

Animist Intersubjectivity as Argumentation: Western Shoshone and Southern Paiute Arguments Against a Nuclear Waste Site at Yucca Mountain

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Abstract My focus in this essay is Shoshone and Paiute arguments against the Yucca Mountain site that claim that because Yucca Mountain is a culturally significant sacred place it should not be used to store nuclear waste. Within this set of arguments for the cultural value of Yucca Mountain, I focus on arguments that claim that the proposed nuclear waste site will damage Yucca Mountain and its ecosystem—the mountain, plants, and animals themselves. These arguments assume that Yucca Mountain and its ecosystem are animate and will suffer. An understanding of Western Shoshone and Southern Paiute perspectives on the human relationship to nature, particularly adherence to the concept of *animist intersubjectivity*, is crucial towards interpreting these arguments. As such, my purpose in this essay is an in-depth analysis of the relationship between the cultural presumption of animist intersubjectivity and Shoshone and Paiute arguments against the Yucca Mountain site. In order to explore this relationship, I begin the paper by discussing concept of animist intersubjectivity as a cultural presumption and its relationship to arguments. Then, I analyze Shoshone and Paiute arguments against the Yucca Mountain site to reveal how animist intersubjectivity influences these arguments. I conclude the essay by explaining the implications of this analysis.

Keywords Animist intersubjectivity · Yucca Mountain · Western Shoshone · Southern Paiute · Cultural presumptions

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Throughout the over 20-year controversy in the United States over the now discontinued Yucca Mountain High-Level Nuclear Waste Repository, Western Shoshone and Southern Paiute Native Americans¹ (hereafter Shoshone and Paiute) vehemently argued against storing nuclear waste in their ancestral homeland. Shoshone and Paiute opponents of the Yucca Mountain project argued that putting nuclear waste inside the mountain would disrupt Yucca Mountain, a sacred cultural place for Shoshone and Paiute people. While previous rhetorical research on the Yucca Mountain site has critiqued the U.S. federal government's discourse in support of the site (e.g., Endres 2009a, b, c; Kuletz 1998; Ratliff 1997), my focus in this essay is Shoshone and Paiute arguments against the Yucca Mountain site that claim that because Yucca Mountain is a culturally significant sacred place it should not be used to store nuclear waste.² Within this set of arguments for the cultural value of Yucca Mountain, I focus on arguments that claim that the proposed nuclear waste site will damage Yucca Mountain and its ecosystem—the mountain, plants, and animals themselves. These arguments assume that Yucca Mountain and its ecosystem are animate and will suffer. An understanding of Western Shoshone and Southern Paiute perspectives on the human relationship to nature, particularly adherence to the concept of *animist intersubjectivity*, is crucial towards interpreting these arguments. My purpose in this essay is an in-depth analysis of the relationship between the cultural presumption of animist intersubjectivity and Shoshone and Paiute arguments against the Yucca Mountain site. In order to explore this relationship, I begin the paper by discussing concept of animist intersubjectivity as a cultural presumption and its relationship to arguments. Then, I analyze Shoshone and Paiute arguments against the Yucca Mountain site to reveal how animist intersubjectivity influences these arguments. I conclude the essay by explaining the implications of this analysis.

1 Animist Intersubjectivity as Cultural Presumption

I will argue that animist intersubjectivity is a cultural presumption that undergirds Shoshone and Paiute arguments against the Yucca Mountain nuclear waste site. Before doing so, it is important to note that there is a broader literature on the

¹ While Native American could be used to describe indigenous people from the entire American continent, I am using the term to specifically refer to indigenous people from the North American continent whose lands are within the boundaries of the United States. Indigenous people living within United States boundaries may also be referred to as American Indians. Indigenous people living within Canadian boundaries are usually referred to as First Nations and those living in Mexico and Central and South America are usually referred to as Indigenous Peoples. However, there are several indigenous peoples that cross the borders of the United States and Canada or the United States and Mexico, thus complicating these distinctions.

² As I will discuss in more detail later in the essay, these are not the only arguments that Shoshone and Paiute people made against the site. Shoshone and Paiute opposition ranged from arguments about the scientific suitability of the site to the sovereign status of Native Americans to the need for government-to-government interaction. Yet, arguments about the cultural value of Yucca Mountain represent a significant portion of Shoshone and Paiute arguments against the site.

complex relationship between culture and argumentation that reveals a continuum between universal and culturally relative features of argumentation and arguments.³ Assuming this relationship between culture and argumentation, my analysis relies on the notion that cultural presumptions are beliefs about the nature of the world shared by members of a culture that can influence argumentation practices (including the construction and interpretation of arguments).⁴ In his introduction to an *Argumentation & Advocacy* special issue on culture and argumentation, Combs (2004) highlights the relationship between cultural presumptions and argumentation. He notes,

Argumentation is a manifestation of particular patterns of human interaction drawn from diverse assumptions regarding everything from the nature of reality to the most preferable ways for humans to live. In short, cultural patterns and traditions form an environmental field that conditions the precepts, principles, and trajectories of argumentation. (pp. 55–56)

Drawing from previous research that highlights a relationship between cultural presumptions and argumentation practices, I offer an analysis of the relationship between the cultural presumption of animist intersubjectivity and Shoshone and Paiute arguments against the Yucca Mountain site. While I will return to this in my analysis, the remainder of this section is devoted to a discussion of animist intersubjectivity and its role in Shoshone and Paiute cultures.

