



Resisting “the World of the Powerful”: “Wild” Steam and the Creation of Yellowstone National Park

Chelsea Graham*

Annenberg School for Communication and Journalism, University of Southern California, Los Angeles, CA, United States

In this essay, I argue that steam operates as a critical, other-than-human actor in the establishment of Yellowstone National Park and a broader, colonial posture towards the natural world that reflects a sharp division between nature and culture on the settler landscape—reiterating what Marisol de la Cadena and Mario Blaser call “the world of the powerful,” and a “world where only one world fits” (2018, pp 2-3). By appearing in contradictory contexts of powerful engines and pristine nature, steam was bifurcated into natural and cultural registers in order to justify the establishment of the natural park and the colonists’ claim to Yellowstone as “property,” foreclosing alternative relationships to the land such as those of the region’s Indigenous residents. Approaching this research from the perspective of a settler on Indigenous lands, I am invested in engaging new materialist and ecological methodologies in the important work of decolonial critique. Adopting Nathan Stormer’s (2016) “new materialist genealogy” and Nathaniel Rivers’ (2015) treatment of wildness in service of a decolonial agenda, I demonstrate how steam’s inherent repulsion to nature/culture dichotomies contests the very idea of the park itself, Yellowstone’s importance to the settler state’s expansion into the west, and its popular understanding as an exemplar of environmental politics. Further, this essay provides a methodological and theoretical intervention for new materialist and ecological scholarship to support decolonial projects in solidarity with Indigenous resistance. By unraveling dominant discourses that persist in collective identification with Yellowstone, the borders of the park that denote iconicity and exemplarity, unspoiled nature from capitalist development, become brittle, fragile, and so, too, does their dominance in discourses about environmentalism. By disrupting Yellowstone and undermining its dominance, we can demonstrate, unequivocally, that another world—indeed worlds—are possible.

Keywords: nature/culture divide, Yellowstone National Park, epistemology, environmental humanities, ecological rhetoric, settler colonial archives, indigenous people, steam

RESISTING THE “WORLD OF THE POWERFUL”: “WILD” STEAM AND THE CREATION OF YELLOWSTONE NATIONAL PARK

Yellowstone National Park was established as the United States’ first on March 1, 1872 An Act Establishing Yellowstone National Park, Congress, 1872 when the Yellowstone Park Act was signed into law by President Ulysses S. Grant. The process of creating Yellowstone was inseparable from colonial violence of the settler state as forced clearing, relocation, and the

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United Kingdom

***Correspondence:**

Chelsea Graham
cmgraham@usc.edu

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genocide of Indigenous peoples who resided in the region for upwards of 10,000 years made way for the white tourist, and a broader mythos of Yellowstone to circulate among the U.S. public. According to Don Shoulderblade, “a Cheyenne spiritual leader and spokesman for Guardians of Our Ancestors’ Legacy, a group working to reclaim and preserve ancestral land of Yellowstone National Park,” among the 26 tribes with ancestral connections to Yellowstone, many still consider the area within the park “sacred land” and maintain ties to the region (Landry, 2018, n.p.). As historian Mark David Spence writes, “the native groups with the longest connection to the Yellowstone area at the time of its ‘discovery’ in 1870, were a loose association of bands that anthropologists broadly refer to as the Eastern and Northern Shoshone” (2000, p. 5). To those Indigenous residents and visitors, the region provided fertile ground for hunting and gathering, as sheep, bison, fish, berries, small seeds, legumes, deer, and elk proved extensive throughout the region in addition to refuge from seasonal climate extremes (Spence, 2000, p. 3).

For tribes such as the Crow, Blackfeet, Flathead, Nez Perce, and Shoshone, “Yellowstone” was known by many names; “the land of vapors,” “the land of burning ground,” “smoke from the ground,” “the place of hot water,” and *Awé Púawishe*, a Crow phrase translating to “land of steam” (Landry, 2018, n.p.; Old Elk, 2016, n.p.). The hydrothermal features such as hot springs and geysers evidenced by steam on the surface held spiritual and practical importance for the indigenous residents of the area. According to Crow and Yakama author Hunter Old Elk, “native Americans in Yellowstone considered features such as the geysers and thermal pools sacred” as well as beneficial “for medicinal purposes to treat ailments such as rheumatism and arthritis” (n.p.). Sheepeaters, “named for the bighorn sheep whose migrations they closely followed,” utilized the hot springs to shape the sheep’s “horns into bows by soaking them in the Yellowstone hot springs” (Messa & Sims, 2021, n.p.). While *Awé Púawishe* provided Indigenous people with sustenance and shelter, steam rendered the region uniquely significant for its practical, spiritual, and medicinal offerings.

Steam was also important to the settler colonists who took credit for the “discovery” of Yellowstone and played an important role in how the park idea was sold to both congress and the broader U.S. public. For the settlers in the region, steam provided a unique opportunity for the extension of empire into the west, both through Western scientific investigation into steam-powered geysers, and the expansion of the railroads and steam-powered tourism. As the United States government and military forced Indigenous peoples onto reservations and the borders of the park rendered Indigenous occupation and use “trespassing” and “illegal,” they also attempted to erase a particular orientation to “the land of steam” in favor of one that served the interest of the settler state. Per Spence, explorers assumed Indigenous peoples were fearful of geysers, “believing them sacred to Satan” (2020, p. 2). Maligned as “unscientific savage(s),” Indigenous residents were presumed to have “vanished,” showing “little to interest them in the soon-to-be-famous geyser basins” (2020, p. 2-3). In many ways, the work of creating Yellowstone National Park was the work of erasing *Awé*

Púawishe so as to validate the park’s establishment and subsequent removal of Indigenous peoples from the land, both physically and in the minds of the U.S. public. Indigenous removal, in addition to being defined by forced relocation onto reservations, was an epistemological and ontological battle over steam.

For white citizens living in the 19th century, steam was the symbol par excellence of industrialization that defined U.S. progress. Steam harnessed in an engine was the driving force behind industrial capitalism, providing evidence that “man” could command “powers of nature,” propelling boats up rivers and later train cars over rails as colonialism via trappers and traders turned to entrepreneurs and tourists proceeding westward (Etzler, 1833, B). Since the mid-nineteenth century, steam billowing from trains or factories was an iconic image of industrialization and technological advancement in the United States. As a “power of nature,” steam was also a natural resource crucial for the establishment of Yellowstone National Park. Within Yellowstone, steam was demonstrative of “nature’s handiwork,” in progress since the beginning of geologic time (Langford, 1871a, p. 15). Geysers and hydrothermal features are near-synonymous with Western science’s understanding of Yellowstone. According to the U.S.G.S., of the near 1,000 geysers known to exist around the world, half are within the borders of the national park (U.S.G.S., 2019, n.p.). Hydrothermal features, which account for geysers, fumaroles, hot springs, mudpots and more, rely on subsurface structures and plumbing that transfers heat from the magma core of the earth to pools of water accumulated through the surface. As the water heats and begins to turn to steam, the growing pressure eventually forces the water above into the atmosphere accompanied by clouds of steam. Steam-powered features revealed unique, unparalleled natural wonders “adorned with decorations more beautiful than human art ever conceived,” requiring the protection of the federal government from destruction or exploitation brought on by steam-powered capitalism (Dunnell, 1872, n.p.). As both threat and threatened, steam provided evidence upon which the argument for the Yellowstone establishment was based, and thus was a critical component in the settler state’s continued seizure of lands in the west.

