

## Land “under the Ditch”: Channeling Water through Owen Wister’s *The Virginian*

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### Abstract



This paper combines envirotech history with elemental ecocriticism to examine the lively presence of water infrastructure in Owen Wister’s *The Virginian* (1902). In Wister’s novel, humans and animals assemble around channels of water, and the fight to divert and control water systems initiates both violence and new alliances. Instead of relegating water infrastructures to the inconsequential background, this paper asks what ditches, water storage containers, and reservoirs can contribute to our understanding of gender and human-environmental relations at the turn of the twentieth century. It argues that Progressive Era water development places “manliness” at risk at the same time that it defines it. Since thirst, aridity, and mobility contribute to the making of hard, manly men in Wister’s view, irrigation emerges as a potent challenge to the novel’s *hard logic*.

*Keywords:* Ecocriticism, infrastructure studies, Owen Wister, nineteenth- and twentieth-century American literature, new materialism.

### Resumen

Este trabajo combina perspectivas del campo de historia de la tecnología medioambiental con la ecocrítica elemental para examinar la vida asociada a la infraestructura hidráulica en *The Virginian* (1902) de Owen Wister. En esta obra de Wister, tanto seres humanos como animales se reúnen alrededor de canales de agua, en los que la lucha para desviar y controlar los sistemas hidráulicos desencadenan episodios de violencia y nuevas alianzas. En lugar de relegar estas infraestructuras a un papel carente de significado, este texto cuestiona cómo han podido contribuir las acequias, los balsas de agua, y los depósitos a nuestra concepción del género y de las relaciones entre los seres humanos y medioambiente durante los inicios del siglo veinte. Por último, este trabajo pretende establecer que el desarrollo hidráulico durante la “época progresista” en los Estados Unidos ha definido “la masculinidad” y, al mismo tiempo, la ha puesto en riesgo. Puesto que, como sugiere la novela, la sed, la aridez, y la movilidad contribuyen a la formación de hombres duros y masculinos, el sistema de regadío se configura como un desafío potente a las lógicas racionalistas de la novela.

*Palabras clave:* Ecocrítica, estudios de infraestructura, Owen Wister, literatura norteamericana del siglo diecinueve y veinte, nuevo materialismo.

But no matter how rationalized the river became, how closely linked with human labor and its products, it remained a natural system with a logic of its own.  
-Richard White, *The Organic Machine* (1995)

Water is not a singular object of epistemology for which abstract knowledge can be produced and circulated in all times and places without interruption. Rather, water reveals its complex, multi-layered biophysical identities for particular enactments.

## Tracing Edenic Flows in Wister’s West

Water management, as both a material practice and an ideal, fueled the Progressive Era dream of large-scale environmental management. At the same time, however, it threatened the notion that the West existed as a “country for men” (Wister 62). For ditches and dams, which enabled development, inevitably led to an exodus of land-seeking, westward-moving settler families—including women and children—at the turn of the twentieth century. Nowhere is this relationship between the commodification of water as resource and the modernization of the West more apparent than in Owen Wister’s 1902 work, *The Virginian*. The action in this bestselling novel, regarded as one of the first Westerns, takes place on the eve of Wyoming’s infamous cattle wars in the late 1880s, and Wister’s Progressive fascination with the control of water is apparent throughout. Despite *The Virginian*’s preoccupation with water-as-resource, the theme of water development has gone unexamined in the novel, especially as it relates to shifting gender roles at the turn of the twentieth century.

To counter what were perceived as the feminizing forces of modernity, Wister’s narrator frequently *naturalizes* manmade waterways—or defines and experiences them as uncultivated elements of an untouched, edenic landscape—via a method of *narrative rewilding*.<sup>1</sup> Narrative rewilding absorbs human-engineered landscape features, such as irrigation ditches and reservoirs, almost wholly into the category of “the natural,” making faint, if not altogether invisible, the traces of human impacts on the environment. For example, as a narrative device, rewilding may encourage readers to see a megadam as part of a mountain, or a canal as a naturally-occurring stream, thus insisting on a mythical vision of the West as rugged and untouched. When Wister’s narrator subverts the manmade nature of modern water infrastructure and hides water labor from view, he is attempting to preserve the West’s reputation as an eminently *manly* realm, and the sense of a soldierly purpose in the Anglo men who identify as tamers of the land.<sup>2</sup> In contrast to the flowing, diverted streams that course in and out of the narrator’s frame of vision, still water, such as the water contained by the tank in Wister’s depiction of Medicine Bow, Wyoming, fails to be rewilded and remains utterly unnatural; its presence, as the narrator describes it, threatens to contaminate the region with a toxic eastern

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<sup>1</sup> As a popular land management and conservation practice, “rewilding” is “the scientific argument for restoring big wilderness based on the regulatory roles of large predators” (Noss and Soulé 5). In this essay, however, the term is used to denote Wister’s narrative strategy of naturalizing mechanical and manmade systems.

<sup>2</sup> According to Ashley Carse, “Infrastructure implies artifice; nature traditionally signifies its absence” (540).

ethos. By shifting our attention to the artifacts of water development in *The Virginian*, we gain a unique way of understanding how Progressive Era engineering undergirds a white masculinist vision of both regional and national belonging in the United States. In the arid and semiarid environments that dominate Wyoming, thirst for water unsettles communities and social relations, burgeoning industries, and, as the narrator quickly discovers, human bodies. Wister seems fixated on both the economic and social potentialities of irrigation in the West, as were many at the time.

