ECHOES OF TRAUMA:

CHANGING PERCEPTIONS OF DISASTER AND THE ERASURE OF SPACE IN IDAHO'S BACKCOUNTRY

by

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A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in History

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ABSTRACT

This dissertation examines the interaction between Euro-American settlers and miners and the unique environment of central Idaho from 1863 to 1964, highlighting how cultural and social frameworks imported by these settlers led to recurrent disasters. The settlers' adaptation to these disasters, in turn, reshaped their cultural values and land-use practices. Focusing on the cultural impact of recurring small-scale disasters, or ‘chronic traumas,’ this work explores how Euro-Americans' settlement and early industrial activities in central Idaho led to a cycle of disaster and adaptation, including significant shifts in their collective identity and practices. The dissertation contends that vulnerability in relation to disasters is a dynamic, long-term process that reshapes communities beyond any recovery phase. Focusing on central Idaho, the thesis explores how a century of 'chronic traumas' influenced the evolving collective perception of disaster, beginning with a sense of necessary hardship, but later shifting to apathy and resignation. This dissertation also traces the interplay between culture and nature in central Idaho, revealing how their cultural imprints and the natural world's demands co-constructed the historical landscape and perceptions of wilderness. The research outlines how modernity's push on boundaries and the resulting disasters influenced the Euro-Americans'

relationship with central Idaho's wilderness, culminating in a changed perception of disaster and use of the land over time.

INTRODUCTION

In many ways, a history of central Idaho is a history of disaster. What that means is from almost the start of settlements in central Idaho, European-Americans experienced and later dealt with disaster in one form or another. This is not to suggest that disasters occurred more frequently there than in other places. Rather, over time, as Euro-Americans imported their social and cultural framework to the area, it combined with central Idaho's unique geographical environment to make it the perfect host to repeated catastrophes. In other words, through the introduction of their social organization and culture, Euro-Americans constructed their own disasters in central Idaho.[1] But the role Euro-Americans played in creating disaster is

[1] Sociologist Gary R. Webb identifies culture as the "norms and values, beliefs and ideologies, morals and laws, customs, language, and other shared elements that bind people together." For more, see Gary R. Webb, "The Cultural Turn in Disaster Research: Understanding Resilience and Vulnerability Through the Lens of Culture," in *Handbook of Disaster Research*, ed. Havidan Rodriguez, William Donner, and Joseph E. Trainor (Cham, SW: Springer International Publishing, 2018), 110. In addition to Webb, some of the works that have shaped my thinking on the cultural construction of disaster include: Ronald W. Perry and E.L. Quarantelli, eds., *What is a Disaster?: New Answers to Old Questions* (La Vergne, 2010); Gerrit Jasper Schenk, ed., *Historical Disaster Experiences: Toward a Comparative and Transcultural History of Disaster Across Asia and Europe* (Cham,SW: Springer International Publishing, 2017); Gary R. Webb and Tricia Wachtendorf, "Bringing Culture Back In: Exploring the Cultural Dimensions

only part of the story. Disaster, of course, also had a shaping influence on the people of central Idaho. Disaster scholars have long recognized this relationship in general linking catastrophe with people with an interest in understanding the coping strategies employed by societies that experienced disaster.[2] More recently, however, as sociologist Susanna Hoffman points out, scholars understand that disasters are a "social process set in motion by human priorities and decisions rather than acts of nature, retaliations from higher powers, or unfortunate accidents."[3] As such, the combination of choices and actions of a culture make some groups more vulnerable to an

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of Disaster," *International Journal of Mass Emergencies and Disasters* 18, no.1 (March 2000): 5-19.

[2] Samuel Prince's work in understanding the coping strategies of people in Halifax, Nova Scotia has long been recognized as the first of its kind in the field of disaster. See Samuel Prince, *Catastrophe and Social Change: Based Upon a Sociological Study of the Halifax Disaster* (New York: Columbia University, 1920). For more recent scholarship exploring the coping strategies of societies after disasters, see generally Christopher Mauch and Christian Pfister, eds., *Natural Disasters, Cultural Responses: A World History* (Lanham, MD: Lexington Books, 2009).

[3] Anthony Oliver-Smith and Susanna Hoffman, eds. *The Angry Earth: Disaster in Anthropological Studies Perspective* (New York: Taylor & Francis Group, 2019): 3; Anthony Oliver-Smith, "Peru's Five Hundred Year Earthquake: Vulnerability in Historical Context," in *Disasters, Development, and Environment*, ed. Ann Varley (New York: John Wiley & Sons, 1994): 31-48; Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (New York: Oxford University Press, 2006).

increased risk of hazard. Importantly, it is often those groups then that must adapt to their changing environment as a result of disaster.

Following these ideas, this dissertation examines the ways disasters made certain groups living in central Idaho between 1863 and 1964 more vulnerable and how those groups continually renegotiated their relationship with their environment. In anthropologist Anthony Oliver-Smith's insightful examination of Peru, he provides an excellent model of how vulnerability developed in historical context. This occurred, Oliver-Smith argues, following Spanish colonization and implementation of Spanish notions of building and living, which made native people's habitation increasingly more vulnerable to earthquakes. Although Oliver-Smith's point is to show how Peruvian people never actually readapted, he highlights the societal and human-environment relations that gave rise to disaster. Building on this examination, the story I tell looks beyond how vulnerability impacted a group's physical or economic stability, although these aspects certainly took a hit. I examine how the process of vulnerability also forced people to reevaluate how they assessed the values, beliefs, and norms within their culture that gave their way of life meaning. When gold miners in central Idaho, for instance, experienced repeated physical and financial disasters, the cumulative effect challenged cultural values centered on the importance of gold. Similarly, when forest fires repeatedly destroyed valuable timber in the area, stakeholders had to

reassess the way they viewed and valued timber. Altogether, these reassessments mattered, first because key groups living in central Idaho that were made vulnerable were forced to continually realign and readapt their values to survive both physically and financially. Over time, this meant the values, beliefs, customs—in short, the culture—of the people changed. And as much of their culture was thoroughly intertwined with the way they valued the physical world at that time, I argue that the way they interacted with and ultimately viewed their environment changed how they used the land. In other words, their changing perceptions of disaster ultimately shaped place and how they used it.

This dissertation traces the history of Euro-Americans living in central Idaho and their evolving relationship with nature as they experienced what they identified as disasters. I explore how dominant cultural elements including the culture of gold, values emphasizing individualism, technology, modernity, conservation, and wilderness, to name a few, shaped how people built their environment in central Idaho. In turn, I chart how the products of their constructions—disasters—forced them to recalibrate their values as a means of survival. I primarily focus on the industries Euro-Americans imported into central Idaho, including gold mining and later, logging, as the cultural values underpinning such industries dictated when, why, and how Euro-Americans settled the area. More importantly, however, such industries

set the tone of how Euro-Americans living there related to their environment. By examining how people made the journey to central Idaho, lived and worked there, and then left the area, I track how both the construction and understanding of disaster developed through the specific decisions and choices Euro-Americans made as a component of their culture. Overall, I find that the disasters Euro-Americans created manifest predominantly as physical catastrophe and financial failure. However, as people in the area played tag with disasters and adaptation, they also subconsciously learned to associate the space with catastrophe. Such perceptions, I find, made it easier for people to sever what tied them to the dominant culture of the moment, and start the shift toward new cultural elements that developed similar significance. Ultimately, I find that how people perceived disasters became the mechanism that encouraged cultural and physical change.

But which disasters? And which Euro-Americans were party to such constructions? Herein lies the core of this dissertation. In addition to tracking several single large scale catastrophic events—which, to the people who experienced them at the time, were profoundly calamitous—this dissertation traces a series of what sociologist Kai Erikson terms "chronic traumas," or repeated traumatic conditions that, over time, deeply influence the psychological and social dimensions of a community. Through several examinations of various communities' experiences with disaster—ranging

from a "series of misfortunes" to nuclear radiation, Erikson determines that such chronic exposure to traumatic conditions can gather force slowly and "[creep] around one's defenses rather than smashing through."[4] Like Erikson, this dissertation uses a similar approach by assessing disasters not by "naturalness," size, or the acuteness of the event, but by how seemingly smaller incidents gather force. As a result, both individuals and small groups—usually miners of European descent—became victim to catastrophe. While there were, in fact, several single large-scale catastrophic events during the period under examination, on their own, such events fail to fully account for the way people interacted with each other and within their environment, or how the predominant culture shifted through the years. Jerry Herron's study of Detroit fits within this mold. He examines the way Detroit stabilized, even adapted to, continuous disaster in the form of declining industrial modernity since the mid-twentieth century. By focusing on the way people associated Detroit with disaster and how that remembrance continued to dictate the city's disaster state, Herron calls attention to the importance of seemingly minor remembrances, collective perception, and the development of disaster over time.[5] In general, the

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[4] Kai Erikson, *A New Species of Trouble: Explorations in Disaster, Trauma, and Community* (New York: W.W.Norton & Company, 1994), 21.

[5] Jerry Herron, "Detroit: Disaster Deferred, Disaster in Progress," *South Atlantic Quarterly* 106, no.4 (Fall 2007): 663-682. For a similar use of

communities living and working in central Idaho were smaller and more interconnected due to working conditions, shared experiences, and the relative remoteness of central Idaho to other areas. Thus, if a community member experienced disaster or a trauma, it was significant, not only on an individual level, but to the collective as it was relative to the size of the community.

By looking at a series of calamities that all contribute to a collective perception of disaster, this dissertation also aims to highlight vulnerability as a process that occurs over time by tracing the history well beyond any traditionally accepted "recovery" period. In fact, by examining the occurrence and aftermath of disasters I emphasize that communities never really regained their pre-disaster state, but were permanently altered, which put that culture or society on an ever-changing path. Interestingly, sociologists have long understood that vulnerability in relation to disasters is not static, but rather "expresses changing social and economic conditions in relation to the nature of hazard and is part of a dynamic, evolutionary, and accretive process." Historians have yet fully to explore this dynamic.[6] In part, this

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disaster framed more broadly, see Robert Jackson, "The Southern Disaster Complex," *Mississippi Quarterly* 63, no. 4 (fall 2010): 555-570.

[6] Greg Bankoff, Georg Frerks, and Dorothea Hilhorst, eds., *Mapping Vulnerability: Disasters, Development, and People* (London: Earthscan, 2004): 2.

delay stems from historians' treatment of disasters historically as "freak events cut off from people's everyday interactions with the environment."[7] More recent historical scholarship, however, not only recognizes the social and cultural underpinnings of disaster, but that it is unnecessary to make analytical distinctions between "man-made" and natural disasters, as they are part and parcel to the same system of decisions and choices.[8]

That said, historians' work in disaster studies tends to fall into one of two categories. The first consists of historical examinations of disaster as an event, or micro-histories, that then traces the cultural, social, and political components that created vulnerability either as a consequence, or, as a catalyst for major social or institutional change. Karen Sawislak's examination of aid distribution following Chicago's great fire and Arnold R. Hirsch and A. Lee Levert's work unpacking the racial and political conflicts

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[7] Historian Ted Steinberg was one of the first disaster historians to call attention to studying disasters as a unique, ahistorical event, rather than as a cultural and social construction. See Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (New York: Oxford University Press, 2006), xxi.

[8] Kate Brown, *Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters* (Oxford: Oxford University Press, 2013); Eve E. Buckley, *Technocrats and the Politics of Drought and Development in Twentieth Century Brazil* (Chapel Hill: University of North Carolina Press, 2017); Amy M. Hay, "Recipe for Disaster: Motherhood and Citizenship at the Love Canal," *Journal of Women's History* 21 (1): 111-134.

after Hurricane Katrina are two such works.[9] While Sawislak uses the fire to explore the relationship between class, government and individual responsibility, and entitlement to aid, especially after disaster, Hirsch looks at the damaging effects of New Orlean's past treatment of African Americans to explain why race relations stood in the way of recovery after the hurricane. Both works demonstrate the social and cultural matrix that gave rise to new problems with race, class, and social responsibility; yet, both examinations stay centered on developments leading up to and shortly following the event. The second category consists of historians exploring disasters as an analytical lens to track broader institutional or societal developments, especially relating to disaster relief. Michele Landis Dauber's examination of the development of the welfare state in relation to disaster offers an eye-opening perspective of the ties determining disaster welfare relief and vulnerable

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[9] Karen Sawislak, *Smoldering City: Chicagoans and the Great Fire, 1871-1874* (Chicago: University of Chicago Press, 1995); Arnold R. Hirsch and A.Lee Levert, "The Katrina Conspiracies: The Problem of Trust in Rebuilding an American City," *Journal of Urban History* 35 (2): 207-219. For more on historical examinations of specific disasters as a catalyst for change, see Andie Horowitz, *Katrina: A History, 1915-2015* (Cambridge: Harvard University Press, 2020); Anna Rose Alexander, *City on Fire: Technology, Social Change, and the Hazards of Progress in Mexico City, 1860-1910* (Pittsburg, PA: University of Pittsburg Press, 2016); Steve Kroll-Smith and Shelby Brown-Jeffy, "A Tale of Two American Cities: Disaster, Class, and Citizenship in San Francisco 1906 and New Orleans 2005," *Journal of Historical Sociology* 26 (4): 527-551; Eric Klinenberg, *Heat Wave: A Social Autopsy of Disaster in Chicago* (Chicago: University of Chicago Press, 2002).

groups as society continually redefined an acceptable moral economy of blamelessness. Scott Gabriel Knowles' research is similar. He traces the relationship between disaster knowledge and the application of that knowledge toward risk reduction to demonstrate how disaster experts and disaster language emerged, which allowed people to develop strategies for dealing with disaster on a local and national level.[10]

These approaches offer an in-depth examination of the construction of vulnerability in relation to a specific disaster in time and place, or, more broadly, they chart the emerging infrastructure of a disaster obsessed society. This dissertation aims to walk a middle path. Place is important to my examination. As cultural geographer Yi-Fu Tuan explains, place is an

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[10] Michele Landis Dauber, *The Sympathetic State: Disaster Relief and the Origins of the American Welfare State* (Chicago: University of Chicago Press, 2013); Scott Gabriel Knowles, *The Disaster Experts: Mastering Risk in Modern America* (Philadelphia: University of Pennsylvania Press, 2011). For other historical works that explore disaster more broadly, see Kevin Rozario, *The Culture of Calamity: Disaster and the Making of Modern America* (Chicago: University of Chicago, 2007); Julia F. Irwin, *Making the World Safe: The American Red Cross and a Nation's Humanitarian Awakening* (Oxford: Oxford University Press, 2013); Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (New York: Oxford University Press, 2006); Carl-Henry Geschwind, *California Earthquakes: Science, Risk, and the Politics of Hazard Mitigation* (Baltimore: Johns Hopkins University Press, 2001); Paul Bonnifield, *The Dust Bowl: Men, Dirt, and Depression* (Albuquerque: University of New Mexico Press, 1979); Bob Considine, *Man Against Fire: Fire Insurance Protection from Disaster* (New York: Doubleday, 1955). For other studies that use a similar historical framework, although are not written by historians, see Marie-Hélène Huet, *The Culture of Disaster* (Chicago: University of Chicago Press, 2012).

"organized world of meaning" made possible when space is transformed into place through perception, social relationships, and culture.[11] But by tracing the many iterations of disaster as it took shape over the course of a hundred years, my aim is to decouple the understanding of disaster from any specific event as it is only a snapshot of how people identified calamity at that time. Rather, I hope to draw attention to a broader, longer-term understanding of the role of disaster in shaping place, and conversely, the way a community's values, customs, and beliefs helped define disaster in any given period. Cynthia A. Kierner's more recent examination of the historical roots of our contemporary culture of disaster offers just such a model. Using case studies and the historical breadth of three hundred years to trace the cultural history of the idea of disaster, she finds that disaster's roots stemmed from the interplay of science, technology, and environment, which deeply influenced how people understood it.[12]

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[11] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minneapolis Press, 1977): 179. For more works that influenced my understanding of space, see Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Cambridge, MA: Basil Blackwell Ltd, 1991); Andy Merrifield, *Henri Lefebvre: A Critical Introduction* (New York: Routledge, 2006); Jo Guldi, "What is the Spatial Turn?" *Scholars Lab*, University of Virginia Library, accessed August 16, 2015, http://spatial.scholarship.org/spatial-turn/what-is-the-spatial-turn/.

[12] Cynthia A. Kierner, *Inventing Disaster: The Culture of Calamity from the Jamestown Colony to the Johnstown Flood* (Chapel Hill: University of North Carolina, 2019).

By shifting focus from single events to chronic traumas, I argue that cumulation of such experiences helps account for a growing, collective perception of disaster as it changed over time. As historian Greg Bankoff explains, "[h]ow history renders a community vulnerable is not simply a matter of understanding hazards as an event but of also considering it as a process that constructs its own perception of disaster."[13] In other words, although chronic traumas induced a condition that loomed over people's perceptions of central Idaho, the way they remembered such disasters constantly changed because they were temporally produced. Historian Steven Biel's study of how popular culture remembered the sinking of the Titanic offers an example of such an analysis. Biel examines the way different groups, including anti-suffragists, African Americans, and technologically obsessed people during the Cold War era made meaning from the disaster and adapted these meanings to suit their needs over time. According to Biel, although popular culture now might perceive the Titanic to be a timeless tragedy that has resonated with people since the event, he argues that it and other such disasters are actually "contingent and contextual." How people remembered the event was dependent upon a specific period in time, which

[13] Greg Bankoff, "Time is of the Essence: Disaster, Vulnerability, and History," *International Journal of Mass Emergencies and Disasters,* 22, no.3 (2004): 36.

then shaped people's understanding of the event, and by extension their culture at that moment.[14] Like Biel, I find that the way people in central Idaho made meaning of their disaster experiences changed both over time and within different groups. In my story, however, I chart these changes across a narrative arc that began with hopeful expectation and ended with apathy and resignation. As expectation for prosperity in central Idaho climbed, people were willing to rewrite their experiences with disaster as necessary hardships. But as expectation failed to meet reality, it took a toll

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[14] Steven Biel, *Down with the Old Canoe: A Cultural History of the Titanic Disaster* (New York: W.W.Norton &Co., 1996); For other works that deal with changing perceptions of disaster and the importance of perceptions on local knowledge, see Robert Jackson, "The Southern Disaster Complex," Mississippi Quarterly 63, no. 4 (fall 2010):555-570; Diana Di Stefano, *Encounters in Avalanche Country: A History of Survival in the Mountain West, 1820-1920* (Seattle: University of Washington Press, 2013); Kenneth E. Foote, *Shadowed Ground: America's Landscapes of Violence and Tragedy* (Austin, TX: University of Texas Press, 1997); Whitney Barlow Robles, "Atlantic Disaster: Boston Responds to the Cape Ann Earthquake of 1755," *The New England Quarterly* 90, no.1 (March 2017), 7-35; Simon Schama, *Landscape and Memory* (New York: Alfred A. Knopf, 1995); Katherine G. Morrissey, *Mental Territories: Mapping the Inland Empire* (Ithaca, NY: Cornell University Press, 1997); J.Brian Houston, Betty Pfefferbaum, and Cathy Ellen Rosenholt, "Disaster News: Framing and Frame Changing in Coverage of Major U.S. Natural Disasters, 2000-2010," *Journalism and Mass Communication Quarterly* 89 (4):606-623; Tovi Fenster and Haim Yacobi, ed., *Remembering, Forgetting, and City Builders* (New York: Ashgate, 2010); Thomas Zeller, "'The Landscape's Crown': Landscape, Perceptions, and Modernizing Effects of the German Autobahn System," in *Technologies of Landscape: From Reaping to Recycling*, ed. David E. Nye (Amherst, MA: University of Massachusetts Press, 2000).

on morale and people's willingness to reframe the nature of the chronic traumas that they experienced.