However, despite the efforts of explorers and the enduring legacy of Yellowstone, steam defied (and defies) the categories of nature/culture in which settlers attempted to situate it. In this essay, I argue that steam operates as a critical, other-than-human actor in the establishment of Yellowstone National Park and a broader, colonial posture towards the natural world that reflects a sharp division between nature and culture on the settler landscape. By appearing in contradictory contexts of powerful engines and pristine nature, steam was bifurcated into natural and cultural registers to justify the establishment of the natural park, denying steam’s simultaneity across-and-beyond engines and geysers and foreclosing alternative relationships to the land such as those of the region’s Indigenous residents. Approaching Yellowstone by bringing forth the other-than-human relations that made arguments for the park possible and demonstrating steam’s inherent resistance to nature/culture contests the very

idea of the park itself, its role in the settler state's expansion into the west, and its status as an exemplar of environmental politics.

Disrupting Yellowstone's border bears implication beyond how we approach national parks and their prominence on the U.S. landscape. Yellowstone is just one visible iteration of a colonial epistemology committed to a singular world bifurcated into oppositional realms of nature/culture. In the introduction to their edited collection *A World of Many Worlds*, Marisol de la Cadena and Mario Blaser describe this singular world as "the world of the powerful" and "a world where only one world fits" (de la Cadena and Blaser, 2018, pp. 2-3). Maintaining the "world of the powerful" requires countless, unending, violent iterations, even as they appear as "treasured landscapes." Critically, this epistemology serves as the bedrock of settler colonialism in the west where distinctions between culture and nature, "civilization" and its opposite, are mapped onto the land and the bodies of occupants: Indigenous peoples, white settler-colonists, and nonhuman nature. This epistemology informed a vision of the west as *terra nullius*, a practice that "actively creates space for the tangible expansion of the one world by rendering the places it occupies and making absent the worlds that make those places," (de la Cadena and Blaser, 2018, p. 3). As settler colonialism violently progressed west, the assertion of absence and need for expansion served as a precursor to forced clearing, boarding schools, and the designation of the reservation system—all of which made possible the expansive national park system U.S. Americans revere today (Kantor, 2007). At a more fundamental level, a violent and prevailing epistemology that only recognizes a world bifurcated in two realms makes no room for alternative epistemologies, multiplicity of worlds, and ways of relating to the nonhuman beyond a subject/object split. By thinking about Yellowstone "not only as such," by unraveling its powerful border which reiterates with each visitor, we can open possibilities for multiple worlds, ways of relating, and a divergent, decolonial politics (de la Cadena and Blaser, 2018, p. 11). In a time of perilous and catastrophic ecological collapse fueled by "the world of the powerful," we must seek openings for alternative modes of encountering what's now and what's to come.

In what follows, I trace steam through primary texts to bring forth its resistance to white settlers' colonial epistemology. This task of redescribing primary sources and revisiting steam within these colonial archives is inherently a political one, a process of worldmaking that challenges dominant colonial narratives, rendering "visible and analysable (sic)," the very conditions—a "field of coexistences" entwined with power, race, coloniality, and resistance—that both enable and exceed the categories of our design (Tell, 2019, p. 256, Foucault, 2010, p. 112, 99). To begin, I demonstrate a theoretical and methodological orientation to approaching and redescribing primary texts that illustrates the importance of steam to the establishment of Yellowstone National Park. Following the works of Bridie McGreavy, Nathaniel Rivers, Nathan Stormer (2016), and other rhetorical scholars invested theories and methodologies subsumed under a broad umbrella of new materialist and ecological scholarship, I suggest approaching steam as a wild object with the capacity to demonstrate the vast network of contradictory assemblages

responsible for the establishment of Yellowstone. Importantly, an orientation to wildness allows us to move beyond a consideration of steam from an epistemological vantage (how it is represented), to approach it ontologically, as an uncontainable entity, whose excesses expose the fragility of the categories in which humans seek to situate it. Tracing steam, illuminates the possibility of contesting a broader colonial legacy and disrupting "the world of the powerful," opening up possibilities for alternative modes of being and relating.

I approach this research as a white settler living on Indigenous lands, committed to the need for environmental communication, new materialist, and ecological critique to engage in the broader terrain of decolonial politics. In the service of this decolonial project, I adopt what Nathan Stormer describes as a "new materialist genealogy" to provide a close reading of primary texts produced in the immediate 2-year context (1871-1872) leading up to Yellowstone's establishment. Through this reading, I bring forth steam to demonstrate the entanglement of colonialism, race, and materiality in the establishment of the park *via* dominant discourses widely circulated and praised as crucial to the park's establishment: Nathaniel Langford's (1871) series *The Wonders of the Yellowstone* and the report of the first official United States Geological Survey through the region. In addition to the historical inaccuracies and myths surrounding Yellowstone, within these texts steam demonstrates an ontological tenuousness that also undermines the park's status. Following this, I turn to Thomas Moran's painting, *The Grand Canyon of the Yellowstone*. By engaging this painting from a new materialist and ecological perspective, I challenge the "truthfulness" of the painting on the grounds of its ontological assumptions, demonstrating the possibility and existence of alternative, Indigenous lifeworlds which directly challenge the power of the settler state.

I focus my attention on these dominant texts as they are critical in establishing and maintaining (both in the immediate context and the park's legacy) an orientation to the park that reverberates throughout U.S. environmental policy, bolstering practices like national park designations as effective modes of environmental sustainability and stewardship. In considering ways these texts participate in designating Yellowstone as "property," intended to curate an "escape" from politics or ecological collapse happening "somewhere else," we can interrogate them on the grounds of maintaining a "dominant ontology of devastation" rooted in patriarchal, Western understandings of how we relate to our environs (Escobar, 2018, p. 7). In his book *Designs for the Pluriverse*, Arturo Escobar argues that we must confront and interrogate such "patriarchal accounts" of the world that are "central to historicity of our being-in-the-world at present," so as to re-orient ourselves to alternative possibilities and modes of being (2018, p. 7). By unraveling dominant discourses that persist in collective identification with Yellowstone, the borders of the park that denote iconicity and exemplarity, unspoiled nature from cultural development become brittle, fragile, and so, too, does their dominance in discourses about environmentalism and an orientation to myriad other-than-human beings with whom we are enmeshed. Disrupting Yellowstone and undermining its

dominance demonstrates, unequivocally, that another world—and indeed worlds—are possible.