1.1 Animist Intersubjectivity

Animist intersubjectivity is a form of intersubjectivity, which generally refers to a relationship between subjects in which reality or a phenomenon is experienced by multiple subjects. Intersubjectivity may also be used to describe a path between objectivity and subjectivity, in which reality is created through shared experiences.

³ Approaches to the study of culture and argumentation include: contrastive rhetoric which compares argumentative and rhetorical strategies in written composition across cultures (e.g., Choi 1988; Connor 1987; Eggington 1987; Hinds 1990; Kaplan 1966); examination of the relationship between culture and argument in studies of actual argumentation (e.g., Branham 1994; Carbaugh and Wolf 1999; Ellis and Moaz 2002; Garrett 1993; Garrett 1997; Littlefield and Ball 2004; McLaurin 1995; Suzuki and van Eemeren 2004; Tillemans 2008; Walker 1987; Warnick and Manusov 2000; Yu and Wen 2004); and studies of argumentation in intercultural interaction (e.g., Brew and Cairns 2004; Cai et al. 2000; Drake 2001; Love and Powers 2004; Milhous 1999; Oguri and Gudykunst 2002; Sun and Starosta 2003). While parsing the specific role of culture in argumentation is a multifaceted and complex endeavor with no definitive answer, one point that becomes clear in most of these studies is that argumentation has both universal and relative (cultural) qualities. A cultural perspective on argumentation assumes that a culture is unique in the composition (culturally relative aspects of argumentation) of an assortment of limited argumentation concepts (universal aspects of argumentation). In other words, cultures share more than they differ in terms of argumentation practices. In terms of forms of argument (i.e., metaphor, induction, etc.), Kennedy (1998) notes that while some cultures use certain particular forms of argument more than others, there are not particular forms of argument that are unique to any one culture.

⁴ While argumentation is a process of making arguments intended to influence others in a situation of controversy, an argument is a statement made of a claim, support, and reasoning that connects the claim and support.

Communication scholars have asserted that communication is the means through which intersubjectivity is manifest; reality is socially constructed and understood through communication (e.g., Brummett 1976; Grossberg 1982; Smeltzer 1996). Argumentation scholars have used intersubjectivity to examine a variety of topics including dialectic and lying (Bermejo-Luque 2010; Smeltzer 1996). I am drawing from a phenomenological perspective on intersubjectivity that assumes that intersubjectivity is not just a relationship between humans, but can be a relationship between all sensing subjects. To differentiate this concept from intersubjectivity as discussed in previous argumentation research, I call it animist intersubjectivity.

From a phenomenological perspective, animist intersubjectivity refers to “phenomena [that are] experienced by a multiplicity of sensing subjects” (Abram 1996, p. 38). Sensing subjects expand beyond humans to include animals, plants, mountains, and landscapes, despite the Western philosophical tradition’s tendency to view sensing, communicating, and meaning-making as the unique realm of humans. Husserl (1960), Merleau-Ponty (1962) and other phenomenologist theorists examine how the sensible world—including non-human beings—is animate and participatory. In his book, *The Spell of the Sensuous*, Abram (1996) extends the work of phenomenologist theorists to explore the possibility of communicating between human and non-human sensing beings. He argues that “at the most primordial level of sensuous, bodily experience, we find ourselves in an expressive, gesturing landscape, in a world that *speaks*.” (p. 81). This intersubjective relationship between human and non-human sensing beings is a common assumption in animism, which describes “a planet where everything is alive and sentient” (Sheridan and Longboat 2006, p. 368), meaning that humans can engage in forms of communication with mountains, animals, and other non-human beings.

Animist intersubjectivity has been associated with (but is not limited to) indigenous peoples (e.g., Levy-Bruhl 1985), particularly those indigenous peoples that maintain strong roots to their oral traditions (Abram 1996). The belief in intersubjectivity among indigenous peoples can be linked to realist animism (Sheridan and Longboat 2006) and spiritual ecology (Cajete 1999). For many Native American cultures, realist animism and spiritual ecology converge in a cultural belief system that posits that the intimate intersubjective relationship between humans and their environment is “the essence of their survival and identity as people” (Cajete 1999, p. 4). The late Deloria (1992) generalizes that most Native American cultures view the earth as animate. From this perspective, “everything the creator made is a living entity” making possible communication and relationships between all living things (Kidwell et al. 2001, pp. 127–128). For many contemporary Native American cultures, animist intersubjectivity connotes an intimate relationship between humans and other sensing beings in particular culturally significant places where communication across humans, animals, and landscape occur (Abram 1996; Carbaugh 1999; Kuletz 1998; Wilkinson 1991).