This dissertation is about more than just disasters. It is also about environment and the intersections between the people of central Idaho, their natural world, and the meaning they made from those encounters. Like much scholarship in environmental history, this dissertation grapples with how to characterize people's interaction with their environment. A culturalist perspective, for instance, emphasizes the close relationship between the character of the land, and the development of social, cultural, and economic history of a region or place. In contrast, a naturalist perspective asserts the importance of the natural environment on how humans have developed, and in turn, how they have affected the natural world.[15] This dissertation leans more toward a culturalist perspective, especially as it implies that both nature and man engage in a perpetual tango by shaping and reshaping each other—much like the process of disaster.

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[15] For literature on the debates arguing for and against a cultural landscape or a natural environment, see Donald Worster, "Seeing Beyond Culture," Journal of Environmental History 76, no.4 (March 1990): 1142-1147; Donald Worster, "Appendix: Doing Environmental History," in *The Ends of the Earth: Perspectives on Modern Environmental History*, edited by Donald Worster and Alfred W. Crosby (Cambridge: Cambridge University Press, 1988): 290-304; William Cronon, "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature,"in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. William Cronon (New York: W.W. Norton & Company, 1995).

However, this dissertation's contribution is to employ elements of both naturalist and culturalist perspectives as a framework for analysis. Culture may have dictated the *what* and *why* of people's engagement with the environment, but nature demanded how they would engage. As I see it, Euro-American people in central Idaho lived in a cultural landscape. Not only did they imbue meaning in the world around them with the dominant values, customs, and beliefs of that time, but the culmination of such elements deeply influenced how they perceived place. This means that much of people's understanding of and interaction with central Idaho was psychological, or a product of their own making. But like it or not, people could not ignore the physical landscape and topography of central Idaho. Despite miners' and settlers' best efforts to do so, no amount of wishful thinking could erase mountains or relocate rivers. In fact, when miners sought ways to access more gold through hydraulic methods, for instance, the necessity of long, hard work and a lot of technology served as a regular reminder of the implacable physicality of the natural world. The sheer physicality of geographical elements deeply influenced people's experiences when it came to travel, food, work, and more. In turn, people's attempts to subdue or overcome physical nature gave rise to a more hazard prone environment,

which, as geographers like Kenneth Hewitt note, only became disasters through the product of human interaction.[16]

By emphasizing the influences of culture and nature to tell central Idaho's story, this dissertation calls attention to the way Euro-Americans built the environment of central Idaho. Disasters, of course, were one construction, but the concept of wilderness, or "the backcountry" became another. Environmental historians have long acknowledged the historical development of "wilderness" as a concept, but ideas vary about why people identify a particular place as a wilderness. Historian William Cronon, for instance, locates the practice of people separating their everyday life with nature—viewed as wild and pristine swaths of land untouched by man—with the rise of modernity and the merger between notions of the frontier and romanticism. According to Cronon, such divisions created problems as people stopped considering their local surroundings as wild because the newly formed wilderness areas epitomized what nature was supposed to be. Building on this argument, historian Kevin R. Marsh asserts that, by the twentieth century, no pristine spaces existed that were untouched by humans. By the post-world war two period, debates about the boundaries and

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[16] Kenneth Hewitt, *Regions of Risk: A Geographical Introduction to Disasters* (New York: Routledge, 1997). For more on hazard prone environments, see Susan L. Cutter, ed., *American Hazardscapes: The Regionalization of Hazards and Disasters* (Washington, DC: Joseph Henry Press, 2001).

the designation of wilderness came to be defined primarily by differences in how interested parties intended to use the land. This kind of argument is in line with the most productive historical approach, which calls attention to the social construction of wilderness and highlights the tensions between man, nature, and modernity as the catalyst driving how people re-envisioned a "pristine" or primitive natural world, especially in juxtaposition to an increasingly more modern and technological world.[17]

This dissertation sits within this understanding of modernity's influence on conceptions of nature. However, I assert that disaster—another product of modernity—played an integral role in the development of wilderness. Modernity, identified by most historians as a separation between the past or tradition in favor of intense societal organization, cultural unification, and the implementation of new technologies, was a force driving change and shaping Euro-Americans' values and beliefs in central Idaho.[18]

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[17] William Cronon, "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W.W. Norton & Company, 1995); Kevin R. Marsh, *Drawing Lines in the Forest: Creating Wilderness Areas in the Pacific Northwest* (Seattle: University of Washington Press, 2007). For a more thorough discussion of the place and role of nature in everyday life, see generally William Cronon, ed., *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton & Company, 1995).

[18] The literature on modernity is extensive but a few of the works that shaped my understanding of it include: Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (Chicago: University of Chicago Press, 1990); Miles Ogborn, *Spaces of Modernity: London's Geographies, 1680-1780* (London:

And yet, as scholars like Peter L. Bernstein explain, modernity created disasters as people attempted to push the boundaries of risk.[19] In other words, modernity became a process where people drew boundaries and disasters occurred when people tested the limits of those boundaries as society grew more willing to take risks. Such was the case in central Idaho. Euro-Americans pushed the boundaries of risks they were willing to take as they travelled, settled, and worked, all in the name of seeking gold. Later, the technological encroachment of modernity itself threatened the growing cultural value people placed on forests as nature, rather than just timber. As an appreciation for forests as nature grew, people decided that technological

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Guilford Press, 1998); Anthony Giddeons, *The Consequences of Modernity* (Stanford: Stanford Univeristy Press, 1990); Eugen Weber, *Peasants into Frenchmen* (Stanford: Stanford University Press, 1976); E.C. Spary, *Utopia's Garden: French Natural History from Old Regine to Revolution* (Chicago: University of Chicago Press, 2000); David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York: W.W.Norton & Company, 2006); Michel Carmona, *Haussmann: His Life and Times, and the Making of Modern Paris* (New York: Ivan R. Dee, 2002); Faruk Tabak, *The Waning of the Mediterranean, 1550-1870* (Baltimore: Johns Hopkins University Press, 2008).

[19] Peter L. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York: John Wiley and Sons, 1996). For more on the development of a risk society, see Arwen Mohen, *Risk: Negotiating Safety in American Society* (Baltimore: Johns Hopkins University Press, 2013); Scott Gabriel Knowles, *The Disaster Experts: Mastering Risk in Modern America* (Philadelphia: University of Pennsylvania Press, 2011); Sharon Ann Murphy, *Investing in Life: Insurance in Antebellum America* (Baltimore: John Hopkins University Press, 2010).

modernity itself was the most dangerous risk. Such a risk was too high and fueled the movement to designate much of Idaho a wilderness. In making this argument, this dissertation offers a new perspective on how the wilderness movement and backcountry developed in Idaho and why people advocated for the creation of wilderness areas.[20]

This dissertation is divided into five chapters. Conceptually, it traces a narrative arc as Euro-Americans experienced disaster while migrating to central Idaho, living there, and later abandoning the area. Chapter 1 begins with an examination of the Sheepeaters, a native people who inhabited central Idaho before Euro-Americans. This chapter argues that Native American peoples adapted to the environment without significant calamity due to their culture as a counterpoint to the ways Euro-Americans were later unable to adapt. Chapter 2 explores the ways Euro-Americans made their way to central Idaho. Specifically, it looks at the decisions people made

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[20] While some historical literature emphasizes the wilderness movement as a national development begun by elite interests concerned about the loss of "primitive" areas, this dissertation underscores the role of local, grassroots efforts in the creation of Idaho wilderness. For literature arguing that the wilderness movement was a national development supported by elites and later trickled down, see, for example, Roderick Frazier Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 2001). For literature arguing Idaho's wilderness area was the product of local, grass roots efforts, see Frederick H. Swanson, *Where Roads Will Never Reach: Wilderness and Its Visionaries in the Northern Rockies* (Salt Lake City: University of Utah Press, 2015); Dennis and Lynn Baird, "A Campfire Vision: Establishing the Idaho Primitive Area," *Journal of the West* 26, no. 3 (1987).

regarding mode of travel, items they carried, food they ate, and when to travel to show how such cultural elements interacted with hazards. Chapter 3 continues this story mostly through the case study of the mining town of Idaho City in 1864. The chapter argues the people living in Idaho City epitomized progress and modernity by emphasizing the significant role of technology in connecting its remote community to contemporary conveniences and the broader Euro-American society. However, as access to technology diminished—through both financial and physical obstacles—people experienced financial failures that often overlapped with physical and personal loss. Such failures began to reinforce growing perceptions of the place as disastrous. Chapter 4 delves into the psychological underpinnings of disaster perception among Euro-Americans in central Idaho. This chapter explores the interplay between the ingrained optimism bias of Euro-Americans and the relentless disasters they faced, culminating in the Roosevelt mudslide that drastically undermined their determination to civilize and settle central Idaho. Finally, Chapter 5, "A New 'There,'" expands the discussion by exploring the Forest Service's commitment to combating forest fires with new technology. Such shifts, the chapter demonstrates, reflect a significant change in Idaho's economic priorities from mining to timber and subsequently reframes how stakeholders and other interested parties perceived disasters within the community.

Chapter 1

THE NATURE OF DISASTERS

The 1909 mudslide in Roosevelt, Idaho, effectively put an end to the town's history and further development. Yet, in the three decades leading up to the event, the community and people connected to the district experienced a number of what might be considered lesser calamities that, in many ways, left an even larger imprint on both the people and the area's development. Some (*but not all*) of the calamities people experienced included severe snow, shale- and mudslides, extreme temperatures, forest fires, mountain fever epidemics, malnutrition and, in some years, seasonal famine. At first glance, it might seem as if the inhabitants of the region were simply the bearers of many unhappy accidents. Yet, what people experienced during these years amounted to much more than simply being in the wrong place at the wrong time. The kinds of trauma that occurred, instead, reflect how the dominant Euro-American culture and society interacted with the mountain environment's natural hazards. More recently, historians like Ted Steinberg have acknowledged "the strong human component" of disasters, or, the

sociopolitical origins of what were once considered natural events.[1] These new perspectives magnify the relationship societies create with the natural environment, including the inherent hazards of a place, which frequently result in key groups' exposure to more risks. The degree of vulnerability, or a group's ability to cope with natural phenomena—not the "naturalness" of disasters—helps to account for the frequency of calamities in various places—including the Thunder Mountain District. But, of course, as historian Greg Bankoff notes, not all natural hazards occur as often and with the same magnitude. Instead, "[s]ome societies are inherently more vulnerable than others simply on account of their geographical location, their topography or,…[through] processes of environmental change."[2]

In general, the area of central Idaho was long assessed in terms of its remote ruggedness. Thus, its unique geophysical features shed some light on the types and wide spectrum of natural hazards people encountered. Like other mountainous regions, the Thunder Mountain District and surrounding

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[1] Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (New York: Oxford University Press, 2006); Katrin Pfeifer and Niki Pfeifer, eds. *Forces of Nature and Cultural Responses* (New York: Springer, 2013); Christof Mauch and Christian Pfister, eds. *Natural Disasters, Cultural Responses: Case Studies Toward a Global Environmental* History (New York: Lexington Books, 2009).

[2] Greg Bankoff, *Cultures of Disaster: Society and Natural Hazard in the Philippines* (New York: Routledge Curzon, 2002), 19.

area possessed numerous hazards. From a bird's eye view, one would see a vast network of mountains made up of steep ridges and peaks followed by deep ravines and valleys stretching as far as the eye could see. The size and sheer expanse of mountains was captivating and was, in fact, what drew the attention of the earliest Euro-American explorers encountering the western edge of the great Rocky Mountains. In 1804, for instance, while on the Corp of Discovery Expedition, Captain William Clark noted "[t]hose mountains are high and a great perportion [*sic*] of them rocky…I observe on the highest pinecals [*sic*] of some of the Mountains to the West Snow lying in Spots[.] Some Still Further North are covered with Snow and can[']t be Seen from this point."[3] Clark's appraisal of the many steep slopes and mid-summer snow pack revealed his fear that there was no easy way forward—there was certainly no water passage to the Pacific—and any path through the mountains would be exceedingly difficult.[4] Indeed, his worries were well founded. Throughout their entire journey to the west coast and back, the very

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[3] Bernard DeVoto, ed., *The Journals of Lewis and Clark* (Boston: Houghton Mifflin Company, 1953), 163.

[4] Thomas Jefferson to Meriwether Lewis, June 20, 1803, in *Monticello: Louisiana and Lewis and Clark, Jefferson's Instructions to Meriwether Lewis*, https://www.monticello.org/thomas-jefferson/louisiana-lewis-clark/preparing-for-the-expedition/jefferson-s-instructions-to-lewis/.

mountains Clark described became the most difficult and time consuming to traverse—taking well over a month.[5]

The mountain peaks—some reaching almost 13,000 feet high—fully and deservedly drew the spotlight; yet, the peaks alone were not the real cause for concern.[6] Rather, their geological composition, paired with their immense height, helped to make them more hazard prone. Long before Euro-American explorers (or any humans for that matter) gazed upon the area, it was the site of intense geological developments. A combination of deep continental rifting during the Mesoproterozoic Era (1,600 to 1,000 million years ago), magmatic volcanoes, and accreted terranes, or volcanic island fragments that attached to the main continental border, dramatically transformed the landscape.[7] These events fused together a new base layer consisting of the largest granitic belt rock system in the world, stretching from Central America through the area that would become Idaho and all the way to Alaska. Over time, jagged peaks rose up which were made of dense

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[5] Bernard De Voto, ed., *The Journals of Lewis and Clark* (Boston: Houghton Mifflin Company, 1953), 85.

[6] Tom Lopez, *Exploring Idaho's Mountains: A Guide for Climbers, Scramblers, and Hikers (*Seattle: The Mountaineers, 1990).

[7] E.H. Bennett, "Granitic Rocks of Tertiary Age in the Idaho Batholith and Their Relation to Mineralization," *Economic Geology* (1980) 75 (2); 278-288.

rock, laden with gems and precious minerals—although sporadically distributed, much to future gold miners' disappointment. Later, during the Eocene Epoch (roughly 23 million years ago), periods of intense volcanic eruptions covered the mountains in a thick layer of ash. As these layers melded, they created rough, saw-tooth like ranges that gave the landscape its characteristically rugged appearance.[8]

The combination of these topographical features constructed a landscape that could be unstable at times, but also susceptible to many environmental extremes. The region's high elevation and many peaks, for instance, not only made overland navigation extremely tedious and difficult—as William Clark would later note—but the high altitude produced microclimates subject to drastic temperature drops. In addition to creating hot and cool pockets, this allowed winter snowpack to accumulate far more quickly during cooler months. Dense snowpack, paired with the top layer of ash soil covering most of the area produced frequent snow- and rockslides in the winter followed by mudslides and later, flash floods during the summer months.

Despite these many hazards, prior to European settlement, the region was home to numerous peoples who found it to be hospitable for both

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[8] One of the most prominent mountain ranges within central Idaho is in fact named the Sawtooth Mountains.

permanent and seasonal human habitation. Throughout most of the nineteenth century, in fact, two indigenous groups regularly interacted within this vast mountainous area—the Nez Perce and the Tukudeka, or Sheepeater Shoshoni.[9] While the Nez Perce inhabited parts of the region north of the Salmon River seasonally, the Sheepeaters were permanent residents of the area south of the river.[10] According to anthropologist S.J. Rebillet, the Sheepeaters treated the space as anything but a marginal

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[9] Scholars have discovered the existence of prehistoric peoples in the area dating as far back as the Pleistocene era and have determined that those people were also permanent dwellers of the mountainous region. Scholars, however, cannot conclude if the Shoshoni, the predominant indigenous group that lived in the mountain region directly before European settlers moved to the area, were descendants of the prehistoric people or not although most scholars believe they were. Interestingly, studies show that during earlier eras, the climate was several degrees cooler producing more precipitation. This suggests that prehistoric people experienced an environment with hazards that were even more extreme, and yet they remained permanent dwellers of the area. For more on the prehistoric peoples of Idaho's mountainous region, see S.J. Rebillet, "The Cultural Integrity and Marginality Along the South Fork of the Salmon River, Idaho," Master's thesis, Oregon State University, 1983, https://drive.google.com/file/d/1Z7GDT8WwUesRl8TVV9_BCMRQkExqHhY0/view; A.J. Ranere, "Prehistoric Environments and Cultural Continuity in the Western Great Basin," Tebiwa, *Journal of the Idaho State University Museum* 13(2): 52-72.

[10] Running east to west along the 45th parallel, the Salmon River neatly bisects the state of Idaho but, more importantly, it runs through the center of the most mountainous area of central Idaho. The Sheepeater Shoshoni were a branch of the larger Shoshoni tribe that inhabited the Basin Region of what would become Idaho. Anthropologists have determined, however, that the Sheepeater people were a distinct and self-sustaining group, not simply a people who lived on the periphery of their distant homelands.

refuge. Instead, Rebillet determined "their lives were comfortable, satisfying, and amply provided for year-round from within their mountain habitat."[11] In other words, the Sheepeaters were able to thrive within the mountains of central Idaho, and more to the point, they appear to not have been devastated by the same natural hazards that would come to plague non-natives by the end of the nineteenth century.

