance, Recovery and Risk**

In his essay, Dyer (1999) observed that there was a large gap in Anthropology regarding the study of institutional response and disaster recovery. What Dyer brings to the table in this essay is the Anthropological perspective on organizational roles in post-disaster recovery, post-disaster economics, and the importance of operating locally to disaster response (Dyer 1999). Dyer (1999) also outlines what essentially constitutes as success in the organizational response (what Dyer calls the "culture of response") to disaster, which is rare, as most Anthropological literature hones in on prevailing organizational failures. The value in observing success is that it can provide a concrete example of a working adaptation that may have multiple applications.

Dyer (1999) provides a useful concept in identifying the "culture of response" as one level of human adaptation to both natural and man-made disasters, an adaptation to disaster that emerges from existing social structures (one must assume any sort of organization that has the capacity to coordinate response to a disaster); for example, the

Economic Development Administration (EDA) of the United States Department of Commerce, which Dyer discusses in his essay, was created during the time of the “great society” of the 1960s to stimulate growth in economically distressed areas in the US (Dyer 1999:282). How well this “culture of response” works is dependent upon what Dyer (1999) considers a rarity: “a well-informed and culturally appropriate plan of action,” one that is not overly subject to the influence of political economics, which would let power relations dictate access to recovery resources. Without this plan, disaster assistance can lead to conflict, encumbering the population’s ability to recover from disaster, and possibly increase future susceptibility to calamity (Dyer 1999:279). Dyer (1999) proposed that these sorts of conflicts can be avoided if there is cooperation and mutual respect between community organizations, local leaders, and the communities themselves, especially if the institutional agents maintain an awareness of the full political, cultural and economic contexts in which the disaster occurred.

Dyer assesses the institutional response of the EDA to the post-disaster recovery needs of Florida Communities and Organizations hit by Hurricane Andrew in 1992 and noted the production of what he called the “phoenix effect.” The “phoenix effect” means that a community has achieved a state of sustainable recovery through the strategic investment of capital resources after a catastrophe and by doing so, creates new social, economic, and cultural capital beyond what existed previously (Dyer 1999:282). The EDA, which provides strategic post-disaster assistance via the investment of capital resources, was able to achieve this effect through community leadership and development (Dyer 1999:289). All this centers on the EDA’s commitment to job creation through

infrastructure projects and community assistance and opting to fund projects based on whether or not they provide long-term social and economic benefits that exceed the economy's previous potential. The largest fault in the EDA's response was that it was unable to adequately address communities with dispersed or no organizational framework, such as poor and tribal communities (Dyer 1999:296). Dyer's essay is significant because it highlights characteristics of both positive and negative organizational responses, while also pointing out that not all economic solutions to social problems are bad, because many of those social problems, especially in terms of disaster recovery, are rooted in economic problems; he also indicates that organizational responses that only emphasize the social and material damage of disaster and do not address economic damage caused by destroyed infrastructure, the loss of jobs and businesses, may be in effect, doomed to failure.

The recovery after Hurricane Katrina went much differently than the well-organized disaster scenario as presented by Dyer (1999); however, one of the things Dyer (1999) did not mention in his essay on the impact of institutional response and economic investment was whether or not size mattered: New Orleans is much larger than Homestead, and there is a possibility that what worked in the smaller city would not work for the larger one. And in circumstance such as that found in Sri Lanka, the extensive damage to economic structures and businesses in Sri Lanka essentially overwhelmed the resources available to the organization most capable of providing assistance, the government, due to the loss nearly a quarter of its hotels and with over 75,000 losing their livelihoods (Gamburd 2014:119). The government stepped in to provide economic

assistance to small businesses, seeking to rebuild economic structures; however, the extent of the damage extended the timeframe of recovery.

In the case of both Hurricane Katrina and 9/11, disaster recovery was only the latest iteration in a series of economic and social struggles for the cities of New Orleans and New York. Although communities grew closer together, preexisting political and economic distances became even greater (Gotham and Greenberg 2014). Gotham and Greenberg (2014) indicated that struggles over resources and voice in post disaster recovery operations in these cities came out in favor of the politically powerful, worsening inequalities and consequentially increasing vulnerability to future disasters (Gotham & Greenberg 2014). Disaster framing in both events resulted in narratives that assigned labels such as deserving and undeserving aid recipients and privileging one area over another in the process of rebuilding. The media created social distance by identifying Katrina victims as “refugees” and “other” while both politicians and media framed the disaster as “natural” when in fact, disasters are socially constructed (Gotham and Greenberg 2014; Solnit 2009). In Rajan’s (2002) assessment of the the aftermath of the 1984 Bhopal disaster, for instance, the social and political distances between experts and lay people were quite large; the experts created this distance by not acknowledging local knowledge, and framing these individuals as primitive and uneducated. The voices of government and corporate politics alienated the average individual while the anthropologists failed to address in practical ways the absence of expertise and ineffective government response to disaster victims (Rajan 2002). This distance created between experts and laypersons is also reflected in how experts refused to acknowledge

their lack of knowledge regarding the impact of radiation from Chernobyl (Stephens 2002). Like in the Bhopal disaster, the experts framed laypersons as ignorant and irrational, and made assumptions based on incomplete knowledge.

