“It was the source of everything we had”:

Listening to Oral Histories of Water and Identities in Place in the Snake Valley

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Abstract:

Southern Nevada Water Authority (SNWA) seeks to pump underground water from one dry place to another—Snake Valley, UT/NV, to Las Vegas, NV—through the largest groundwater development project in US history. This paper considers the threat to the Snake Valley *as a place* by listening to historically overlooked vernacular voices, situating findings in the historical context of settler colonialism and analyzing oral histories of water from the perspective of environmental history and human geography. I argue the Snake Valley culture depends on water based on four themes of experience—*recreational, spiritual, occupational, and communal*—which render water as a *distinctive, divine, and non-commodifiable part of the community and valley ecosystem*. These findings illuminate the threat to place. Historically situated, they bring into focus the clash between Jeffersonian agriculture and turbo-capitalism for water in the Great Basin.

Keywords: water; place; American West; values; oral history

Whenever I think of water, it’s like my life is wound around it.

—Robin Crouch, Snake Valley Resident[1]

> If you've set roots, those don't always come up so easy. You find that just like the roots of the plant go and find the water, the roots of your soul go and find your lifeblood. And sometimes that's, you know, that's what fuels the fight.

—Deana Alder, Snake Valley Resident[2]

Introduction

Water is a medium for humans to make dry places their home. In the western United States, the Southern Nevada Water Authority (SNWA) is seeking to pump underground water from one dry place to another—from Snake Valley, UT/NV, to Las Vegas, NV. The proposed pipeline is the largest groundwater development project in the history of the United States.

According to current geological studies, it's clear the Snake Valley is physically at risk.[3] But these studies are only half of the story—they treat the Snake Valley as a *space*, rather than a *place* created and sustained by the roughly 300 humans that live in and advocate for it. Cantrill, Thompson, Garrett and Rochester remind us that the drama of urban sprawl can significantly interrupt relationships to place, or senses of self-in-place.[4] Citing to Carbaugh and Norton,[5] Hutchins and Stormer say such changes "may create a 'sense of rupture, or a breach, or a violation,' trigger identity conflicts, cause significant unrest, or alter institutional and social and ecological practices that define a community."[6] My question regards the socio-ecological

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[1] Interview with Robin Crouch in Baker, Nevada, July 19, 2016.
[2] Interview with Edgar Alder (Deana Alder, Renee Alder, and Colleen Cook Present) in Partoun, Utah, May 20, 2016.
[3] Matt Jenkins, "Squeezing Water from a Stone," High Country News, September 15, 2005, https://www.hcn.org/issues/306/15778.
[4] James G. Cantrill et al., "Exploring a Sense of Self-in-Place to Explain the Impulse for Urban Sprawl," *Environmental Communication* 1, no. 2 (2007): 123–145, https://doi.org/10.1080/00036810701642514.
[5] Donal Carbaugh, *Situating Selves: The Communication of Social Identities in American Scenes* (Albany, NY: State University of New York Press, 1996), 159; T. Norton, "Property as Interorganizational Discourse: Rights in the Politics of Public Spaces," *Communication Theory* 18 (n.d.): 210–239, https://doi.org/doi:10.1111/j.1468-2885.2008.00320.x.
[6] Karen Hutchins and Nathan Stormer, "Articulating Identity in and Through Maine's North Woods," *Environmental Communication* 7, no. 1 (2013): 25, https://doi.org/10.1080/17524032.2012.749412.

scarring of the Snake Valley as a place. Answering this question requires vernacular voices who, in the remote Snake Valley, are geographically easy to miss and have historically been overlooked.[7]

I investigate the socio-ecological scarring of the Snake Valley with oral histories of water. I situate these oral histories in the larger historical context of settler colonialism and water use in the arid West, and I rhetorically analyze the oral histories with an interdisciplinary understanding of place from the perspectives of environmental history and human geography. The following paper begins with a brief history of the water dispute, putting the Snake Valley and SNWA into conversation with the writings of John Wesley Powell and Wallace Stegner, followed by a justification for oral histories of water and my conceptual understanding of place. Finally, I apply my understanding of place to over twenty hours of oral history interviews with twenty residents to understand the threat to place in the context of SNWA's pipeline.

I analyze oral histories of water with the help of human geographer Tim Cresswell and environmental historian Dan Flores, specifically Flores' essay "Spirit of Place and the Value of Nature in the American West." Using Flores' lens, my analysis considers the relationship between humans and the landscape; a connection that Flores calls the "spirit of place" and, he asserts, is determined by cultural values. I highlight the cultural value of water by focusing on human experiences with water in the Snake Valley, which I've organized into four themes of experience: *recreational, spiritual, occupational, and communal*. Based on these themes, I argue residents value water as a *distinctive, divine, and non-commodifiable part of their community*

[7] Few histories mention the valley. Access is via the "loneliest road in America," which wasn't paved until the 1950's. Electricity didn't come to the valley until the 1970s. Many groups—like (in the 50's) the School of the Natural Order (still functioning), and (in 90's) Tom Green's polygamist settlement (now disbanded)—moved to the valley exactly for the purpose of isolation. For more info on the polygamy in the valley, see Jon Krakauer, *Under the Banner of Heaven: A Story of Violent Faith*, 1st ed., (New York: Doubleday, 2003).

and the valley ecosystem. These shared values make it clear that SNWA's pipeline threatens the culture—the place—of the Snake Valley as much as it threatens the physical landscape.