It is important to note that belief in animist intersubjectivity does not preclude exploitation, damage to the environment, or lack of alignment between spiritual ideals and actual practices within indigenous cultures. Moreover, it does not mean that Native Americans were (or are) the embodiment of the ideals of the modern

Western environmental movement.⁵ Rather, animist intersubjectivity describes a set of beliefs about the natural world. When the natural world is viewed as animate and able to speak, participate, and experience, humans tend to act in different ways towards it. While Native American cultures have changed over time and adapted, the roots of animist intersubjectivity as a cultural belief remain for many Native Americans (Kuletz 1998). Animist intersubjectivity still plays a role in many contemporary Native American cultures (and more broadly for many indigenous and Asian cultures worldwide). In particular, spiritual leaders, medicine men and women, and healers in Native American cultures may be more in touch with the animist intersubjective relationship or have special abilities to communicate with non-humans (Sheridan and Longboat 2006).

Animist intersubjectivity is a way to describe the human relationship to nature. Kluckhohn and Strodtbeck (1961) suggest that people turn to culture to answer basic questions about the nature of life (see also Condon and Yousef 1975; Samovar et al. 2009). Regarding the relationship between humans and nature, Kluckhohn and Strodtbeck introduce a range of variation that spans from subjugation-to-nature, to harmony-with-nature, to mastery-over-nature, arguing that all cultures fall somewhere within this range. The belief that humans are subject to nature assumes, for example, “that there was little or nothing a [hu]man could do to save or protect either land or flocks when damaging storms descended upon them” (Kluckhohn and Strodtbeck 1961, p. 13). A perspective of humans in harmony with nature contends that “there is no real separation of [hu]man, nature, and supernature. One is simply an extension of the other, and a conception of wholeness derives from their unity” (Kluckhohn and Strodtbeck 1961, p. 13). Human mastery of nature presumes that “natural forces of all kinds are to be overcome and put to the use of human beings” (Kluckhohn and Strodtbeck 1961, p. 13). Animist intersubjectivity assumes that all beings in the natural world—animals, plants, mountains—to sense and communicate with each other and is therefore consistent with the presumption of human harmony with nature.

In contrast to animist intersubjectivity, cultures that assume that humans have dominion over nature and that humans are distinct from nature exclude the possibility of an animist intersubjective relationship between humans and nature. At risk of oversimplification, animist intersubjectivity is often contrasted with Western cultural perspectives that fall within the human control over nature portion of Kluckhohn and Strodtbeck’s continuum. This view “is characteristic of the Western approach” that “has a long tradition of valuing technology, change, and science” and believes “that nature was something that could and had to be mastered” (Samovar et al. 2009, p. 211). In comparing cultures’ abilities to recognize animist intersubjectivity, Abrams (1996) notes, “Nonhuman nature can be perceived and

⁵ Scholars argue over whether indigenous people really do have stronger environmental ethics than non-indigenous people, whether linking indigenous people to the environment perpetuates stereotypes such as the “noble savage,” and whether indigenous people (pre- and post-Columbus) lived in sustainable relationships with their environments (e.g., Forbes 2001; Johnson 2007; Kretch 1999; Martin 1978; Nelson 2006; Weaver 1996). It is important to note that we must be cautious of essentializing Native Americans as fundamentally ecological, or environmentalist. As is true with any culture, there are differences between ideal cultural beliefs and actual practices.

experienced with far more intensity and nuance than is generally acknowledged in the West” (p. 27). Further, Sheridan and Longboat (2006) also note, “Disallowing the correspondence between systems and environments is not possible, but ignoring that correspondence is now a Western cultural dynamic” (Sheridan and Longboat 2006, p. 378). It is important to recognize that the simple contrast between Western cultures and indigenous cultures presented in this literature may be too simplistic. Rather than contrast Western and indigenous cultures, it is more useful to contrast animist intersubjectivity (as a perspective of cooperation with nature) and other perspectives on the human relationship with nature. Culture presumptions that assume control over nature are consistent with what Fisher (1984) has termed the rational world paradigm and what others have termed a technocratic paradigm (e.g., Goodnight 1982). Carbaugh and Wolf (1999) describe this as a cultural discourse that is premised on the notions that “People are best when rational, and people should think rationally about the world; the world does not know or feel in any real sense ... people dwell in a world that can be used for the advancement of human objectives” (pp. 25–26). They continue, “human activity is separated from nature’s objects, and mountains are not conveyors of messages” (p. 26). While I will not engage in a comparative analysis of cultural discourses in the Yucca Mountain case, it is still important to understand that other cultural presumptions about the relationship between humans and nature are not only possible, but also affect how one classifies things for comparative argument forms.