### **Not just Opportunity, but Entertainment**

Campbell (2013) through his article, gives us a comparison in media depictions, specifically the currently dominant genre of factual entertainment television. Campbell (2013) concludes that although there are similarities and differences between how environmental risks and natural disasters are framed in factual entertainment and other styles of media, such as the news and fiction film, factual entertainment television presents disasters in particular ways that should be studied, as these programs are starting to prevail over scientific documentaries as the interface between the public and scientific ideas (Campbell 2013:61). Despite the fact that factual entertainment television has great technological potential for providing disaster information and the ability to present science in innovative ways, to include allowing people to interact with future possibilities, there is a problematic pattern of fatalism, where prevalent themes frame all extreme weather and natural hazard events as “natural disasters,” while omitting discussions of mitigation and “risk likelihood” (Campbell 2013:66). Rather than truly informing their audiences, the factual entertainment programs of the early 2000s combined documentary techniques, dramatic reconstructions and computer animation in their framing of environmental hazards and natural disasters in order to maximize the sense of voyeuristic vicariousness, a sort of entertainment value also mentioned by Rozario as the thrill of the vicarious near miss (Campbell 2013; Rozario 2007:107). It is

quite telling that Anders Ekström, an interdisciplinary cultural researcher at the Uppsala University in Stockholm, equates the spectacle exhibited by these programs and other media to historical “disaster displays,” museum exhibits and theatric performances and “multimedia reenactments” of disaster events popular in the 19<sup>th</sup> and 20<sup>th</sup> centuries (Ekström 2012).

Campbell (2013) found “Mythic frames” in both factual entertainment programs and films derived from already existing cultural tropes, such as nature seen as a beautiful but powerful force outside of man, and the fatalistic view that natural disasters are “acts of God,” tropes also bearing the influence of America’s evangelical history, as well as early political ideologies and views of nature (Boyer 2008; Campbell 2013; Rozario 2007). These frames resonate with Rozario’s discussion in *The Culture of Calamity* of religion’s influence on the history of America; fatalism towards disaster was the predominant attitudes of the average individual, immigrants from the Old World and the disadvantaged (Rozario 2007:57). Considering that average individuals make up the majority of society, who, unlike the elite, do not have the resources to consider disaster as opportunity, a predominant fatalistic attitude is not surprising, especially in “entertainment” (Rozario 2007). These programs tended to treat all past and future disasters as inevitable, as seen in programs regarding asteroids striking earth: *Fireballs from Space* depict asteroids as rare, but assesses Earth as “the target,” while *Asteroids: Deadly Impact* while providing the narrative of the asteroid destroying the dinosaurs, indicates that the next asteroid strike is not a matter of if, but when, without discussing

the probability of that happening; they also focus on previous confirmed instances of disaster, not on risk values or the probability of future happenings (Campbell 2013:66).

In many disaster films, just as they are in factual entertainment television, nature is a destructive agent outside human control (agency) or responsibility, undermining response; these apocalyptic films do not consider human agency or ethics in averting disaster. Films, such as the *The Day After Tomorrow*, use fictional representations of apocalypse, where the capacity to avoid or prevent the disaster are not considered, with humans being subject to nature's wrath much like they were subject to the whims of Gods or God in old biblical and religious tales (Campbell 2013:63). Campbell argues that the plotline found in films such as "The Day After Tomorrow," which is centered on "global warming" may actually undermine environmental advocacy, as it removes all human agency and responsibility in the face of the powerful, unrelenting force of nature. Another "mythic frame" is the "Jeremiad", found in films such as *An Inconvenient Truth* and similar to the ideas used in environmental advocacy, where looming disaster can be prevented by identifying causes and preemptive actions; humans are the subject to nature's power, but human agency can effectively intervene and counteract nature (Campbell 2013:64). According to Campbell (2013), the "jeremiad" frame is rarely found in factual entertainment television.

Through cultural frames, factual entertainment programs depict the impact of human agency on mitigating risk as negligible and the attempts at preventing disaster shown by these programs are presented as ineffectual, even for hypothetical disasters. Campbell (2013) also notes that factual entertainment televisions tend to focus on

scientists, especially the limits of those scientists in the face of disaster, highlighting that even the experts have limited agency in mitigating disaster; at the same time, scientists for these programs are a source of disaster experience and uncontested expertise outside of disaster events, with their knowledge as separate from their agency (Campbell 2013:67). These scientists talk about and explain disasters, not about mitigation or responsibility. Factual entertainment programs also do not have groups or individuals depicted as responsible parties or villains, as in films or even the news, and human contribution to disaster and the wider contexts of disaster are often missing from these programs, thus removing disaster from human responsibility or control, and indicating that nature, not humankind, will have the last word (Campbell 2013:68).