Water’s potential to *reform* the semiarid, “unproductive” high plains region of Wyoming is alive and well in the mind of *The Virginian*’s narrator, known only as “the tenderfoot.” When this wet-behind-the-ears visitor from the northeast reminisces on his days spent visiting Wyoming’s cattle country, his mind frequently turns to water. This is not surprising given the necessity of having access to water in the arid and semiarid American West, particularly if one’s livelihood depends on the cattle industry. “In the afternoon on many days of the summer which I spent at the Sunk Creek Ranch,” he says,

I would go shooting, or ride up toward the entrance of the cañon and watch the men working on the irrigation ditches. Pleasant systems of water running in channels were being led through the soil, and there was a sound of rippling here and there among the yellow grain; the green thick alfalfa grass waved almost, it seemed, of its own accord, for the wind never blew. (44)

Water, in this serene moment of reflection, at once nominalizes place (Sunk Creek Ranch), stimulates the growth of agriculture with seeming effortlessness, and calms the narrator with its tranquil “sound of rippling.” The “pleasant system” of this manmade waterway is a thing of both natural and economic wonder for the narrator, as he remarks on the channel’s supreme ability to animate the grain and alfalfa that keep the cattle—and, in turn, the cattle industry—alive. Diverted water imbues this plant-life with a strange kind of liveliness, as the narrator tells us the grass “waved almost...of its own accord.” What is perhaps most interesting about this reflection, however, is that the narrator calls forth an image of the men who dig the irrigation ditches. Their labor, though not described in high resolution, manufactures this seemingly “natural,” verdant setting the narrator so enjoys. Soon after the workers’ bodies are referenced, they disappear once again into background, granting both water and plant-life the appearance of agentive movement.

Water infrastructure, as this scene reveals, elicits a series of powerful social, ecological, and economic *presences* in Wister’s work, making *The Virginian* an ideal novel for *thinking with (flowing, diverted) water* as a critical undertaking.<sup>3</sup> Even when the narrator does not directly conjure water, its potent animacy can be

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<sup>3</sup> Here I am gesturing towards the recent emergence of a materially-oriented ecocriticism described by Jeffrey Jerome Cohen and Lowell Duckert as “elemental ecocriticism.” In their collection of essays *Elemental Ecocriticism: Thinking with Earth, Air, Water, and Fire* (2015), Cohen and Duckert suggest that elements emerge as vibrant cultural actants in their own right.

registered in nearly every scene. From the pastoral descriptions of the “plentiful and tall” grass around Sunk Creek Ranch (43), to depictions of the “wretched husk of squalor” that is human settlement in Medicine Bow (10), water keeps humans, plants, animals, towns, entire industries, and the relations between these entities alive in the novel. Wister occasionally offers readers brief but charged glimpses of irrigation ditches, diverted streams, water storage containers, and other artifacts of civil engineering that, when combined, deliver water from distant, unseen sources into lives, bodies, and economies. Even though Indigenous and migrant laborers worked to construct many of the water projects Americans so admire, Wister obscures the labor involved in ditch-digging and, instead, celebrates ditch technology as “natural” symbols of national, masculine progress.<sup>4</sup> If we are willing to wade into Wister’s natural-but-manmade ditches and streams, we might discover to what extent the thesis that water drives national, economic, and social narratives in the United States is valid.<sup>5</sup>

### **Manmade Natures: Conjuring Rain, Channeling Water**

Prior to the popularization of large-scale irrigation in the late 1890s and the explosion of federal waterworks projects under the direction of the newly formed U. S. Reclamation Service in 1902, individual farmers, communities, and local and state governments in the arid and semiarid West often hired pluviculturalists, or so-called “rainmakers,” who, many believed, could induce rainfall via a variety of “scientific” methods. Rainmaking practices were diverse and ranged from releasing clouds of chemical gases into the air from metal funnels positioned on the ground, to directing “heavy discharges” (Powers 6) of canon fire in the direction of moisture-laden clouds. As a science that gained much popularity in the 1890s, pluviculture was rooted in the belief that “the agency of man” could—and, moreover, should—harness and redirect atmospheric energies for “useful,” economic ends (Powers 6). To not make use of the moisture reserved in the clouds would be deemed wasteful. According to the ethos of rainmaking, one no longer had to depend on the

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<sup>4</sup> In addition to documenting Paiute relations with water that existed before “the best land [was] taken from them,” Winnemucca’s *Life among the Piutes: Their Wrongs and Claims* also shines a light on indigenous laborers who engaged in ditch and dam work for various water projects in the West, both on and off reservation land (122).