1.2 Animist Intersubjectivity in Shoshone and Paiute Cultures

Shoshone and Paiute are closely related Shoshonean cultures who lived in ethnic co-residence in the Great Basin (Stoffle and Zedeno 2001). There are several cultures within the broad categories of Western Shoshone (e.g., Timbisha Shoshone, Duckwater Band of Shoshone) and Paiute (e.g., Chemehuevi Paiute, Owens Valley Paiute) that have unique cultural practices, these cultures “share similar languages, social structures, and similar epistemological beliefs” (Van Vlack 2007, p. 14). Shoshone and Paiute cultures hold animist intersubjective beliefs, each in their own way (Kuletz 1998; Van Vlack 2007). In particular, elders, traditionalists, and healers make an effort to retain the “old ways” (including animist intersubjectivity) as opposed to those that have pursued integration and assimilation with the dominant US culture (Kuletz 1998).⁶ Within this belief is the recognition of interrelationship between humans, animals, and landscape. The Shoshone and Paiute peoples view the entire earth as a living being with power (*puha*) that animates spirits in humans, animals, plants, and rocks (Fowler 1991). For example, The late Western Shoshone

⁶ For example, Carrie Dann—a self-described Western Shoshone traditionalist—stated “Traditional people still follow the old faith. You know like the spirit life and things like that. A lot of our indigenous people no longer practice that. But the traditional ones are—still practice that. They still believe in that” (2009, p. 15). Yet, Clara Rambeau, an Owens Valley Paiute elder, reflects that these beliefs are infused throughout the culture: “And you know that kind of a spiritual thing [communicating with animal and landscape spirits], it’s engrained into even our children. They want to be sophisticated and be with the ‘now’ generation, but still they come back, and they want to know who they are” (as cited in Kuletz 1998, p. 230).

spiritual leader Corbin Harney describes the Western Shoshone relationship to nature in his book *The Nature Way*: “all of us are related to everything else, to the elements, to the animal life” (Harney 2009, p. 33). He continues, “the mountains’ got a life to it. Everything’s’ got a spirit, the mountain’s got a spirit, and all the living things on the mountains have got a spirit” (p. 45). Shoshone and Paiute cultural presumptions suggest that it is possible for humans to communicate with animals, rocks, water, and other animate parts of the earth. In an oral history interview,⁷ Western Shoshone Reilly (2004) talks about his wife who is a healer. Although he does not have the special skill to talk to animals, he describes the times he has observed his wife talking to eagles:

Lot of times, I see her talk to an eagle. I’ve seen her talk to an eagle on the side of the road and we’ll stop, eagle’ll be sitting there, she’ll open her window and get out and talk to him, and they’ll sit there and look at her, you know, turn their head around and all that, you know, and all that, listen for a while. (p. 28)

Through these animal, plant, and rock spirits that are infused with power (*puha*), some Shoshone and Paiute people can communicate with the natural world. Yucca Mountain in an important center of *puha* for Shoshone and Paiute people. Kuletz (1998) states, “Yucca Mountain may be comparatively small, but it is a powerful place nonetheless. Shoshone and Paiute people call the power such places possess *Puha* because the mountain, like all things Euroamericans call ‘inanimate,’ possesses energy, vitality, [and] life force” (p. 131). Considering that animist intersubjectivity is a Shoshone and Paiute cultural presumption, I now turn to an analysis of how this cultural presumption appears in Shoshone and Paiute arguments against the Yucca Mountain High-Level Nuclear Waste Repository.

2 Background on Yucca Mountain

Before I analyze Shoshone and Paiute arguments against the Yucca Mountain site, I offer some background on the Yucca Mountain site. Until recently, Yucca Mountain was the only proposed site for permanent disposal high-level nuclear waste in the United States. In 1987, after over 40 years of investigation into high-level nuclear waste siting options, the U.S. Congress amended the 1982 Nuclear Waste Policy Act (NWPA)—which lays out the guidelines for selecting a national high-level nuclear waste repository—to designate Yucca Mountain for site characterization studies. In 2002, the Department of Energy recommended the Yucca Mountain site be officially chosen as the nation’s permanent high-level nuclear waste storage facility, pending Nuclear Regulatory Commission (NRC) licensing. Soon after, former

⁷ This comes from the Nevada Test Site oral history project housed at the University of Nevada, Las Vegas. The Nevada Test site (now called the Nevada National Security Site) is located about 70 miles from Las Vegas, Nevada. It was the site of over 1,000 atmospheric and underground nuclear weapons tests until a moratorium on nuclear testing was instituted in 1992. The Yucca Mountain site is located in part in the boundary of the Nevada National Security Site. Although the main topic of the interview is about the implications of nuclear testing for Southern Paiute people, this quotation comes from a segment on spirituality.

President G. W. Bush and Congress agreed and officially authorized the site. After completing some additional technical studies, the Department of Energy (DOE) submitted a license application to the NRC in 2006, expecting a ruling within 4 years. However, President Barack Obama discontinued Yucca Mountain project, citing flaws in the site selection process.⁸ Throughout its life, the Yucca Mountain project has been highly contentious with fierce opposition from the state of Nevada, local citizen groups, local and national anti-nuclear organizations, and, of importance to this essay, the Shoshone and Paiute nations who oppose the project because Yucca Mountain is on their homeland.