The Sheepeaters' easy existence within the mountains was due, in part, to their culture, but, perhaps more importantly, to how they adapted to and related with the environment. Environmental historians such as William Cronon have long established that environment plays a big part in shaping culture and that as people live in their environment, the two become interconnected and reflect reciprocal influences on the other.[12] First, the Sheepeaters' settlement pattern characterized their culture, but it also reflected an understanding of the specific environmental constraints of the mountain region. Unlike indigenous groups that lived on the plains and could luxuriate in areas with wide-open spaces, such as the nearby Plains Shoshoni, the Sheepeaters chose to settle in small groups within close

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[11] Rebillet, "The Cultural Integrity and Marginality Along the South Fork of the Salmon River, Idaho," 68.

[12] William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991).

proximity to other smaller related groups, depending on the availability of food and other resources.[13] According to Anthony Oliver-Smith, for those who lived in highland environments—like the mountainous region of central Idaho—this type of settlement pattern gave people control of multiple ecological tiers, which "spread both risk and resources over a wide area, diminishing impacts of localized flood, hail, mudslide and frosts and at the same time producing a varied diet."[14] On top of that, the Sheepeaters' style of shelter also helped them move quickly. Their shelters, known as wickiups, were ad hoc conical structures built from poles and pine boughs that could be easily sourced and repaired.[15] This meant that the compact nature of Sheepeater groups, coupled with their style of shelter, made it easier to move

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[13] David D. Dominick, "The Sheepeaters," *Annals of Wyoming* 36, no.2 (October 1964): 131-168. https://archive.org/details/annalsofwyom36121964wyom/page/166.

[14] Anthony Oliver-Smith, "Peru's 500 Year Earthquake: Vulnerability in Historical Context," in *Disasters, Development and Environment*, ed. by Ann Varley (New York: John Wiley & Sons, 1994), 34. Oliver-Smith discusses the concept of displacing risk by having control over multiple ecological tiers, also known as the principle of verticality, in a broader discussion of the adaptations to hazards of the Andean people in the Pre-Columbian Andes. Although the Andes Mountains are renowned for their steep and rocky terrain, the Sheepeaters appear to have used a similar style of settlement with presumably the same benefits to adaptation as the Andean highlanders.

[15] Anne Marie Mistretta, "The Mountain Shoshone: A History of the Sheep Eater Indians in the Big Sky Area," in *Montana Outlaw Magazine* (summer 2012), 58–61.

rapidly if a hazard arose. Or, if that was not possible, then it also meant that fewer people might perish if there were no other alternatives.

The Sheepeaters' material possessions also reflected an awareness of their natural world. In fact, perhaps what was most notable about the Sheepeaters was their *lack* of property. Early European explorers who encountered Sheepeaters were startled by the dearth of items each member carried. In 1835, for instance, when the explorer Captain Benjamin Bonneville encountered a few Sheepeaters on his expedition to the West, he noted that the "savages" were "miserably poor, own[ed] no horses, and [were] destitute of every convenience to be derived from an intercourse with the whites."[16] According to Bonneville, they had only bows and stone-pointed arrows with which to hunt, but little else to show.[17] While Bonneville's upper-middleclass assessment of the economic status of the Sheepeaters may have been skewed, his assessment of the number of their overall possessions was accurate. In addition to their weapons, Sheepeaters owned the clothing they wore, a few cooking implements, and odds and ends that had individual sentimental or practical value.[18]

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[16] Washington Irving, *The Adventures of Capitan Bonneville* (New York: John B. Alden, Publisher, 1896), 157.

[17] Irving, *The Adventures of Capitan Bonneville*, 157.

[18] Dominick, "The Sheepeaters," *166.*

Rather than reflecting a lack of wealth, however, Sheepeaters purposefully selected these items with two key criteria in mind: usefulness and portability. Items like digging sticks, knives, and snowshoes were part of every Sheepeater's arsenal because they were lightweight and assisted in surviving the unique environment of the mountain region. They used other items for cooking, like clay pots or steatite vessels, but because they were too heavy for easy travel, those items were cached along the way for future use.[19] Although the Sheepeaters possessed a seemingly modest amount of clothing, the items they did own were well tailored and designed to withstand the temperature changes found in the various microclimates they encountered while traveling. Sheepeaters even determined certain animal skins were better suited for specific articles of clothing—such as the practice of reserving badger skins rather than sheep skins for shoes. This knowledge made their garments extremely effective as well as highly sought after amongst other Shoshoni tribes and even mountain men who managed to trade with them.[20]

The Sheepeaters' need for portable items, again, was partly because of the nature of their culture, but also how that culture was shaped by the environment. This mingling of the influences of nature and culture surfaces

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[19] Ibid., 154.

[20] Ibid., 131-168.

in Sheepeaters' preferred method of transportation. Cultural historian David D. Dominick explains that the Sheepeaters' diet was largely driven by seasonally available foods, which necessitated constant migrations through rugged mountain regions. As a result, they had to keep their loads light as some "Sheepeaters undoubtedly carried most of their possessions on their backs."[21] When possible, they also relied on animal power to haul their goods. However, pack dogs rather than horses were the animals of choice amongst Sheepeaters.[22] Although Captain Bonneville and other European explorers concluded that the Sheepeaters' lack of horses was a reflection of their resolute poverty, Sheepeaters, in fact, eschewed an equestrian culture when horses were first introduced to their Plains brethren.[23] Considering the narrow paths and steep terrain where they lived, the mountain dwellers

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[21] Ibid., 131-168.

[22] Some scholars debate whether dog packs were used to pack items or if Sheepeaters simply used the dogs to assist in hunting. The general consensus is that the dogs, which were large, were used for packing. For more see Peter Nabokov and Lawrence Loendorf, *Restoring a Presence: American Indians and Yellowstone National Park* (Norman: University of Oklahoma Press, 2004), 150-151.

[23] Horses were first introduced to the Plains Shoshoni in the early 1700. After the Plains Shoshoni adopted horses, their culture evolved to adapt to the benefits and needs of horses. The Mountain Shoshonis, who did not embrace horses, continued to exist as they had without modifying their culture to horses. For more see, David D. Dominick, "The Sheepeaters," *Annals of Wyoming* 36, no.2 (October 1964): 131–168. https://archive.org/details/annalsofwyom36121964wyom/page/154.

quickly realized that horses would not—and did not—do well. The dogs, which were noted to be shorter than wolves and coyotes but of a similar breadth, easily carried "[f]ood and goods but not children" and were well suited work and companion animals for Sheepeaters. And, unlike horses that needed a larger grazing territory than was available, their pack dogs were easy to care for and neatly fit into their mountain culture and the surrounding landscape.

Dogs became key to how the Sheepeaters existed in their mountainous home, yet horses, or more specifically—the absence of horses—were key to how the Sheepeaters inadvertently insulated themselves from the outside world. Although Sheepeaters were certainly familiar with the idea of horses through neighboring tribes and outsiders for almost 200 years, their refusal to adopt such an unsuitable animal into an equally unsuitable landscape and way of life meant that they had unknowingly forfeited entrance into a much larger culture. According to historian Ann Norton Greene, by the nineteenth century, horses in the United States were "ubiquitous" and could be found everywhere, "working in cities, towns, and factories, on farms and frontiers, on streets and roads, [and] alongside canals, around forts, ports, and railroads."[24] Greene explains that the dependency on horsepower created a

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[24] Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge: Harvard University Press, 2008), 7-8.

kind of technological network that wove together the dominant culture's use of the environment with the development of the national economy. Additionally, the actual use of horses required a host of gear to be able to ride the animal, harness its power, and to simply care for it.[25] Thus, because Sheepeaters had developed their culture without horses—including the need to obtain horse supplies, other horses for breeding, and a way to buy or barter for those items—they had created a world that was insulated from the larger network and culture that united the rest of the nation.

That kind of insulation was exactly what prevented certain ideas—like European conceptions of absolute property rights and private land ownership—from influencing how Sheepeaters viewed their relationship to the land, and more importantly, their rights to the land.[26] As a nomadic people, Sheepeaters' conceptions of land ownership revolved around access to resources rather than delineating a precise plot of land. They found little value in alienating a piece of land by creating distinct and precise boundaries. Instead, their survival depended on mobility and migrating with

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[25] Ibid.

[26] Sheepeater Shoshones' precise conceptions of property are difficult to determine, as are all indigenous peoples' prior to colonization, because of the lack of written records.

the resources as they became seasonally available.[27] These migrations were so important, in fact, that the people named for seemingly only eating sheep also occasionally referred to themselves as "seed-eaters" or "salmon-eaters," depending on the seasonal foods that happened to be available. By modifying their diets to include seasonally available foods, Sheepeaters found a way to adapt to an area that otherwise had few consistently available food sources. Unfortunately, the very practice of adapting their diets and migrating according to seasonal food availability would also become a key reason why Euro-Americans later justified removing Sheepeaters from their ancestral homelands.

The Road to Disaster

Sheepeaters, along with many of the other native peoples of the Inland Northwest, remained relatively insular until the mid-nineteenth century. Absent the occasional explorer or fur trader, native peoples had few encounters with non-Indians. In the 1830s, however, a growing desire to do

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[27] For more on the habits and relationships of hunter-gatherer communities with their flora and fauna in Early Modern North America, see Allan Greer, *Property and Dispossession: Natives, Empires and Land in Early Modern North America* (New York: Cambridge University Press, 2018), ch.1; Alan Banard and James Woodburn, "Property, Power, and Ideology in Hunting and Gathering Socieities: An Introduction," in *Hunters and Gatherers, vol.2: Property, Power, and Ideology*, ed. Tim Ingold, David Riches and James Woodburn (Oxford: Berg, 1988), 4-31.

missionary work, coupled with an increased interest in the Pacific Northwest, brought a steady flow of emigrants who first settled parts of Washington Territory, and then worked their way back east and south.[28] Many missionaries embraced the importance of proselytizing Christianity to Indians, but they were also largely fueled by their faith in the divinity of Manifest Destiny.[29] Euro-Americans not only believed it was their purpose (and right) to settle all territories that lay between the Atlantic and the Pacific, they were also guided by deeply rooted Lockean theories of the importance of private property and the power of land enclosure.[30]

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[28] Charles F. Coan, "*The Federal Indian Policy in the Pacific Northwest, 1849-1870,"* PhD dissertation., University of California, 1920), 423–24. https://hdl.handle.net/2027/uc1.c2873354; Laura Woodworth-Ney, *Mapping Identity: The Creation of the Coeur d'Alene Indian Reservation, 1805-1902* (Denver, CO: The University of Colorado Press, 2004).

[29] Cameron Addis, "The Whitman Massacre: Religion and Manifest Destiny on the Columbia Plateau," *Journal of the Early Republic* 25, no. 2 (2005): 221-58. Accessed February 10, 2021. http://www.jstor.org/stable/30043309.

[30] According to John Locke, labor was the pathway to property rights if "whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his Labour with, and joined to it something that is his own, and thereby makes it his Property." Since the colonial period, white settlers had eagerly put this theory into practice, especially because Locke seemed to applaud the white acquisition of property through toil and hard work while at the same time denying natives' rights to property. For more on European notions of property see John Locke, *Two Treatises of Government*, ed. Thomas Hollis (London: A. Millar et al., 1764), 305; For more on Manifest Destiny, see Frederick Jackson Turner, *The Frontier in American History* (Tucson: University of Arizona Press, 1998); Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W.W. Norton & Company, 1987), chapter 2, "Property Values," 55-78; Robert

Unsurprisingly, natives were—at best—mildly receptive to missionaries' attempts to Christianize.[31] It was the Euro-American concept of land ownership, however, that evoked a response in natives that was tantamount to a spiritual awakening. To natives, who had drastically different notions of how to use the land—or more importantly, the land's resources—Euro-Americans' concepts of land ownership often became a source of growing tensions as non-natives arrived and soon restricted natives' access to their ancestral lands. As more Euro-Americans became invested in developing the area, bringing with them much sharper notions of how to properly use the land, the tenuousness of natives' rights not only negatively impacted their way of life, but also the adaptive strategies they used to negotiate and survive in their hazardous environment. To Euro-Americans, the spread of white settlement in formerly Indian lands represented the completion of a process ordained by faith and reason. To Native Americans, however, white

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E. Lang and Deborah Epstein Popper, "'Progress of the Nation': The Settlement History of the Enduring American Frontier," *Western Historical Quarterly* 26, no. 3: 289-307. America: History and Life. EBSCOhost, Accessed September 28, 2016; For more on Euro-Americans' policies concerning settlement in Washington Territory, see Laura Woodworth-Ney, *Mapping Identity: The Creation of the Coeur d'Alene Indian Reservation, 1805-1902* (Denver, CO: The University of Colorado Press, 2004), chapter 2.

[31] Addis, "The Whitman Massacre," 234-241; Woodworth-Ney, *Mapping Identity*.

encroachment became the one unforeseen hazard to which they had yet to adapt.

By the 1840s, strife over the land issue escalated to outright hostility in some settlements. Most notably, in 1847, Narcissa and Marcus Whitman—along with eleven others—were murdered by members of the Cayuse Indian tribe over land issues and a growing belief amongst the Cayuse that the missionaries were poisoning the natives.[32] News of the massacre spread quickly and urged nearby settlers and missionaries to seek more protection from the U.S. government.

The Whitman massacre tipped the scales of an ongoing expansionist debate in favor of incorporating more territory. Yet, it wasn't enough to prompt immediate interest in constructing a road that would provide direct access to the area.[33] Instead, it took the discovery of key resources—namely gold—to convince Congress to appropriate funds for something so costly. By 1853, Congress finally commissioned a party headed by soon-to-be governor of Washington Territory, Isaac I. Stevens, to survey routes through the

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[32] The Whitman massacre of 1847 was probably the most infamous massacre in this period, but there were other frequent instances of settler-Indian conflicts throughout this period and area. For more, see Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W.W.Norton, 1987), 35-42.

[33] Robert W. Merry, *A Country of Vast Designs* (New York: Simon & Schuster, 2009), 145-161.

Rockies in an effort to locate and build the fabled Northwest Passage. But, soon after the party submitted preliminary recommendations about their discoveries, Congress halted construction because they found that "the appropriation was inadequate to the character of the work" and it could only continue if "in connexion[sic] with some large military movement that would justify its expenditure." Luckily, justification materialized during the same survey when the party reached Yakima Valley. "Here the first traces of gold were discovered," wrote Stevens, "and though not sufficiently abundant to pay for working, it caused considerable excitement in the camp."[34] Stevens later reported "that gold was found to exist…throughout the whole region between the Cascades and the main Columbia to north of the boundary."[35] By 1855—despite construction of the road still being halted—enough rumors of gold had circulated to prompt a minor gold rush in the nearby Colville region. Unsurprisingly, only a short while later, construction of the road resumed.

The decision to build the road at that time revealed a lot about the Euro-American culture that was quickly infiltrating all territories between

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[34] War Department, *Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad From the Mississippi River to the Pacific Ocean made under the direction of the Secretary of War in 1853-5,* 36th Cong., 1st sess., Senate Executive Document (Washington, D.C.: Beverley Tucker Print, 1855), 140.

[35] War Department, *Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route, 140.*

the Atlantic and Pacific. Despite settlers' claims for assistance with what they perceived to be an ongoing struggle with the local Indians, plans of constructing a road only became actionable when it was clear that the expenditure would be an investment in enterprise and energy, rather than mere humanitarian aid. Of course, it was no secret that many viewed the West as an untapped resource. But by the 1850s, Eastern investors and legislators (sometimes one and the same) turned to the West with a renewed interest when resources and investments abroad started to become less profitable.[36] That the Stevens' survey party submitted frequent and detailed reports of the type and amount of resources they discovered confirms that there was more than a general interest in locating a practicable and economical route to the northwest. Upon the discovery of gold and other highly valued resources, however, not only did legislators do an about face regarding the expense of constructing a wagonline, they further determined it would *and should* provide the foundation for a railroad, which was "the *sine qua non* of a settled and advanced society and civilization."[37]

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[36] Clark C. Spence, *British Investments and the American Mining Frontier, 1860-1901* (Ithaca: Cornell University Press, 1958): chapter 1.

[37] John Mullan, *Report on the Construction of a Military Road from Fort Walla-Walla to Fort Benton*, 37th Congress, 3rd sess., Senate Ex. Doc. 43 (Washington, DC, 1863), 3; Xavier Duran, "The First U.S. Transcontinental Railroad: Expected Profits and Government Intervention," *Journal of Economic History* 73, no. 1 (2013)177-200, https://www-cambridge-

Once underway, the road itself became a manifestation of the same dominant Euro-American values. As soon as Congress and investors recognized the value of funding a road, they virtually willed its completion as soon as possible, especially to make way for the construction of a much more profitable railway.[38] Building the road, however, had many unforeseen costs that had nothing to do with funding. Captain John Mullan, tasked with overseeing the construction, managed to complete the job in less than two years, much to the satisfaction of railroad advocates. Yet, after it was finished, large portions of the road almost immediately washed out and frequently needed to be repaired. Addressing this issue in his final report to Congress, Mullan admitted that he "exceedingly regretted…examin[ing] this route at so unfavorable a period" because "it is impossible for a man to express a winter view from a summer stand-point."[39] "I am free and frank to admit," Mullan continued, "that there was one element which we had ignored, and this was the one of climate."[40] In his haste to complete the road,

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org.udel.idm.oclc.org/core/services/aop-cambridge-core/content/view/S0022050713000065.

[38] Duran, "The First U.S. Transcontinental Railroad: Expected Profits and Government Intervention," 177-200; Alan Grey, "Roads, Railways, and Mountains: Getting Around in the West," *Journal of the West* 33 no.3 (1994): 35-44.

[39] Mullan, *Report on the Construction of a Military Road,* 6.

[40] Ibid.

Mullan's surveys and exploration of the area occurred in only the spring, summer, and autumn months. Unfortunately, he had not factored in the nature of a winter environment, or the hazards brought on by the extreme snowfall characteristic to the mountains of the Inland Northwest. Additionally, Mullan's observations failed to account for the excessive spring runoff as was often the case when the deep snowpack of winter melted in a matter of days. In other words, Mullan's singularity of purpose in expediting the construction resulted in a finished road, yet, the emphasis on completion rather than quality signified a cultural preference for results, not permanence. Unfortunately, the construction of the first road to the Inland Pacific Northwest set a precedent for a quantity-over-quality mentality that would soon shape how future works were built and the types of hazards that followed as a result.