<sup>5</sup> Since the 1990s, many literary scholars have engaged with turn-of-the-century representations of water and water development. See Cassuto and Formisano for analyses of water development in the West, specifically California. See also *Words on Water: Literary and Cultural Representations* (2008), which looks at the symbolic and material significance of water from a global perspective. Edited by Maureen Devine and Christa Grewe-Volpp, the collection of critical essays “entail[s] looking at water in its various forms as a part of our cultural identity and heritage, understanding historical perceptions of water including political and economic aspects, as well as religious and spiritual perceptions of water past and present” (3). For a study on representations of water in Western films, see “Haunted by Waters: The River in American Films of the West” by Mary Pinard.

unpredictability of rain or snowfall for agricultural survival; instead, humans would be liberated from aridity, freed from the bonds of drought. A key proponent of pluvicultural theory, Edward Powers, rejected comparisons between Native American rain dancing and what he termed “scientific rainmaking,” condescendingly insisting that good science trumps so-called “superstition” any day. In his 1890 treatise on scientific rainmaking, titled *War and the Weather*, Powers says, “Aside from its connection with the superstitions of certain savage tribes,...[scientific rainmaking] is confined principally to those who are accustomed to draw conclusions only from adequate premises” (5). For Powers, as for other rainmaking advocates of the day, to pray or dance for rain was to admit man’s subordination to weather’s will. Rainmakers would not wait for the weather to change in their favor: they would engineer it into existence. When natural forces “fail to act” (Powers 11), or where rainfall was deemed “insufficient” (Cowan 435), science offered a solution, adherents to pluviculture believed. For farmers and ranchers hoping to make a living upon the public domain lands of the American West, lands that comprised over one-third of the entire area of the United States near the end of the nineteenth century, scientific rainmaking seemed a less labor-intensive, more economic enterprise than, say, digging irrigation ditches.<sup>6</sup>

By the end of the 1890s, however, innovations in irrigation technology in the arid and semiarid West led to the gradual phasing out of scientific rainmaking. Despite its early appeal, pluviculture came to be viewed as an unreliable weather modification method, and enthusiasm for irrigation as a more practicable solution to aridity spread quickly amongst farmers and ranchers alike. For all its difference in both structure and method, irrigation was fueled by a similar faith in “human agency” as the scientific rainmaking that preceded it. Federal investment in the development of dams, reservoirs, and ditches via the Newlands Reclamation Act, which culminated in the development of the U.S. Reclamation Service, worked to expand, standardize, and provide administrative guidance over these more intensive water diversion projects in the West. As cultural critic Mark Seltzer notes in *Bodies and Machines*, the Progressive Era witnessed the rise of the civil engineer as a cultural hero, and a deep interest developed around the “culture-work of channeling, bridge-building, and canalization” (164).<sup>7</sup> Both pluviculture and irrigation, as well as twentieth-century innovations in dam-building and hydroelectric power systems, depended on the idea that rational management

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<sup>6</sup> In John L. Cowan’s 1906 article “Dry Farming—The Hope of the West,” published in 1906, he states that “Nearly one third of the entire area of the United States, exclusive of Alaska and our insular possessions, consists of vacant public lands regarded as naturally unsuited to cultivation on account of insufficient rainfall” (435).

<sup>7</sup> It should be noted that engineers, land managers, and administrators of various types figure prominently in turn-of-the-century American literature, including Edith Wharton’s *Ethan Frome* (1911), Edward Mandell House’s *Philip Dru: Administrator: A Story of Tomorrow, 1920-1935* (1912), and Ednah Aiken’s *The River* (1914).



tactics could effectively redirect environmental elements to human/economic ends and thereby eliminate, or at least reduce, “wasted,” unused energies. Historians of the American West have held varying points of view regarding the success of the “businesslike approach” to water resource management that originated in the Progressive Era (Hays 30). Through critiques of rational management (Samuel Hays), capitalism and power (Donald Worster), the human-nature divide (Richard White), regional exceptionalism (Donald Pisani), indigenous water rights (Daniel McCool), and top-down policy narratives (Patricia Limerick)—to name just a few grounds of the Western water history debate—historians from the 1950s to the first decades of the twenty-first century have demonstrated that as water flows through American history and channels through its diverse geographies, its meaning and value continues to change.<sup>8</sup>

Published the same year as the passing of the Reclamation Act, *The Virginian* expresses various infrastructural impulses that seem to anticipate the large-scale water development projects of the 1900s. For example, even though we never see his body engaged in water labor, we are told that the Virginian makes his living in the summer months digging ditches. What is more, penetrating human drama, including violence and romantic love, materializes from the region’s waterways in *The Virginian*, demonstrating both the economic *and* social potentialities of water-as-resource for Anglo Americans. More generally, characters frequently converge around water and water infrastructure throughout the novel, highlighting the fact that dams and ditches hold the prospect of uniting entire communities—and, perhaps, even a sprawling nation—into a single, connected network. Since Wister makes invisible the lives and communities of Native Americans in his novel, however, and instead chooses to focus on Anglo futurities in the West, the novel contributes to a vision of the region as a “sparsely-peopled wilderness,” to use the language of William E. Smythe, a popular irrigation enthusiast of the day (xvii). By and large, property rights did not extend to the *prior* inhabitants of the West, those who “were living there and fishing, as they had always done” (Winnemucca 77). The absence of Indigenous voices in the novel is troublesome, highlighting the