Yucca Mountain is part of the original land-base of the Shoshone and Paiute people who, before European contact, occupied the Great Basin region since “time immemorial” (Crum 1994; Fowler 1991; Pritzker 2000; Stoffle 1987; Stoffle and Evans 1988; Stoffle et al. 1990). Shoshone and Paiute people claim cultural connections to Yucca Mountain. For example, in the words of Edward Smith, chair of the Chemehuevi (Southern Paiute), spoken at a site authorization hearing in Las Vegas, NV:

Our people, along with other Southern Paiute tribes and Western Shoshone and Owens Valley Paiute peoples have lived, traveled, worked, raised children, worshiped, harvested plants, animal, water and mineral resources and died in these lands for thousands of years. Our people were created on these lands. Our creator gave us the sacred responsibility to live on, use, and care for the land....These lands are part of our people and we are part of these lands. The two [sic] connected as one and that connection is everlasting...This land is and will always be Indian land. (U.S. Department of Energy, October 5, 2001b, pp. 22–23)

Smith’s comment reveals not only the importance of particular places to the Shoshone and Paiute but also that Yucca Mountain is a spiritual place.

3 Analysis

I focus my analysis on arguments made during the public comment period for the project in 2001. While Shoshone and Paiute opponents of the site were vocal throughout the process as can be seen in web-based Native American organization documents,⁹ and articles in non-mainstream press such as *Indian*

⁸ The DOE, led by Secretary of Energy Stephen Chu, filed a motion in 2010 to withdraw the Yucca Mountain license application from consideration by the NRC (U.S. Department of Energy 2010). Obama’s budget requests between 2010 and 2012 have effectively eliminated of funding for the Yucca Mountain project (Murray 2010; Tetreault 2011; Wald 2009). The final nail in the coffin for the Yucca Mountain project came in September 2011 when the NRC commissioners ordered the agency to stop assessing the Yucca Mountain license application (World Nuclear News 2011). With this ruling, the license application has been tabled but not pulled, meaning that a different president could choose to revive the Yucca Mountain project by calling for the NRC to un-table the application.

⁹ See: Honor the Earth: <http://www.honorearth.org/>; Indigenous Environmental Network: <http://www.ienearth.org/>; National Environmental Coalition of Native Americans: <http://www.alphacdc.com/necona/>; Shundahai Network: <http://www.shundahai.org/>; Western Shoshone Defense Project: <http://www.wsdp.org/>.

Country Today,¹⁰ a convergence of arguments are available in the 2001 site authorization public comment period. The variety and depth of comments in these hearings is not available from other sets of texts such as newspaper articles, websites, and other activist venues. The public comment period took place from May to December 2001. Public comments took the form of a statement at one of the 66 public hearings conducted by the DOE in all counties of Nevada as well as Inyo County, California, a statement to a court reporter at the Yucca Mountain Information Center in Las Vegas, an e-mail message, or a written comment sent via post.¹¹ There were fifty-two public comments by thirty-three self-identified Native Americans, twenty-six of which were Shoshone or Paiute.¹² All but two of the Native American public comments express opposition to the site¹³ and all of the Shoshone and Paiute comments oppose the site. Five prominent and often overlapping argument themes emerged from my analysis: (1) the cultural significance of Yucca Mountain; (2) the relationship between the U.S. federal government and Native American nations; (3) flaws in the site authorization process; (4) radiation, accident, and transportation risks; and (5) challenges to the scientific and technical suitability of the site. Arguments about the value of Yucca Mountain appeared in most Shoshone and Paiute comments, supporting the claim

¹⁰ For example, the following news articles occurred around the time of the site authorization decision in *Indian Country Today*, the main American Indian newspaper in the U.S. Steve Newcomb, "Yowell and Reid Agree to Disagree," *Indian Country Today* (March 18, 2002); Valerie Taliman, "House Approves Yucca Mountain," *Indian Country Today* (May 14, 2002); Valerie Taliman, "Tribes, States Will Fight Nuke Waste Dump," *Indian Country Today* (March 4, 2002); "Yucca Mountain and Nuclear Power" [editorial], *Indian Country Today* (May 24, 2002).

¹¹ In all, there were 5,250 public comments from proponents and opponents of the project directed specifically to the U.S. federal government, through the auspice of the DOE that sponsored the public comment period. The make up of public comments is quite broad, including local and state government officials, interested citizens, environmental groups, and Native Americans.

¹² There were 52 comment statements made by 33 self-identified Native Americans from 26 reservations or nations and two organizations (Western Shoshone National Council and Consolidated Group of Tribes and Organizations). The 26 include: the Moapa Band of Paiutes, Western Shoshone, Southern Paiutes, Delaware Indian, Cherokee, Prairie Island Reservation (Mdewakanton Sioux), Lone Pine Paiutes-Shoshone Tribe, Ely Shoshone Tribe, Timbisha Shoshone Tribe, White Knife Band of the Western Shoshone, Walker River Paiutes, Las Vegas Paiutes, Kaibab Paiute Tribe, the 5 Paiute Tribes of Utah (Shivwits Paiute Tribe, Cedar City Paiute Tribe, Indian Peaks Paiute Tribe, Kanosh Paiute Tribe, Koosharem Paiute Tribe), Big Pine Paiute Tribe of the Owens Valley, Colorado River Indian Tribes, Bishop Paiute Tribe, Chemehuevi Paiute Tribe, the Hopi Tribal Council, Cocopah Tribe, Yakama Nation Tribal Council, and Fort Mojave Tribe. The comments contain official indigenous government speakers, governing council resolutions, and personal statements by Native Americans from various cultures and nations. Although the number of Native American comments may seem small compared to the total number of public comments, it is important to keep in mind that Native Americans make up less than 1 % of the population of the United States.