Context: A Brief History of the Water Dispute

Considering projects like the GWDP is part of a long tradition of discussing water, or the lack thereof, in the European American West. For over a century, writings by geologist John Wesley Powell and environmental historian Wallace Stegner have argued that water in the West is a limited resource. Powell advises politicians and settlers heading west to "establish rules and regulations for the use of water … subject to the limitation of land and resources."[8] For him, water rights should "inhere in the land itself." "The object of this," he writes, "is to give settlers on pasturage or irrigation farms the assurance that their lands shall not be *made worthless* by taking away the water to other lands by persons settling subsequently" (emphasis added).[9]

Reflecting on the subsequent settlers who ignored Powell, rendering land worthless through the construction of pipelines and mega-dams, Stegner writes that aridity need not be our enemy. It is, however, our inescapable reality.

> Aridity, more than anything else, gives the Western Landscape its character. It is aridity that gives the air its special dry clarity; aridity that puts brilliance in the light and polishes and enlarges the stars; aridity that leads the grasses to evolve as bunches rather than as turf; aridity that erodes the earth in cliffs and badlands rather than in softened and vegetated slopes, that has shaped the characteristically swift and mobile animals of the dry grasslands and the characteristically nocturnal life of the deserts.[10]

Stegner laments that "habit, politics, and real estate boosterism"[11] have eclipsed Powell's systematic approach, resulting in "the dust bowls of the 1890s, 1930s, and 1950s."[12] Such events,

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[8] John Wesley Powell, "The Land System Needed for the Arid Region," in *Seeing Things Whole: The Essential John Wesley Powell* (Washington, Covelo, London: Island Press, n.d.), 187.
[9] Ibid.
[10] Wallace Stegner, 50.
[11] Ibid.
[12] Wallace Stegner, 47.

for Stegner, are reminders that we may "attempt to compensate for nature's lacks,"[13] but "aridity still calls the tune, directs our tinkering, prevents the healing of our mistakes."[14]

Part of the American West that appears to have been unmarred by "habit, politics, and real estate boosterism" is the Snake Valley. Alongside self-published histories,[15] Craig Denton's *People of the West Desert* is the most thorough account of European American settlement and shaping of the valley. He explains cattle ranching, sheep ranching, farming, and mining were the first types of Anglo settlements in Utah's West Desert.[16] Today, ranching and farming are by far the valley's dominant occupations. Denton argues that a call by Thomas Jefferson is a "sacred prophecy" to residents: "You are the chosen, and shall turn the desert into a garden."[17] Far from a garden, though, Denton writes: "The reality of the West Desert is that the land can only support a marginal life style. That's one reason why Anglos, when they began their inexorable march across the continent, largely leapfrogged the Great Basin. It became the space that others left behind."[18]

Today, in many ways, the Snake Valley appears to be left behind. Access to the valley is via the "loneliest road in America," a 287-mile stretch of US Route 50 cutting across Utah and Nevada (the nation's two driest states). This road is perpendicular to the valley, which runs North to South along the Utah-Nevada border. It's an expansive and topographically diverse 100-mile-long and, on-average, 30-mile-wide patch of the Great Basin, the south end resting in the shadows of Great Basin National Park's 13,000-foot peaks, and the north end fading into the

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[13] Ibid.
[14] Ibid.
[15] Marlene Bates, *North Snake Valley Part 1*, ed. Ken Hill, n.d.
[16] Craig Denton, *People of the West Desert: Finding Common Ground.* (Logan, Utah : Utah State University Press, 1999), 25.
[17] Ibid.
[18] Ibid.

Great Salt Lake Desert. Humans, trees, animals, and insects cluster around the few water sources that dot the valley floor—the clusters look like green islands in an ocean of sand and sage brush.

Headquartered four-hundred miles south of the Snake Valley, the Southern Nevada Water Authority (SNWA) intends to pump water from the lower carbonate aquifer[19] beneath the Snake Valley, and six other valleys in eastern Nevada, to Las Vegas, Nevada.[20] This SNWA operation is called the Groundwater Development Project (GWDP).

In 1991, SNWA was formed by combining seven local water and wastewater agencies address water issues on a regional basis. Thanks to Patricia Mulroy, it quickly became a leading agency in water efficiency. Mulroy decreased Colorado River water consumption in Las Vegas by forty percent per capita between 2002 and 2014 (a period in which Las Vegas grew by 520,000 people) through replacing grass for water efficient landscaping, implementing a system of tax credits, and championing the Environmental Protection Agency's "Watersense" program.[21] Clark county, in Southern Nevada, averages four inches of rainfall per year and consumes ¾ of the state's water, ninety percent of which comes from Lake Mead.[22] When SNWA was financially struggling in 2009, Mulroy convinced Las Vegas residents to pay for the construction of a "Third Straw" to tap into Lake Mead. The straw, funded entirely by tax increases, pumps Lake Mead from just 875 feet above the lake floor; that's 25 feet below the spillways that transfer water downstream to California and Arizona, meaning that in the case of a severe drought, Nevada will have water long after California and Arizona's portion of the Colorado River goes dry.[23]

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[19] An aquifer is a body of permeable rock that can contain or transmit groundwater.
[20] See "Groundwater Development Project," Southern Nevada Water Authority, accessed September 15, 2016, https://www.snwa.com/ws/future_gdp.html.
[21] "Saving Water in Nevada," Environmental Protection Agency, n.d., https://www.epa.gov/sites/production/files/2017-02/documents/ws-ourwater-nevada-state-fact-sheet.pdf.
[22] Ibid.
[23] David Owen, "Where the Water Goes," The New Yorker, April 2, 2017, http://www.newyorker.com/tech/elements/where-the-water-goes.