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<sup>8</sup> The various approaches to Western water history noted in this passage can be attributed to environmental historians Samuel P. Hays, Philip Fradkin, Donald Worster, Marc Reisner, Richard White, Donald J. Pisani, Daniel C. McCool, and Patricia Nelson Limerick. See Hays, *Conservation and the Gospel*; Fradkin, *A River No More: The Colorado River and the West*. Oakland: University of California Press, 1981; Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West*. New York: Oxford UP, 1985; Reisner, *Cadillac Desert: The American West and Its Disappearing Water*. New York: Penguin, 1993; White, *The Organic Machine*; Pisani, “Beyond the Hundredth Meridian: Nationalizing the History of Water in the United States.” *Environmental History* (5.4) 2000: 466-482; McCool, *Native Waters: Contemporary Indian Water Settlements and the Second Treaty Era*. Tucson: University of Arizona Press, 2006; and Limerick, *A Ditch in Time: The City, the West, and Water*. Golden, CO: Fulcrum Publishing, 2012.

racial/ethnic subjugation that often results from American expansionism in general and water policy more specifically.<sup>9</sup>

### Dry Realities and Wet Dreams

Throughout *The Virginian*, the narrator perceives Wyoming’s arid landscape as both a thrilling spectacle and a problem that only water can cure. Just as Powers deploys the rhetoric of viciousness (“destructive drought”) and deficiency to promulgate his precipitation agenda, so, too, does Wister align Wyoming’s “unending gulf of space” with overwhelming lack (7). Water may appear in the names of towns—Bear Creek, Sunk Creek, Westfalls, Willo’ Creek, Stinkin’ Water, etc.—but it rarely materializes in the region’s vast rangelands. Oddly, the most turbulent waterway in the novel cuts through the town of Drybone, a name that announces the nonexistence of water. The overwhelming presence of water in Drybone underscores the often unpredictable and contradictory nature of water in the region. The narrator comments on the absence of Wyoming water as soon as he steps off the train. “Where in this unfeatured wilderness is Sunk Creek? No creek or any water at all flowed here that I could perceive” (7). Absence emerges in various forms in this passage, from the prefix of “unfeatured,” to the tenderfoot’s claim that “no creek or any water” exists. References to resource shortage and environmental desiccation such as these predominate the tenderfoot’s observations of the novel’s arid spaces, and he seems to find refuge only when near flowing bodies of water. Wyoming immediately emerges as a vexing problem, causing the narrator to define its environment not by what it contains, but by what it fails to provide. Cultural theorist and historian Daniel Belgrad views humans’ concerns with ecological uncertainty as a way of reading agency in the environment, an agency that instigates a variety of responses in the bodies of individuals who interact with it. “[U]ncertainty about rainfall and its effects on the condition of the range could generate anxiety among ranchers,” he states, “contributing to the tensions over range use that erupted into violence” (168). In addition to the anxiety that unpredictable nature-spaces provoke in bodies, Belgrad imbues water—or *waterlessness*—with the power to engender violence. For Belgrad, lively, arid absences stimulate movement and, in general, force bodies to respond, sometimes in terrifying ways. However, in addition to inciting unease and civil unrest, waterlessness also propels humans to develop various methods of conjuring water, or of managing it into existence.

Both Wister and other turn-of-the-century Western writers depend on rhetorical negation to spur excitement about development in the region. For example, in John Cowan’s 1906 article on arid agricultural methods, he describes the “absolute desert” as “unimproved,” “uncultivated,” “unoccupied,” “inhospitable,”

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<sup>9</sup> See Jennifer Tuttle and Louis Owens.

“worthless,” and other terms denoting ecological insufficiency (436-437). For Cowan, as for Wister’s tenderfoot, calling attention to everything the desert was not was meant to stimulate interest in the “problematic” region and prompt men into action. The concept of dry farming—of producing yields out of “waste”—energizes Cowan, and he cannot help but imagine hundreds of farmers tilling “every acre of arable land...to the utmost limit of its productiveness” (445). Similarly, the tenderfoot’s energized response to “the alkali of No Man’s Land” (194) causes him to perpetually scan its topography and “[take] its dimensions” (10) into his body for future contemplation. Though neither man is a water engineer—Cowan even openly admits his disdain for irrigation’s “inefficiencies”—their fascination with aridity as an unresolved problem underscores Progressivism’s engineering ethos. Both exhibit a deep, almost ecstatic desire to conjure flowing water where it is in short supply. In several scenes, the tenderfoot almost imagines water into being, allowing the idea of it to well up in his mind when it fails to appear in reality. “All things merged in my thoughts in a huge, delicious indifference. It was like swimming slowly at random in an ocean that was smooth, and neither too cool nor too warm” (32). His watery imaginings—or *wet dreams*—are then interrupted by the arrival of a train, “coming as if from shores forgotten” (32). The tenderfoot’s water-thoughts express the regulatory logic of water development, in that he tames the waves (“an ocean that was smooth”) and controls the temperature (“neither too cool nor too warm”) at will. What is more, the wild body of the ocean transforms into a recreational space for this dreamer, as he imagines himself “swimming slowly” without a care. The Progressive dream of regulated flows—the same dream that culminated in megadams and transregional and transnational irrigation networks—is alive and well in the mind of the narrator, even though he does not have the expertise to realize his vision on the ground.