¹³ Of the two that are not opposed to the site, one is a letter from the chair of the Cocopah Indian Tribe in Arizona and Mexico asking a question about potential effects of radioactive waste disposal on water and air quality and the potential for accidental releases of radiation. The second is a statement from a member of the Mdewakanton Sioux from the Prairie Island reservation in Minnesota that is in favor of the Yucca Mountain site because the site would remove waste from the nuclear power plant that lies right next to the Prairie Island reservation, about 600 yards away. The site has reached its storage capacity and the Prairie Island governing council claims that radioactive release from the temporary site storage endangers the Prairie Island people.

that this is central to Native American, and specifically Shoshone and Paiute objections to the site.

Previous research points to the technocratic nature of the Yucca Mountain decision-making process, including public participation (Endres 2009b, c; Kuletz 1998; Ratliff 1997). The site authorization public comment period followed a traditional Decided Announce Defend (DAD) model of public participation in which the Department of Energy (DOE) announced its intention to recommend authorization (Endres 2009b). To the extent that the NWPA 1987 amendments had specified Yucca Mountain as the only site to be studied and that the DOE had already conducted their research and concluded in support of the site, the site authorization public comment period was simply a *pro forma* setting for public input. The public comment period did not foster real-time interactivity between the commenters and the DOE. Rather, comments were directed to the DOE in one of the formats described above and were not responded to immediately, even at the public hearings. Following the close of the public comment period, the DOE was required to produce a document that summarized and responded to public comments (U.S. DOE 2002). Further, the Secretary of Energy (Abraham 2002) responded to a selection of arguments in his official site recommendation report. The public comment period was the only official venue in which the Department of Energy collected and responded to public comments. Despite the flaws identified in this model of public participation, analysis of the public comments still offers a window into the arguments selected by Shoshone and Paiute people in their official statements of opposition to the project.

I focus my analysis on arguments that claim that the proposed nuclear waste site will damage Yucca Mountain and its ecosystem—the mountain, plants, and animals themselves—in order to understand how animist intersubjectivity manifests in arguments about the cultural significance of Yucca Mountain. As I began to analyze these arguments, I noticed that many of them invoked the spiritual or cultural significance of Yucca Mountain as a reason to oppose the Yucca Mountain nuclear waste site. More specifically, many of these arguments contended or implied that Yucca Mountain is a living, sensing ecosystem that would be disrupted by nuclear waste. They suggested that Yucca Mountain would feel upset, plants would suffer, and spirits would move away or stop communicating with humans. In this section, I will provide examples of Shoshone and Paiute arguments from the site authorization public hearings that describe interaction between human and non-human beings. In these arguments, Shoshone and Paiute people use their own words to invoke their spiritual and cultural beliefs about the natural world.

Several Shoshone and Paiute arguments express opposition to the Yucca Mountain site because it is an animate ecosystem with significance to indigenous people. For example, Jessica Bacoeh (2001), Tribal Chair of the Big Pine Paiute Tribe of Owens Valley, wrote in a letter to the Department of Energy submitted during the public comment period:

The Big Pine Paiute Tribe of the Owens Valley still maintains close historic and cultural ties with the Yucca Mountain range. The Paiute people regard the total ecosystem as a *living entity* and the spirits and beings that dwell there to

this day are still meaningful to us. Many tribal people indigenous to the Yucca Mountain region have informed the DOE that this area has special meaning and expressed opposition to the proposed Yucca Mountain project. (*italics added*, p. 1)

Similarly, in a letter submitted during the public comment period by the Barbara Durham (tribal administrator) and Bill Helmer (environmental director) on behalf of the Timbisha Shoshone in public comment period, they argue that the Yucca Mountain project will harm “all living things at the site vicinity” (Durham and Helmer 2001, p. 4). These comments make the claim that Yucca Mountain is a living ecosystem, but beyond that they claim that the ecosystem will be damaged by the repository. Within these claims is an implicit reference to the relationship between humans and nature. By discussing the spirits and beings that dwell in the area, an implied comparison is made between human and non-human beings. Understanding animist intersubjectivity as a cultural presumption that places human and non-human beings within the same category of sensing beings provides important context for evaluating and understanding these arguments.