To say the construction of the road took a heavy toll on the lives and cultures of Indians living in the area—both as the road was being built and after its completion—is an understatement. When the initial survey party assessed routes for the wagonline, even then Euro-Americans recognized the impact a road would have on local Indians. To many Indians, this meant changes to the missions that they had grown to depend on. Established as early as 1842 by Jesuit priests, the missions were intended for the

"propagation of the Catholic faith."[41] Yet, priests also schooled Indians in the English language, husbandry, and functioned generally as mediators between the non-Indian and Indian world.[42] After receiving shelter and assistance at each of the three Catholic missions established along the line of the proposed road, Captain Mullan was awed by the Jesuit fathers' dedication to the local Indians. "The fathers," wrote Mullan, "in abiding among the red men, have but one object in view: to rescue them from the blighting effects of ignorance and superstition, and to reclaim them from the effects of an advancing civilization, which to them is death."[43] Mullan acknowledged the integral role the missions played in assisting Indians. Despite their function, however, he determined that the missions would probably have to move. "I fear that the location of our road and the swarms of miners and emigrants that must pass here year after year, will so militate against the best interest of the mission that its present site will have to be changed or abandoned."[44] Mullan's regret that contact with whites was leading to the overall disappearance of Indians was palpable, albeit unusual, but it was what he considered to be the

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[41] Mullan, *Report on the Construction of a Military Road*, 51.

[42] Woodworth-Ney, *Mapping Identity*, 23-43.

[43] Mullan, *Report on the Construction of a Military Road*, 51.

[44] John Mullan, *The Far Western Frontier: Miners and Travelers' Guide to Oregon, Washington, Idaho, Montana, Wyoming, and Colorado* (New York: Arno Press, 1973), 24–25.

necessary "result of opening and settling the country."[45] The challenge, he noted, was how best to let the Indians disappear with "the least amount of suffering, and to us the least amount of cost."[46]

In part, the road itself was the answer to Mullan's conundrum and inadvertently hastened the demise of Indian populations in the area. By 1863, the road, which finally allowed more direct access to the northwest, was complete and plans to build a railway were well underway.[47] Euro-Americans, however, had not waited for a formal invitation to start exploring areas that were previously overlooked. Even as laborers built the road, their discoveries of gold made during construction incited a growing stream of gold seekers beginning as early as 1859.[48] Initially, gold seekers limited their explorations to territory open to white settlement. Very quickly, however, prospectors trespassed onto lands reserved for Indian populations. Before long, numerous reports of gold led to the first of many gold rushes into

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[45] Mullan, *The Far Western Frontier,* 24–25.

[46] Ibid.

[47] Alan H. Grey, "Roads, Railways, and Mountains: Getting Around in the West," *Journal of the West* 33 (July 1994): 35-44.; John Fahey, *The Inland Empire: Unfolding Years, 1879-1929* (Seattle: Univeristy of Washington Press, 1986).

[48] Mullan, *The Far Western Frontier*, 89-101.

territory that was officially "closed by law to white intrusion."[49] Although prospectors like E.D. Pierce—credited with the first discovery of gold on the Nez Pérce Reservation in what would become Idaho Territory—were lauded publicly for their "boldness and a judgment worthy of every commendation" after trespassing onto native territories, the resulting gold discoveries posed a serious problem for both Indians and non-Indians alike.[50] To Indians, who viewed the trespassing as a breach of the latest treaty, their relations with settlers and the U.S. government became even more strained. In turn, while the U.S. government rushed to smooth tensions with natives, the knowledge that a wealth of possibility lay untapped and undiscovered amounted to a veritable tragedy from a Euro-American perspective. In the end, despite some efforts to placate Indians' fears of having their boundaries redrawn again, the decision to formally organize the newly discovered gold-bearing region into Idaho Territory signified that the dilemma was resolved—at least for Euro-Americans.

The formation of Idaho Territory did not immediately signify an end to Indians in the area, but the increasingly overt sentiment favoring Euro-Americans needs' over Natives' did. Years of stories about harried settlers

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[49] Alvin M. Josephy, Jr., *The Nez Perce Indians and the Opening of the Northwest* (New York: Houghton Mifflin, 1997), 333-350.

[50] Mullan, *The Far Western Frontier,* 27.

who fell victim to hostile Indians, coupled with the government's significant stake in accessing the West's resources finally affected the federal policy regarding Indian lands.[51] As Euro-American settlement increased, the government renegotiated treaties delineating reservation boundaries, often with devastating terms. Such was the case of the Nez Pérce, who protested the sudden incursion of white settlers and miners in territory reserved for them by a treaty made in 1855. After lengthy renegotiations, in 1861, the Nez Pérce agreed to allow whites to mine on reservation territory, but not to develop agriculture as it would promote the settlement of permanent white society. Despite the revised treaty terms, Euro-Americans continued to squat. Ultimately, Congress voted to reduce Nez Pérce lands from 10,000 square miles—an already significant reduction of their original territory—to a measly 1,485 square miles.[52]

Although the reduction of the Nez Pérce's lands and others' was drastic, the ideology driving the decision was, in part, based on a sharpening Euro-American belief that the real tragedy was the Indians' waste of perhaps the most valuable resource—land. It was quickly becoming apparent that if

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[51] Charles F. Coan, "The Federal Indian Policy in the Pacific Northwest, 1849-1870,"(PhD dissertation., University of Chicago, 1920), 450, https://babel.hathitrust.org/cgi/pt?id=uc1.c2873354&view=1up&seq=938.

[52] Coan, "The Federal Indian Policy," 450.

the U.S. government continued to allow Indians to misuse the land—despite the fact that it was officially theirs to do with what they wanted—that the government, or more importantly, the people in the government, were complicit. When reporting on his observations of Indians in the area to Congress in 1867, General Henry Halleck wrote, "the effect of our Indian system east of the Rocky mountains…has proved worse than useless on this coast, where they live in small bands, with no recognized and responsible head. The farce of Indian treaties should be abandoned, and these savages be taught that they are not independent nations, but the subjects of our government."[53] To Halleck, not only was the way individual Indian tribes organized and governed incomprehensible compared to the superior federal government, their unwillingness to conform to Euro-American bureaucracies further condemned natives as sub-human savages. While severe, General Halleck was not alone in his conclusions.

Over the next ten years, with few exceptions, rather than negotiate with Indians over white access to reserved lands before settlers trespassed, the federal policy shifted in favor of first meeting Euro-American needs. This meant, that by 1870, the federal policy was to distribute land to settlers *first*,

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[53] Coan, "The Federal Indian Policy," 418-419.

and only then to cut off native access and title to the land.[54] As problematic as this policy was, when Native peoples were also expected to stay on remaining land designated for them, it was only a matter of time before a series of Indian wars broke out across the Inland Empire.[55] In the years that followed, numerous conflicts and battles brought on by both settlers' and natives' actions ended in the permanent removal of natives from their land, often to regions of the country far removed from their ancestral territories.[56] As historians like Janet A. McDonnell have demonstrated, natives' removal from their land represents one of the most tragic and disastrous periods in their history.[57] Such was the case for the Sheepeater Indians. In 1878, after several unsubstantiated reports circulated claiming Sheepeater attacks on

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[54] Ibid., 419.

[55] Henry George Waltman, "The Interior Department, War Department and Indian Policy, 1865-1887," (PhD dissertation, University of Nebraska-Lincoln, 1962): https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1074&context=historydiss.

[56] The story of the flight of the Nez Perce is perhaps the most tragic, if not well known, outcome of the Indian Wars, however, the outcome of most other Indian Wars ended in similar ways and the general removal of Natives from their former territory. For more, see Elliot West, *The Last Indian War: The Nez Perce Story* (Oxford: Oxford University Press, 2009).

[57] Janet A. McDonnell, *The Dispossession of the American Indian, 1887-1934* (Bloomington: Indiana University Press, 1991); Jeffrey Ostler, *Surviving Genocide: Native Nations and the United States from the American Revolution to Bleeding Kansas* (New Haven: Yale University Press, 2019).

prospectors, the U.S. military was dispatched to track down the tribe. Events quickly devolved into a series of attacks on the military as the Sheepeaters attempted to flee. Despite their efforts, by the fall of 1879 the military had captured or rounded up the remaining members of the band and eventually they were transferred hundreds of miles away to the Fort Hall Reservation in Southeastern Idaho Territory.[58] The Sheepeaters' permanent removal from their homeland reflected the federal government's policies towards Indians during the 1870s writ small. Yet, for the Sheepeaters, who were severed from the environment that shaped their culture, the separation led to the steady death of their tribe.[59] These events echoed the fates of many Native American tribes during the nineteenth century. But, to add insult to injury, in the case of the Sheepeaters' removal, their story differs slightly. Not only did settlers want access to Sheepeater lands for prospecting and settlement—to which they saw the Indians as an imposition. But, many settlers were incentivized to have the Sheepeaters removed because the presence of the military would

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[58] Johnny Carrey, *The Middle Fork and the Sheepeater War* (Cambridge, ID: Backeddy Books, 1977)

[59] Although most scholars believe members who identified as Sheepeater Indians died within a few decades after being relocated, the larger branch of Shoshone Indians, also relocated to the same reservation, managed to establish a thriving agricultural society. For more, see John W. Heaton, *The Shoshone-Bannocks: Culture and Commerce at Fort Hall, 1870-1940* (Lawrence: University Press of Kansas, 2005).

help stimulate their nascent economy. In other words, settlers used the removal of the Sheepeaters as an opportunity to make money.

These capitalistic motivations played a part in how Euro-Americans—now recently unfettered by the fear of Native hostilities—swarmed to Idaho Territory's interior to settle or seek gold, and in the process, laid the groundwork that would increase their own vulnerability to hazards. First, the removal of native peoples emboldened more Euro-Americans to settle Idaho's interior. Most had previously limited their scopes to the southern regions of Idaho Territory where Indian populations were diminished or largely compliant with treaties.[60] Beginning in 1879, however, in only a few short years, some roads were built and several major mining and milling operations were in full swing throughout the central region. After the flood gates to Idaho's central regions were open, believing that natives had been the only real threat, Euro-Americans paid little heed to the possible risks any natural hazards posed. Instead, settlers believed those could simply be conquered and reshaped, just like the natives. The result of these developments was that Euro-Americans settled extensively throughout Idaho Territory's central region. But, propelled by their need to settle the land and to expand enterprise, their hastily built infrastructure and inability to

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[60] Jim Gentry, *In the Middle and On the Edge: The Twin Falls Region of Idaho* (Twin Falls, ID: College of Southern Idaho, 2003).

quickly adapt to the environment soon could not withstand the types of hazards they encountered.

Chapter 2

GETTING THERE: HAZARDS, HARDSHIPS, AND DISASTERS ON THE WAY TO CENTRAL IDAHO

By the 1860's, when settlers and gold seekers set off to lay claim to Idaho's interior, they were wholly unprepared for what lay ahead or the type of environment they would encounter. As early as 1837, Washington Irving, writing on the tales told by Captain James Bonneville during his five year excursion into the area, described "a land where no man permanently resides; a vast uninhabited solitude, with precipitous cliffs and yawning ravines, looking like the ruins of a world."[1] Although Irving's frightful description would have given some pause, to most, the territory was simply beyond even the borders of civilization, which for the most part remained unknown to the majority of people.[2] Within days of leaving the comforts of their known world, however, prospectors and settlers came face to face with a new reality:

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[1] Washington Irving, *The Adventures of Captain Bonneville* (Campaign, ILL: Project Gutenberg): 34, Accessed May 10. http://search.ebscohost.com.udel.idm.oclc.org/login.aspx?direct=true&db=nlebk&AN=1085209&site=ehost-live.

[2] Sister M. Alfreda Elsensohn, *Pioneer Days in Idaho County, v.1* (Caldwell, ID: Caxton Printers, 1951): 20.

Idaho's central region was formidable and it was filled with countless natural hazards that made traveling hard and living even harder. Euro-Americans discovered a vast network of steep ridges and narrow ravines, all covered in densely forested vegetation. The combination of trees—so thick that in places people had to pass in single file—mixed with steep, shifting shale, made travel excruciatingly slow and hazardous. Most people were also laden with heavy supplies and gear they intended to use to either establish a permanent settlement or to discover mineral riches. That meant with each step Euro-Americans journeyed, they were firmly reminded of the not so firm ground and the high risk of landslides as the earth shifted and slid under their weight. If they managed to make it to whichever mining camp, district, or town they had set out for, many then discovered that their exposure to natural hazards did not diminish, but in fact, actually increased. New arrivals discovered that camps were isolated and cutoff from the rest of the world—a danger made apparent by the difficult trek to get there—but amplified when they found that the remoteness of camps meant that there were no goods or food available and few services to live and work. If prospectors and settlers managed to scrounge supplies to avoid immediate starvation, they then spent the work season narrowly avoiding a host of other deadly hazards including malnutrition, exposure to the elements, landslides, avalanches, and forest fires. A handful of experienced prospectors could more

easily navigate the dangers of living in Idaho's backcountry. The majority of people, however, struggled to maneuver within an environment that was perplexingly disastrous.

Few recognized that the reason life had become so difficult was because they were helping to create conditions that turned mundane hazards into major disasters. In pursuit of spreading civility to central Idaho, the Euro-American culture and knowledge that settlers and prospectors brought with them bred a relationship to the natural world that largely ignored traditional ways of adapting to Idaho's distinctive environment. Historians like Kathryn Morse have long demonstrated that the culture and values associated with nineteenth century gold seeking were couched in a larger American narrative that encouraged—even necessitated—westward expansion to bring civilization to the savage.[3] As Morse states, "[s]uch values are often so rooted in broader cultural and historical patterns, beliefs, markets, and economies that they are impossible to see, let alone challenge."[4] Born within this system, prospectors and settlers descending on Idaho reinforced their dependency to mainstays of Euro-American culture, including foodways, material goods, access to the larger network of Euro-

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[3] Kathryn Morse, *The Nature of Gold: An Environmental History of the Klondike Gold Rush* (Seattle: University of Washington Press, 2003).

[4] Morse, *The Nature of Gold,* 201.

American society, and the promise of development embedded in the culture of gold. At the same time, however, those dependencies undermined settlers' and prospectors' ability to adapt, thus, to be less vulnerable. In contrast, native peoples like the Sheepeater Indians who had long lived there were adept at negotiating the hazards of the area—so adept, in fact, that to non-natives, the area appeared to be full of potential, not risk. Yet, after removing the native peoples, prospectors and settlers dismissed the ways that Sheepeaters lived *and the reasons why they lived that way* in favor of colonizing Idaho's interior in their western way. This type of transition, according to Anthony Oliver-Smith, "caused by the conquest and early colonial institutions led to the abandonment of many crucial dimensions of…adaptation to [the] hazardous environment."[5] Importantly, prospectors and settlers' efforts to make mining camps and burgeoning towns into microcosms of the larger dominant society weakened their ability and efforts—if there were any—to acclimate to the world around them. Although Euro-Americans believed that the material world and ideas they packed in

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[5] Although Anthony Oliver-Smith refers specifically to his study of Peru and the population's increased vulnerability to natural hazards after colonization since the 1500s, his in-depth discussion of how colonialism led to the subversion of adaptive strategies is analogous to Idaho's historical development and the people's relationship with the natural hazards. Anthony Oliver-Smith, "Peru's 500 Year Earthquake: Vulnerability in Historical Context," in *Disasters, Development and Environment*, ed. Ann Varley (New York: John Wiley & Sons, 1994), 38.

were the cornerstones of a civilized society, what they failed to recognize was how those very aspects of their culture amplified their vulnerability to natural hazards and became the bedrocks of their destruction.

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The complications that would arise from imposing Euro-American culture onto the backcountry never factored into settlers' and gold seekers' initial plans to lay claim to Idaho's interior; quite the opposite. Most who journeyed to the backcountry and settled saw it as an opportunity to test their mettle and start a new chapter, both in their lives and for the future of Idaho as a state. Until 1861, it seemed clear that the eastern boundaries of the Inland Pacific Northwest would be divided between Oregon and Washington states. The discovery of gold in Washington's eastern mountainous frontier resulted in the creation of Idaho Territory with plans to eventually add the state to the union.[6] In the years after it was formed, however, Idaho Territory's projected prosperity stalled. With the removal of the Sheepeater Indians, gold seekers and settlers were doubly eager to reach their destination, not only to make their fortunes, but to "redeem Idaho as a

[6] Carlos A. Schwantes, *In Mountain Shadows: A History of Idaho* (Lincoln, NE: University of Nebraska Press, 1991), 58-59.

state."[7] The only real problem—it seemed—was figuring out how best to get there.

As it turned out, even for the most seasoned of prospectors, Idaho's interior was isolated and remote, making travel to the region difficult. Depending on where one began, there were three main access points: from the west, east, and south. Travelers from the west coast could take a steamboat up the Columbia River starting in Portland, Oregon all the way to Lewiston, a gateway town through which people could access north central diggings more directly. Although the first leg of the journey was more leisurely for travelers, this option was notoriously expensive. One disgruntled traveler noted that after taking the trip from start to finish and being forced to stop repeatedly along the way, the total expense was over sixty five dollars, and "[t]his [price] does not include whiskey and other 'extras.'"[8] Travelers from the east and south had a few more options including wagon, stagecoach, and even railway by the early 1880's. While none were as leisurely as water, these options were far less expensive but took much longer on average. Despite the route one used, upon reaching gateway towns like Salmon City in

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[7] "Thunder Mountain History," *Idaho State Historical Society* no.20, January 1966, 20.

[8] "Letter from Lewiston, W.T.: From An Occasional Correspondent," *San Francisco Bulletin*, April 21, 1863, https://infoweb-newsbank-com.udel.idm.oclc.org/iw-search/we/HistArchive/.

the east or Boise in the south, travelers made a startling realization. The gold districts were still anywhere between 80 to 150 miles away and to get there meant crossing some of the roughest and most difficult terrain in the Rocky Mountains.[9]

Under the best conditions, it took a minimum of several days to cross the mountains to reach their final destination. Frequently, though, travelers encountered less than ideal conditions. This was the case with Viola Lamb—a stenographer from Cripple Creek, Colorado and one of the few female travelers to write about her experiences in the region.[10] Lamb, along with her companions, made the journey to central Idaho through Boise's southern gateway. Almost immediately upon arrival to Boise, she "heard all kinds of discouraging reports" about the state of the trails and the amount of snow still not melted.[11] Although her party was informed "it would be folly to try to get in there before July 1st," they dismissed concerns and headed out at the end of April. Unfortunately for Lamb, her party's premature departure meant they experienced the worst of the less-than-ideal conditions for most of their

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[9] G. Wayne Minshall, *Wilderness Brothers: Prospecting, Horse Packing, and Homesteading on the Western Frontier* (Inkom, ID: Streamside Scribe Press, 2012), 31-40.