STRANGE ENVIRONMENTAL RHETORIC AND NATIONAL PARKS

Environmental rhetoric has long been attuned to discourses that establish the ideals of “nature” or “wilderness” in the minds of the U.S. public, acknowledging that “nature” and “wilderness” are not universal concepts but rather reflective of social and political power emergent in contexts ranging from empirical science and federal legislation to fine art and environmental activism. Within the field of rhetorical criticism, scholarship about national parks stresses the influence of individuals such as Carleton Watkins and John Muir, and corporations such as the Northern and Southern Pacific railroads in establishing a popularized, socially constructed wilderness. Whether dealing in the realm of symbols and transcendence (Clark, 2004), “origin myths” (DeLuca, 2001), or unacknowledged dimensions of race and class embedded within the “wilderness ideal” (DeLuca and Demo, 2001), scholarship in this vein tends to both the fragility and importance of nature’s social construction to U.S. national identity and popularized attitudes towards wilderness and environmental preservation. While recognizing these social constructions and myths to be flawed, critique remains situated at the level of discourse and corrective social constructions, such as DeLuca’s (2001) suggestion of a new myth that “reconceptualizes wilderness to bridge the chasm between wilderness and civilization, nature and culture” (DeLuca, 2001, p. 646).

Of course, the legacy of Yellowstone is entwined with myths of “discovery” and “untouched” nature, but as the excesses of steam demonstrate, even a new myth preserves a colonial logic—the world of the powerful—that sees a singular world of two discrete realms. The suggestion that reimagining representation is one way, if not *the* way, to reconcile our understanding of the natural world, operates within a circular logic by reifying (if not creating anew) “epistemic objects” of study and critique, such as revised myths or social constructions awaiting their own eventual correctives (Strathern, 2018, 25). For Nathan Stormer and Bridie McGreavy, prioritizing strategies that emphasize new epistemologies forecloses an ability to reconcile rhetoric as “a collective noun whose diverse members arise from material environments,” demonstrating “raveled relations” in which we are already enmeshed (Stormer and McGreavy, 2017, p.3). In this sense, this essay is not concerned with corrective histories of Yellowstone National Park or a new rhetoric about Yellowstone, but (un)raveling myriad relations that simultaneously illuminate and exceed the stubborn “world of the powerful,” opening new ways to ask questions about race and power that persist through Yellowstone National Park.

Across the humanities, new materialist and ecological scholarship offers a path to (un)raveling the relations involved in our collective worldmaking. One such example is Nathaniel Rivers’ 2015 Rhetoric Society Quarterly piece, “Deep Ambivalence and Wild Objects: Toward a Strange Environmental Rhetoric.” Recognizing the limitations of

traditional environmental critique outlined above, Rivers poses strange environmental rhetoric to suggest “a more intense rhetoric—one engaged not simply in human discourse,” but in relationality between humans, nonhumans, and objects (Rivers, 2015, p. 422). Strange environmental rhetoric seeks to draw our attention to the inherent wildness of objects. Adopted from Thomas Birch, wildness is that which becomes contained in wilderness spaces (Rivers, 2015, p. 423). Within wilderness, objects with their own wild, excessive, idiosyncratic rhetorical agency become situated as part and parcel of that particular wilderness domain, reduced to a position of pure contrast (nature or culture) (Rivers, 2015, p. 423). Thus, strange environmental rhetoric recognizes wildness as a fundamental feature of all entanglements and acknowledges the “material-rhetorical agency that exceeds our particular abilities as humans to describe or delimit” (Rivers, 2015, p. 424). In their meditation on Lake Superior, Joshua Trey Barnett and David Charles Gore discuss wildness *via* the lake’s ability to “(undermine) our impulses to represent and objectify, with their attendant imperatives to master and control” (Barnett and Gore, 2020, p. 40). Citing Jane Bennett, Barnett and Gore sketch wildness as a profound disturbance that “confounds settled projects, techniques, and myths” and “troubles every attempt to stabilize the world, to transform it from a teeming, vibrant, dynamic, mysterious place into something that can be known, predicted, or managed,” such as a national park curated and controlled (2020, p. 40). Wild objects are everywhere, Rivers contends: “Antarctica, Yellowstone, a city playground, the air ducts in my house, my desk drawer, and my large intestine.” Indeed, wild objects do populate and proliferate Yellowstone—though as steam demonstrates, wild objects had to be contained as wilderness or its opposite in order for the national park concept and its concurrent logics to come to fruition.

Counter to prioritizing human discourses about the environment and limiting intervention to questions of epistemology, strange environmental rhetoric is an “ontologically flavored rhetoric (...) predicated on a kind of being in the world: being across a flat ontology in which all beings are equally emplaced” (Rivers, 2015, p. 432). As developed by Levi Bryant, flat ontology “invites us to think in terms of collectives and entanglements between a variety of different types of actors, at a variety of different temporal and special scales, rather than focusing exclusively on the gap between humans and objects” (Bryant, 2011, p. 32). Importantly, flat ontology generates a perspective that “we cannot treat one kind of being as the ground of all other beings” and presents a direct challenge to settler colonialism that centers the western subject as the rational actor, capable of imposing categories—such as nature/culture—onto a range of beings in service of imperial, extractive ends (p. 73). As wildness inherently lends itself to reconsiderations of ontology, it is worth expanding upon Stormer and McGreavy’s raveled relations and the role of ecology as “an orientation to patterns and relationships in the world” (2017, p.3). To recognize these patterns and relationships, Stormer and McGreavy follow Thomas Rickert’s call for a shift from rhetorics of and about a given object or phenomenon (such as

Yellowstone) towards orientations that recognize “more fundamental insights into an a priori enmeshment of person and world” so as to account for “how the material environment itself matters for how life is conducted” (2017, p. 4). Thus, national parks, such as Yellowstone, operate not as a singular object onto which rhetoric is imposed, but rather raveled relations encompassing all manners of human and other-than-human beings “needed for kinds of rhetoric to emerge” (2017, p. 4). Stopping short of outlining an explicit methodology, Stormer and McGreavy offer a reconsideration of rhetorical commonplaces that can better guide scholarly work investigating disparate phenomena. As a “different grounding,” the revised commonplaces of capacity (as opposed to agency), vulnerability (contrary to violence), and resilience (instead of recalcitrance) can help direct methods in service of an ecological orientation (2017, p. 4). For the purposes of outlining a methodological orientation towards steam, I will focus my attention on capacity.

Though often collapsed and considered synonymous, agency and capacity are, for Stormer and McGreavy, distinct. As agency “identifies force by its application,” capacity “imagines force in its relations,” and provides a means of “emphasizing the ecology of entanglements between entities over the abilities that are inherent to humans” (2017, p. 5). In this sense, a dynamic network of varying, intermingled beings (such as scientific theories about geysers, the boilers of a steam locomotive, and fine art) capacitate rhetoric, or “(foreground) what a particular kind of rhetoric can do in an adaptive system” as opposed to “the human becom(ing) a homogenizing agency of agencies that masks rhetoric’s ecological, emergent capacitation” (2017, p. 6-7). By engaging in a close reading of primary texts, I present what Stormer calls a “new materialist genealogy” which engages “the material knots and coils that make a given rhetoric possible as a variety of addressivity: not as a subject acting on others through discourse but as a set of capacities for address that forms and fades within fields of power” (2016, p. 306). Building off Ladelle McWhorter, Stormer suggests that such an approach makes possible an “iterative embodiment that undercuts dominant ontology by actualizing some of its plasticity (...) exploit(ing) contingency as much as it shows it” (2016, p. 308). Within the context of this project, steam’s “capacity to affect certain consequences in the world” and the “incorporation (of those consequences) into larger power relations,” means that steam’s inherent wildness and capacity to engage and exceed relations in which it is embedded, demonstrates that the ontological assumptions upon which the idea of Yellowstone rests are equally flexible and fragile (2016, p. 308). Illuminating this plasticity provides an alternative mode for seeing the raveled contingencies of race, power, and coloniality, and imagining possibilities for resistance.