Beyond the narrator’s dreams of a perfectly regulated water world, *real* water seems to disappear at will in the novel, imbuing the element with a power over men who depend on its constancy. When a “young cowboy” purchases two cans of tomatoes so that he can drink the juice, the proprietor of the dry goods shop asks, “Meadow Creek dry already?” The boy responds, “Been dry ten days” (30). The narrator then offers readers additional information about the state of the waterless creek, noting that “water would not be reached until sundown, because this Meadow Creek had ceased to run” (30). The proprietor’s shock that the creek was “already” dry calls attention to the unpredictable, seemingly defiant, nature of water in the region. Flows of water, if left unmanaged, might simply refuse or “cease” to run, as if by their own will, leaving men to quench their thirst (and deplete their wallets) with juice from a can. At the other extreme, when flows of water build, rush, and exceed infrastructural capacity, bodies and machines risk losing control, as when the river “came sucking through the upper spokes” of Molly’s carriage, taking it under—and nearly taking her down with it. The potent animacy of flowing water, from its absence to its hyper-abundance, reveals just how permeable the boundary



is between humans and ecologies. Geographer Karen Bakker reflects on this idea when she says: “water is a resource upon whose constancy (of both quality and quantity) we depend; and yet, water engenders attempts to regulate its inherent variability in time and space—which are in turn frustrated by ecological, technological, and economic barriers to human control” (617).

Environments where water is in short supply, as these scenes demonstrate, represent complex locations of possibility for characters in *The Virginian*. Despite the attempts made by Powers, Cowan, and Wister’s narrator to refuse human-environmental enmeshment by positioning the elements on the other side of the skirmish line, their inability to wholly manage water reveals that intimacy with the elements is unavoidable. Their attempts to manage water, to both channel it and imagine it into existence, demonstrate a liveliness, an unending responsiveness, in the element they wish to control. While environmental historian Donald Worster conceives of American imperial power as a coercive net that covers everything, resulting in what he calls “a hydraulic society” that began in the West, the rebelliousness of managed matter pervades water history and literature. So long as the men are merely managing, even if their management materializes into vast architecture that delivers water hundreds of miles from its source, the “vibrant matter” that is flowing water keeps their bodies always on the alert.

### **The Hard Logic of Thirst in the Western**

Even though the novel equates the presence of irrigation technologies with white masculine ascendance in the semiarid West, Wister, almost paradoxically, views the (male) body’s ability to withstand thirst as an emblem of masculine endurance. In other words, the less water one’s body requires, the more likely one will emerge as a true man of the West. To be a man meant to inhabit an efficient, resilient body. As soon as the narrator sets foot in Wyoming, thirst begins to overtake his body, which calls attention to the dryness and harshness of the Territory. Water, much to the tenderfoot’s dismay, is in short supply in this “planet of treeless dust” (17), and surviving in such an environment will require self-discipline and a roughening of both form and spirit. This acknowledgement of human-environmental relationality in the arid West represents the hard logic of the novel, the drive to make tough and resilient the bodies of men. Many men who wrote about Western farming techniques at the turn of the twentieth century, such as Cowan, arrived at these same conclusions about the ideal body. As a practitioner of “dry farming,” or what was also called “scientific soil culture,” Cowan argues that only a *certain* kind of modern, male body will be able to prosper in the arid and semiarid West. Unlike the eastern farmer who has the luxury of consistent rainfall, the dry farmer, Cowan says, “knows no season of rest or idleness. He knows that eternal diligence is the price he must pay for good crops” (440). For Cowan, land management in arid environments requires industry, a dedication to efficiency, and “eternal” attentiveness; without these necessary inputs, the farmer will be left with

“lands that are now waste,” or property without economic purpose (442). Instead of succumbing to arid “waste” and admitting defeat, Cowan urges newly-arrived farmers in the West to experiment with hardy, drought-resistant crop varieties and “natural” tilling methods that would reserve water in the under-soil. The Western farmer could convert desert waste into wealth if, and only if, he could resist the temptation of merely transplanting the familiar farming practices from “humid America” to the dry regions of the West (441). Cowan believed that irrigation was a lame (and costly) attempt at mimicking eastern environmental conditions. He therefore encouraged Western farmers to get out from “under the ditch” and adapt to aridity. As both Cowan and the Virginian contend, men had to learn to live with the Western climate—to become as resistant to drought as the durum wheat that thrived there.<sup>10</sup>

Dryness in *The Virginian* calls upon male bodies to become more physically efficient, and the rustlers seem proud of their ability to withstand a world where water is in short supply.<sup>11</sup> For example, while waiting for the narrator’s lost luggage to arrive, Steve and the Virginian emphasize Wyoming’s extreme climate to great effect. Both men claim that an ability to stave off thirst in the region’s alkali expanse is central to being a man. Wyoming “makes a man thirsty,” says Steve to the tenderfoot. The Virginian adds, “Yes,...thirsty while a man’s soft yet. You’ll harden” (17). The process of “hardening” in this social and ecological context is as physical as it is psychological. In other words, to become a *true* man of the West, one must not only learn to live with little water but also train away any *thought* of thirst. “And if you keep a-thinkin’ about it,” says the Virginian, “it’ll seem like days and days” (17). To desire a remedy for thirst when no remedy exists exhibits a lack of restraint, according to the Virginian; he claims that one wastes both time and energy if the desire lingers for too long. *Wasted* thoughts do not align with the Progressive values of efficiency and self-control.