[10] "Women in Thunder Mountain," *Yellow Pine Times*, Accessed March 5, 2021.

[11] Waite, *A Woman in the Gold Fields of Idaho.*

journey. "Yes, the trail was simply dreadful," admitted Lamb. "After crossing the Payette [River], the next terror to be encountered was Sesesh[sic] Pass, covered ten feet deep in snow." After several days of excruciatingly slow travel, Lamb and her companions triumphantly celebrated what they thought was sure to be an end to their difficult journey. Unfortunately, their celebrations proved to be premature. Over the following weeks, they encountered a series of other hazards that developed as the snow melted including deep mud, extreme temperature fluctuations, and blinding snow storms. When they reached Elk Summit—a pass with a six thousand foot grade close to the gold district—it seemed that the party was finally in the clear and away from the spring time hazards.[12] Much to Lamb's dismay, however, "we found that a new terror awaited us in the shape of slide rock—a sort of slate—which keeps shifting all the time, and we had forty miles of this to go over."[13] For the rest of their journey, Lamb and her companions discovered countless "new terrors," which not only slowed their travel considerably, but also made them begin to recognize something they had not anticipated—the true nature of the region and the reality that the area was riddled with hazards.

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[12] Waite, *A Woman in the Gold Fields of Idaho.*

[13] Ibid.

Their experiences were far from unique. Other people traveling to central Idaho encountered similar hazards, which proved to be equally as challenging—if not deadly. Although Viola Lamb's too early departure accounted for many of the hazards she encountered, many other travelers discovered that summer traveling came with its own peril. One traveler reported that despite leaving for Idaho's gold mines in June, the deep canyons and steep inclines only resulted in heavy snow in the mountains and rain in the valleys. If one could feel the warm south wind on their face, explained the traveler, then too, they knew to expect that those same warm breezes would transform hard packed snow into deep soft snow, which "[could cause] the trail to break considerably and…eventually men [would] sink through."[14] This prospect was deadly. Not only could travelers suffer severe injuries caused by falling onto the rough terrain concealed beneath, but there was an increased risk of frostbite and exposure as a result of having to travel more slowly.[15] Travelers worked to avoid these hazards as best they could. For those more familiar with the region, one observer noted, they welcomed days with a "chilling breeze," which "contributed to [their] discomfort," but

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[14] "Roads to the Hump," Portland Oregonian, 24 Apr. 1899. Nineteenth Century U.S. u=del_main&sid=NCNP&xid=b135f789. Accessed 23 July 2020.

[15] Abraham L. Himmelwright, *In the Heart of the Bitterroot Mountains: The Story of the Carlin Hunting Party*, September-December (New York: G.P. Putman's Sons, 1895).

kept the trails intact and a little less perilous.[16] If no such breeze was likely, travelers learned to begin before the sun came up as "one must get started before the sun has softened the snow, which is congealed or hardened every night."[17] This solution allowed people to tread on (mostly) solid ground but it was not without its own problems: they then had to deal with the hazards of traveling in the dark.

Some travelers found ways to circumvent hazards caused by seasonal shifts, but, other hazards were not so easy to subvert. Snowslides and avalanches, for instance, were a traveler's greatest threat, and for good reason. While new travelers were enamored with picturesque visions of year round snow-capped mountains, in reality, it meant snowslides occurred during virtually every month. Worse still, snowslides were unpredictable and destroyed far more than any simple landslide could. J.M. Goodwin, a journalist who, in 1897, studied snow slides in central Idaho, confessed slides were "some of nature's grandest works," but were also "terrible to behold, especially if life and property [were] endangered."[18] After a series of

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[16] "Roads to the Hump," *Portland Oregonian*, 24 Apr. 1899. Nineteenth Century U.S. u=del_main&sid=NCNP&xid=b135f789. Accessed 23 July 2020.

[17] J.M. Goodwin, "Snowslides in the Rockies," *Overland Monthly* 29 (Apr 1879): 379-386.

[18] Goodwin, "Snowslides in the Rockies," 379-386.

investigations during different seasons of the year, Goodwin was horrified to discover that snow slides could travel with "almost lightning speed" during winter, yet, even during warmer seasons, slides "had momentum enough to jump over a thousand feet, and fall about the road five hundred feet lower." Happening upon the remains of a midsummer snow slide, Goodwin noted it was anywhere from five to twenty feet deep and "had struck [a] tree thirty feet up and where it was three feet through of solid pine. This great tree was snapped in twain, bringing the roots and top together, and remained in that position after being hurled thousands of feet down the slope of the mountain."[19] While the volume of snow and power of the slide shocked Goodwin, overall, what he found most disconcerting was that "there appears to be no positive rule which enables persons to tell beforehand when and where slides will occur."[20] As a result, Goodwin noted, countless travelers—even whole families—fell victim to the power of snowslides; their tragic ending only becoming clear if and when "the sun melted away the snow, several months afterward."[21]

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[19] Ibid.

[20] Ibid.

[21] J.M. Goodwin, "Snowslides in the Rockies," *Overland Monthly* 29 (Apr 1879): 379-386.

In part, Goodwin's observations captured some truths. The hazards people encountered throughout central Idaho were often concealed, therefore assessing the risks in the landscape was not easy. However, what Goodwin failed to understand was the role people played in amplifying certain hazards—or the conditions that brought about hazards—which then made travelers more vulnerable to the risks they helped to manufacture. How did people do this? Or perhaps more importantly, what was driving them to amplify the hazards? For starters, most who journeyed west were embedded within a cultural mindset that framed the importance of gold seeking and western settlement as vital to the American spirit—and progress. These ideals overrode any initial objections people might have had to the hazards they encountered. This was certainly the case with Viola Lamb who, despite warnings from individuals that were more familiar with the hazards, insisted on leaving for the diggings early in order to have first pick of potential claims. Her party endured numerous hazards along their journey that could have been more easily avoided had they not been driven by the workings of the dominant cultural attitude. Such mindsets meant that they, like other prospective settlers and prospectors, were blind to their own actions and decisions, which were fully compatible with the values and attitudes prized by the Euro-American culture's lust for gold.

But, an inability to "see" how certain actions and decisions could—and usually did—have disastrous consequences does not fully explain how people went on to transform hazards into disasters. Instead, as sociologist Kathleen Tierney points out, the social roots of risk—which lead to disaster—are due to the way social action is organized and how individuals "'know" implicitly the types of ideas and actions that should be taken, even if those decisions are clearly antithetical to the situation.[22] Ways of implicitly "knowing" the world went hand in hand with prospectors and settlers' practices and behaviors and how they engaged with and responded to hazards. As sociologist Pierre Bourdieu's study of structuring structures or habitus notes, people operate within a disposition of unconscious parameters in which one sees the world. Created by a dominant symbolic structure, people are guided by structural principles and socialized norms and tendencies, rather than their actions alone. Even if one became aware of the structural principles and properties that legitimized one's actions, Bourdieu explains, "[e]ach agent, wittingly or unwittingly, is a producer and reproducer of objective meaning."[23] In other words, Euro-Americans making their way to central Idaho acted according to

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[22] Kathleen Tierney, *The Social Roots of Risk: Producing Disasters, Promoting Resilience* (Stanford University Press, 2014), 54.

[23] Pierre Bourdieu, *Outline of a Theory of Practice*, trans. Richard Nice (Cambridge Studies in Social Anthropology, Cambridge, U.K.: Cambridge University Press, 1977), 79.

the norms and behaviors of the structures of the world from which they came. They took action and made decisions based on that culture's rules and limitations. More importantly, they filtered anything they encountered that fell outside of those parameters through the cultural lens they already knew.

For instance, prospectors and settlers "knew" that the Euro-American way of spreading civilization and working the land was the best way, thus, they employed Euro-American methods and habits to settle central Idaho. Guided in part by their knowledge of a more familiar vernacular landscape, Euro-Americans overlooked the extremes of the rugged geography and the greater degree of risks inherent in central Idaho's specific environment. Roads, for example, were a common feature of the eastern United States landscape but were virtually nonexistent in the West—especially in central Idaho.[24] Yet, most prospectors and settlers travelled with the presumption of roads. This expectation dictated how they travelled, what they brought, and when they made their trip—decisions that often had catastrophic outcomes in the new environment. What's more, companies like the Oregon Steam

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[24] United States Federal Highway Administration, *America's Highways, 1776-1976 : A History of the Federal-Aid Program* (Washington, D.C.: United States Department of Transportation, Federal Highway Administration, 1977). Otis W. Freeman, "Early Wagon Roads in the Inland Empire," *The Pacific Northwest* Quarterly 45, no. 4 (1954): https://www.jstor.org/stable/40487100; Robert Bennett, ed., "James W. Watt," in *We'll All Go Home in the Spring: Personal Accounts and Adventures as told by the Pioneers of the West* (Walla Walla, WA: Pioneer Press Books, 1984): 224-228.

Navigation Company (OSN), the primary steamboat operator on the Columbia River, and promotors for gateway towns and aided in the presupposition. Eager to increase traffic to their area, towns and the steamboat company promoted easier access to the diggings by advertising proprietary roads and railways *that had not yet been built.*[25] Some even emphasized access to roads that led directly to the mines and that because of a geographical advantage offered by the town promoting, the camps could be reached at "all seasons of the year."[26] These marketing tactics—while beneficial to the towns—were detrimental to newcomers making the journey because it further reinforced an implicit "understanding" that informed people's actions and decisions. As a result, the very decisions and knowledge that guided Euro-Americans in one setting made them more vulnerable to the hazards in another.

Additionally, people "knew" that success and wealth were products of hard work. If they aspired to take part in the national ethos, they "knew"

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[25] The town of Salmon, ID was notorious for advertising roads and railways that had not yet been built, but other gateway towns occasionally made similar claims to drive business in their direction. See generally "Wagon Road to Shoup," *The Lemhi Republic* (Salmon City, ID), March 17, 1899.

[26] "Wagon Road to Shoup," *The Lemhi Republic* (Salmon City, ID), March 17, 1899.

they had to "pay their dues" to gain entrance to the dream of prosperity.[27] For settlers and prospectors who encountered hazards that created disasters, however, "hard work" often took the shape of "hardship." These ideas were blurred, in part, by the nature of the "job" or effort of settling or looking for diggings. Without question, traveling or pioneering in the 19th century was hard, laborious work. Yet, Euro-Americans who encountered hazards not only had to keep doing hard labor if, for instance, they had to pick up the pieces of a wrecked caravan; they also had to endure the sudden "hard" loss of people or property as a result of the hazard responsible for wrecking the caravan. Such experiences meant Euro-Americans tended to conflate hard work and hardship simply because one became difficult to separate from the other.

And while hazards made hardships and hard work synonymous, Euro-Americans rarely characterized the devastation as a disaster, despite the extent of the loss. These seeming oversights did not stem from a refusal to acknowledge disasters, however. Rather, Euro-Americans believed or "knew"

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[27] Although the dream of prosperity alludes to the "American Dream," the term was not commonly used until the 20th century. However, much literature demonstrates that various and ever changing ideals of an American aspiration or creed have always existed, but that only a select few were able to partake in them. See Lawrence R. Samuel, *The American Dream: A Cultural History* (Syracuse, New York: Syracuse University Press, 2012); Calvin C. Jillson, *The American Dream: In History, Politics, and Fiction* (Lawrence, KS: University of Kansas Press, 2016); Lendol Calder, *Financing the American Dream: A Cultural History of Consumer Credit* (Princeton: Princeton University Press, 1999).

the experiences of hard work, loss, and perseverance—a.k.a. hardships—were essential to the making of a good American character. Historian Richard Slotkin's study of the development of the American myth shows how acts of violence committed by Euro-Americans led to a spiritual and sometimes cultural regeneration that "became the structuring metaphor of the American experience."[28] This proved true for the settlers and prospectors who experienced hardships. Although the violence in question was done to, not by Euro-Americans, the trauma they suffered not only regenerated their spirits; it reconstituted their character to be tougher and more enduring because it had been forged under fire. These qualities, along with self-control, discipline, and responsibility, notes political scientist John Schwartz, were the core virtues every American in the 19th century and later believed was necessary to obtain the American dream.[29] As a result, hardships incurred from hazards were normalized—even virtuous—as pathways to moral improvement. Thus, any major losses from hazards would have been touted as evidence of one's symbolic down payment towards achieving the ideal national character, not

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[28] Richard Slotkin, *Regeneration Through Violence: The Mythology of the American Frontier, 1600-1860* (Norman, OK: University of Oklahoma Press, 1975), 5.

[29] Although John Schwartz uses the term "American Dream," it wasn't commonly used until the 20th century. See John Schwartz, *Illusions of Opportunity: The American Dream in Question* (New York: W.W. Norton, 1997).

viewed as disaster. Seen in this light, few made efforts to alter any actions or behaviors to avoid hardships and by extension, the disasters that caused them.

Such ways of "knowing" the world accounts for Euro-Americans' reliance on horses in central Idaho, despite stories of the difficulties of navigating through the characteristic craggy ravines and steep canyons. Prior to the discovery of gold, Euro-Americans observed the absence of horses amongst the Sheepeaters, yet, never did it occur to them that the animals were just ill-suited to the terrain.[30] Thus, Euro-Americans never questioned the need or practicality of using horses to explore the region: any journey to or through the area simply started with horses. Very quickly, however, Euro-Americans discovered the many challenges of riding and using horses, and more importantly, the ways that horses magnified the hazards they came across. Perhaps no group realized these hard truths more quickly than the military. In 1879, a detachment of soldiers, led by Captain R.F. Bernard, was ordered to track down the remaining Sheepeaters living in central Idaho over claims that the natives were responsible for the murders of several Chinese prospectors. In truth, the campaign was a veiled justification to round up any remaining Native Americans in order to make way for unmolested white

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[30] Washington Irving, *The Adventures of Capitan Bonneville* (New York: John B. Alden, Publisher, 1896), 157.

prospecting and settlement. Very quickly, however, Captain Bernard set about organizing the necessary soldiers and supplies.

Initially, the campaign included over 100 mounted infantry, various guides and auxiliary staff—all mounted—over 50 pack mules, and twenty scouts, each assigned and paid to use one horse—although they all brought a spare mount out of habit and for ease of use. Once they were outfitted, this seemingly well-equipped party headed out—and immediately ran into problems. As late as mid-June, scouts reported the inaccessibility of some routes due to the deep snows and fears that the animals would fall through. Captain Bernard waited, but fearing that the Sheepeaters had gained too much ground—notably *on foot*—he pushed through in early July, only to find "almost insuperable difficulties in traveling through the snow, and in crossing swollen streams and rugged mountains."[31] In the first few weeks alone, the part lost "many mules laden with rations, and was at times thirty-six to seventy-two hours without food."[32] In the days that followed, the campaign lost more animals caused by a variety of hazards including landslides, sinking through snow, and "by falling over precipices."[33]

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[31] W.C. Brown, *The Sheepeater Campaign, Idaho-1879* (Boise: ID, Syms-York Co., 1926), 8-9

[32] Brown, *The Sheepeater Campaign,*8-9.

[33] Ibid.,10.

Rough terrain also played a role in killing the animals off. In his journal recounting the events, William C. Brown noted that while in pursuit of the Sheepeaters, it was necessary to march in streams covered with boulders, "during which the hoofs of the scout ponies, which were unshod, became soft and soon wore down to the quick. This more than anything else used up our mounts so that before the end of the campaign we were obliged to abandon or shoot twenty of our forty ponies."[34] Additionally, the soldiers discovered (too late) that there was very little to feed the animals as natural grazing areas were few and far between. This led to the loss of even more horses along the way—some because they got lost after wandering off in search of food and some from being pushed beyond the point of collapse. Without enough horses to ride and pack all the supplies, Captain Bernard concluded that much of the party had to "proceed dismounted." After several weeks, desperate and dreading the worst for his party, he finally messaged for authorization to return. He confessed, "[f]earing, after…the last dispatch, from the impassible nature of the country, and on account of the weak condition of the animals, that I might endanger great loss and cause useless expenditure by an attempt to follow the few scattered Indians further."[35]

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[34] Ibid., 15.

[35] Brown, *The Sheepeater Campaign,* 20.

Much to his relief, Captain Bernard and the party were allowed to return to rest and resupply.

Based on Captain Bernard's account, the military's first attempt at tracking down Sheepeaters was devastating—especially for the horses. Yet, it was that very dependency on the habit of using the animals that turned their encounters with hazards into disasters. From the start, as the party lost horses or supplies—or both—each loss meant the group had to bear the burden of packing *in addition* to their duties as soldiers. Consequently, the soldiers' vulnerability to hazards such as steep trails, landslides, and exposure to the elements increased because of the additional weight and effort to carry loads originally packed on animals. After packing manually for several days, Captain Bernard noted that soldiers quickly became too exhausted, which only made them more vulnerable, not only to natural hazards but to counterattacks from the Sheepeaters as they fled. In fact, upon realizing their advantage, several Indians took the opportunity to attack the soldiers over a series of days. First, they set fire to the base of a mountain as the soldiers—loaded down with gear—were carefully and painstakingly descending. Whether this act was meant to repel the soldiers and prevent them from following, or simply to attack them directly, either way, the outcome was successful. The soldiers were forced to abandon most of

their supplies "so that the train might be as lightly loaded as possible."[36] They narrowly avoided getting trapped by the spreading wildfire, but the soldiers were not as lucky when the Indians attacked next with gunfire. Several soldiers were wounded, including Private Harry Eagan who died shortly after—along with even more horses—which only further weakened the party. Nobody was more aware of this new handicap than Captain Bernard. Deciding to move at night to gain an advantage, Captain Bernard admitted, "we moved down the side of the mountain, which was so precipitous that it was impossible to bring more than a very small portion of our baggage with us. Officers and men threw away the greater part of their effects, and I ordered most of the public property abandoned."[37] Although the soldiers found relief from the burden of carrying their supplies, they quickly discovered another "enduring hardship" according to Captain Bernard: hunger. Without their supplies, the soldiers quickly ran out of food and were forced on "a veritable starvation march" back to a distant ranch for rations.[38] Under normal conditions, a few days without food would have been challenging for any group. But, when days of hunger were coupled with

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[36] Brown, *The Sheepeater Campaign,* 12.

[37] Ibid.

[38] Ibid., 19.

extreme exhaustion, a hazardous environment, and Indian counterattacks, the soldiers' vulnerability to disaster peaked.