Like disaster films, the visual framing of factual entertainment programs often depict the destruction of landmarks, such as the Statue of Liberty and cities, but rarely show images of death (Campbell 2013:70). Campbell (2013) asserts that although the reasons as to why these programs choose this style of visual framing is not well understood, it may be because these programs want to focus on the awesomeness and power of disaster events as “voyeuristic spectacle” while at the same time showing they are survivable (Campbell 2013:71). Yet, another possibility to consider is that the absence of mortality and deaths, coupled with technological enhancements such as CGI and the use of reconstruction, make disasters seem farther away and somehow not real, allowing the public to bypass ethical questions to enjoy the “spectacle of terror” as if it were fiction. Without the presence of death, one can vicariously experience the awesome destructiveness of nature without feeling the guilt of enjoying the suffering of others.

While Campbell addresses disaster in films, news and factual entertainment television in mainly an American cultural setting, Ekström (2012) broadens the scope to cover disaster representation in history. In his essay, Ekström (2012) argues that disaster as entertainment is not a new phenomenon, nor one that is particular to American culture, but is a phenomena based in a temporality that crosses time and geographical borders (Ekström 2012:474)

Distances impact how much empathy an observer has in relation to the victims and experiencers of disaster. As difficult as it is to relate to someone who has experienced disaster trauma from the perspective of one who has not, temporal, socio-political and economic distances can exacerbate the gap of experience already created by physical distance. This indicates that those who see a disaster from afar, or have experienced disaster without negative consequences are less likely to connect with the suffering caused by disaster in a significant way. Social stratification and perception of social differences and expertise create significant gaps between those who have experienced disaster, who often reside in circumstances of preexisting vulnerability caused by social and political forces, and those who are in the position of a privileged or expert observer (Oliver-Smith and Hoffman 2002). In such a socio-political climate, preference is often given to the voices of those who have higher social status and or expertise over the voices of those who are impacted most by calamity who at the same time have a greatest knowledge over local circumstances(Rajan 2002; Stephens 2002; Button 2010). This may result in a lack of aid or the diversion of resources from those who need it most, sometimes resulting in a windfall for those who need it least, and widening socio-

economic divides. The media often has a significant role in selecting which voices are heard, and through how it frames disaster, the media can both broaden and narrow perceptual distances (Bestor 2013; Button 2010; Ullberg 2010). It can also change these distances by how it packages and frames disasters for distant audiences. By closing those gaps, the media could be instrumental in ensuring the needs of disaster victims are met. However, the media is often influenced by prevailing social and political forces that make the optimal circumstances difficult to achieve. Unlike those who are observing disasters from a distance, those who experience and are negatively impacted by disaster directly are unlikely to view disasters as entertainment. Those who perceive disasters from a distance or are minimally impacted, are more likely to see disasters as opportunities, where they can gain access to previously owned assets and take advantage of the economic openings created through the shifting of fortunes and loss of life (Luebken 2014; Rozario 2007). These individuals have no connection with the persons whose loss or demise created those opportunities, and depending on the level of distance, may not be even aware that those people existed. The worst case of distance is when catastrophe becomes a form of entertainment, disconnecting the observer from the very real impact of calamity on its victims. Inspired by apocalyptic thought and intent on capitalizing on the voyeuristic excitement created by disaster events, factual entertainment programs and many modern television shows, especially in the United States, have done just that (Ekström 2012; Campbell 2013; Rozario 2007). As a key component of disaster framing, distance should receive more attention from the social sciences due to its ability to reveal the gaps between different groups who experience or observe disasters, between

perception and reality, and the nature of empathy and indifference for disaster victims, which in turn impacts aid delivery, access to recovery resources, and the rationale behind disaster exploitation in the contexts of economic opportunity and entertainment.

## **CHAPTER FOUR: AFTERMATH – RECOVERY, HOPE AND THE IMAGINED FUTURE**

### **Lessons from the Ruins**

The recovery process in the aftermath of a disaster event tells us much about both the mechanical aspects of cleaning up after calamity and the cultural components involved in the creation or recreation of normalcy. It is a temporal process which consists of individual and community decisions and actions that not only build a new life, but also bury the material and cultural past in a way that defines the history for what Dawdy, an American historian, archaeologist and anthropologist, calls the “new ethnographic present” (Dawdy 2006). In the process of recovery, whole material pasts can seemingly disappear, swept into the rubbish bins of history as communities seek to reform their identity from the rubble and formulate plans for the future only to have those pasts resurface. Hoffman and Oliver-Smith (1999) note how a society’s history affects the its reconstitution, and that multiple studies conducted in the wake of disasters expose particular socio-cultural phases which survivors go through during the recovery process, traversing the path from enthusiastic mutual support to discord, from seeing a brighter future, to watching the past repossess them (Hoffman and Oliver-Smith 1999). These

phases can be seen, for instance, in articles such as Solnit's *A Paradise in Hell* where many people felt a certain joyful unity at least in the initial stages of the post-Katrina recovery process, though old political and social conflicts and inequalities quickly regained their footing (Solnit 2009).