Mulroy flexed SNWA's financial muscles to lobby for greater cooperation between states and basins in the West and downright progressive water policies. She said in an interview, "Either we all win, or we all lose. And we certainly don't have time to go to Court."[24] To bolster her point, she paid for other water managers to visit the dry, brackish remains of the Colorado River delta, which no longer pours into the Gulf of California. "We have to live twenty to thirty years into the future," Mulroy said, "and we have to assume the worst."[25]

Despite SNWA's tradition of progressive water policies, it's paradoxically dedicated to seeing Las Vegas continue to expand in size, and thus water use. SNWA makes ninety percent of its revenue from "new connection fees"; that is, urban sprawl around Las Vegas.[26] Climate scientists Stephen Chu and Brad Udall say the Colorado River Basin will not fully recover from the current drought if global warming and growth in the West continue."[27] But for Mulroy and the SNWA, continued growth and water extraction are the only option. "[The Groundwater Development Project] is a project of last resort. Nothing else is possible. There is no way to desalt water; and nothing else is possible to save Lake Mead."[28]

Snake Valley residents disagree. In the early 2000's, resident Brandi Roberts attended a public hearing held by SNWA representatives to promote their proposed pipeline. In her retelling, she says that urban policy makers underestimated the importance of local water knowledge. "[The SNWA reps] were looking at this room of people and [local activist and farmer] Cecil [Garland] in his bib overalls, and I'm sure they were like this is going to be easy as pie [with these] country bumpkins." But when the conversation about the pipeline started, Roberts says the representatives "were skewered":

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[24] Matt Jenkins, "The Water Czar Who Reshaped Colorado River Politics," High Country News, March 2, 2015.
[25] Ibid.
[26] David Owen, "Where the Water Goes."
[27] Mary Manning, "Desert Oasis Drying Up," Las Vegas Sun, May 15, 2018, https://lasvegassun.com/news/2008/may/15/desert-oasis-going-dry/?history.
[28] Matt Jenkins, "The Water Czar Who Reshaped Colorado River Politics."

> You had a farmer in overalls talking about the taproot death of the phreatophytes and the evapo-transpiration rate of this and that. They were so unprepared to be in a room full of people who knew so much more than they did on so many levels … These ranchers would not be here if they didn't know what they were doing.[29]

Today, the U.S. Geologic Survey (USGS), the Utah Geologic Survey (UGS), and the Bureau of Land Management (BLM) also find the GWDP to be unsustainable. Many living organisms depend on the valley's springs, creeks, reservoirs, and its basin-fill aquifer for water, including Great Basin National Park, Fish Springs Wildlife Refuge, the human residents, as well as three state-listed and five federally listed threatened and endangered species.[30] By "basin-fill aquifer" I'm referring the permeable rock containing water closest to the surface of the valley, which is periodically refilled by snowmelt.[31] According to the UGS, however, small-scale pumping by residents is already over-depleting the basin-fill aquifer and reducing the flow of springs.[32] The basin-fill aquifer is connected to the lower carbonate aquifer below the Snake Valley in one "composite aquifer system,"[33] so pumping water to Las Vegas would drain the surface water of the Snake Valley. In other words, the valley is like a giant bathtub full of rocks and water. Draining the tub from the bottom, the water at the surface of the tub quickly dries up.

SNWA's most conservative goal of drawing 125,000 to 180,000 acre feet/year from the Snake Valley could send as much as 30 million tons of dust into the air.[34] This conservative goal is an attempt to skim a small amount of water off the top of the aquifer system that is refilled by

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[29] Interview with Brandi Roberts in Baker, Nevada, July 13, 2016.
[30] Matt Jenkins, "Squeezing Water from a Stone."
[31] Ibid.
[32] Amy Joi O'Donoghue, "Study: Snake Valley Groundwater Development Unsustainable," DeseretNews.com, February 12, 2015, http://www.deseretnews.com/article/865621750/Study-Snake-Valley-groundwater-development-unsustainable.html?pg=all.
[33] By the U.S. Department of the Interior and U.S.G.S., the report categorizes the aquifers in the region in three ways: (1) basin-fill aquifers, (2) an upper carbonate-rock aquifer, and (3) a lower carbonate-rock aquifer. The report found that the three types of aquifers "are separated by confining units in some areas and are *in contact* with each other in other areas." But basin-fill aquifers "most often overlie or adjoin" the lower and upper carbonate-rock aquifers. In effect, the three types of aquifers "function as a single, composite aquifer system." David E. Prudic et al., "Professional Paper 1819".
[34] Marshall Swearingen, "BLM Okays Controversial Nevada Water Pipeline," High Country News, January 10, 2013, https://www.hcn.org/blogs/goat/blm-okays-controversial-nevada-water-pipeline.

snowmelt. Unfortunately for SNWA, the BLM (FES 12-33) found that extracting yearly snow recharge takes water from the plants whose roots tap directly into the basin-fill aquifer (forty feet below the valley surface).[35] These plants, called "phreatophytes," are essential to the valley's ecosystem, and perhaps their most important function is holding down loose soil in the valley.