These hardships and the way they were culturally constructed came full circle when the military finally captured the remaining Sheepeaters later that year. After finding rations and resupplying—with more horses—the military rounded up any remaining native peoples from the area, which gave cause for celebration amongst prospective settlers and other Euro-Americans. These reactions, however, along with Captain Bernard's reverential recounting of the "splendid" campaign, reveal how cultural "knowing" contributed to and even reinforced habits like using horses, in spite of the incompatibility of the animals with the region. Set within the dominant social structure of Euro-American culture, the military's long tradition of using horses was never questioned.[39] Thus, when the campaign encountered repeated hardships as a result of losing horses, they never examined the root cause as they "knew" the best way to travel. Captain Bernard's final report, for instance, revealed that in his regimen alone, they lost a total of 45 pack mules, 18 horses, and consequently, suffered countless "hardships from snow and hunger seldom met with." He later determined "[t]here is not a rougher or more difficult country for campaigning in America." Although Captain

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[39] Louis A. DiMarco, *War Horse: A History of the Military Horse and Rider* (Yardley, PA: First Westholme paperbacked, 2012), chapter 8.

Bernard's report reveals the relationship between the rough country, hardships endured, and continually losing animals, his inability to "see" beyond his cultural parameters meant the campaign unknowingly constructed and reconstructed ever more catastrophes because of their dependency. Moreover, because hardships were markers of virtue, each incident served to reinforce the military's "knowledge" and method of how to pursue. In his final report, Captain Bernard, for instance, praised all of his soldiers but singled out several who "deserved special mention for gallantry, energy, and perseverance, resulting in success."[40] Such praise made it clear that there was indeed hardship and disaster. But, as Bernard pointed out, for those who suffered hardships with grace, and through the labor and loss they endured, in exchange, their experience earned virtue. Such cultural capital, above any form of monetary payment, was priceless. It went a long way towards reinforcing—even incentivizing—some experiences as the value of what they gained in virtue outweighed their loss.

This understanding of the value of virtue earned through hardship and cultural "knowing" went beyond the military and played a part in guiding the decisions of other Euro-American settlers and prospectors who later migrated to the area. At the start of her journey, Viola Lamb and her party, for

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[40] Brown, *The Sheepeater Campaign,* 28.

instance, purchased eight horses, of which Lamb was especially pleased to ride a pretty bay horse "while [her] typewriter and supplies were carried by a white horse."[41] Lamb "knew" that travel by horseback was the appropriate way to reach her destination; yet, her experiences riding the horse were incongruous with that innate knowledge. In fact, immediately after they started, Lamb and her companions realized their horses had developed deep lacerations as a result of the path's rough state. They agreed that they would have to walk until the conditions of the road improved. Unfortunately, as soon as they could ride again, horses only made their journey worse. Lamb and her party encountered numerous problems riding their horses along the way including mud so thick it went above their horses' knees, horses getting swept down streams or over cliffs during slides, and animals breaking through thin ice and snow pack. By the end of the journey, they had had several near-death experiences and had lost several horses due either to fatal wounds caused by slides or directly to hazards.

Luckily, Lamb's experience traveling by horse was not fatal—to her—only costly to her party in money lost with the loss of cargo and the animals carrying it. The party also lost time attempting to engineer trails to help support the horses and later, to patch up the animals when ad hoc braces and

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[41] Waite, *A Woman in the Gold Fields of Idaho.*

bridges inevitably broke. And Lamb herself did not go unscathed. Not only did Lamb lose most of her supplies when one of the horses was swept away, at the end of the trip, she cited a serious accident when she was thrown off her horse in a particularly narrow part of the trail and then trampled by it. "I was stunned and very much bruised," Lamb admitted. "[B]ut I had to walk and lead my horse twelve miles the next day over slide rock, so I was forced to be a Christian Scientist that day."[42] More than just a reminder of her experiences, Lamb's confession reveals how hardships had currency. She "knew" her self-proclaimed efforts to be a "Christian Scientist" signaled qualities like perseverance and fortitude, all components of a good character. Despite the loss she endured, these gained virtues went a long way towards reinforcing the behaviors and decisions that helped to construct the disasters she experienced. This reinforcement, along with an inability to examine the cause and effect relationship creating the hardships meant Lamb and other Euro-Americans only adapted according to their set parameters, not the new environment or its limitations.

Getting Outfitted

Euro-American culture played a part in constructing disasters in other ways as well. The supplies and items hauled in for gold mining and

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[42] Waite, *A Woman in the Gold Fields of Idaho.*

settlement, for instance, became a significant source of calamity as settlers and prospectors made their way to the area. Guided by advice to stock up in preparation for the journey and the stay, many prospectors and settlers purchased large quantities of food and supplies to make their time in central Idaho as industrious as possible. Travelers eagerly purchased 50lbs bags of flour and sugar, crates of butter and salted bacon, and ten gallon jugs of whiskey—and all of this in addition to the tools and gear needed for gold mining, pioneering, and just plain living. Despite their best efforts to be prepared, however, Euro-Americans had little understanding of how shovels, buckets, or butter would sabotage their journey. In part, the problems and disasters they encountered boiled down to gravity and a general ignorance of the type of terrain and topography they would encounter en route. Few knew that what they were hauling—heavy, cumbersome supplies that were not easily transported—would create a logistical nightmare on steep trails that were virtually non-existent. Without clearly defined routes—especially in the winter—Euro-Americans had to map their own course, often with devastating consequences. Drastic shifts in elevation, deep snow, steep switchbacks, and numerous rivers and streams all presented different hazards to Euro-Americans who were laden with goods. During the winter of 1861 alone, an untold number of travelers lost limbs or died trying to reach the new diggings of Florence on account of extreme temperatures, snow that towered over

horse and rider, and the slow progress they made as they tried—and failed—to discern a trail that was so poorly cut.[43] As prospectors discovered more gold throughout the region, accessing those diggings with supplies proved equally as challenging. Some could only be reached through a series of rustic trails, although a few people attempted to take shortcuts via river routes and suffered major losses.[44] Until the early 20th century, for prospectors and settlers, the vast majority of Idaho's interior remained hard to access—

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[43] "From Lewiston to the Mines," *Washington Statesman*, May 17, 1862, https://washingtondigitalnewspapers.org; Kathryn L. McKay, *Gold for the Taking: Historical Overview of the Florence Mining District, Idaho County, Idaho*, final report of a historical overview prepared under agreement with the United States Department of Agriculture, August 1998, 304.

[44] Over the next several decades, concerns over the limited access and hazards of reaching central Idaho led to efforts to open the area and diggings. This resulted in the construction of a handful of pathways such as the Milner trail, a rough trail that connected Lewiston to Florence. While these trails allowed partial access into central Idaho, they only went to a few mining camps and were rough at best. Travelers found that they had to yield to any parties with larger loads as the trails could barely large accommodate one-directional traffic led alone the gear they carried. Before an official trail was built connecting Lewiston to Florence, prospectors from the west used a series of routes to access Florence and later the Salmon River District that included following the Slate Creek, John Day Creek, and Little Slate Creek routes. See Kathryn L. McKay, *Gold for the Taking: Historical Overview of the Florence Mining District, Idaho County, Idaho*, final report of a historical overview prepared under agreement with the United States Department of Agriculture, August 1998. Some prospectors attempted to forge deeper into the Salmon River country by travelling upriver via skiff, like John J. Healy, only to find the river far more dangerous than anticipated. In Healy's case, his party experienced major losses when one of the boats and over $1,500 went over falls. See John J. Healy and Clyde McLemore, *An Adventure in the Idaho Mines* (Missoula, MT: Missoulian), 1938.

especially with supplies—and remained a constant challenge as people tried to balance the risk of hauling with the reward of using their gear in the hopes of making a decent strike.

The problems Euro-Americans experienced by transporting such heavy supplies were made worse, though, not only by what they brought but *why* they brought it. Many items hauled had practical utility and proved to be vital—if not indispensable—tools for prospecting and settling. Yet, at the same time, many of those items were culturally influenced, meaning the dictates of Euro-American culture influenced what people deemed vital or essential to not only survive the elements and environment, but to maintain their culture and way of life. Cultural historians and anthropologists have long recognized the ways in which material objects matter and as Daniel Miller explains, "how they shape social worlds" through the cultural meaning imbued in certain items.[45] People develop relationships with objects that create significance and form social structures through the act and use of possession. Thus, while Euro-Americans acquired supplies and items for utility, those items were also symbols of status and position, refinement and civilization. Most prospectors and settlers headed to central Idaho were no different. Euro-American culture gave meaning to certain items, and when

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[45] Daniel Miller, "Introduction," in *Material Cultures: Why Some Things Matter,* ed. Daniel Miller (London: Routledge, 2003), 3.

people hauled them to central Idaho, those items then gave meaning to their daily lives and experiences. Such cultural influences were not so transparent, however, which complicated determinations about what was and was not necessary. Euro-Americans stocked up on simple, seemingly essential ingredients like beans, bacon, and flour, for instance, because with them, one could make (mostly) nutritious meals to fuel long, laborious days. However, for many, without the addition of butter or syrup—both culturally acquired flavors and ingredients—any meal simply would not be complete. Similarly, certain tools—wagons, for instance—were such an integral component in Euro-American culture that despite the absence of roads or an infrastructure to use the wagon, Euro-Americans still insisted on disassembling, packing, and hauling them to be used at an undetermined later date. Culture, in fact, legitimized what people hauled and why they hauled it, which removed the burden of having to justify the need for something as essential or non-essential.

In many ways, such influences allowed prospectors and settlers to recreate a microcosm of the Euro-American culture they left behind. They had virtually unchecked access to objects and goods they held most significant or that made them feel more "at home." But, such influences also meant people rarely, if ever, questioned what defined "essential," or more to the point, the practicality or feasibility of transporting "essential" items into

an unknown and untested environment. It meant people rarely, if ever, acknowledged the increased risk of encountering hazards when Euro-American culture intersected with the environment of central Idaho. Finally, such influences meant people rarely made the connection between the types of goods they were transporting and how some of those goods made them more vulnerable to the disasters they experienced.

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The gear prospectors and settlers carried varied greatly by the type of claim and their prior experience in prospecting and pioneering. From the beginning, though, all Euro-Americans struggled to find the right balance of gear to carry, not only to increase their chances of success, but to maintain some of life's comforts. Astonishingly, a prospector's *lack* of possessions occasionally decreased their vulnerability to some hazards—at least on the trails. When gold was first discovered in central Idaho, for instance, rumors of the rich deposits and ready pickings convinced prospective prospectors that little more was needed than the fortitude to make the journey and a bucket for gathering the gold.[46] Consequently, the prospectors who packed little actually improved their mobility on the trail—or in the very least were less

[46] "The New Rocky Mountain Gold Region," *Milwaukee Daily Sentinel*, 21 Dec. 1863. Nineteenth Century U.S. Newspapers, https://link-gale-com.udel.idm.oclc.org/apps/doc/GT3012849445/NCNP?u+udel_main&sid+NCNP&xid_3574b5e2.Accessed 23 July 2020.

restricted—which made them less vulnerable to land and snow slides. Such was the experience for gold seekers who flocked to what would become Florence, Idaho in 1861. Most people that first year determined little more than the iconic "pick, pan, and shovel" was necessary to successfully pan gold from virgin creek beds.[47] Armed with these relatively light and easy to carry items, gold seekers were not hampered when navigating steep mountains or maintaining their balance carrying such small loads. That year, with such meager supplies, gold seekers like Jacob Weiser went on to pan $20,000 in only eight days of clean-up.[48] Through this "knowledge" of the diggings, during the first season, gold seekers unwittingly avoided juggling excessive weight on the trail and the hazards caused by hauling large loads.

Packing lightly that first year was not without consequence, however. A shortage of supplies led to a different kind of disaster: starvation. Prospectors who reached the diggings later in the season discovered that light loads meant they had a finite amount of food and supplies to survive during the warm season. Realizing this, most planned to make the journey

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[47] Although most references to gold seekers' primary tools of choice include the pick, pan, and shovel, occasionally pick, pan, and rifle are the holy trinity of choice. See F.M. Endlich, "The Frontier Prospector," in *Overland Monthly and Out West Magazine* 2, no.8 (Aug 1883): 125-131. http://quod.lib.umich.edu/m/moajrnl/ahj1472.2-02.008/140

[48] McKay, *Gold for the Taking,* 1.

back to supply posts to overwinter. But when snowfall started early than expected that year and did not stop for 113 days, prospectors were trapped like animals in a cage.[49] Alonzo Brown, one prospector who was forced to stay in the diggings that winter, recalled the hardships of surviving record setting snowfall and low temperatures. "[W]e have never had such a winter, nor as much snow."[50] After recognizing the direness of their situation, Brown, along with several other men, attempted to leave the area on numerous occasions in order to bring back supplies, but their efforts fell short. Deep snow made travel nearly impossible, noted Brown, and even after the snow started to melt, significant runoff from the mountains meant "the mud was nearly as bad as the snow"…and… "all the creeks were like rivers."[51] When most attempts to deliver supplies failed, prospectors struggled against near starvation and frostbite for five long months before help arrived.[52] For some men, pine needle tea—a mixture of flour, pine needles and melted snow—became the food of choice—supplemented on occasion with a snowshoe rabbit

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[49] Alonzo F. Brown, "Autobiography of Alonzo F. Brown" [1922], MG 5236, Oregon Historical Society Research Library, Portland OR.

[50] Brown, "Autobiography of Alonzo F. Brown."

[51] Ibid.

[52] McKay, *Gold for the Taking,* 260.

to ward off full starvation.[53] All told, the experience drove home some hard lessons. First, most prospectors realized they would have gladly packed more to avoid famine. Second, because cold temperatures and meager gear curtailed any extra efforts to work while trapped in the diggings, gold seekers decided that with a lot more gear, they could double their efforts the next year, which is exactly what they did as soon as the trails cleared.[54]

After the first season, prospectors, packers, and then settlers heading to Idaho's interior significantly increased the amount of supplies they packed and hauled. The increased demand for supplies was due, in part, to the growing frenzy for gold; but, budding rumors of hardships in central Idaho motivated many prospectors to buy more in order to avoid such experiences. One prospector's warning to the "green and tender fortune-hunters, who know nothing about gold or gold-bearing rocks, or placers, or gulches, or bob-cats, or bears, or starvation in the lonely wilderness, or…the perils and hardships" was to bring "a bountiful stock of provisions, machinery to work

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[53] Robert Bennett, *We'll All Go Home in the Spring: Personal Accounts and Adventures as told by the Pioneers of the West* (Walla Walla, WA: Pioneer Press Books, 1984):213-216; McKay, *Gold for the Taking, 260*.

[54] With little else to do, prospectors worked their claims until temperatures froze rockers in place and forced operations to stop. Prospectors focused efforts on any areas of development that would aid them during the next season, but these efforts were greatly limited by cold temperatures. "Florence, Idaho," Western Mining History, accessed July 22, 2020, https://westernmininghistory.com/towns/idaho/florence_id/.

the ore, and an awful amount of grit to get there and stay there."[55] Thus, after 1861, during peak gold rush years through the end of the century, demand for gear was high. According to John Hailey, a well-known packer-later-turned-librarian, in gateway towns like Lewiston, every time steamers landed, two to three hundred gold hunters exited, some with packs already on their backs, but others in need of getting outfitted in order to hit the trail.[56] In the Boise Basin, "[i]t took a great quantity of provisions, tools, etc., to supply the demand," noted Hailey.[57] After each wave of hopefuls passed through, "[s]upplies were often very scarce," as so many people had loaded up in order to make what they imagined to be a brief stint in the gold country as successful as possible.[58]

Initially, the selection of tools available to prospectors was limited. In addition to the pick, pan, and shovel, merchants advertised common tools

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[55] "Thunder Mountain: Some Facts Related by a Prospector and Claim Owner," *National Tribune*, Washington, D.C., June 12, 1902.

[56] John Hailey, *The History of Idaho* (Boise, ID: Syms-York Company, Inc, 1910): 30.

[57] "Packing the Goods," *Idaho Harvester* from University of Idaho Library Special Collections and Archives Department, Accessed Sept. 12, 2021, https://harvester.lib.uidaho.edu/posts/2014/07/01/packing-the-goods.html.

[58] Hailey, *The History of Idaho*, 30. Idaho Historical Society, "Idaho State Historical Society Bulletin," State Historical Society 1, no.1 (1908): 30; James W. Watt, "Experiences of a Packer in Washington Territory Mining Camps during the Sixties," *Washington Historical Quarterly* 19, no.3 (Jul., 1928), 211.

such as chisels, axes, rope, wooden wheelbarrows, buckets, and whipsaws, as these tools were effective and possessing some combination of them was all most prospectors needed to work most placer claims.[59] Very quickly, though, prospectors required additional gear when operations became more complex and easy pickings were harder to find. In 1860, for instance, prospectors built rockers, or short wooden boxes with a handle that could be rocked back and forth, to separate gold from ore. In only a few years, however, when gold was no longer as readily available, people learned that it was more efficient to separate the gold from larger ore deposits if more water could flow through troughs that were longer than the rocker. As a result, by 1863 long boxes, or long toms, replaced the use of rockers. Although these contraptions made placer mining more productive, they also required more lumber and supplies to construct, more tools to build, and by extension, more that prospectors had to pack and haul to the diggings.[60]

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[59] "Druggists' Efforts to Fill the Demand," *Washington Statesman*, May 10, 1862.

[60] While the rush on supplies meant people were all competing for mining gear, because easy pickings were harder to locate, prospectors found a wider range of tools both available and necessary to access the gold. As operations became more complex and prospectors began to dig deeper, they used hand mortars for pounding ore to separate gold from quartz. See M.W. von Bernewitz, *Handbook for Prospectors and Operators of Small Mines* (New York: McGraw-Hill Book Company, 1926), 523; Nez Perce National Forest,"Florence Tells Her Secrets: A Self-Guided Tour of the Florence

Similarly, prospectors purchased only a small variety of foods and supplies for day to day living, but over time, merchants' offerings grew. Common items available to prospectors included frying pans or cast iron dutch ovens, candles, eating utensils, blankets, coffee pots, a change of clothing, and canvas tents. Not willing to chance getting caught without provisions again, gold seekers also stocked up on key staples that could be preserved almost indefinitely and were easy to prepare after a long day of digging and rocking.[61] To gold seekers, two of the most important staples were pork and beans. According to one prospector, these "principle articles" were so important "partly because they [were] comparatively cheaper than other provisions, and partly on account of their being so nutritious and wholesome."[62] The fact that they were commonly cooked in one pot, seasoned with the old scum from the previous batch, and left uncovered and unattended until the next meal probably also held great appeal to tired miners at the end of the day.[63] Other mainstays consisted of flour for bread and flapjacks, sugar or molasses, and coffee. Over time, when scurvy became

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Basin," prepared for the United States Department of Agriculture Forest Service(Grangeville, ID: USDA Forest Service, 2004), 5.