In the aftermath of disaster, there are at least two general factors to consider: a community's past "lives on in disaster response" and that one cannot recover without cleaning up first (Hoffman and Oliver-Smith 1999:10; Dawdy 2006). Dawdy's (2006) journal article takes these two factors into account and speaks to the necessity of interdisciplinary methodologies in dealing with disaster research and analysis, particularly in regards to disaster recovery. One of main drives behind the article is the promotion of taphonomy, a method normally wielded by archaeologists, as a valuable tool for both cultural and historical anthropologists approaching disasters and their aftermaths, while at the same time, archaeology could gain more insight into post-disaster recovery if it incorporates the emotional and political contexts usually studied by anthropologists (Dawdy 2006). This proposal makes sense, as human beings are always in the process of building their histories in the material world, and the aftermath and recovery from disaster would only increase the intensity of that process.

Leveraging her experiences in New Orleans post Hurricane Katrina as an archaeologist tasked with documenting the taphonomy of New Orleans' disaster recovery, or rather the organized burial of the different structures ruined by the hurricane in New Orleans ("how the material remains of New Orleans were going to be deposited"), Dawdy describes the act of creating a "new archaeological record" through

the processes of recovery is the principal means by which individuals and populations reestablish themselves (Dawdy 2006). Noting the deliberateness, the politics and processes by which the government organizations organized the disposal of debris and the demolition of the urban ruins in New Orleans, and by which individuals and communities picked through the remnants of their homes, choosing what to keep and what to throw away, Dawdy (2006) wonders how many societies in the past have gone through this process with more deliberateness than previously thought, as well as how many of these processes, particular those with an emotional dimension, have been overlooked in both disaster studies and archaeological research (Dawdy 2006). Considering the methods used in the recovery efforts in New Orleans, including the sorting and managing of the debris by organizations and communities, seem to reflect a commonality with other contemporary disasters such as those that took place in Japan after the 3/11 disaster events, Hurricane Sandy and Hoffman's Oakland firestorm, Dawdy's assertion is likely a safe one; recovery is a human process, more so than a technological one (Hoffman 2002; Bestor 2013; Dawdy 2006). In an archaeological sense, it may be difficult to ascertain the exact nature of the cultural emotions exhibited by those who experienced disaster in the past, but as Dawdy (2006) explains, a heightened emotional responses after such tragic occurrences is likely universal and therefore attempts to understand them are worthwhile for archaeologists and anthropologists alike (Dawdy 2006).

To show how taphonomy would benefit disaster anthropology, Dawdy (2006) describes how taphonomy would address three common themes in disaster research as

presented by Oliver-Smith (2002): the nature-culture intersection, vulnerability, and the power of disasters to reveal underlying social structures and conflicts (Dawdy 2006; Oliver-Smith 2002). The failed levees which were supposed to divide the city from the swamp, the invasion of wild species after the flood waters receded, domestic animals gone feral were some of the examples provided by Dawdy (2006) of the loss of culture to nature; however the most interesting culture-nature transgression comes in the form of local resistance to proposals for replacing the heavily damaged low-lying neighborhoods with wildlife preserves in the form of wetlands, which would mitigate the effects of future hurricanes (Dawdy 2006). What makes this interesting is that the impact of Hurricane Katrina was unprecedented for that region, it echoes the point made by Hoffman and Oliver-Smith that in locations where “despite their systemic environmental quality” (in this case, the conditions that allowed Hurricane Katrina to become a disaster in New Orleans was that of systemic and preexisting vulnerability), disaster “may not occur with great frequency, allowing the possibility of maladaptive responses over time (Oliver-Smith and Hoffman 2002:9).” The resistance to mitigating future disaster utilizing parks may not just be the culture-nature divide, but the idea that Hurricane Katrina was considered a rare event unlikely to reoccur (especially with the levees rebuilt) and therefore, not worth the tearing down portions of such an iconic city. This could be considered a maladaptive behavior that would also be an example of value being prioritized over potential hazards, as mentioned by Boholm (Boholm 2003).

Amongst other features of interest to anthropologists, Dawdy (2006) also remarks upon how politics are also part of taphonomy, using the unequal and overly cautious

treatment of the lower ninth ward as an example; a political hotspot for the fight against social injustices since the 1960s, this black working class neighborhood was the hardest hit by the flooding caused by the levee failures, had the most deaths and has been plagued by demolition and recovery delays; because of this, the lower ninth ward would be taphonomically different than other neighborhoods nearby (Dawdy 2006). Politics also figures into the vulnerability that affects taphonomy, as those with political most often get to decide what should be built first, which projects have priority, where debris is to be stored, vulnerability being the level of ability any individual or group has to predict, respond and recover from a calamitous event; political vulnerability naturally interweaves with other types of vulnerability such as institutional, economic and technical vulnerability, all of which a component of New Orleans' overall vulnerability (Dawdy 2006).