The BLM study predicted a 5-foot groundwater drop over 240 square miles, with drops as much as 200 feet in some areas, meaning that 137,000 acres of wildlife habitat would be "altered for the worse."[36] Imagine again a bathtub. Imagine the lower 2/3 of the bath tub full of rocks and water, the upper 1/3 full of sand, and the surface covered in plants. In this tub, the roots of the plants have wound their way through the sand and into the water. The roots have come to hold the sand in place. Now imagine removing all the plants and exposing this bathtub to regular windstorms. The dust flies.[37]

Methods: Environmental Oral History & the Spirit of Place

Topic-based Oral History

I agree with Daniel Endres that oral histories provide perspectives about environmental controversies "which are often only documented through newspaper articles, public hearing transcripts, congressional hearings, and famous speeches."[38] Oral history differs from other qualitative research methods because it attends to the life story of an interviewee and creates an historical archive for future generations and environmental researchers.[39] Thus, this topic-based oral history of water provides documentation for the changes in landscape and socio-ecology in

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[35] *FES 12-33: Clark, Lincoln, and White Pine Counties Groundwater Development Project Final Environmental Impact Statement* (Bureau of Land Management, 2012).
[36] Marshall Swearingen, "BLM Okays Controversial Nevada Water Pipeline."
[37] The Owen's Lake, at 112 acres, drained of water by Los Angeles, is the greatest single source of dust pollution in the United States. The Snake Valley's 137,000 acres stripped of phreatophytes would surpass Owen's Lake in dust pollution.
[38] Danielle Endres, "Environmental Oral History," *Environmental Communication* 5, no. 4 (December 1, 2011): https://doi.org/10.1080/17524032.2011.610810, 486.
[39] Ibid, 486.

the Snake Valley—in Valerie Yow's words, it is deliberately grounded in the "very stuff that rarely gets into any kind of public record."[40]

Though Endres notes that oral history has not been widely used in the field of communication,[41] oral histories like those presented in this paper follow in the footsteps of rhetorical scholars who have undertaken rhetorical analysis of other oral histories,[42] treating them as rich rhetorical texts that "can reveal vernacular rhetorical strategies that might not be present in more traditional rhetorical texts (e.g. public address, speeches)."[43] This sort of analysis "enables the researcher to understand the meaning of artifacts in the lives of people" and "reveals the images and symbols people use to express feelings about their experiences and give them meaning."[44]

I sought out diverse perspectives and reflections on water in the valley by selecting interviewees in consultation with the Great Basin Water Network.[45] My sample includes interviews with residents from each sub-region of the valley; that is, people living within or surrounding Callao, Partoun, Gandy, Baker, Eskdale, Homefarm, and Garrison. To complicate my sample with different generations, genders, and occupational perspectives about water, I interviewed twelve women and eight men, ages twenty through eighty, who self-identified as ranchers, farmers, National Parks Service employees, baristas, pastors, restaurant owners, hotel owners, civic volunteers, housewives, and/or educators.[46] Before each interview, I disclosed to

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[40] Valerie Raleigh Yow, *Recording Oral History: A Guide for the Humanities and Social Sciences.* (Walnut Creek, CA : AltaMira Press, 2005), 12.
[41] Endres, "Environmental Oral History," 488.
[42] For example: Suhi Choi, "Silencing Survivors' Narratives: Why Are We 'Again' Forgetting the No Gun Ri Story?," *Rhetoric and Public Affairs* 11, no. 3 (2008): 367–88; Dana L. Cloud, "The Null Persona: Race and the Rhetoric of Silence in the Uprising of '34," *Rhetoric and Public Affairs* 2, no. 2 (1999): 177–209.
[43] Cloud, "The Null Persona: Race and the Rhetoric of Silence in the Uprising of '34" cited in Endres, "Environmental Oral History", 488.
[44] Yow, *Recording Oral History: A Guide for the Humanities and Social Sciences.*, 13.
[45] For more info, see greatbasinwater.net.
[46] The Snake Valley itself is predominately white and so is my sample—just one out of my twenty interviews was with a person of color. The important voice left out of this story are the indigenous groups—Shoshone/Goshute/Shoshone-Goship—who used to frequent the valley. In subsequent research, I intend to visit and

each informant my own family ties to the valley. I feel this commonality was often essential for me to collect intimate oral histories and receive consent to distribute them with care. Though, as Yow argues, being a detached observer is an impossibility in the case of oral history,[47] I have taken great lengths to align my perspective as observer as closely as possible with that of my informants. Prior to this publication, I presented my findings to Snake Valley residents on several occasions and sought feedback from residents on drafts of this article. [48]

Place-based Analysis

In this article, my conceptual understanding of place comes from Yi Fu Tuan and other human geographers, who offer place-based inquiry as that which shifts our gaze from measurements of soil and water to what is less tangible—like situated *meanings* of soil and water.[49] In Western epistemologies, Tuan says we typically treat places as merely spaces. "What we cannot say in an acceptable scientific language, we tend to deny or forget," he writes.[50] Building on Tuan's criticism, Tim Cresswell offers a helpful equation and definition: *place* = *space* + *people*. Places are spaces that people have made meaningful.[51] Cresswell cites criteria outlined by John Agnew to explain three precepts for meaningful locations: (1) The location is fixed. (2) The location is a material setting—a "locale"—with a physical shape. And (3) the location has a "sense of place." By "sense of place," Agnew means the subjective and emotional attachment people have with *their* place. Cresswell, like Tuan, thinks place-based inquiry

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interview the Goshute reservation in Skull Valley, who are a part of the Great Basin Water Network, and will also be affected by SNWA's pipeline.

[47] Yow, *Recording Oral History: A Guide for the Humanities and Social Sciences.*

[48] I was in conversation with individual residents (Denys Koyle, Ed Alder, Bill Alder), presented at the Annual Shepherd's Gathering, and submitted a draft and article to the Great Basin Water Network for their "Water Gab" Newsletter.

[49] For more on "place" see special issue of Environmental Communication from 2013, introduced by Thompson and Cantrill, "The Symbolic Transformation of Space," *Environmental Communication* 7, no. 1 (2013): 1–3, https://doi.org/10.1080/17524032.2012.758650; also see introduction of Cantrill, "On Seeing 'Places' for What They Are, and Not What We Want Them to Be."