[61] Hinton Rowan Helper, *The Land of Gold: Reality Versus Fiction* (Baltimore: Henry Taylor Publishing, 1855), 155-158.

[62] Helper, *The Land of Gold*, 157.

[63] Ibid.

a common ailment after long winters in the diggings without fresh produce, prospectors added dried fruits to their grocery lists.[64]

While the selection of goods available to prospectors and later settlers grew over time, just buying the supplies, Euro-Americans realized, in no way ensured getting to use them as purchasing was very different from packing and hauling, and these were perilous but necessary steps before actually using and consuming the supplies. One of the most important factors that dictated what people brought was how much money one had. Having more money seemed to be as simple as being able to buy more supplies—and by extension—more success. In fact, having more money usually afforded one the best chances for survival. Yet, if one could not also afford an animal for packing, then, as early pioneer Esther Yarber pointed out, "the amounts of extra [supplies] a man carried depended on how strong his back was."[65]

What this meant in the early years of each gold district was that most travelers bore the burden of packing and hauling around 100 pounds on their back while also maneuvering treacherous pathways and the various hazards woven into the landscape.[66] To make matters worse, the act of packing and

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[64] McKay, *Gold for the Taking*, 263.

[65] Esther Yarber, *Land of the Yankee Fork* (Denver, CO: Sage Books, 1963), 13.

[66] McKay, *Gold for the Taking,* 123.

hauling was never as straightforward as lifting a single unit of weight. Packing was difficult because supplies were often heavy or cumbersome—or both—and only made more so when loads were condensed. Some tools, such as pans and shovels, were lighter and could be more easily lashed to packs or used as walking aids on the trails. Most equipment, however, like axes, dutch ovens, canvas tents, and even anvils, was bulky and their weight was hard to distribute evenly.[67] Similarly, food—like the recommended 50 pounds of flour or cans of beans—were dense, but made more so because they were often packed in materials that increased the overall weight of the load. Butter, for instance, was packed in a brine for freshness, and then in sacks which were stored in wooden kegs for hauling, which added significant weight to the overall load.[68] On top of that, if certain foods were not packed correctly, prospectors risked it spoiling before they had even had a chance to use it. Fortunately, as prospectors consumed food along the trail, their loads lightened. While this seemed to afford some relief as the weight of the load steadily diminished, it was fleeting. At the same time packs lightened, more

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[67] Ibid., 308.

[68] Many items were packed in wooden crates or barrels to keep them preserved. See Nellie Ireton Mills, *All Along the River: Territorial and Pioneer Days on the Payette* (Montreal, Canada: Payette Radio Limited, 1963), 38; Zona Chedsey and Carolyn Frei, ed. *Idaho County Voices: A People's History From the Pioneers to the Present* (Idaho: Idaho County Centennial Committee, 1990): 102.

problems arose when carefully packed loads became unbalanced and more precarious without constant readjustment.

Weighed down with so many cumbersome supplies, prospectors and later settlers who headed into central Idaho unknowingly increased their vulnerability to certain hazards and quickly suffered the consequences. Most often men, but sometimes women, fell victim to blinding snowstorms, avalanches, and mudslides because their large loads impeded their movement and ability to react. Other reports of men loaded down with supplies and then killed in snowslides regularly circulated within mining communities. People found these stories both fascinating and entertaining, in part, because they served as reminders of the hardships others had survived, but also because the victims were usually discovered well after the snow melted away, and speculation about the victim's identity fueled further intrigue.[69] Of course, not all people packing heavy loads died while making the journey. In fact, some people attempted to use the weight of their loads to their advantage. R.G. Lewis, a prospector headed to the Salmon River District in 1862, witnessed men who "at the summit of the mountain…put their packs on pine boughs, [sat] down across them, and let all holts go, using

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[69] Ambrose A. Owsley, *All Along the River: Territorial and Pioneer Days on the Payette* (Montreal, Canada: Payette Radio Limited, 1963), 211-212.

their heels for steering apparatus."[70] Lewis noted newcomers also used shovels, frying-pans, and even gold pans in the same way. While these methods appeared to solve the basic problems caused by heavy loads and shifting terrain, there were some major drawbacks. Namely, explained Lewis, "some get excited and forget themselves and are plunged headlong into the snow at one side or the other."[71] Some prospectors, like Barney McGill, managed to survive such episodes, only to see all of their supplies littered across the mountain in various states of wreckage. Knowing he had little chance for survival with no supplies at all, McGill spent countless hours scavenging what he could, only to die of exhaustion and exposure in the process.[72]

For those who could pay for both supplies and the animals to pack them, their experience, ironically, was worse. Euro-Americans headed to central Idaho discovered that assuming the luxury of money bought something unexpected: vulnerability.[73] Weighed down with extra supplies

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[70] Owsley, *All Along the River,* 211-212.

[71] R.G. Lewis, Letter from Salmon River, *Washington Statesman*, May 17, 1862.

[72] Waite, *A Woman in the Gold Fields of Idaho.*

[73] In his discussion of the people who settled New York at the end of the eighteenth century, Alan Taylor asserts that poverty increased hardship because when an untamed nature created more problems for settlers and impacted their ability to subsist on the land, they suffered from near-famine

and the burden of managing animals ill-suited to the landscape, those with more means often took on greater risks due to the nature of hauling, making them more susceptible to the extremes. These risks manifest most frequently when the physical burden of transporting so much cargo intersected with the environment. In part, these problems stemmed from using horses as pack animals. Although mules—the offspring of male donkeys and female horses—would eventually take over the pack train industry by the late 1860s, people initially turned to horses for the purposes of riding and hauling, often simultaneously.[74] Unfortunately, most horses used in this way were especially susceptible to the hazards caused by narrow trails, steep inclines, and the all-too-frequent blinding snowstorms. The combination of their increased weight due to hauling and naturally large hooves transformed an otherwise agile animal into one with a clumsy disposition on the trails.[75] This

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conditions. While poverty would enhance hardship in central Idaho once people were settled, the problems created when settlers attempted to transport more supplies meant having more money was a factor creating vulnerability. See Alan Taylor, "'Wasty Ways': Stories of American Settlement," *Environmental History* 3, no.3 (1998): 291-310; Andrew C. Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005).

[74] Watt, "Experiences of a Packer in Washington Territory," 206-213.

[75] In contrast, mules were later selectively bred for their small hooves, which made them especially adept on the trails of the Rocky Mountains. Mexican mules in particular came to dominate the packing industry as they had both smaller hooves and could haul exceptionally large loads compared to the mules brought in from the eastern United States. See Max Aaron Delgado,

meant pack horses—and often their rider too—frequently slipped off mountains, into rivers, and through snowdrifts as they made their way to the diggings. If riders managed to survive such hazards, pack horses and the cargo they carried were rarely as lucky. That meant travelers not only had to cope with the loss of their dual pack animal and vehicle, it usually meant the loss of the load that it was carrying.

Alonzo Brown experienced these hazards as he was attempting to pack supplies into the Salmon River District in 1862. Although he had been able to purchase a horse in addition to his supplies, too deep snow and tight trails forced him to abandon his animals halfway to his destination. He was forced to carry over eighty pounds on his back while traipsing through deep snow and flooded rivers.[76] "It was a close call," Brown admitted on recalling his experiences transporting supplies. "It is surprising to me when I look back and see how reckless and the disregard of danger men will be on a trip like this."[77] Similarly, such was the case with Miss M.A. Rice and her party on

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III, "Jesus Urquides: Idaho's Premier Muleteer" (Master's thesis, Boise State University, 2010), 10-11, https://scholarworks.boisestate.edu/cgi/viewcontent.cgi?article=1129&context=td; Ken Zontek, "Mules Across the Mountains: Packing in Early Idaho," *Idaho Yesterdays* 39, no. 2 (1995):2-10.

[76] Alonzo F. Brown, "Autobiography of Alonzo F. Brown" [1922], MG 5236, Oregon Historical Society Research Library, Portland OR, 21.

[77] Brown, "Autobiography of Alonzo F. Brown" [1922], MG 5236, 20.

their first trip to central Idaho. Dubbed the first "Young Woman Gold Hunter," Rice considered the "outfitting of the first woman to go to the camp…an awe-inspiring thing" and she took great pleasure preparing—and purchasing—for the "awful and wonderful trip ahead."[78] Altogether, Rice and her party purchased "fifteen horses, two wagons and an immense amount of provisions, bedding, and ammunition," in addition to commissioning two custom made outfits to proudly ride astride her horse. Although the well-supplied party started out having a "jolly good time the first four days," everything changed, admitted Rice, when they encountered snow 25 feet deep, sleet and ice covered trails, and streams too swollen to cross. After losing two horses—one almost killing Rice in a freefall—the party was forced to abandon their wagons along with most of their costly supplies. "All of the men were compelled to walk over one hundred miles," carrying what they could and struggling to adapt in order to reach their destination.[79] Rice's experience reveals the real cost of having more money through the struggles of bearing additional supplies and the collective toll it took on the party. "Words cannot describe the hardships we encountered on that journey," Rice

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[78] "Young Woman Gold Hunter: Miss Rice's Trip to the Thunder Mountain Region," *The Sun* (New York), April 19, 1903.

[79] Ibid.

confessed.[80] Not only did Rice and her party bare themselves to more opportunities for disaster—including exposure to the elements, near-starvation, mountain fever, and being trampled by falling horses—all courtesy of the additional cargo, they also suffered considerable financial loss when they were forced to leave the majority of their supplies behind. And although Rice was only temporarily injured when they lost their horses and the means to haul their supplies, the sudden shift to packing by foot forced them to observe the hardships and disasters of others who also packed too much with painstaking detail. "By actual count we passed more than fifty dead horses….By this time, people who had started to snowshoe in had begun to turn back, heartsick, with neither money nor food nor gold."[81]

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Considering the hazards people regularly experienced on the way to central Idaho, it is a wonder that so many continued to make the trip, and even more that the amount of supplies people hauled in grew. While the supplies prospectors and settlers purchased reveal a desire to be well-equipped for success, at the same time, they demonstrate the influences and power of Euro-American culture over the nature of the items they brought. To

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[80] "Young Woman Gold Hunter: Miss Rice's Trip to the Thunder Mountain Region," *The Sun* (New York), April 19, 1903.

[81] Ibid.

be sure, many items were pragmatic—like food staples that were driven by a fear of starvation. People heeded advice to "carry on your back enough provisions to live on during your whole stay in the fields," however impractical and hazardous that advice would prove to be.[82] But, the items also reflected values prized in Euro-American culture, including those that celebrated mining in general as a way to civilize and tame the wilderness, and ironically, those that celebrated gold mining specifically as a rejection of the constraints of late 19th century American industrialization through the freedom and hard work of independent physical labor. According to environmental historian Kathryn Morse, gold mining in particular seemed to offer an escape to wage laborers who saw the fruits of their labors consumed by industrial capitalism. Through the pursuit of gold in nature, though, and using their labor to do it, prospectors envisioned reclaiming their autonomy—and making a bit of money while they were at it.[83]

On the surface, these values seemed to be mutually incompatible, as one centered on man's relationship with the natural world and the other, a reflection of man's relationship with the built environment. However, as

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[82] "Thunder Mountain: Some Facts Related by a Prospector and Claim Owner," *National Tribune*, Washington, D.C., June 12, 1902.

[83] Kathryn Morse, *The Nature of Gold: An Environmental History of the Klondike Gold Rush* (Seattle, WA: University of Washington Press, 2003), chapter 5.

dichotomous as these values seemed, the items and tools they purchased bridged that tension. Tools and supplies, such as axes, whipsaws, and wheelbarrows, allowed prospectors to literally remake and remold the wild into something tame, seemingly manageable, and productive. At the same time though, many of the tools prospectors used were hand powered, and required an immense amount of physical labor to operate, not to mention pack and haul to the diggings. If those escaping from the industrial world felt that their input of effort would result in equal parts reward, then using those labor intensive tools satisfied their needs—and values—perfectly. Perhaps no tool better represented the convergence of both values than the anvil. Despite the weight and size of most anvils available in the late 19th century, many supply lists recommended one to make work in the diggings more effective, and for good reason.[84] Anvils, along with a degree of proficiency in metalworking, allowed one to bend and mold natural materials—in other words, to civilize metal, which proved to be a priceless ability in such an isolated, untamed place. Those with the skills could bend and shape new

[84] According to the 1897 edition of the *Sears, Roebuck, & Co. Catalogue,* there were several anvils available for purchase. The most popular was the Peter Wright Anvil, a wrought iron and steel face variety that ranged in size weighing anywhere between 85lbs to 500lbs. Other smaller anvils were available, weighing from 20lbs to 90lbs, and were advertised for light duty work. See Fred L. Israel, ed., *Sears, Roebuck, and Co. Catalogue* (New York: Chelsea House Publishers, 1993), 65.

tools, shoe horses, and repair items that had succumbed to the rigors of the diggings. As a result, the reward of the labor was not only the finished product, but also the benefits provided by the product of one's labor.

Not all supplies carried into central Idaho were related to work though. Once gold districts were more established, prospectors and later settlers, in fact, brought plenty of items into Idaho's interior that went well beyond practicality and could only be described as luxuries. Yet, culture played a similar role in driving demand for them, along with the risks taken to get the items there. What those items were, however, largely depended on the person who brought them. Some people brought items that not only served as reminders of the value Euro-Americans placed on progress, they added a touch of opulence to an otherwise harsh environment. Prospectors and settlers lugged along such items as cast iron stoves, textbooks, novels, violins, and other musical instruments including in one instance a piano that was mounted on a platform and then fitted onto the back of a pack horse.[85] All promised extra comfort and refinement in their day to day lives, despite the possible physical toll and hardships of transporting them.[86] Early

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[85] Zona Chedsey and Carolyn Frei, ed., *Idaho County Voices: A People's History From the Pioneers to the Present* (Idaho: Idaho County Centennial Committee, 1990): 36.

[86] Nez Perce National Forest,"Florence Tells Her Secrets: A Self-Guided Tour of the Florence Basin," 5; Waite, and Heritage Program, *A Woman in the Gold Fields of Idaho;* William A. Goulder, *Reminiscences: Incidents in the Life*

pioneer, William John McConnell, took note of one such luxury hauled in by newly arriving emigrants settling in central Idaho's Payette valley—"the first feather-beds [in] the territory." For McConnell, who frequently referenced the beds, they were a marker of a "well-furnished" room that made possible comforts not enjoyed "since leaving home and mother." The emigrants who brought them apparently agreed. According to McConnell, the emigrants "as a rule" brought only "such goods as were portable" or necessary on account of the difficulties they experienced travelling to the valley. Yet, their decision to bring the beds, which were neither portable nor necessary—thus, perhaps partly responsible for their hardships as only bulky bags of feathers and the material to be stuffed could be—reveals the influence of culture. Whether it was in an effort to usher in civilized society, a desire to recreate the familiar, or, simply to be more comfortable, feather-beds and the meaning Euro-Americans imbued in them were a link that connected them to the dominant culture.[87] Similarly, the typewriter Viola Lamb hauled to Thunder Mountain connected her to the larger Euro-American culture, not only through the

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of a Pioneer in Oregon and Idaho (Moscow, ID: University of Idaho Press, 1990).

[87] William John McConnell, *Early History of Idaho* (United States: Caxton Printers, 1913), 56, 190.

physical machine, but through her intentions for the typewriter—to record her experiences for her readers.

Some people hauled items that were a reflection of their individual backgrounds and helped them maintain continuity between the world they left behind and the one in which they currently existed. According to early pioneer Esther Yarber, prospectors and settlers always attempted to "carry special items so essential to their way of life" to make bearable conditions in the diggings even comfortable.[88] To many people this meant certain foods were especially important and they went to great lengths to pack and haul these luxury items to the diggings. In 1862, when Alonzo Brown made his way to the new diggings in Florence, for example, his grocery list included extra bacon "to sell in the mines," flour "and other things. Among them was a five-gallon keg of East Boston syrup." Although he noted that he "could have sold [the syrup] readily for $100" when he got to the mines, he didn't. "I liked it too well myself, with no butter to be had it was mighty good, (or in jargon hias close much amuck)." Brown considered the syrup so important, in fact, that when his party reached a point when all supplies had to be packed in on men's backs, he paid another man $20 to haul the five gallon keg for the remaining sixteen miles as his own pack already weighed eighty pounds. He

[88] Yarber, *Land of the Yankee Fork*, 13.

was able to enjoy the syrup and the comforts it provided for the duration of his time in Florence—at least until it ran out.[89]

Culture influenced other food choices Euro-Americans made as well, making certain foods not only necessary for sustenance, but critical representations of Euro-American progress and aspirations. New cultural trends emphasizing cosmopolitanism, for example, shaped the selection of foods available to prospectors and settlers as they were headed to central Idaho. Historians like S. Margot Finn identified that sometime around the 1880's, there was a shift in American culinary tastes that was characterized by foods that were considered exotic or rare. Americans eagerly prepared ethnic foods that reflected their fluency in foreignness and ethnic fare through a variety of dishes like Russian Piroga, Spanish olla podrida, and Hungarian goulash.[90] Conspicuous consumption and middle-class aspirations to entertain drove much of the excitement and interest in ethnic food, according to Finn, yet, it's clear from the offerings available in frontier towns that even in such remote locations, Euro-Americans had an interest in partaking in the larger cultural trends too. General merchants advertised

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[89] Alonzo F. Brown, "Autobiography of Alonzo F. Brown" [1922], MG 5236, Oregon Historical Society Research Library, Portland OR, 39.

[90] S. Margot Finn, *Discriminating Taste: How Class Anxiety Created the American Food Revolution* (New Brunswick, NJ: Rutgers University Press, 2017), 65.

items like Japanese and Chinese Young Hyson tea, French mustards, imported oysters, and coffee from Manila, Laguira, Java, and Costa Rica as these were "the next [best] in quality" absent the harder to find Arabia or Mocha varieties.[91] Astonishingly, prospectors and settlers eagerly scooped these items and more up. Not only did prospectors and settlers see these items as a way to spice up an otherwise monotonous diet, they served as a way to mark special occasions, entertain friends and neighbors, and even to provide a source of uplift when luck in the diggings seemed to run out.