Dawdy (2006) makes a number of assertions which bring into question the separation between archaeology and anthropology regarding disaster research (Dawdy 2006). Noting the flaws in the approaches of each discipline, Dawdy (2006) contends that although the anthropology of disaster recognizes that catastrophic events often result in the raw exposure of the connections between a human population and its environment, the focus tends to be on the disaster event itself and how, usually institutional, policies are enacted. This focus on policy neglects the implementation of the common but progressive practices by which individuals and communities shape recovery through burying and rearranging the wreckage of their material pasts and modifying their living environment to make room for their new normal (Dawdy 2006). Dawdy (2006) also

criticizes disaster anthropologists for their inclination to present current day challenges, such as overpopulation, pollution, and an unstable climate, as unique and incomparable, as well as for not providing “deep historical context.” The former criticism of disaster anthropology has some merit, as each field has its own methodology and purpose; however, Dawdy’s (2006) explanation for this latter criticism comes across as over-generalized regarding historical context; many of the essays in *Catastrophe & Culture: The Anthropology of Disaster*, such as “Historical Disaster Research” by Virginia Garcia-Acosta and other works, such as Rozario’s *Culture of Calamity*, included in this thesis, do not follow the criticized model as they provide an in-depth look at the historical contexts of disaster and recovery. Archaeologists, according to Dawdy’s perspective have a slightly different problem: although the archaeological research of disaster events have been going on longer, archaeologists perceive disasters as extreme events that mark either the end or beginning of a culture, rather than that of continuance; they also rarely take contemporary events into account (Dawdy 2006). The main target of her criticism, however, is more than the weakness of each discipline, but that each discipline remains separate regarding subjects where interdisciplinary research and concepts would provide the most benefit. In light of this, Dawdy (2006) provides her own contribution through a unique perspective on disasters in the form of taphonomy.

### **The Role of Hope, Deciding the Future**

As Cunningham (2014) notes, one must be able to imagine a future in order to plan for it; hope can sometimes counter uncertainty, that grey space of unknowing, that undermines action (Cunningham 2014:463). The role of hope, commonly defined as the

expectation and desire for a certain thing to happen, is often overlooked in disaster research and the multiple disciplines that attempt to analyze disasters. And yet, hope is more than its definition: it is an emotion, a symbol, a tool, a conceptualized future. Hope in the case of disaster uses a desirable future outcome as the fuel for action, but it is frequently used by individuals or communities to buffer fear and worries, rather than actual belief in positive outcomes. Fear and worry, being the emotional offspring of uncertainty, can have paralyzing effects (Cunningham 2014). Hope keeps people moving by providing direction, creating goals. It can be useful in its ability to create energy and movement in the short-term. However, hope over the long-term can be a source of anxiety as it must be maintained while it remains coupled with fear and worry (Kappes and Oettingen 2011:727). If the desired outcome loses value, hope becomes a burden, especially since it is not seen as particularly useful in attaining practical goals; this may result in a state of “no hope” (Miyazaki 2009). Allison (2013) in *Precarious Japan* examines hope as something ephemeral, and lost in Japan prior to the 3/11 disaster events; post 3/11 Japan stumbled upon hope anew, but not in the form of expectation or desired outcome, but through the sense of collective action and “togetherness” (Allison 2013:202). However, despite seeming to believe in this new found hope, there is the sense that Allison is not all that hopeful, caught up in the perceived societal decay that was steadily on the march, for which the 3/11 disaster provided brief respite.

In contrast to this condition of “collective action” and “togetherness”, Miyazaki’s (2009) piece presents something else altogether, but fairly relevant. It discusses “no hope” articulated by Murakami Ryu’s novel *Kibo no kuni no ekuzodasu* which in turn

describes circumstances in Japan that reflect similarly to those in the United States following the market collapse of 2008 (and in some senses, have been long in the making) (Miyazaki 2009). In Japan, where there is a push for a higher level of individualism and the development of neoliberal policies which creates winners and losers in an almost arbitrary manner, some of Japan's younger generation are losing the drive to push forward, losing sight of purpose and worth, the environment becoming seemingly inflexible with little meaning to working hard to get ahead (Miyazaki 2009). As Allison (2013) also mentioned, Japan has so many people who lack hope that they have commonly recognized terms describing different types: young people who not in employment or education or training are called Neets, the unemployed or lacking full time employment are freeters and those who close themselves off in their homes have "Hikikomori syndrome." These terms and themes are readily found in Japanese popular literature. One wonders if the United States and other industrialized nations will follow suit, as many of the social and economic conditions in Miyazaki's article can be found in the United States and elsewhere. "No hope" is the incapacity to imagine a bright future, but it is a practical stance that does not require the same energy as hope (Miyazaki 2009; Kappes and Oettingen 2011). Miyazaki compared the ambivalence of no hope to the attitudes of arbitrage traders who see their futures in terms of "no longer" which lies in the realm of "not yet"(Miyazaki 2009:248). Not being able to imagine a brighter future does not mean one cannot visualize one at all. Murakami asks if hope is really necessary for those who are not facing adversity, and most of the population is not in the 'true' sense of the word (Miyazaki 2009:250). Hope, as Miyazaki implies, is a matter of

interpretation and its interpretation is always ambiguous. Even so, the conditions of “no hope” and “hope” provide insight into how people conceive their futures, and their attitudes towards their society. And now, in the aftermath of the 3/11 disaster events, one wonders what Murakami would say in regards to hope.