Given this critical focus, this essay also accounts for critiques levied against “ontologically-flavored” methodologies for their curious absence in questions of race and power. Despite the fact that a fundamental premise of new materialist and ecological critique is a disruption of nature/culture, subject/object, human/nonhuman distinctions upon which western rationality and colonial logics find footing, it rarely acknowledges its inherent

potential for decolonial critique and praxis. In her article, “Gifts, Ancestors and Relations: Notes Towards an Indigenous New Materialism,” Jennifer Clary-Lemon articulates this assessment, calling into question the “newness” of new materialist work by drawing forth its indebtedness to Indigenous knowledges premised upon ontologies not accounted for by dominant western texts. While I do not read her critique as one that seeks to cast out new materialist or ecological work, I do take up her call for “new materialist projects” to serve an explicit “anti-colonial agenda” as a critical intervention (Clary-Lemon, 2019, n.p.). Similarly, Angela Wiley, in her essay “A World of Materialisms: Postcolonial Feminist Science Studies and the New Natural,” echoes this by suggesting that “thinking postcolonial feminist science studies and new materialisms together can open a more explicit conversation about the relationship between (postcolonial feminist) epistemologies and (new) ontologies” (Wiley, 2016, p. 996). Through the third section of the analysis, I contribute to a conversation about the relationship between new materialism and decolonial politics, demonstrating new materialism’s suitedness to engage in and support Indigenous and decolonial resistance. If the establishment of Yellowstone is an attempt to foreclose of alternative modes of being with and of the land, then wildness necessarily suggests a potentiality outside of dominant epistemologies, an ability to live in and with the excesses of the other-than-human, and an opening for solidarity and resistance.

STEAM-POWERED TOURISM

According to park historian Aubrey Haines, Nathaniel Langford was responsible for initiating and documenting the first complete journey by white men through the upper and lower valleys of the Yellowstone River basin (Haines, 1999, p. 100). Langford, a settler living in the Montana territory, was motivated by the promise of steam-powered tourism to attract notoriety and development in the region. To serve that goal, he developed a strategic and fortuitous relationship with Jay Cooke, the primary financier of the Northern Pacific Railroad (N.P.R.R.). Who was seeking exposure and investment in his financially volatile line. If Langford proved correct about the mysterious phenomena of the Yellowstone, the N.P.R.R. would have an important advantage against competing railways in the form of an exceptional destination, while Langford’s goals of attention and investment in Montana would be realized *via* Cooke’s development and publicity. For both, the steam-powered locomotives of the N.P.R.R., as a means of generating profit from tourists and investment, served important goals. Cooke agreed to fund Langford’s expedition and on August 22, 1872, the Washburn-Langford-Doane Expedition departed Fort Ellis, Montana.

Upon his return to Helena, Langford spent roughly 6 weeks turning his notes into a manuscript for publication (Haines, 1999, p. 137). Parts one and two of “The Wonders of the Yellowstone” were published by Scribner’s Monthly in May and June 1871. Within these pieces, steam’s wildness was carefully contained as a

tourist attraction to be visited by the N.P.R.R.'s steam-powered engines ferrying visitors from the east to witness unparalleled attractions praised as the "grandest scenery on the continent," including "boiling springs, mud volcanoes, huge mountains of sulfur, and geysers more extensive and numerous than those of Iceland" (Langford, 1871a, p. 2). Residents of nearby Bozeman were described as "patiently awaiting the time when the cars of the 'Northern Pacific' [shall] descend into their streets," bringing with them the notoriety and development of steam-powered industry (Langford, 1871a, p. 3). In this way, steam was both empire's infrastructure and impetus for development at the same time it offered a singularly unique attraction made possible and visible by the N.P.R.R. Steam underscored the relationship between geysers and locomotives and thereby the way in which Langford tamed the wildness of steam in and around Yellowstone—for publicity and profit. Importantly, visual depictions granted Langford's prose an additional level of veracity and reinforced the authenticity of his descriptions. Philadelphia-based artist Thomas Moran was hired post hoc by Scribner's to provide the images based from Langford's prose as visual evidence disabusing the skeptical reader and enticing public enthusiasm. In **Figures 1, 2** representative examples of Moran's work for Scribner's, steam is an important feature, emanating from the ground or surrounding a jet of water, not dissimilar from steam being expelled from the boilers of an engine. Moran's inclusion of barely-visible observers lend to understanding the impressive magnitude of the features.

For Langford, steam relieved mankind from the toil of industrial life—the engines provided an escape and the geysers could fill the visitor with wonder. Though he was not himself a scientist, he demonstrated a fundamental understanding of the role in steam propelling geysers when attributing their massive explosions to "the production of steam (...) so instantaneous and so considerable as to cause explosion" (Langford, 1871b, p. 128). In other words, Langford was well-aware that steam was powering the magnificent features he sought to publicize. In order to capture the steam-powered geysers a practical tourist attraction, he organized them into a recognizable spatio-temporal schema through the naming and timing of the features (see **Figure 3**). In this way, the geysers were circulated as individual attractions comprising a larger "Wonderland" beyond the everyday imagination, full of peculiarities and curiosities unfamiliar to readers that could only be reached by the cars of the N.P.R.R. To communicate the reality of "Wonderland," Langford's piece named the geysers a tourist might encounter in the Lower Basin, recording the regularity of their eruptions, and providing notes for Moran to sketch them into a map a visitor could consult (Langford, 1871b, p. 121).

Here, in **Figure 3** steam is depicted emerging from the ground both with the named geysers and as a broader, ambient feature of the park, even stretching into the hillsides surrounding the basin. Notably, the map includes Yellowstone's most iconic geyser, Old Faithful, depicted by a jet of water and engulfed in steam. The expedition members encountered this "perfect geyser," just before the end of their expedition (Langford, 1871b, p. 123). They recorded its eruptions "at regular intervals nine times," with discharges lasting "from fifteen to 20 min" (Langford, 1871b,

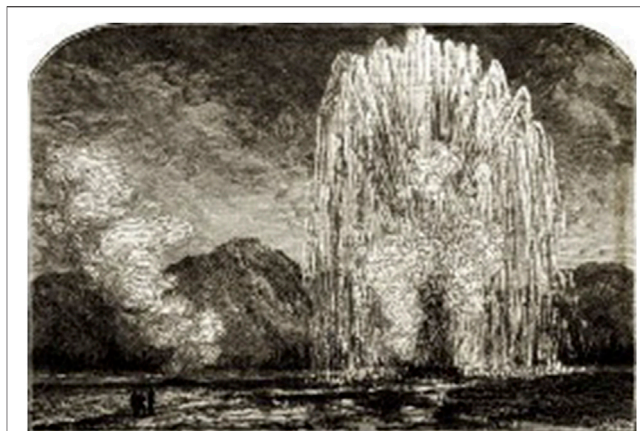


FIGURE 1 | Woodcut by Thomas Moran of the "Fan" geyser. Featured in Part 2 of Langford's *Wonders of the Yellowstone* (1872).