Steve and the Virginian continue to build on each other’s claims of climatic intensity. As their talk continues, the land becomes so startlingly dry—and, in consequence, their bodies so resilient to its harshness—that even a “drop of wetness” in their depiction of Wyoming would seem out of place (17). Their speech, like the wringing out of an already-dry cloth, stands as testament to their ability to withstand a landscape that makes human survival difficult. At the end of the scene, the narrator draws an interesting comparison between the men’s speech and telecommunications infrastructure, infrastructure that fosters a mode of

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<sup>10</sup> Cowan notes that due to its “hardness,” durum wheat prospered in the arid West (441). “It will not thrive in humid environments, requiring for its most perfect development a dry climate and a semiarid land” (441). In Latin, “durum” means “hard.”

<sup>11</sup> This physical hardening resonates with Stacey Alaimo’s transcorporeal theory, wherein bodies and natures flow into and through one another, materially altering both. In this sense, the men’s dry, thirsty bodies physically *become* men via their intimate interactions with Wyoming’s semiarid ecology.

interconnection similar to that of irrigation: “They dropped into direct talk from that speech of the fourth dimension where they had been using me for their telephone” (17). As a telephone, the narrator operates as a conduit for the men’s commentary on aridity, revealing what Benson refers to as “the relational nature of infrastructure” (114). Power flows through him and connects him to both Steve and the Virginian, both of whom vie for communicative power. However, the tenderfoot fails to generate power on his own. Similarly to water diversion systems, wherein a complex plexus of irrigation ditches enables the delivery of water-as-resource, the telephonic narrator mediates but never produces power in any direct sense. These constant *flows* of communication that filter through the narrator’s porous, receptive body reflect Bakker’s new materialist renderings of how the hydrological cycle engenders a mesh of interconnected bodies: “water links individual bodies to one another through the cycling of waters and water-borne effluents between water bodies and organisms—both human and non-human” (616). “Water,” she continues, “is thus intensely political in a conventional sense: implicated in contested relationships of power and authority” (616).

In spite of the tenderfoot’s early claims that much of Wyoming was an arid “No Man’s Land,” water-rich environments frequently emerge in the novel, startling both characters and readers alike with their unlikely presences. Many of these watery environments seem to impede mobility and, thus, interfere with white masculine ascendance. Periodic glimpses of soft, watery landscapes—such as quicksand, crumbling banks, and standing pools—bubble forth as problematic ecologies, and a man must learn to bypass such terrain without losing his footing. Softscapes evoke the textural give of swamps and bogs, and, according to Wister’s *hard logic*, too much give could result in both unproductive landscapes and sluggish, unmanly bodies.<sup>12</sup> Soft, liquid environments suction bodies in place and threaten to *waste them away*. As an example, the narrator, whose newly arrived eastern body seems incompatible with the range’s extreme climate, falls into and/or misidentifies wet environmental substances throughout the novel. He stumbles and drops his luggage in the river, mistakes quicksand for a ford, and emerges from a pond as a “spectacle of mud” (46). The “slippery,” “weltering heap” (46) that is the tender body of the tenderfoot demands regulation and a harder, more resilient corporeal architecture in order to direct and contain what seems an endless seepage. Thus, the project of hardening the bodies of men and building water infrastructure reach towards a common goal: “a channeling of natural floods into orderly movements” (Seltzer 164). As a “spectacle of mud,” distinct environmental elements—mud and water—become muddled on the tenderfoot’s body. Irrigation ditches, which

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<sup>12</sup> In landscape management, “softscapes” are the organic materials (plants, soils, flowers, pools, etc.) used to create landscapes. “Hardscapes,” on the other hand, exist as the foundational materials (rock, metal, wood) that structure landscape design. At the 2016 C19 Conference, David Phillips and Judith Madera used the term “softspace” to denote watery ecotones such as swamps and marshes, a fitting contrast to the hard bodies and environments that populate *The Virginian*.

transport water from a source to a destination via channels carved out of the earth, hold separate, at least ideally, the liquid energy from the earthy conduit. When he falls into the mud and emerges with the substance sticking to his body, the narrator gets presented as a management problem. He is unable to separate the liquid from the solid, the vital energy from its infrastructure. Frequently wet, Wister’s tenderfoot is never fully a man.

While *The Virginian’s* tenderfoot frequently perceives aridity as a problematic agent that assaults bodies and renders environments sterile, water development may pose even greater threats in the novel. For one, water infrastructure facilitates the arrival of women and children in what was formerly considered an all-male space. What is more, land deemed arable via irrigation was, at the time, referred to as “under the ditch,” a phrase that places man under the agency and weight of water infrastructure—and, subsequently, under the hand of civilizing and feminizing forces. Land “under the ditch” is land that is ostensibly reclaimed, regulated, and “brought to a high state of productiveness,” to use Cowan’s optimistic language (436). If the novel idealizes hard (male) bodies and landscapes, and outlines steps for how masculine toughness may be achieved, it also suggests that the reform-oriented, regulatory practices of Progressivism might interrupt the hardening processes in the West. For example, Wister’s depiction of the sickly “engineer’s woman” in *Medicine Bow* offers a troubling vision of the potential effects of the region’s water infrastructure. Readers are told that “there was a woman—an engineer’s woman down by the water-tank—very sick” (28). Here, the narrator aligns the water-tank, a structure that facilitates the settlement of *Medicine Bow*, with the image of a failing, unproductive woman’s body. The storage tank is the first example of water infrastructure we witness in the novel, and it is worth considering how Wister distinguishes between tanks, ditches, and “natural” waterways. For example, structures meant to contain and reserve water for future use, such as the sickly woman’s water tank, fail to receive the same kind of admiration as irrigation ditches and other “flow technologies” (Seltzer 164). The fact that this woman is “the engineer’s woman” points to the possible pitfalls of water development in the region: while channeling the flow of water requires hard bodies, the eventual containment of water would seem to domesticate and, in effect, sicken them. The woman’s *stilled* body has a taming effect on the town, one that seems to contaminate it with a disquieting, unmanly calm. The narrator tells us, “she brought a hush over *Medicine Bow’s* rioting” (31). Even though we never see the woman, her presence hangs heavy “over” the town, drowning it with a feminizing “hush.” A town that exists “under the ditch” seems to be under the woman as well, in other words. Unable to energize the stagnation of his wife’s body, the engineer’s work stalls, leaving the town in a state of veritable inertia.