It is apropos that Cunningham (2014) argues that we all live in a universal state of “prognosis” as our basic framework of time, due to our world being one of constant catastrophe (rather than in Jain’s concept of living in prognosis to varying degree) (Cunningham 2014:463). Although Cunningham believes that “universal prognosis” is a greater truth than the “individual prognosis of life and death, risk factors and the neoliberalism of individual responsibility for managing this risk,” there is enough truth in this concept of “individual prognosis” to warrant consideration. The answer likely is closer to something in between universal and individual, rather than one or the other. Cunningham gives little credence to the significance of culture, geography, or other important factors, such as levels of exposure and experience. Not everyone experiences crises the same way. The “neoliberalism of individual responsibility for managing...risk” may be a critical aspect of “prognosis” especially in the United States: facing a crisis is daunting; expecting to face a crisis alone is even more so (Cunningham 2014:464). And yet, independent individualism is held in high regard by American financial elites and the general public, although the public is more vulnerable to the state of “prognosis” than the elites, who often have the resources to buffer themselves from most disasters. And those who frequently experience disasters are more likely to be in a state of “prognosis,” as they lose sight of the future in their focus on the eternal now. It would seem that this

would lend itself to the concept of the “No-Risk” thesis where a society actively decides to not incorporate risk into their calculations of the future (Paine 2002).

### **Reflecting on Disaster, Constructing the Future**

If one wants to understand how people think about and plan for future disasters, it is important to understand how people formulate the future in general; whether the imagined future is a close-ended apocalypse or open-ended in the terms of modern post-enlightenment thought. People, depending on their ideology, will often seek the future that fulfills their preconceived notions of how the world works and in many cases, provides them the most effective way to dispel uncertainty. They are constantly existing in the “ethnographic present” a term utilized by Dawdy (2006) in a way identifies it as the temporal point from which people make current decisions based on their history; however, this present is also starting point from which the future is constantly imagined and reimagined as it moves through time, changing circumstances and futures past.

In their work, Rosenberg and Harding (2005) write about what the “future” means in terms of culture and society. What they say resonates with the disquiet, the slightly unnerving understanding that we are living in both the future of the past and the past of the future, and this present of futures past is and is not what we imagined. Our media, our literature, our science, our religions are constantly informing us what the future holds, what we should expect; a deluge of information that refuses to be pinned down, and therein lies the uncertainty: no one truly knows what the future truly holds beyond trend analysis and conjecture (Rosenberg and Harding 2005). Although not strictly defining it as so, in Rosenberg and Harding’s (2005) essay, the imaginings of the future generally

fall into two categories: progress and apocalypse. This model would seem best suited for modern western-style cultures; however, research into how it applies to other cultures, such as in Asia and the Middle East, would likely reveal very interesting similarities and differences while exposing interrelated influence.

The ideas represented by Rosenberg and Harding (2005) extend the views found in *The Culture of Calamity* by Rozario (2007), taking the concepts of modernity, the enlightenment, and apocalyptic thought formulated in history and informing our sense of the past and present, into the future. Rosenberg and Harding's approach in their essay is a bit more esoteric than the Rozario's heavier and highly contextualized work, but no less dense, as they are analyzing the tracks of that which has yet to be created, but at the same time, has already passed. According to the essay, the enlightenment opened up the future, breaking away from prophecy; this created a vacuum which was quickly filled by a continuous stream of imaginings and predictions (Rosenberg and Harding 2005:4). Instead of the future being capped by prophecy, which often takes the form of the ultimate ending of apocalypse, people are now experiencing futures almost as quickly as they are created, though more often than not, this experiencing of the future is a highly edited one, frequently falling short of expectations. As Rosenberg and Harding (2005) state, "More and more, our sense of the future is conditioned by the knowledge of, and even a nostalgia for, futures that we have already lost" (Rosenberg and Harding 2005:3). Future nostalgia is what we experience when we reflect on what might have been, or what has been but fleeting, before that future is overrun by another, and it is a constant reminder that the future has never existed in a vacuum (Rosenberg and Harding 2005).

And like the past, the future is constructed through knowledge that is flawed and incomplete.

Prophecy presents a predetermined future; it was the dominant mode of thought throughout the ages until it was dethroned by the Enlightenment, when people responded to what was formerly a predetermined future and replaced it with new predictions and expectations, their knowledge of the future guided by “anticipatory hopes and fears” (Rosenberg and Harding 2005:4). These hopes and fears are in some ways expressions of uncertainty, and their inclusion in future constructions implies that people perceive the future, which is filled with uncertainty, as a source of anxiety that must be in some way resolved. From the Rosenberg and Harding’s point of view, the rebellion against prophetic modes of thinking allowed the development of the modern, that the “philosophy of the enlightenment required that time would be open to human achievement and that events could gain meaning for their interrelation, rather than from their relationship to absolute, biblical beginnings and ends” (Rosenberg and Harding 2005:4). This change would be critical for the future of disaster research, as it grounded the causes of disaster in the physical realm, of acts of nature and humanity, rather than the wrath and predetermination of the divine. However, that does not necessarily mean that people prepare for disasters better, especially if they are natural in origin; their framing as unpredictable and unstoppable forces which cannot be planned for, whether via divinity or nature, still persists in multiple cultural arenas (Rozario 2007; Campbell 2013).