FIGURE 2 | Woodcut by Thomas Moran of the "Giant" geyser. Featured in Part 2 of Langford's *Wonders of the Yellowstone* (1872).

p. 123). As a result of this regularity and impressive magnitude, the party "gave it the name of 'Old Faithful'" and thus the most iconic feature of Yellowstone National Park was born. Old Faithful provided Yellowstone with something wholly distinct from the waterfalls and giant sequoias of the Southern Pacific's Yosemite. Both the description and accompanying visual evidence helped restrain steam's wildness into a nameable tourist attraction explicitly connected to the N.P.R.R. Steam played an indispensable role in steam-powered tourism *via* the locomotive and the landscape that would prove profitable for both Montana and the railroad. The recognizability of steam, as something that created the conditions of metropolitan life in the industrial cities of the east from which people desired relief, took on a new meaning when situated in the new "Wonderland."

In order for Yellowstone to be practicable as an attraction for the N.P.R.R. and the Montana Territory, Langford and Moran rendered the wildness of the natural world, specifically steam, sufficiently stable and intelligible for circulation which like the



FIGURE 3 | Bird's-eye view of the geyser basin, by Thomas Moran. Featured in Part 2 of Langford's *Wonders of the Yellowstone* (1872).

steam engine, evidenced man's ability to control and contain the powers of nature for capitalist ends. In considering the park's future, Langford predicted that when "the wonders of the Yellowstone are incorporated into the family of fashionable resorts," the geysers of the Lower Basin would be among their most noteworthy features (Langford, 1871a, p. 7). By Langford's estimation, in no other location in the world could such marvels be seen and experienced by the visitor. Luckily, the wonders were packaged, so to speak, to be immediately accessible both financially through the publicity of the N.P.R.R. and armchair travelers, and physically through the locomotive with which Langford closes his piece, bringing forth steam-powered industrial progress by promising that "by means of the Northern Pacific Railroad, (...) the traveler will be able to make the trip to Montana from the Atlantic seaboard in 3 days, and thousands of tourists will be attracted to both Montana and Wyoming in order to behold with their own eyes the wonders here described" (Langford, 1871b, p. 128).

In "The Wonders of the Yellowstone," representations of steam functioned as a means of making valuable and stabilizing its wildness as understood in relation to railroad tourism and the expansion of empire. Steam's value was established as named and scheduled geysers, anticipating the arrival of tourists by way of the steam engine to witness timely performances of unparalleled excellence. In other words, though steam was simultaneously visible in two distinct contexts—the geysers and railroads—within Langford's prose it remained directly tied to the burgeoning railroad industry, the potential of tourism, and the rapidity of westward expansion. However, land could not be set aside in the interest of a railroad company alone. In order for the national park idea to come to pass, steam-powered geysers also had to be legible and contained as unique objects of scientific study and inquiry—creating a space for nature's "domain" to be evident in the park. Thus, steam's wildness was iterated in a second, competing register removed from private development. This was made possible through the official United States Geological Survey of 1871.

STEAM-POWERED NATURE

On January 19, 1871, Langford made his first appearance on his promotional lecture circuit "to a small audience in Lincoln Hall, Washington, D.C." (Haines, 1999, p. 137). Of those in attendance was Dr. Ferdinand V. Hayden, the head of the U.S. Geological Survey of the Territories. Hayden previously attempted to reach the Yellowstone region but due to limited resources and harsh weather was forced to abandon his journey. Langford's talk, accompanied by Moran's woodcuts, reignited Hayden's desire to visit the region in his official capacity with the U.S.G.S. Hayden decided to "capitalize on the current interest in the Yellowstone region by asking Congress for funds to explore it officially" (Haines, 1999, p. 138).

Though steam still powered the engines defining the present and future of the eastern United States and colonial project of westward expansion, it would not be the steam of profit and progress that Hayden encountered in Yellowstone. As a dedicated geologist, he sought to limit wild steam as an object of scientific investigation, contributing to geological theorems, and fixated in the realm of natural sciences. The thirty-two members among Hayden's expedition operated as, in the words of Isabelle Stengers, part of the "hegemonic conquest machine called Science, blindly, unilaterally imposing so-called objectivity and rationality over whatever exists" (Stengers, 2018, p. 87). Scientists ranging from agricultural statisticians to zoologists, as well as the photographer and documentarian William Henry Jackson, captured what would be considered an objective and authoritative account of the region's natural features, "untouched" by man, and masquerading as grounds for removal from any potential claim to the lands occupied by Indigenous peoples for generations. Importantly, one member of the expedition was not selected by Hayden but rather "accompanied the expedition directly in the interest of the Northern Pacific Railroad Company": Thomas Moran, whose legacy in the history of Yellowstone would be solidified after his return home (Haines, 1999, p. 142).

The 6-weeks spent in the Yellowstone region resulted in "incontrovertible evidence of the existence and nature of those thermal features that had so long been rumored to exist upon the Yellowstone plateau" (Haines, 1999, p. 151). The "mass of field notes, sketches, photographs, and specimens" populated the Preliminary Report of the United States Geological Survey of Montana and Portions of Adjacent Territories, issued as an Executive Document in February of 1872, although Hayden was already in conversation with legislators about his findings as early as October of 1871 (Haines, 1999, p. 152). While the report contained accompanying accounts from fellow expedition scientists, it was Hayden who wrote in detail of the hydrothermal features, specifically the geysers.

In the report's introduction, Hayden included a "Letter to the Secretary (of the Interior)," overviewing the survey's critical role in curating "extensive collections in geology, mineralogy, botany, and all departments of natural history," for the purpose of being "arranged in the museum of the Smithsonian Institution," with duplicates "distributed to the various museums and institutions of learning in our country" (Hayden, 1872, p. 4-9). Hayden

himself prepared "charts of all the Hot Spring groups" found in the Upper and Lower Geyser basins (Hayden, 1872, p. 4). The goal of the journey was not to establish the geysers as potentially profitable, but rather to bolster "the honor of our country" and provide an "increase in human knowledge" (Hayden, 1872, p. 4). Steam was stabilized at the intersection of scientific empiricism and U.S. American exceptionalism.