[50] Yi-fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota, 1977), 200–201.

[51] Tim Cresswell, "Place: A Short Introduction" (Blackwell Publishing, 2004), 7.

liberates us from dominant scientific perspectives: "To think of an area of the world as a rich and complicated interplay of people and the environment—as a place—is to free us from thinking of it as facts and figures."[52]

To investigate Tuan and Creswell's notion of place with oral histories, I turn to environmental historian Dan Flores and his concept the "spirit of place." Similar to "sense of place," Flores insists that spirit of place serves as the essential foundation for place. It is the "landscape energy" that "undergirds" place.[53] Consider again the equation *place = space + people*. In Flores' model, the "+" is where people and land meet, the lived experiences people have with land—these experiences with land generate cultural values about it, and those cultural values, for Flores, determine a specific place's *spirit of place*.[54] Applied to the place of the Snake Valley, "space" is the hundred-mile long, thirty-mile wide valley; "people" are the residents of the valley; and, for this paper, the "+" are experiences with one part of the landscape: water. In this light, oral histories of water are full of explicit and implicit cultural values about water, which, for Flores, make up the spirit of place. To articulate the cultural value of water helps us answer our original question: What is the threat to place posed by water extraction (posed by the GWDP)?

Results: The Cultural Value of Water in the Snake Valley

Drawing from the oral histories, my intention is to articulate the shared value of water in the valley. First, I maintain that essential to the stories is their backdrop: they take place within a decentralized water infrastructure. Second, I see residents describe four themes of experience that encompass the largest swath of resident interactions with water: recreational, spiritual, occupational, and communal experiences. Considering this decentralized backdrop and four

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[52] Ibid, 9.
[53] Dan Flores, "Spirit of Place and the Value of Nature in the American West," in *A Sense of Place in the American West: An Anthology of Environmental History* (Albuquerque: University of New Mexico, 1998), 31.
[54] Ibid, 37.

qualities of water experience, I see residents' stories reflecting a complex system of values about water resources. I find the people talk about water as a *distinctive, divine, non-commodifiable part of their community* and *part of the valley ecosystem.*

Decentralized Backdrop: Water as Distinctive

Decentralized water infrastructure makes for unique, distinct experiences with water sources, imbuing them with individual identities. Living in a space left behind, residents' daily access to water is not through the medium of a city/county/state department of public utilities. They apply for and (if granted by their respective state engineer) own individual water rights. Farmers, restaurant owners, and hotel owners draw from creeks or springs that run through their backyards, and, for the most part, they access the aquifer below them through individual wells. Residents know where their water comes from, and thus water is less of an abstraction in the Snake Valley than it is in urban centers where water comes pumping into residents' homes with little more than a utility bill. Water is described as concrete and contextualized: "water from X location"—from a specific well, creek, stream, lake, or spring within the valley. Residents note taste and temperature differences, describing levels of purity, brackishness, sweetness, and warmth. Kathy Hill, a retired teacher in Partoun, insists that she always could taste the difference between Partoun and Eskdale water, Partoun water being brackish and "nasty."[55] Carol Ferguson, who lives in Baker, prefers Roland Springs water to Lehman Creek water, both of which run through her property; Lehman, she diverts to her garden and Roland to her home. Describing Roland, she says, "it's my water source; it's my source of water that I wash my face in and take a shower in and drink."[56]

Spiritual Experience: Water as Divine

[55] Interview with Kathy Hill in Partoun, Utah, July 12, 2016.
[56] Interview with Carol Ferguson in Baker, Nevada, July 13, 2016.

Spiritual experiences and religious rituals reinforce gratitude for water as a divine or God-given resource. The Aaronic Order, founded in 1954 by Maurice Glendenning,[57] considers the location of their community divinely inspired—members named their town *Eskdale*, for "the underground river" (the aquifer) that "runs" beneath it. *Esk* pays homage to the River Esk in the founder's native country of Scotland; *dale* means town. This "rivertown" in the desert performs baptisms in the valley's water sources. Member David Sturlin says, as long as he can remember, "[water] was a matter of prayer on a regular basis … [I]f somebody were to say a prayer, they would give thanks for the water and realize what a blessing it was, because it was the source of everything that we had."[58] Resident of Partoun, Deana Alder describes water as a medium for divine healing. One day while moving cows, she says:

> I had gotten sick, but we started out; it was going to be an all-day thing. So I started getting a fever, and with the fever, I got thirsty. It had rained three days before, and the water was in the hoof prints along the side of the road. My fever was spiking, and I was getting delirious. I knew I was either going to die of the fever or I was going to die of what's in the water. But when you get that thirsty, the need for water overrides.
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> I had separated from the rest of the group, so I had a group of cows all by myself, clear out here [pointing to the west of her home]—no cell coverage, no communication at all—and I drank it. And I prayed, really hard, *please Lord purify it, cause I'm gonna drink it*. And it was the best water I have ever had.[59]

Residents operating outside of the valley's organized religious sects (the LDS Church, the Aaronic Order, and the School of the Natural Order) express their gratitude in similarly spiritual terms. Rachel Gale says she daily walks "out of [her] home, up to the creek, while staring at the mountains." "Not exactly a spiritual person," she respects the creeks in the valley as if they were "the blood of the mountains," and practices gratitude for the creek that runs by her home by sprinkling "a little [of its water] over her heart and third eye" every morning.[60]

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[57] Craig Denton, *People of the West Desert: Finding Common Ground*, 65.
[58] Interview with David Sturlin in Eskdale, Utah, July 15, 2016.
[59] Interview with Edgar Alder (Deana Alder, Renee Alder, and Colleen Cook Present) in Partoun, Utah.
[60] Interview with Rachel Gale in Baker, Nevada, July 19, 2016.