Life becomes pastoral—it settles, slows, softens, and loses its generative impulse—around manmade waterways, as evidenced by both the human and animal communities that converge around them. Just as *Medicine Bow* “hush[es]” at

the arrival of the engineer’s wife (and her representative tank), so, too, do Wyoming’s ranching communities mellow out along the muddy banks of streams and ditches. Though these moving bodies of water are not deemed as threatening as the still waters of Medicine Bow, the lush landscapes they engender pose significant risks to (re)production. “The placid regiments of cattle lay in the cool of the cottonwoods by the water” (43), we are told, and the narrator, a man capable of performing labor, spends many leisurely afternoons lounging at their side. Likewise, Emily, a chicken driven mad by her inability to reproduce, tends to her “changelings” near the edges of an irrigation ditch (50). During one of her more intense episodes, she “cross[es] the ditch” (50) to join a flock of wild turkeys, an act that marks the dry ditch with a trace of the unnatural. More than anything, the novel depicts irrigation as a question, one that, despite its economic promises, threatens the health and vitality of bodies. Molly’s interest in irrigation delights the Virginian, and it is worth examining what it means when women take an interest in water management. After all, we are told that Molly’s “mind was alive to Western questions: irrigation, the Indians, the forests” (322). Unlike the mired body of the engineer’s wife, Molly’s reform-minded, analytical outlook on the West—much like that of Irene, a woman with managerial interests in Ednah Aiken’s journalistic novel *The River* (1914)—allows her to maintain a critical distance from the muddying effects of *too much water*. The engineering ethos stimulates Molly’s curiosity, thus opening the masculinist project of water development to women—or at least to the women who “have always wanted to be a man” (Wister 85).

Mark Seltzer’s insightful examination of the rise of civil engineering and the dream of the “directed nonstop flow of water” in Progressive-Era American culture points to the gendered nature of water development in the arid West. Seltzer’s alignment of water management with a “transcendence of female/nature” (164) is compelling, especially when we pair nineteenth-century water diversion projects in Wyoming and other regions of the arid and semiarid American West with the concurrent drainage of swamps and wetlands in the South and Midwest (Pisani). What Seltzer overlooks in his focus on masculine “transcendence” in the context of water development is how drainage, storage, and diversion efforts resulted in domesticated landscapes, landscapes that enabled settlement and assisted the so-called civilizing project. In other words, nineteenth-century civil engineering defines “manliness” at the same time that it places that category at risk. While the labor involved in controlling/channeling the flow of water might, at first, seem like “man’s work,” the result, as *The Virginian* seems to argue, facilitates the migration and settlement of women, children, and families, thus disrupting “the playground of young men” celebrated by Wister (44). To mitigate these effects in the novel, and to preserve the West as a zone for men, Wister rewilds manmade waterways, or blurs the lines between “natural” and “artificial.” Just as it is often difficult to discern “natural” from the “manmade” waterways in our daily lives, the novel frequently fails to tell readers whether a watercourse is naturally-occurring or engineered by



human labor. Terms like “natural” and “manmade” begin to lose their distinct meanings in the context of damming and irrigation. After all, is a manmade reservoir altogether unnatural? Do such distinctions matter to the algae that develops there, the fish that populate it, or the humans who fish from its shores? At times, however, Wister does go out of his way to identify wild, “virgin” bodies of water, such as rivers, springs, and brooks. These references to “natural” bodies of water, such as Yellowstone’s “swift ripples” (112), the “heavy-edded Missouri” (99), and the edenic pool in the Virginian’s private “virgin wilderness” (295) exist off the grid. The novel assures us that despite the encroachment of “new-scraped water ditches” and fences, the West is still large enough to harbor wild bodies (of water).

### Charting a “Fuller Range” of Regionalism in the Western

Due to the large-scale nature of water development in the West, maps were integral tools for surveyors and engineers. For irrigation companies and speculators, project-planning maps also came to represent topographies of wealth and possibility. In “A Map of Wyoming with Special Reference to Shoshone Irrigation Company’s Lands and the City of Cody (1900),” political boundaries, such as state and county lines, intersect with the blue lines of proposed ditches and canals, revealing, in visual form, the complex relations that water engenders between governments, individuals, and private enterprises. The Big Horn Basin, from which all irrigation lines on the map originate, dominates the map. The blue ink that represents the basin shades the names of towns and leaks over the borders of counties and reservations. The Shoshone Irrigation map informs us that the Big Horn Basin is a landscape feature of great significance; after all, geysers, mountains, hot springs, rivers, and other landforms are represented as faint black outlines, and unless we examine the map closely, these muted features easily fade into background. Wealth is water, the map tells us, and as the irrigation lines thread outward from the sky-blue source, the social and economic potentialities multiply—as do the risks.