Experiments performed in the field served to test theories of geysers. Bunsen's theory of geysers, which Hayden considered "the simplest and probably the most correct," guided many of their observations and is not dissimilar from contemporary understandings of how steam powers geysers in action (Hayden, 1872, p. 186). Bunsen's theory posited that beneath the surface of the earth, steam entered "ducts at the bottom of (a) tube" gradually propelling a column of water upwards (Hayden, 1872, p. 186). As the water rose, it reached its boiling point more quickly, creating an "excess of heat" generating more steam, until "suddenly the water above is thrown into the air, mingled with clouds of steam," resulting in "the geyser in action" (Hayden, 1872, p. 186). While steam was evidenced on the surface, making hydrothermal features knowable, Hayden understood its role in compelling the geysers into action. Elsewhere, Hayden commented on hissing sounds emanating from the ground, similar to that of pressure releasing from the steam engine. Near Alum Lake, he drew a direct comparison distinguishing steam-powered geysers and locomotives when noticing "a powerful steam-vent with the strong, impulsive noise like a high-pressure engine, and hence its name of Locomotive jet" (p. 88-89). In one remarkable passage, Hayden describes an early morning view of a valley which was "filled with columns of steam, ascending from more than a thousand vents" (p. 112). The scene was not necessarily unfamiliar, as he "(compared) the view to nothing but that of some manufacturing city like Pittsburgh, as seen from a high point, except instead of the black coal smoke, there are here the white delicate clouds of steam" thus directly juxtaposing the polluted industrial city to the purity of nature unfettered (p. 112). On occasion, steam also posed a threat to the scientists, preventing them from gauging accurate measurements. In regards to attempts at measuring the temperature of a hot spring, Hayden wrote that due in part to "the heat from the steam, it was impossible to take the temperature except at the edges, and by no means at the hottest portion" (Hayden, 1872, p. 70).

Though Hayden's approach to the geysers was as an objective scientist, he was no less struck by the magnificence of the geyser basin. He noted vivid colors displayed in the hot springs, such as the series of "small continuous steam-vents, all of which were elegantly lined with the bright-yellow sulfur," architectural formations of geyser mounds, and the frequent, reliable nature of their eruptions (p.71). Noting the "quantities of steam (. . .) ever ascending from the springs," Hayden commented that "on a damp morning the entire slope of the mountain is enveloped in clouds of vapor" (p. 71). While he on occasion would utilize the names of the geysers provided by Langford, geysers were primarily distinguished by differing physical or chemical

properties, networked to other hydrothermal features, natural processes, and existing theories about hydrothermal activity. In contrast to the navigable walking map presented by Langford, Hayden provided a cross-sectional illustration of the geyser basin that showed steam emanating from the surface, emerging from a network of subterranean tubes (see **Figure 4**). His maps situated steam in a larger geologic framework, contrasted from cultural enterprises of steam-powered tourism and industry. The wildness of steam was restrained, furnishing argument based in science and "value-free objectivity," not capitalism, for removing the lands from the public domain.

In his 1917 book about the history of Yellowstone, former park superintendent Hiram M. Chittenden claimed, in no small measure, "To no individual is the public more indebted for the creation of the Park than to Dr. F.V. Hayden" (Chittenden, 1917, p. 96). When the act was initially presented to Congress on December 18, 1871, the bill proposed to "set apart a certain tract of land lying near the headwaters of the Yellowstone as a public park" (Sen. Pomeroy, 1871, p. 159). Representative Samuel Pomeroy of Kansas, cited Hayden's "very elaborate report on the subject," as grounds for supporting the park designation (Sen. Pomeroy, 1871, p. 159). The boundaries of the proposed park were "furnished by Dr. Hayden," encompassing a region forty miles by fifty, with special attention to "valuable hot springs (and) geysers" in the Upper and Lower Basin—features uniquely valuable within a larger network of scientists, the institutional prestige of the Smithsonian as a guardian of objective knowledge, and the various instruments, theorems, charts, calculations, and measurements produced and utilized by the U.S.G.S. (Chittenden, 1917, p. 93; Sen. Pomeroy, 1871, 159).

While the bill was under consideration, Hayden and Langford were present in the Capitol working tirelessly to encourage its passage. Hayden, occupying "a commanding position" in the effort, curated an exhibit "likely seen by all members of Congress" where he presented "geological specimens brought back from the Yellowstone region by his 1871 expedition, and with them some typical (William Henry) Jackson photographs and Moran sketches" (Haines, 1999, p. 168-9). This evidence "did work which no other agency could do, and doubtless convinced everyone who saw them that the region where such wonders existed should be carefully preserved for the people forever" (Chittenden, 1917, p. 93). Though Langford's Scribner's piece was also distributed to all members of Congress, Hayden's evidence supporting the uniqueness of Yellowstone as a place needing protection ultimately justified the passage of the bill, cementing its place in environmental history. Hayden celebrated the speed at which the bill was passed and praised the beginning of "an era in the popular advancement of scientific thought, not only in this country, but throughout the civilized world" defined by the establishment of a national park (Hayden, 1872, p. 162). As a marker of scientific achievement, Hayden appreciated, "at a time when public opinion is so strong against appropriating the public domain," the legislature saw fit to set aside a 3,578 square mile tract, "for the benefit and instruction of the people" (Hayden, 1872, p. 162). In this sense, Yellowstone and its geysers circulated



IDEAL SECTION, UPPER GEYSER BASIN, FIRE-HOLE RIVER.

FIGURE 4 | Cross-section of the Upper Geyser Basin as presented in Dr. Hayden's U.S.G.S. Report (1872).

as “a tribute from our legislators to science,” deserving of the “gratitude of the nation and of men of science in all parts of the world (. . .) for this magnificent donation” (Hayden, 1872, p. 162).

On March 1, 1872, President Grant signed the Yellowstone Park Act, officially rendering the region “property” of the United States. This move effectively consolidated all of the wild, nonhuman actors inside, rendering them visible and “knowable” as nature through the enterprise of Western science “justifying” the work of the settler state as “objective” and “value-free.” The establishment of the park rendered Indigenous claims to the land “illegitimate,” Indigenous activity on the land “illegal,” and treaties that would have prevented such a seizure “null and void.” As a “donation” intended to serve “the benefit and instruction of the people,” the Yellowstone designation illustrates “how property laws (produce) (. . .) racial and capitalist power through philosophies and practices of use, abstraction, improvement, and status” (Vats, 2019, p. 513). In this sense, Yellowstone functions as an exemplar of “countersovereignty: a position of reaction to distinct Indigenous protocols governing life in the spaces the United States claims as a national interior” (Vats, 2019, p. 513).

With the establishment of the park, steam became territorialized from wildness to wilderness, and came to represent effective environmental politics that sees a strict, objective nature/culture split on the U.S. landscape. Every year, as 4 million visitors cross the border of the park, they reiterate the colonial logic that sees “wilderness” in place of “wildness” (Visitation Statistics, 2019, n.p.). The “ongoingness and ordinariness of the American project of empire,” such as visiting and reifying Yellowstone National Park, demonstrates the “constant struggle to impose countersovereignty and capitalism on those who resist it” (Vats, 2019, p. 513). In other words, the appropriate means of encountering and visiting Yellowstone encourages a narrow, curated experience of the wonders therein and singular mode of engaging other-than-humans, not from a posture of relationality, but commodity. Resistance to this singular mode, comes not only from Indigenous peoples who sustain kinship and ancestral ties to the land and its other-than-human inhabitants, but those other-than-human inhabitants themselves—such as steam—whose wildness makes the nature/culture split impossible. By utilizing a new materialist and ecological methodology to trace steam’s wildness through key texts supporting the establishment of the park and the delineation of borders between steam-powered industry and steam-powered nature, the borders that encompass the park are undercut and

contingent upon particular relations of power in which the settler state is enmeshed. However, “undercutting” the dominant discourse is not enough, without inviting alternative worldings, oppositional rhetorics, or a path for imagining places like Yellowstone as “otherwise.”