Occupational Experience: Water as Non-commodifiable

Occupations depend on water resources, meaning residents see water as priceless and essential to their chosen livelihoods. As David Sturlin explains,

> Everybody has some connection to the ground; it provides part of their livelihood or everything. So for us, it's really close to home when they talk about things like water: it culturally affects us because all of our families, all of our livelihoods, are very much anchored in the ground, in the water and in the earth.[61]

A rancher, farmer, and retired school principal, Edgar Alder says he always pays close attention to snow. He says, "I look at a snowstorm, and I think: wonderful. I see water coming in the spring or in the summer for our fields."[62] Before he had a well, Alder's family relied on a windmill for culinary water but would base their crop size—their livelihood—solely on a visual inspection of the snowdrifts on the Deep Creek Mountains:

> I would look up on the mountain, and I would see the drift, and depending on the size of the drift—there on that mountain—[we] knew: Okay, we're gonna go for seed this year; or we've got enough water—we'll grow a crop, and then we'll have to go seed. Or, if we're really looking good, then we'll be able to turn some soil over and put in some grain because we'll have excess water in the spring. And then there were times when I came back to live here—there were summer's the water didn't make it down [to the valley].[63]

First developing her ranch, Annette Garland remembers that she and her husband, Cecil, worked with water through the night. Like most residents, before tapping into the aquifer, she worked with flood irrigation.

> The only irrigation we had was ditch and dam.[64] And that's hard work. That's really hard work. I remember being up in the night one night because my husband was so tired, and I said I'll go change the dam. But I couldn't set the dang dam. So I was sitting there with my feet in the dam in the middle of the night, trying to shovel and trying to get that dam set and couldn't do it. Didn't want to get off of the dam either because then you lose it—you lose all your water.[65]

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[61] Interview with David Sturlin in Eskdale, Utah.
[62] Interview with Edgar Alder (Deana Alder, Renee Alder, and Colleen Cook Present) in Partoun, Utah.
[63] Ibid.
[64] By "ditch and dam" irrigation, Annette is referring to what other residents call "flood irrigation," a system of pooling and redirecting (often mountain run-off) water to specific fields.
[65] Interview with Annette Garland in Callao, Utah, July 24, 2016.

When Annette and Cecil upgraded their water system to a five-inch pipe they bought from "a fella in Nevada," they would move a set of pipes from one field to the next, following it along in their trailer. "With our trailer, we'd set it out and water [a field], then we'd move it to the next one."[66] Today, Annette takes pride that she irrigates only one field by hand.

Water is non-commodifiable to residents in the same way their livelihoods are not for sale. Residents often remark "I chose to live here." For example, take Tom Baker's story about his father Dean Baker's introduction to SNWA. Dean was familiar with the pipeline plans by the time SNWA started their PR campaign in the Snake Valley. He visited Las Vegas regularly to serve on a committee organized by SNWA, ostensibly to discuss how southern Nevada could continue to grow and meet its water needs. He was seated next to an SNWA lobbyist. "It was obvious that the committee was set up to narrow [options] down, [so] that the pipeline [to northern Nevada] was absolutely necessary," says Tom. "They put dad on [the committee] and this guy next to him with the purpose of getting [our] ranch bought."

For years, Tom says, Dean invited the lobbyist up to his ranch—one of the largest in the Snake Valley. During their conversations, the men toured the valley. Tom remembers Dean taking the lobbyist on horseback across the meadows of Baker Ranches, explaining what would happen to the land should SNWA start to pump the groundwater from beneath his home. The last conversation between the two men was over the phone: The lobbyist asked Dean what dollar amount it would "really take" for him to sell his land. Dean refused to take any offer. Imagining for years that Dean had been "negotiating tough" for the highest price, Tom says the lobbyist lost his calm—"I don't know what's the matter with you, Dean"—before hanging up the phone and never speaking to Dean again.

[66] Interview with Annette Garland in Callao, Utah.

In contrast to folks in other valleys in eastern Nevada who have been relentlessly pressured by SNWA, the residents of the Snake Valley have refused to sell their land, rejecting offers significantly higher than market value for their desert soil. The Bakers, the Garlands, and Okelberry's have collectively refused over 100 million dollars for their ranches. Denys Koyle, former wife of Dean Baker, estimates that Dean alone was offered 40 million dollars for Baker Ranches.[67] Tom Baker explains these rejections as an ability to see past the monetary value of environmental resources: "That man was thinking money, not what [the project] is going to do to the land you've worked on for years."[68] Rancher Deana Alder agrees with Tom when it comes to SNWA's plans to buy her water rights:

> We've worked our whole lives to do this. They say just move to somewhere else. Well, somewhere else isn't where our roots are. If you haven't set roots it's okay to move around, but if you've set roots, those don't always come up to easy.[69]

Communal Experience: Water as Part of the Community

Communal experiences with water contribute to water as a shared rather than individual resource, fostering interdependent growth within the valley. Tom Baker says his father, Dean, "believed in the community." Baker Ranches has thus given old water rights to people like Robin Crouch (who founded Hidden Canyon Retreat) and Carol Ferguson (who uses Baker Ranches' water for her family, dogs, and small garden). Neither Crouch nor Ferguson could have applied for water rights on their own because they both live on the Nevada side of the valley, where SNWA has tied up water applications since 1989. Baker Ranches also provided water rights for the small water and sewer system in Baker, Nevada, used by a few homes, hotels, and restaurants.[70]

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[67] Interview with Denys Koyle in Baker, Nevada, July 22, 2016.
[68] Interview with Tom Baker in Baker, Nevada, July 21, 2016.
[69] Interview with Edgar Alder (Deana Alder, Renee Alder, and Colleen Cook Present) in Partoun, Utah.
[70] Interview with Denys Koyle in Baker, Nevada.