More broadly, Shoshone and Paiute arguments express the concept that the earth is a living being and that harm to the earth from nuclear waste ripples throughout all life on earth. For example, Moapa Paiute Chairperson Calvin Meyers stated at a public hearing in Pahrump, Nevada, “The air is alive. The earth is alive. If you, if you kill any one of those things, you kill a lot, and you can kill yourself” (U.S. Department of Energy, October 12, 2001d, p. 74). This comment refers to the damage that the Yucca Mountain site would have on the air and earth from radioactive contamination. Similarly, Western Shoshone spiritual leader Corbin Harney stated at a public hearing in Pahrump “forget about [putting] nuclear waste into the Yucca Mountain. We don’t want it there, it’s contaminating all the life on this earth of ours” (U.S. Department of Energy, December 5, 2001f, p. 9). In these comments, the air, the earth, and the ecosystem are seen as sensing beings. Based on what we know about the animist intersubjective beliefs of the Shoshone and Paiute, stating that the earth, air, and other beings are alive implies that they are also sensing beings capable of interactive relationships with humans.

Some Western Shoshone call Yucca Mountain “serpent swimming west” because of the belief that the mountain is a snake spirit. For example, in a comment at a Las Vegas public hearing, Harney stated,

I’ve been around here for 25 years and I know Yucca Mountain is not a safe place to put any kind of nuclear waste. It’s not a mountain to begin with, like they’ve been telling us. All it is, just a rolling hill. And we, the people, always talked about that. That’s a moving mountain...because it’s got a snake there, it’s going to continue to move. (U.S. Department of Energy, September 5 2001a, p. 14)

Harney attributes the movement of Yucca Mountain to a snake spirit that lives within it. This snake’s movement is used to describe the volcanic and seismic aspects of Yucca Mountain and the surrounding region. Harney stated in a later public hearing in Pahrump:

The mountain moves....That's [sic] got 33 fault lines in it...Someday it's going to contaminate it more, it's going to crack it more. We have been saying that for many years, the DOE don't. their ears are not open, I don't think. They don't want to hear it. (U.S. Department of Energy, December 5, 2001f, p. 8)

In these comments, Harney refers the mountain and its snake spirit as moving, making it a dangerous place to store nuclear waste. Harney has talked about Yucca Mountain as a snake in other venues as well. Notably,

Yucca Mountain lies asleep like a snake. ... Someday when we wake that snake up, we will have to sit down and talk to that snake. It will get mad and rip open. When it awakens, we will all go to sleep. With his tail, that snake will move the mountain, rip it open, and the poison will come out on the surface. (Harney 1995, p. 154)

Harney's discussion of Yucca Mountain as a moving snake might be seen as a highly figurative metaphor, using the concept of a moving snake (the mountain does look like a snake from above) to explain its geologic qualities, particularly seismic and volcanic qualities that could move the mountain. However, from Harney's perspective, it is the snake spirit of the mountain that is attributable for seismic and volcanic movement. The animist intersubjective worldview not only blurs the boundaries between mountain and snake, but also assumes both are animate beings.

Other Shoshone and Paiute opponents of the Yucca Mountain site express concern over putting nuclear waste in Yucca Mountain because of the emotional effect it will have on the spirits of the plants, animals, and the mountain itself. Edward Smith chairperson of the Chemehuevi (Southern Paiute) stated at a hearing in Las Vegas, "We believe that Yucca Mountain will become unhappy and angry if you put radioactive waste into it. The spirits living in the area will move away and eventually the land will be unable to sustain plants, animals, water, air, people, and life" (U.S. Department of Energy, October 5, 2001b, p. 25). Similarly Western Shoshone elder Carrie Dann in a public hearing in Crescent Valley, Nevada, spoke specifically about the plants and animals that would suffer from the Yucca Mountain project:

and I look at all of these things, not only going to be suffering from humankind but suffering from all the animals, the birds. Of course the plant life too will suffer...I am an indigenous person. I have different viewpoints on life, of all things, on plant life, animal, bird life, fish life. All of these things have meaning to us. (U.S. Department of Energy, October 10, 2001c, p. 28).

The attribution of emotions (i.e., suffering, unhappiness, anger) to the mountain, animals, and plants might seem to be a classic example of personification (or anthropomorphism), when a comparison is made by applying human emotions to non-human non-emotional inanimate objects. Someone coming from a non-animistic cultural background may not be able to see enough similarities between human, mountains, plants, and animals as sensing beings to take seriously the claim that "Yucca Mountain will become unhappy and angry" or that animals and plants will suffer. A technocratic cultural discourse says that a human and a mountain

come from different classifications—humans are animate and capable of emotion and mountains are inanimate and incapable of emotion. But, considering Shoshone and Paiute animistic intersubjective beliefs, the distance between the class of humans and the class of non-human beings is neither large nor impermeable. So, while there still is a comparison being made between a human emotion and the type of emotion a mountain might feel, the warrant for the comparison is based in the belief that both humans and mountains are similar in their ability to have feelings.