STEAM-POWERED RESISTANCE

To demonstrate an opening for alternative worldings, I turn my attention to a third critical artifact in the establishment of Yellowstone National Park; Thomas Moran’s 8-by-14 foot painting, *The Grand Canyon of the Yellowstone*, a piece he began on during his time on the Hayden expedition (**Figure 5**). As a result of this painting, Moran was celebrated as “a faithful interpreter of natural scenery,” employing a craft “by which absolute truth is caught and fixed in the splendor of picturesque art.” In attesting to its accuracy, Hayden commented that the painting was in fact “strictly true to nature.” In popular accounts, the painting portrays a vast landscape surrounding the Wyoming Lower Falls, capturing a “curious mass of cathedral shaped cliffs” whose magnificent architecture and coloring was “based on a substructure of lava and basalt, with superimposed strata of cretaceous formation, largely due to hot springs.” On the plateau between the waterfall and the distant Teton mountains “may be seen the jets of steam from the famous geysers,” whose notoriety had already been established *via* Moran’s Scribner’s sketches. All of these features, alongside every needle on every pine tree, each stratum in the cliffside, the waterfall, and the steam emanating from the “famous geysers” in the distance, were celebrated through this painting as property of the United States.

Despite its “accuracy,” an important element of the painting escaped popular press accounts of the time reinforcing the dominant fictions surrounding the park’s establishment. That is, in the center foreground of the picture, we find four men. Two of which, slightly positioned to the left, are tending to a horse and working from a notebook, respectively. In the middle, however, there is a depiction of General Hayden next to what we are led to believe is an Indigenous person signaled by traditional dress—the precise identity of this person is unknown, in all likelihood because the exchange never took place. General Hayden is seen gesturing in the direction of the canyon, towards the geysers on the distant plateau, next to a still, Indigenous figure.

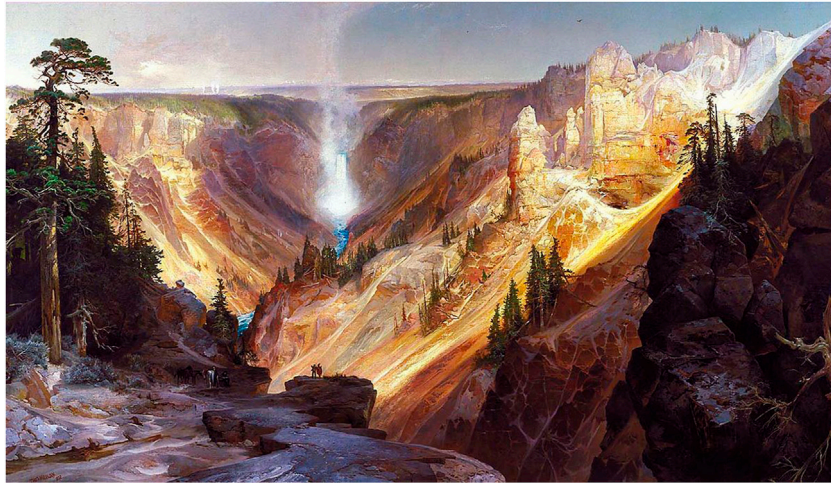


FIGURE 5 | The Grand Canyon of the Yellowstone, Thomas Moran, 1872. Oil on Canvas.

This portrayal, perhaps predictably, underscores several fictions surrounding the establishment of the park that must persist in order for the settler state to reinforce its claims to the Yellowstone region. First, that Indigenous peoples willfully accepted the imposition of the United States ceding the land from occupation by portraying this exchange as, if not amicable, then uncontentious. Second, the posture of General Hayden, gesturing towards the geysers suggests that of “educating” the Indigenous person about the region, reinforcing not just the falsehood elucidated by Spence that Indigenous peoples avoided or abandoned the region due to fear or ignorance of the geysers, but mirrors the work of boarding schools that sought to erase Indigenous knowledges and culture (Spence, 2000; Kantor 2007). Relatedly, it perpetuates the illusion of Yellowstone’s legitimacy because of its relationship to particular knowledges, namely a Western scientific “objectivity”—both of the legitimacy of science, and that this representation of the region is accurate. Finally, the painting buttresses the distinction and separation of Yellowstone from all that surrounded it. Ultimately, the painting reinforces all the varying elements that were required for Yellowstone to become property of the United States and elements that involved the epistemological and ontological situating of steam—the erasure of Indigenous peoples and knowledges, the guise of Western science and objectivity, and the legitimacy of the settler state’s claims to the region—all of which have been demonstrated to be intimately raveled with steam. These fictions exist not just in the immediate context the painting’s debut, but reiterated as visitors to the Smithsonian encounter the painting of “the people’s” park (see **Figure 6**).

However, uncovering these historical inaccuracies is just one (albeit critical) part of undercutting the persistent settler narrative of Yellowstone National Park. What is equally important is that steam itself demonstrates not just the material impossibility of the narrative the painting tells and of the park’s fragile borders. Steam’s wildness makes alternative modes possible. Steam is one of the countless other-than-human inhabitants that persist

The Grand Canyon of the Yellowstone

1872

oil on canvas

Thomas Moran

born Bolton, England 1837–died Santa Barbara, CA 1926

In the summer of 1871, Thomas Moran joined Ferdinand Hayden’s U.S. Geological and Geographical Survey of the Territories as the company’s artist. For sixteen days he and survey photographer William Henry Jackson sketched and photographed the Yellowstone’s most compelling features. Hayden incorporated their works into his report, along with his recommendation that the region be protected from development. Congress agreed, and on March 1, 1872, President Grant signed the bill establishing Yellowstone as America’s first national park.

Moran had already begun work on this monumental painting of the Yellowstone River, derived from sketches he had made from a vantage point later named “Artist Point” in his honor. Congress purchased the painting and placed it on view in the U.S. Capitol in Washington. Moran created a composite vista, capturing the spirit of place so effectively that most visitors believed he had simply transcribed what he had seen. This stirring landscape held a variety of meanings for viewers, simultaneously providing spiritual sustenance to those seeking a new supply of untouched nature, and an extraordinary survey, both scenic and material, of the riches of the West.