Seeing the effects of over-pumping themselves, residents say they strive for small-scale growth. Tom Baker admits he once thought his wells would last for hundreds of years. He doesn't anymore. "Right now the water table is going down," he says. "We don't think we can pump any more without really affecting our neighbors and lowering the water table."[71] To grow with the community, rather than at its expense, Tom says, they "mov[ed] from a sprinkler to a bubbler that just dribbles the water out on the ground, [which] may save 20-30% of the water."[72] Gary Perea, the White Pine County Commissioner and Co-owner of the Border Inn, says residents know "we're part of the bigger ecosystem." He says, "Nobody here wants a thirty or forty thousand community"—"the environment won't sustain something like that."[73]

Recreational Experience: Water as Part of the Valley Ecosystem

Consistent recreational experiences with water take place within wild ecosystems, which contribute to an understanding that humans, plants, and animals have a shared stake in water resources. By "recreational experiences," I mean experiences that are not directly tied to a resident's job or participation in the valley economy: breaking for lunch in fields, hiking in the Deep Creeks, walking home in the evening, learning to swim or cooling off at springs, weirs, ditches, or creeks from mountain run-off. Val Taylor, of Homefarm, says, "That's one of the things I've learned out here: It doesn't matter where you are or how isolated you think you may be, we are all interconnected."[74] That includes plants and animals. Don Duff, fisherman and president of the Baker chapter of Trout Unlimited, has spent much of his life restoring native species to the valley—he's reintroduced the Bonneville Cutthroat Trout to the entire Deep Creek Mountain Range.[75] Edgar Alder, while running his cattle, says he often stares into springs that

[71] Interview with Tom Baker in Baker, Nevada.
[72] Ibid.
[73] Interview with Gary Perea, in Baker Nevada, July 22, 2016.
[74] Interview with Val Taylor at the School of the Natural Order, Home Farm, just outside of Baker, Nevada, July 11, 2016.
[75] Interview with Don Duff in Partoun, Utah, July 24, 2016.

dot the mountain benches, wondering about the water's point of origin. "Who knows how long it took to get here?...I am—we are—the visitors, but the wildlife and the plants that have survived and needed this aquifer system here for eons—we shouldn't change that for them." "I feel bad myself for pumping," he says. To see "[SNWA intend to] alter the landscape so drastically and immediately raises moral concerns."[76]

Discussion

Nodding to Stegner and Powell, Denton writes, "Water laws and precedence have led to the gross anomaly where the two driest states in the nation, Nevada and Utah, […] lead the nation in per capita water consumption."[77] This tradition of overuse creates a new problem for rural folks in the Great Basin and the West. The culture of the American West once supported (or ignored) Great Basin ranching and farming communities, but today these rural communities clash with a culture of urban sprawl. Writing two decades ago, Denton comments, "Now that the West looks more urban, another litany of values spoken over the land is creating tension between the resource extractor and his former ally … a new vision for the land christened in the sprawling cities confronts a formidable image print of the past—the sacrosanct cowboy."[78] This tension is intensifying.

The SNWA's sixteen-billion-dollar intention to unleash the largest groundwater development project in US history on the Snake Valley and six other valleys in eastern Nevada is no doubt a rejection of Powell's century old advice to spare the West of dustbowls. The GWDP is, in Stegner's words, an attempt "to compensate for nature's lacks," an attempt to escape the aridity central to the West. Yet current geologic research on the GWDP and the Snake Valley confirms Stegner's claim that despite our best technology, aridity still "prevents the healing of

[76] Interview with Edgar Alder (Deana Alder, Renee Alder, and Colleen Cook Present) in Partoun, Utah.
[77] Denton, *People of the West Desert: Finding Common Ground*, 91.
[78] Ibid.

our mistakes." The depletion of the deep carbonate aquifer by SNWA threatens nearly every water source within the Snake Valley—whether by drying up lakes, springs, wells, creeks, and streams which are a part of the basin-fill aquifer system; by stripping the valley soil of its phreatophytes; or by destabilizing the valley's riparian ecologies. Scarred by the GWDP, the Snake Valley would never look the same.

This case study on the culture of water in the valley calls attention to the oft unseen scars caused by such a drastic change to landscape. The GWDP specifically threatens the value system at work—the spirit of place—that roots residents to their place. In taking water from the valley, the GWDP would strip from residents not only the crisp, clean water they drink each day, but also essential components of their spirituality, their livelihood, their community, and their wild ecosystems. If the logic of Jeffersonian expansion was enough to sustain the violent displacement of indigenous peoples, the privatization of vast landscapes, and an, at best, a naïve approach to water (as elucidated by Powell and Stegner), the Snake Valley is evidence that, in remote corners of the West, Jeffersonian settlers have paused long enough to consider their place in the landscape. The values of turbo-capitalist urban sprawl, however, appear not only committed extraction and privatization but, in the case of water, the preclusion of human-nature relationships altogether.

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References

"Frequently Asked Questions." *Great Basin Water Network*. Accessed September 16, 2016. http://www.greatbasinwater.net/faq.htm.

"Groundwater Development Project." *Southern Nevada Water Authority*. Accessed September 16, 2016. https://www.snwa.com/ws/future_gdp.html.