Similarly to the Shoshone Company’s cartographical rendering of Wyoming, *The Virginian* frequently renders the Territory in map-like terms, thus allowing readers to see the West through the eyes of an engineer. When the Virginian and Molly journey across the seemingly illimitable expanse near the end of the novel, the narrator notes, “All beneath them was like a map; neither man nor beast distinguishable, but the veined and tinted image of a country, knobs and flats set out in order clearly, shining extensively and motionless in the sun” (287). What may seem unruly and incomprehensible on the ground becomes legible via this narrative blueprint. Messy lifeforms dissolve, and landforms “set out in order clearly.” The lively environment stills and stabilizes when filtered through the map, granting characters the ability to ascertain coordinates and chart their course with more ease. Aerial perspectives, panoramic vistas, and frequent comparisons of environments to gridded maps transform the region into a manageable space. These

moments of cartographical clarity do not last long, however. There is always more to manage, always *more* the map cannot contain.

The narrator frequently identifies natural sources of water as a way of framing the dimensions of this region. Small towns, he says, “littered the frontier from the Columbia to the Rio Grande, from the Missouri to the Sierras” (10). By framing the West with two major rivers—rivers on which much human labor has been expended and from which much energy has been extracted—the narrator encourages readers to observe the turn-of-the-century West as a field of productive possibilities. As we linger over *The Virginian’s* narrative maps, we might wonder how wild waters from rivers and mountaintops could be dammed, diverted, and then put to use hundreds of miles from the source—say, in a cattle ranch in northern Wyoming. These brief moments of cartographical pause in the narrative invite readers to admire the productive possibilities of water infrastructure. This impulse to map and survey, to imagine the “higher-order” (Bakker 618) possibilities of water development, converts the rush and movement of water into “instrumentalized matter” (Bennett ix). “[T]he image of dead or thoroughly instrumentalized matter,” Jane Bennett says, “feeds human hubris and our earth-destroying fantasies of conquest and consumption. It does so by preventing us from detecting (seeing, hearing, smelling, tasting, feeling) a fuller range of the nonhuman powers circulating around and within human bodies” (ix). When the narrator observes the town of Medicine Bow in order to “take its dimensions,” for example, distance both grants him a wide planar perspective and erases particularity.

It might seem odd to pay so much attention to the supposed “non-place” of water infrastructure in literary studies, especially since we so often fail to *see* the various human-and-mechanical apparatuses that divert, sanitize, store, and then deliver water to us in our daily lives. Even more invisible, perhaps, are the mechanisms that allow us to drain and flush “used” water from our homes into an unthinkable *out there*. Envirotech historian Etienne Benson argues that this failure to hold infrastructure in both sight and mind happens in spite of the hypervisibility and ubiquitous nature of these structures. Benson states, “Infrastructural inversion—the analytic practice of bringing the background into the foreground—requires a kind of focus that often escapes me” (121). The presence of manmade water systems and the modes of ecological and social relations they organize in *The Virginian* make visible and tactile an elemental/material drama, one that dramatically impacts the lives of those who believe they are separate from and/or managing over controllable flows. This essay’s analysis of water management in Wister’s novel attempts to challenge the human-centered rhetoric of Progressive Era resource management to uncover the animated life of the element. Additionally, it asks what kind of contemporary environmental ethics, if any, can be born from directing our focus to the frequently overlooked water projects upon which so many human and nonhuman lives depend.

A focus on the affective presences of water infrastructure in this and other writings set in the American West brings the materiality of water, aridity, and human relations with place into sharper relief. From sites of labor and national myth, to locations of failure and repositories of grief, water infrastructure calls on us to reconsider terms like place, management, and cultural memory. Considering the ongoing crises of water in the American West and elsewhere, a focus on water infrastructure and water-as-resource is of paramount importance in the environmental humanities.<sup>13</sup> From water shortages and toxic wastewater spills, to oil pipelines that threaten to contaminate aquifers and deteriorating dams, water and other elements emerge as agential presences in our present political and ecological moment. As Stephanie LeMenager notes, “the ecological histories of modernity [are] evolving beneath my feet, in my house, my water,” and she calls on humanists to “to make material or represent” these elements via acts of narrative conjuring (185). A critical focus on water-as-resource in nineteenth- and twentieth-century American literature could contribute much to the way we understand, respond to, and attempt to remediate today’s environmental crises. In more ways than we can count, water and water infrastructure intersect with pressing ecological, social, cultural, and biological concerns. In our efforts to map and manage water, we must admit that our fate precariously flows in its currents.

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<sup>13</sup> Examples of water-related environmental disasters impacting the West in recent years include the failed emergency spillways in Oroville, California (2017), leaked crude oil from the newly finished Dakota Access Pipeline in South Dakota (2017), and the toxic wastewater spill at Gold King Mine (2015), to name just a few.

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