Smithsonian American Art Museum, Lent by the Department of the Interior Museum

FIGURE 6 | Placard accompanying Thomas Moran’s Grand Canyon of the Yellowstone at the Smithsonian Art Museum. Author Photograph, 2019.

through and beyond the park, though its wildness had to be contained as either threat or threatened, nature or culture, in order for the park concept to come to pass. As the settler state claimed Yellowstone National Park as federal “property,” it

reflected self-serving ontological and epistemological commitments onto the landscape. Inside, steam-powered geysers demonstrated scientific phenomena, knowable by western science, and outside, steam-powered engines created conditions of industrialization from which "the people" were sold refuge. The Yellowstone of Thomas Moran reflects this split. As Anjali Vats writes, though "property is a profoundly important keyword for thinking about race in the United States," and is "in all its forms is a socially constructed legal and cultural enterprise that is, neither monolithic or universal, (...) it leaves place for contestation, for oppositional rhetorics and enactments" (Mei Singh and Mullins-Ibrahim, 2019, p. 510). Steam's wildness unravels with oppositional rhetorics and enactments as its relations are far too numerous and expansive to fit the tidy categories of nature or culture, or the borders of a gilded frame. If steam is neither of these things and more, then what is protected in Yellowstone is not nature, but rather a particular mode of being with and knowing the world—nature as a protected refuge to be studied and admired as a visitor, and a place where we "leave no trace," as if our markings on the world are only tangible. Thus, we must seek an opening for an alternative. Steam's emergence on the horizon suggests not just the possibility of alternative worldings and relations with the land that defy colonial notions of "property," but actively participates in those worlds.

Steam was (and remains) intimately unraveled in the lifeworlds of the Indigenous groups referenced in the introduction whose habitation in Yellowstone preceded the arrival of the white settler and the notion of "property" by over 10,000 years. According to Sioux scholar Nick Estes, Indigeneity and Indigenous identity are deeply entwined with "kinship relations" to the land and its other-than-human inhabitants, such as steam (2019, p. 39). This identity, then, is not confined to the individual, but is found in relations to the land are deeper than ownership alone. This, Estes argues, is resistance—a way of "(existing) outside the logic of capitalism" (Estes, 2019, p. 401). Put differently, Indigenous identity, which explicitly acknowledges the entanglement of person and earth, and the inseparability of Indigeneity from the land, is an alternative enactment, and an act of resistance against the settler state and the power of whiteness as it works through property, industry, and ideals of nature. For the Crow, Blackfeet, Flathead, Nez Perce, and the associated bands of the Eastern and Northern Shoshone who still maintain connections to the region, steam is entwined with identity and practices related to medicine, spirituality, and stories of creation (Messa & Sims, 2021, n.p.). The centrality and participation of steam in Indigenous lifeworlds is evident in the many names by which different tribes refer to the region ("land of vapors," "land of smoke," "land of burning ground," and *Awé Púawishe*). For these groups, steam is not something upon which representational categories are imposed, but an active, engaged participant in worlding, resisting, and formation of shared identity. The Indigenous figure in the painting must serve as more than a reminder of historical inaccuracies; rather, the Indigenous figure demonstrates an oppositional rhetoric, an ongoing, endless unraveling of excessive relations with other-than-human beings

which necessarily contests the notion that *Awé Púawishe*—kin—could ever be propertied.

CONCLUSION

This essay examined the vital role of steam in establishing Yellowstone National Park, tracing how it played on both sides of a nature/culture dichotomy that proved indispensable to the establishment of an iconic U.S. landscape and the extension of settler colonialism into the west and its persistence in the popular environmental imaginary. Aside from the reveries of its unparalleled wonders, it continues to serve as an escape for tourists and naturalists alike from the trappings of a modern society replete with persistent, distressing reminders of climate crisis. For Langford, Yellowstone was a key component of steam as industrial power, capitalism's further extension into the west and Montana, and a place where tourists safely explored wonders exceeding their everyday imaginations, bolstering the stock of both railroad companies and the Montana territory. For Hayden's U.S.G.S., the park was a realized dream of an *in situ* laboratory where the natural world was contained as an object of study and examination—a gift of the federal government to scientific disciplines. Both of these iterations were required to establish and cordon off Yellowstone as "property" of the settler state. Even for contemporary armchair travelers, the story of Yellowstone is a persistent escape to the idea of nature's peaceful majesty, latent fury, and unadulterated scientific evidence of what nature really is. For the belabored contemporary environmentalist, Yellowstone's history represents a time when the Federal Government worked in concert to pass sweeping legislation that on its face favored preservation over profit. For some critics, Yellowstone's history exemplifies the extraordinary power of symbols and attendant myths in idealizing wilderness. Yet all of these perspectives foreclose possibilities for kinship and relationality with the land and its myriad human and other-than-human inhabitants. Further, these perspectives foreclose truly enacting decolonial resistance required not as a corrective to false histories of Yellowstone, but living and enacting alternative futures.

Additionally, this essay demonstrates the imperative for new materialist and ecological scholarship to both recognize its inherent potential to serve a broader decolonial agenda, but further, to support Indigenous resistance efforts against the settler state. Importantly, a new materialist approach helps us explicitly see that resistance is never located solely in a human agent. Rather, resistance necessarily involves our "raveled relations," with countless other-than-human agents, which far outnumber white Settlers. Evoking Fred Moten and Stefano Harney, Estes claims that "while Indigenous peoples have been rendered a statistical minority within their own homelands," it is "the settler (who is) surrounded and outnumbered" (2019, p. 388). In considering "the power of Indigenous lifeways and resistance has always surrounded settlers in North America," we see "a reminder of the settler state's own precarious claims to land and belonging," such as the claims to Yellowstone National Park, undermined by the wild capacity of countless other-than-

human beings (2019, p. 388). Returning to Standing Rock, Estes writes that “while corporations take on legal personhood under current US law, Water Protectors personify water and enact kinship to the water, the river, enforcing a legal order of their own” (2019, p. 400). “If water, a relative, is not protected,” he argues, “then the river is not free, and neither are its people” (2019, p. 400). In the path forward, and the resistance to the ravages of capital, “Indigenous people must lead the way,” and white settler-scholars must acknowledge the utility of our theories and methods in supporting and standing in solidarity with those efforts (Estes, 2019, p. 400).

What, then, does resistance look like in an age of ecological collapse and extinction-level events in, as Rivers puts it, “the world to come?” In this sense, steam can demonstrate that rhetoric itself is an ecological exercise, primed for resistance. It is important to recall that, in essence, steam is water vapor in a condensed state. Quite literally, steam is a visible iteration of the very thing that sustains life in all forms. When water vapor condenses under pressure, induced by heat, it becomes apparent at particular times and in particular locations, becoming significant as natural, cultural, or otherwise. Then, it dissipates, is forgotten, and returns to the unacknowledged “stuff” in which we survive and persist. This, I believe, is an important mode of understanding rhetoric in a world where we are constantly raveled—as a force that sustains the myriad things making life possible, meaningful, and more than rote survival. However, like steam, we often don’t notice rhetoric—or connection—until it announces itself in profound or noticeable iterations, illuminating bridges between disparate actors before it fades into the background of everyday life. As we consider ways in which rhetorical theory might shift in modes of ecological

thought and being, we can do best to remember that the relations we seek to identify and bring forth already exist and sustain us in our everyday lives and action. In this way, to consider how we think with an object like steam, we are forced to rethink our relationships to all other beings with whom we are continually involved in worldmaking, and in support of resistance alongside the seemingly mundane, the majestically iconic, and the barnyard of beings we have yet to meet.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/Supplementary Material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication.

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