Beyond the notion that Yucca Mountain has feelings, Shoshone and Paiute arguments also highlight the perspective that humans can communicate with non-human beings. For example, in a public hearing in Las Vegas, Smith stated

I have been pleased that [Yucca Mountain] project studies have involved taking our leaders, elders, and many representatives to many places in the Yucca Mountain area to see again, after many years of being prohibited from visiting, the places where our ancestors lived, worked, visited with each other and held ceremonies. These studies have enabled our people to reconnect with many ancestral places and things, have *allowed our elders to talk with the land and resources and the spirits who dwell within them* and have given our leaders and representatives the opportunity to tell the government why this land, those places and all of those things are s important to us. (italics added, U.S. Department of Energy, October 5, 2001b, p. 24).

This comment suggests that elders can talk with the land and the non-human spirits living there. In this case, it is possible to interpret “talk” as a metaphor.

In addition to arguments that include presumptions about Yucca Mountain as an animate, sensing ecosystem, some of the arguments against Yucca Mountain invoke the concept of Mother Earth. For example, Marlene Begay, a member of the Walker River Paiute, spoke about the importance of protecting Mother Earth and the consequences of delinquency in this responsibility at a public hearing in Hawthorne, Nevada: “Putting nuclear waste in the land is polluting it and will kill Mother Earth. We have only one earth and one water. Everything is related. If we poison the earth, then we are poisoning ourselves.” (U.S. Department of Energy, October 12, 2001e, p. 17). Likewise, at a public hearing in Las Vegas, Lora Tom of the Paiute Indian Tribes of Utah declared, “The Paiute Tribe of Utah has had several elders participating in studies to try to protect our Mother Earth. They did this because of their strong cultural beliefs as caretakers of this land. It is because of this that our tribe strongly opposes the site of the YMP.” (U.S. Department of Energy, October 5, 2001b, p. 14). Further, Western Shoshone Lois Whitney stated at a public hearing in Elko, NV, “What I don’t understand is why it is necessary for us as citizens and humans exhaust immediately all the resources of our poor Mother Earth. She is the one that nurtures us. We leave nothing for tomorrow, but what is for certain is that nuclear waste will be here long after you and I are gone. And isn’t that a horrific legacy to leave for our future?” (U.S. Department of Energy, September 5, 2001g, p. 11). Finally, in his public comment at the Pahrump public hearing Harney called for people to “say no to this poison [nuclear waste] we are putting in our mother” (U.S. Department of Energy, December 5, 2001f, p. 10). In all of these statements,

Shoshone and Paiute people argue against the Yucca Mountain proposal because it will damage mother earth.

The term mother earth is often characterized as metaphorical, implying that the Earth is what birthed humans (and other animals) and that just as we have a responsibility to respect and honor our mothers, we have that responsibility to the earth. Indeed, the term mother earth is used widely in the environmental movement as a metaphorical strategy for “giving us a new understanding of our experience” (Lakoff and Johnson 1980, p. 139) and encouraging protection of the earth. It has been used so frequently that Mother Earth may be considered a cliché comparison. Yet, if we think about the term Mother Earth from an animist intersubjective perspective it takes on even another meaning. It is reminder of and encouragement to engage in certain behavior. Mother Earth is reflective of an ongoing relationship between humans and the animate earth. While it is possible that the term Mother Earth is used metaphorically in these arguments, it is still important to understand cultural presumptions about animist intersubjectivity that undergird the arguments.

Overall, this section includes examples of arguments that recognize the animate agency of Yucca Mountain and its ecosystem from an animist intersubjective perspective. As Abram (1996) notes, “A particular place in the land is never, for an oral culture, just a passive or inert setting for the human events that occur there. *It is an active participant in those occurrences*” (Abram 1996, p. 162). Arguments that explain how Yucca Mountain will react to nuclear waste storage, then, reflect the animist intersubjective cultural presumption of Shoshone and Paiute people.

4 Conclusion

Shoshone and Paiute people made a variety of arguments against the Yucca Mountain site. This essay specifically focused on arguments that claimed that the site would harm the mountain, plants and animals. My analysis reveals the relationship between the cultural presumption of animist intersubjectivity and these arguments. My findings increase our understanding of the arguments of particular Native American cultures—Western Shoshone and Southern Paiute—as related to their cultural and spiritual worldviews. These findings may relate to other cultures that believe that the human relationship with nature is one of cooperation. Animism is not limited to Native American cultures, but has linkages to Shinto spirituality in Japanese culture, and historical periods in Chinese culture. Further research into how beliefs in animist intersubjectivity affect argumentation and arguments is warranted. One such area for further research is to examine how animist intersubjectivity might affect comparative arguments, like metaphor and analogy that depend upon whether the items being compared are similar or dissimilar. Depending on the cultural presumption regarding the human relationship to nature, the arguments I analyzed in this essay might be considered comparisons within the same classification (sensing beings) or distant comparisons across classifications (humans vs. nature). They might be considered metaphors or literal analogies. Considering the cultural presumption of animist intersubjectivity, Shoshone and Paiute arguers are likely perceive to their arguments to be the literal analogies

because humans, animals and mountains are in the same category of sensing beings whereas people who adhere to a human control of nature cultural presumption are likely to perceive these arguments as figurative metaphors because humans, animals, plants, and mountains are perceived to be in different classifications.

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