"Saving Water in Nevada." *Environmental Protection Agency*, n.d. https://www.epa.gov/sites/production/files/2017-02/documents/ws-ourwater-nevada-state-fact-sheet.pdf.

"SNWA Water Resource Plan." *Southern Nevada Water Authority*, 2015. https://www.snwa.com/ws/resource_plan.html.

"Utah/Nevada Draft Snake Valley Agreement." Bureau of Land Management, August 23, 2013. http://www.blm.gov/nv/st/en/prog/planning/groundwater_projects/water_rights_home/utah_nevada_draft.html.

Abbey, Edward. *Desert Solitaire*. McGraw-Hill Education, 1968.

Bates, Marlene. *North Snake Valley Part 1*. Edited by Ken Hill, n.d.

Cantrill, James G. "On Seeing 'Places' for What They Are, and Not What We Want Them to Be." *Environmental Communication* 10, no. 4 (2016): 525–38.

Cantrill, James G., Jessica Leigh Thompson, Erik Garrett, and Glenn Rochester. "Exploring a Sense of Self-in-Place to Explain the Impulse for Urban Sprawl." *Environmental Communication* 1, no. 2 (2007): 123–145.

Choi, Suhi. "Silencing Survivors' Narratives: Why Are We 'Again' Forgetting the No Gun Ri Story?" *Rhetoric and Public Affairs* 11, no. 3 (2008): 367–88.

Cloud, Dana L. "The Null Persona: Race and the Rhetoric of Silence in the Uprising of '34." *Rhetoric and Public Affairs* 2, no. 2 (1999): 177–209.

Cresswell, Tim. "Place." Royal Holloway, University of London, Egham, UK, 2009.

———. "Place: A Short Introduction." Blackwell Publishing, 2004.

Denton, Craig. *People of the West Desert: Finding Common Ground.* Logan, Utah: Utah State University Press, 1999.

FES 12-33: Clark, Lincoln, and White Pine Counties Groundwater Development Project Final Environmental Impact Statement. Bureau of Land Management, 2012.

Flores, Dan. "Spirit of Place and the Value of Nature in the American West." In *A Sense of Place in the American West: An Anthology of Environmental History*, 31–38. Albuquerque: University of New Mexico, 1998.

Gehrke, Robert. "Utah's Rejection of Water Deal." *Salt Lake Tribune*, April 5, 2013.

Hansen, Heather. "Desert Solitaire: Las Vegas Bets Big on Rural Water." *High Country News*, August 15, 2002. http://www.hcn.org/blogs/range/desert-solitaire-las-vegas-bets-big-on-rural-water.

Horton, John and Peter Kraftl. *Cultural Geographies: An Introduction*. New York: Routledge, 2013.

Hutchins, Karen, and Nathan Stormer. "Articulating Identity in and Through Maine's North Woods." *Environmental Communication* 7, no. 1 (2013): 24–41.

Jenkins, Matt. "Squeezing Water from a Stone." *High Country News*, September 15, 2005. https://www.hcn.org/issues/306/15778.

———. "The Water Czar Who Reshaped Colorado River Politics." *High Country News*, March 2, 2015.

Manning, Mary. "Desert Oasis Drying Up." *Las Vegas Sun*, May 15, 2018. https://lasvegassun.com/news/2008/may/15/desert-oasis-going-dry/?history.

Norton, T. "Property as Interorganizational Discourse: Rights in the Politics of Public Spaces." *Communication Theory* 18 (n.d.): 210–239.

O'Donoghue, Amy Joi. "Study: Snake Valley Groundwater Development Unsustainable." *DeseretNews.com*, February 12, 2015.

Ogburn, Stephanie Paige. "Utahns Oppose Las Vegas' Snake Valley Water Grab." *High Country News*, August 29, 2011. https://www.hcn.org/blogs/goat/utahns-oppose-las-vegas-snake-valley-water-grab.

Owen, David. "Where the Water Goes." *The New Yorker*, April 2, 2017. http://www.newyorker.com/tech/elements/where-the-water-goes.

Powell, John Wesley. "The Land System Needed for the Arid Region." In *Seeing Things Whole: The Essential John Wesley Powell*, 185–208. Washington, Covelo, London: Island Press, n.d.

Prudic, David E., Donald S. Sweetkind, Tracie L. Jackson, K. Elaine Dotson, Russell W. Plume, Christine E. Hatch, and Keith J. Halford. "Professional Paper 1819: Evaluating Connection of Aquifers to Springs and Streams, Eastern Part of Great Basin National Park and Vicinity, Nevada." U.S. Department of the Interior, U.S. Geologic Survey; Prepared in cooperation with the National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service, and U.S. Forest Service, n.d.

Reisner, Marc. *Cadillac Desert*. Penguin Books, 1993.

Stegner, Wallace. "Thoughts in a Dry Land." In *Where the Bluebird Sings to the Lemonade Springs: Living and Writing in the West*, 46–75. New York; Avenel, NJ: Wings Books, n.d.

Swearingen, Marshall. "BLM Okays Controversial Nevada Water Pipeline." *High Country News*, January 10, 2013. https://www.hcn.org/blogs/goat/blm-okays-controversial-nevada-water-pipeline.

Thompson, Jessica Leigh, and James G. Cantrill. "The Symbolic Transformation of Space." *Environmental Communication* 7, no. 1 (2013): 1–3.

Tuan, Yi-fu. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota, 1977.

Yow, Valerie Raleigh. *Recording Oral History: A Guide for the Humanities and Social Sciences.* Walnut Creek, CA : AltaMira Press, 2005.