The victory of this enlightenment thinking was never complete over the necessary futures delivered by prophecy; the religious prophets have yet to disappear and even concepts of modern progress have been incorporated in religious ideologies, especially in the West (Rosenberg and Harding 2005; Rozario 2007). This hybridization of contingent futures with prophecy and the contradictory relationship these opposing views have can be problematic (Rosenberg and Harding 2005). As stated before, even secular viewpoints are not far removed from prophetic thought; the abolishment of uncertainty to create a foundation for making decisions requires a certain preemptive, confident way of thinking and the modern period proffered new methods for envisioning, forecasting, and narrating futures that allowed societies to traverse landscapes of uncertainty (Masco 2005; Cunningham 2014; Rosenberg and Harding 2005). This is similar to how disasters can be reframed as opportunity for those who have the resources to take advantage of the situation (Rozario 2007).

Rosenberg and Harding's example of the turn of the year 2000, and its associated iconic Y2K as a predetermined disaster in waiting highlights that there is a heavy investment in predicting the future, to carve out certainty from instability, even if it is a form of apocalypse (Rosenberg and Harding 2005:7). There is, in a sense, an echo here of Harding's later work, "Apocalypsis," the belief that the human race will bring destruction upon itself if it continues down the road it is on; there is also a general belief, one that is touched upon by Harding and other writers on the future, that technology would be humankind's proverbial Tower of Babylon, that no matter how proficient technology will become, it will ultimately contribute to our demise (Harding 2014:26). Another thing that

is striking about 2000 and Y2K is, as noted in the essay, how anticlimactic it was – there was much in the way of speculation, the prognosis of doom and disaster, then it passed; the expected roar but a whisper (Rosenberg and Harding 2005:8). Disaster had been averted, but the prediction of its onset was exciting, a form of entertainment for those who were not working to prevent it. And yet this can be argued to be the power of the anticipation of disaster, a combination of fear, uncertainty, and future imaginings all guided, to large extent, by culturally ingrained expectations. This would make Y2K, as something that, as Rosenberg and Harding posits, “in all its dimensions...energized an entire economy of anticipation and produced a powerful expressive performance of a still-unstable global culture business vying for metanarrative control over the future.” (Rosenberg and Harding 2005: 8)

The aftermath of disaster is a physical, emotional and social process. It is also history in the making. By constructing the present through that history, communities create the platform from which to build their future. “Taphonomy” could be used to create a living record for the physical processes of disaster recovery and provide evidence of socio-cultural change over time (Dawdy 2006). This living record can be used in the real-time assessment of how communities reconstitute themselves in the aftermath of disaster, as well as how they calculate risk in building for the future. However, taphonomy cannot account for the whole of important cognitive processes that impact recovery and also influence how the future is envisioned, such as hope. Understanding the role of hope, for example, and in some cases, “no-hope,” allows one to better understand the pressures of recovering from disasters and maintaining positive

expectations in the face of many possible outcomes (Solnit 2009; Allison 2013; Miyazaki 2009). Considering that many societies maintain beliefs that shroud the future in apocalyptic visions both religious and secular or have political and economic systems that create diminishing social returns, such as Japan and the United States, the condition of having hope (or not) influences the course individuals and communities take to counter increasing uncertainty and vulnerability (Harding 2014; Rosenberg and Harding 2005; Miyazaki 2009).

## CONCLUSION

How we view calamity is based on the intermeshing of complex variables, many of them involved in the effort to control uncertainty. As a quintessential state of unknowing which creates the anxiety and indecisiveness of “prognosis time” and “trauma time,” uncertainty and its consequences are multifold, especially if a community faces multiple crises and has limited resources to counter them (Cunningham 2014; Stewart 2005; Button 2010). Vulnerable communities that face the constant threat of disaster often reside in a perpetual state of uncertainty. These communities may get locked into survival mode, and lose access to information by which to remember their past and visualize and plan for a future, further entrenching them into a cycle of vulnerability (Cunningham 2014). Because of this, the management of uncertainty is the underlying goal of much of the cultural phenomena related to disaster.

Religions and belief systems have express frameworks to deal with this uncertainty, such as prophecy, designated paths to enlightenment, divine favor and luck (Rosenberg and Harding 2005; Boyer 2008; Boholm 2003). All are designed to manufacture certainty and externalize fear, giving the individual or community a sense of

comfort or control over the trajectory of future events through faith and predetermined action (Boyer 2008; Rozario 2007). Some beliefs may at times be counterproductive in terms of planning for disaster and calculating risk due to their seeing disasters as divine acts but certainty, even if manufactured, provides a mental and social resilience that improves disaster recovery for certain communities (Paine 2002). On the other hand, secularism, science and technology have yet to be seen as reliable sources of certainty in many cultures. One can look to American culture as an example of how religions and the construction of certainty influences societies and their conceptualizing of the future. Many of the views regarding the future in American culture are informed by deeply imbedded religious concepts and beliefs (Rozario 2007) (Rosenberg and Harding 2005).

In addressing catastrophe in their efforts to construct certainty, religion and belief systems are often the source of disaster language and symbolism. This symbolism is often invoked by those writing or speaking of calamity regardless of religious bearing. Heaven, hell, monster, mother, Namazu, Chernobyl are just a few of the terms found in the literature utilized in this thesis, and there are many more. This symbolism provides insight in how memory carries language through time, as many of these terms originate in times long past.

Memory is a carrier of disaster information and one of the main driving forces in learning from disaster. However, it is an unreliable witness. It is highly localized and there is no guarantee that the most pertinent information necessary for learning from disaster events will be carried forward to those who need it most, or that it would be usable (Bestor 2013; Ullberg 2010; Cashman and Cronin 2008). Whether or not

memories are recorded and stored is also dependent on the socio-economic status of those who experienced disaster and can provide useful information. In more egalitarian societies, this may not be such a large problem, but in places where there are preexisting social stratification or economic classes, this can mean that those who are able to communicate their experiences to a broader audience are unlikely to be the same people who experienced the worst of catastrophe. Monuments, as a form of formalized memory, are built under similar cultural and socio-economic influences. Sometimes rather than stand for the victims of disasters, the meanings attributed to monuments are often hijacked by political agendas (Simpson and De Alwis 2008). This changes significantly if they are built locally for the specific purpose of memory, such as Japan's tsunami stones (Ullberg 2010; Alabaster 2011).

The media, which can be argued as the modern conduit for the storage and communication of social memory, is often colored by the culture from which it is sourced, such as disaster narratives in disaster films and factual entertainment television which often depict humans as lacking agency in the face of disasters (Campbell 2013). In media such as the internet and social media, information prioritization is regularly based on the originator's political and cultural views (Bestor 2013). If there is no prioritization, as often happens, the deluge of information coming out of disasters zone make it difficult for the distant audience to identify what is important (Bestor 2013).

The modern media influences human perception of catastrophe in part by influencing distance. People's level of empathy with the victims and impact of disaster events is largely dependent on how far away a disaster seems in relation to the observer,

in addition to system of culture and beliefs where the observer resides. Distance in the forms of temporality, physical space, and perception influence the relevance of a disaster is to a community and may likely influence response; these things can also reflect how humans view their own agency. The media also tends to frame disasters in certain ways that changes the discourse of disaster through who is heard and who is not, and is often a culprit in creating distance, while at the same time, social media can close those distances, providing a sense of the local (Bestor 2013). Concepts of time, as well as the timeframe for disasters and disaster recovery, affect human perception of uncertainty. Despite it being a socially constructed fiction, how we imagine the future can also affect our present and our consideration of the past through the lens of disaster; the future is a part of the continuing time story narrative, and part of contextualizing memoryscapes (Bestor 2013; Fincher et al. 2014; Ullberg 2010).

When we consider factors like hope in researching disasters, it is important to realize that hope only exists where there is uncertainty (Miyazaki 2009; Allison 2013; Kappes and Oettingen 2011). The theories of “No-Risk: and “No-Hope” indicate that Humans often attempt to construct certainty in times of uncertainty because indecisiveness can lead to increased vulnerability (Miyazaki 2009; Paine 2002). One of the means of creating certainty is to reestablish “normalcy.” Like temporality, normalcy is relative and defined differently on different scales. It is rarely uncontested, as when laypersons seek their version of normal, while the media and corporate and government institutions frame that normal differently, similar to the contestation of what defines

“potable” water (Button 2010; Javornik 2014). In some cases, such as that found in *Wave*, there is no true return to what the victim considers “normal” (Daraniyagala 2013).

Another means of constructing certainty is by editing one’s view of reality, as seen in Masco’s (2005) essay regarding desert modernism. In this way, one can either ignore sources of risk or make them a part of the background upon which one writes their narrative. Of course, there is a certain amount of risk involved in making the wrong decisions based on constructed certainty, but if those decisions garner success – the rewards are no longer weighed against past potential failure (Rozario 2007; Masco 2005; Boholm 2003). This reflects back to Hoffman and Oliver-Smith’s observation that in weighing the dangers and values against outcomes, humans often gamble (Hoffman and Oliver-Smith 1999).

Gambling, like hope, is dependent on the presence of uncertainty. The managing of uncertainty, through ideology, belief and social systems, though quite critical to understanding how humans process disaster, is not the same as learning from disaster. In fact, it may be quite opposite, especially if the methods for controlling uncertainty amounts to dismissing disaster risks or through editing one’s reality to exclude them altogether. The methods used are not consistent and often manipulated by invested parties for their benefit. This would be one of the answers as to why humans may not easily learn from disaster. However, one might want to consider the impact on mental and social resilience these methods have as an adaptive strategy. Another consideration is that the information through the transmission of disaster memory is incomplete. There is no guarantee that information that could lead to adaptive change, which in turn would

counter future disasters, will be received or even recorded, due to the distance created by physical space, temporality, socio-economic conditions, and how information is transferred. With so many obstacles in managing uncertainty, it may well be that Humankind is not ready to incorporate disasters into its visions of the future in a way that counters their effects. More investigation is needed to engage changes in societies resulting from shifts in methods for uncertainty management and how that has impacted that society's present and future formulations.

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