In short, the foods connected the wild and rustic existence of life in central Idaho with what Euro-Americans considered to be the refined and civilized society so prized in the dominant culture. One self-proclaimed pioneer, Carrie Adell Strahorn, witnessed this relationship between food and culture during her visit to the Yankee Fork district of central Idaho. When one man discovered he had lost his entire fortune on a distant mining venture, explained Strahorn, "he immediately gave orders for a dinner eclipsing anything he had ever given. He invited as many as could be accommodated; many choice viands were brought from distant cities for the

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[91] "Olympia Retail Prices Current," *Washington Standard*, March 2, 1861; McKay, *Gold for the Taking,* 263; Robert Bennett, ed., "Levi Ankeny," in *We'll All Go Home in the Spring: Personal Accounts and Adventures as told by the Pioneers of the West* (Walla Walla, WA: Pioneer Press Books, 1984): 263-264.

occasion, and champagne flowed like water."[92] The celebrations were cut short a day later when merchants discovered the man's insolvency. Strahorn noted though, that everybody—merchants included—continued to be in good spirits. While Strahorn's focus centered on everyone's lingering affability despite the man's deception—a sentiment she attributed to the feast—her observations reveal much more. The luxury foods for the celebration were still foods—consumed, enjoyed, satiating—but they were also symbols of abundance, affluence, and power in the same way they were in the larger dominant culture. As such, Strahorn's account demonstrates the way Euro-Americans imbued cultural meaning in certain items, which made them a proxy for the dominant customs and traditions so far away.[93]

While certain foods and supplies represented Euro-American culture and may have added meaning and comfort to prospectors' and settlers' remote existences, transporting them made getting to central Idaho much more difficult and frequently became the source of the many disasters people experienced. One item in particular—whiskey—was so deeply embedded in Euro-American culture that as such, most living in central Idaho considered

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[92] Carrie Adell Strahorn, *Fifteen Thousand Miles by Stage: A Woman's Unique Experience during Thirty Years of Path Finding and Pioneering from the Missouri to the Pacific and from Alaska to Mexico* (Lincoln: University of Nebraska Press, 1988), 164.

[93] Strahorn, *Fifteen Thousand Miles by Stage*, 427-431.

it a necessity from the beginning. Yet, despite people's insistence on having it, no item was more culturally driven or more hazardous to transport. On the importance of whiskey in the history of the American West, food historian Gerald Carson explained that the drink played many vital roles including as a measure of trade, as a form of therapy, but most importantly, to make life in the fringe settlements "endurable for men who lived with loneliness, ate beans, salt meat, coarse coffee…and who woke up, like as not, to find a small companionable rattlesnake sharing a blanket."[94] Prospectors and settlers in Idaho apparently agreed because they went to great lengths to have a steady supply of what one local newspaper proclaimed "the civilizing influences of whiskey" on hand at all times.[95] During the long winter of 1861, for instance, despite near-starvation conditions bringing men perilously close to death, it was the dwindling whiskey supplies—not food— that drove a number of men to risk the hazards of the trail and possible death. Astonishingly, several men managed to locate an adequate supply unharmed and even decided to pack a good amount back to camp. Unfortunately, two of the men hauling it died on

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[94] Gerald Carson, *The Social History of Bourbon* (Lexington, KY: University Press of Kentucky, 1963), 138.

[95] "On the Indians of Oregon and Washington," *Washington Statesman*, July 19, 1862.

the way from drinking too much raw alcohol from the kegs as they traveled.[96] In this case, the prospectors' deaths made clear the dangers of drinking raw whiskey.

However, whiskey made other hazards worse—either by drinking or transporting—which were not as apparent. To start, whiskey was hard to haul. Initially available in either five or ten-gallon kegs, prospectors found it was portable enough to carry, but not without great effort and dedication. That meant in addition to supplies like flour, beans, and salt, men strapped ten-gallon kegs of liquid to their backs, which made keeping one's balance along narrow precipices and up mountains extremely challenging—if not deadly. To make matters worse, despite occasional stories of whiskey poisoning, it was not uncommon to drink whiskey while on the trail. W.J. McConnell, for instance, reported that drinking copious amounts of whiskey on the trail to central Idaho's Payette Valley was the only way travelers seemed to be able to quench their excessive thirst caused by the alkali dust that "rose in clouds of dust, filling the eyes, nostrils and ears of the traveler."[97] Similarly, others headed into central Idaho carrying such a valuable commodity realized they could set up shop on the trail and sell their

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[96] McKay, *Gold for the Taking,* 261.

[97] William John McConnell, *Early History of Idaho* (Caldwell, ID: Caxton Printers, 1913), 189.

whiskey for up to a dollar a cup. Depending on the season, some people could make a small fortune due to the demand.[98] While such episodes reveal the cultural importance of whiskey as a valuable commodity and an all-purpose curative—ironically, to ameliorate some hazards of the trail—they also indicate just how many people had lowered inhibitions as a result of drinking whiskey. In this state, and with the additional weight of supplies on their backs, numerous travelers fell victim to mud and snowslides, animal attacks, and steep mountain trails. Most often though, rumors circulated of inebriated travelers who simply got lost on the trails and died of exposure when they could not figure out which way to go.

[98] McKay, *Gold for the Taking,* 322.

Chapter 3

LIVING THERE

In 1864, Idaho City seemed the epitome of progress and development. Though only a few years old, the nascent mining town and surrounding area was rapidly growing. By mid-1864, the town had already invested in measures for community fire prevention, having just completed a water works project replete with tanks, underground pipes, and hydrants to be used by the Hook & Ladder Co. in the advent of a town fire.[1] It boasted countless retail establishments and professional services including several grocers and general merchandise stores, restaurants, two bakeries (one specializing in French pastries), and a large selection of attorneys, surgeons, and physicians (although many doubled as both or all of the above).[2] As for entertainment, residents had options. They could attend one of the many town gatherings like Moore's ball, regular theatrical performances of shows like "Rob Roy" at

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[1] "Water Tank," *Boise News*, June 18, 1864, https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-18/ed-1/seq-2/.

[2] *Boise News*, July 30, 1864, https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-07-30/ed-1/seq-3/.

the Jenny Lind or Forrest Theaters, or, on occasion, they could even get a taste of the "horse opera" or circus whenever it happened to be in town.[3]

While these modern conveniences certainly made residents feel connected to contemporary Euro-American society, it was the technology behind the amenities that really made people feel like they were at the epicenter of the modern world. In the remote location of central Idaho, technology was everywhere. Every good or service available for purchase represented technology, not only through the nature of what was being offered, but through the technological means devised to source, transport, stock, or install it. To complete the water works project, for instance, sourcing began in faraway Portland or Seattle for the tanks, hydrants, leather hoses, nozzles, and all the parts needed to make the complex system functional. This was followed by packing and hauling those items on mules with specially designed packs over miles of rough terrain. Once in Idaho City, people then had the difficult task of installing the system, which meant

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[3]George Owens, *A general directory and business guide of the principal towns in the upper country, embracing a portion of California : together with mining and statistical information concerning Idaho Territory, and a map of Idaho and Montana* (San Francisco: A. Gensould, 1866), 90-96; H.H. Bancroft, *Washington, Idaho, and Montana* (San Francisco, The History Company, 1888), 420-421, https://archive.org/details/workshuberthowe31bancrich/page/420/mode/2up?view=theater ; "Circus Coming," *The Boise News*, July 30, 1864, https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-07-30/ed-1/seq-2/.

digging trenches throughout the town to connect underground lines with multiple hydrants and a large tank erected to hold water.[4] From start to finish, technology played a part either through the methods used to purchase the equipment, the devices and logistics used to haul it, or the planning and assessing applied when physically building the infrastructure. Residents, acutely aware of the remoteness of their location, never failed to marvel at and celebrate the pains taken to have access to such innovation.

Partly for that reason and partly because of the longer, complex relationship Euro-Americans had with technology, people in central Idaho eagerly welcomed any machinery that promised to make their lives easier—especially when it came to gold mining or extracting other metal-bearing rock. Local newspapers frequently updated residents on the imminent arrival of the newest modern marvels headed their way. On June 25, 1864, one announcement read:

> A 10-stamp quartz mill, with a steam engine, boiler, tools, and all the appliances for working, arrived on the Pacific, and was transferred to the steamer Wilson G. Hunt on Saturday, for the South Boise mines. This mill was manufactured to order in San Francisco, and is the third one now on the way to the mines of the upper country. Col. H.H. Raymand has it in his charge and will push it through as fast as possible. The country into which this mill is going is noted for roughness, high mountains, and deep

[4] "Water Tank," *Boise News*, June 11, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-11/ed-1/seq-2/.

> gorges, but feet owners in that section with an indomitable will, have dug out a passable gateway for vehicles, and Alturas will soon be noted among the rich counties of Idaho. The weight of Col. Raymond's machinery amounts to about 30,000 pounds.[5]

Descriptions like these detailing the complexity and sheer size of the machinery, especially juxtaposed to the many challenges of transporting such items, were captivating. It reminded people that, ironically, in a frontier mining town, they had access to some of the newest innovations available to maximize production. It also subtly underscored Euro-Americans' need for technology, not only to help them survive the extremities of central Idaho's environment, but to do so in order to sustain the prominent Euro-American culture of gold mining. Most importantly, though, these descriptions made people proud—proud to be part of a society that had figured out how to master nature and move such large items; proud that those same mechanical innovations would unearth gold—a.k.a. wealth—commensurate with the size of the machine.

Perhaps for these reasons then, when a series of disasters occurred in town as a result of using technology, the community reaction was one of

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[5] "Another Quartz Mill," *Boise News*, June 25, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-25/ed-1/seq-3/.

bewilderment, dismissiveness, and—astonishingly—optimism. When the home of town resident Mr. Bates suddenly caved in, for instance, reports downplayed how the cave-in had destroyed all the contents of the house by emphasizing the good fortune to be able to lay a new bedrock foundation "where the gates of the ditch company cannot prevail against it."[6] Similarly, when three year old Johnny Atkins fell five feet into a mining pit dug under his house and broke his leg, accounts only commended the "little sufferer" for "[bearing] his affliction with a fortitude worthy of one of more mature years."[7] There was more: cargo-bearing mules broke through town sidewalks; cellars of homes and businesses overflowed with muddy water; pits stretching across main streets severed sidewalks unexpectedly; and men running sluices were crushed by falling ore.[8] In each of these disasters, despite the breadcrumbs leading back to obvious negligence born from the use of technology, the town seemingly never expressed outrage at the toll—with one exception. When a Chinese immigrant became "annoyed" again when his laundry filled with water, accounts only mocked "the brawny son of Boodh(sic) for endeavoring

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[6] "A Crash," *Boise News*, June 11, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-11/ed-1/seq-2/.

[7] "Painful Accident," *Boise News*, June 18, 1864, https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-18/ed-1/seq-2/.

[8] "Distressing Accident," *Boise News*, July 30, 1864, <https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-07-30/ed-1/seq-2/>.

and failing to stay the flood," citing "the disciple's [weak] faith or the powerlessness of "Gaudama in nervana" for his failure.[9]

At first glance, these kinds of disasters appear to represent some of the challenges early communities faced as they worked out the kinks of developing a town. Under the surface, however, these disasters reveal another facet of Euro-American culture imported to central Idaho—a faith in and dependence on technology—which, when applied to the natural environment, resulted in increasing the risks of hazards—or in some cases, manufacturing new ones. In Idaho City, for example, equipped with more modern and effective tools and knowledge that enabled miners to sink relatively narrow shafts in confined spaces, many saw such tools as an invitation to explore diggings quite literally in the convenience of their homes. Guided by that knowledge, miners paid little heed to the practicality or risks—both to themselves and those living in or using the dwellings above—when they extracted ore while simultaneously destabilizing the foundations of all the structures running above them. Instead, such incidents demonstrate the psychological and almost spiritual relationship linking man with machine and innovation. To Euro-Americans, technology represented power over nature. Not just by its ability to physically reshape or tame

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[9] "Flood," *Boise News*, June 11, 1864, https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-06-11/ed-1/seq-2/.

nature, but—Euro-Americans believed—because technology could also wrench more power out of nature. Each new innovation thus gave license to carve, dig, cut, or divert part of the natural environment around them, often with devastating consequences.

Most notably, the interplay between the area's characteristic environment and Euro-Americans' need for technologies led to a distinct period of hydraulic mining practices in central Idaho, and with it, a mix of new pitfalls and hazards. Falling somewhere between independently owned, small scale prospecting and corporately owned industrial lode mining, these practices developed when simple placer equipment became less effective at separating gold from ore. When certain environmental extremes in central Idaho such as water shortages, inaccessibility, and shorter mining seasons challenged the usual transition of many of the gold districts from small to large scale industrial development, miners thus imagined alternative ways to work the land and process gold. Again, they were guided by technological innovations that, they believed, would make the task easier. These efforts eventually generated enough interest to entice some investors to develop industrial mining operations. Yet, the era left its mark in more ways than one. The effects of hydraulic mining practices riddle the landscape with hazards, which made life much more dangerous for the miners determined to carry on in the diggings. And for those people living or working in the nearby

towns and communities, the effects of hydraulic mining took another toll: they became unsuspecting victims to the schemes and practices of the middle ground of mining.

Mining, Machines, and Mayhem

Early mining in Idaho was a pretty simple affair. The party that first discovered gold in the Orofino District of central Idaho, for instance, did so by washing panfuls of sand and gravel "with what few implements they had, and with what rude processes they could improvise" with great success.[10] Despite what seemed like limited equipment—and with very little effort—in only a matter of days, they had gathered around 100 dollars. It was this combination in fact—a decent clean up paired with minimal labor—that made the area extremely appealing. While many gold-seekers were known to drop everything in pursuit of the mere mention of gold, savvy gold-seekers understood the true value of claims that required nominal investment and labor, but were still profitable enough to make their time and effort worthwhile, which as it happened in 1861, amounted to about ten dollars a day.[11] For these reasons, over the next four decades a frenzy of people flocked

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[10] William Armistead Goulder, *Reminiscences: Incidents in the life of a pioneer in Oregon and Idaho*, rev.ed.(Moscow,ID: University of Idaho, 1989), 202.

[11] Goulder, *Reminiscences,* 210.

to central Idaho in search of these kinds of gold claims. What they found, however, was that as more people moved to the area, the better class of claims became harder to find. Easy pickings quickly became less profitable or harder to work, or both. As a result, many simply abandoned their claims in search of better prospects. Those who stayed, however, realized that to more easily access the wealth of gold they knew to be just under the surface, technology was the key.

These realizations about technology—while new to the area—were anything but new to the mining world, or indeed Americans in general by the mid-1860s. From inception, miners used various methods of mining throughout the Eastern United States and Mexico, but mining practices became far more technological with the discovery of gold in California.[12] As miners from around the world raced to Sutter's Mill, the collective knowledge of mining mingled, making the area a hot bed for new ideas and innovations.[13] Some ideas, like new hydraulic mining methods for instance,

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[12] Otis E. Young, *Western Mining: An Informal Account of Precious-Metals Prospecting, Placering, Lode Mining, and Milling on the American Frontier from Spanish Times to 1893* (Norman, OK: University of Oklahoma Press, 1970); Rodman Wilson Paul, *Mining Frontiers of the Far West, 1848-1880* (Albuquerque, NM: University of New Mexico Press, 1974), 115; Sarah E. M. Grossman, *Mining the Borderlands: Industry, Capital, and the Emergence of Engineers in the Southwest Territories, 1855-1910* (Reno, NV: University of Nevada Press, 2018).

[13] Rodman Wilson Paul, *California Gold: The Beginning of Mining in the Far West* (Cambridge, MA: Harvard University Press, 1947), 25-29, 48; Jeffrey M.

emerged and helped miners rework and reshape the land to better access the gold. Despite the major ecological destruction such technologies wrought on the land, after California, miners, who set out in pursuit of new diggings like the ones in central Idaho, were armed with a new skillset and knowledge of the innovations to make it happen.[14] In part, miners valued these ideas of technology for the perceived value of its practical application; but, Americans in general had long held the belief that machines and technological advancement were symbols of modernity itself. Historians of technology like Leo Marx have established that Americans imbued a profound faith in the power of technology, which permeated the dominant American culture as evidenced by a rhetoric of technological progress beginning in the early nineteenth century.[15] Although American culture exalted symbols of mechanization as expressions of what Marx calls the "technological sublime," those symbols were couched in an older tradition that endorsed man's use of

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LaLande, "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier," *The Journal of the Society for Industrial Archeology* 11, no.1 (1985): 29-52.

[14] Andrew Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005).

[15] Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (Oxford: Oxford University Press, 1964); John F. Kasson, *Civilizing the Machine: Technology and Republican Values in America, 1776-1900* (New York: Hill and Wang, 1976); David E. Nye, *American Technological Sublime* (Cambridge, MA: MIT Press, 1996).

science and technology as, according to Carrol Pursell, a way to exercise dominion over the natural world.[16] To prospectors, these ideas about technology meant that they saw the benefits of using technologies to better harness control over the landscape—in other words, get more gold. But, it also became a cultural imperative to see and use machinery and equipment in order to legitimize their claim and the labor they put into it.

In central Idaho, these cultural imperatives for technology manifest first through simple equipment that had been used in other gold mining regions. Initially, prospectors used equipment such as rockers and long toms to separate gold from auriferous dirt in creek beds. Rockers, or short wooden rectangular boxes resembling a child's cradle, were fitted with a sieve on the top and cleats along the bottom. When prospectors filled them with gravel and water, they could be rocked, which separated the gold as it collected in the cleats and allowed the remaining gravel to be washed out of the open end. Similarly, long toms developed as larger, longer versions of rockers, but depended on a more constant flow of water rather than rocking to separate the gold. For prospectors, these devices were appealing because of what they appeared to offer: the ability to process more gravel—and hopefully more gold—along with a savings in time and labor otherwise spent toiling over

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[16] Carroll W. Pursell, *The Machine in America: A Social History of Technology* (Baltimore: Johns Hopkins University Press, 2007).

individual pans. They were also relatively easy to build and portable, which meant prospectors could pack up and move on if it seemed as if their placer had run its course. Unfortunately, long toms and rockers were not without drawbacks, as gold seekers soon discovered. Prospectors using a long tom could process around three to five cubic feet of gravel a day, but they found that fine particles of gold easily washed over the sides of the boxes and were lost in the tailings, or discarded gravel. To solve the problem, prospectors began using costly mercury or quicksilver poured over the base of cleats. The combination made an amalgam, which trapped finer gold particles and prevented them from being washed away. The two metals were later distilled and separated.[17] Although these measures made long toms and rockers as efficient as possible, prospectors perpetually sought new ways to increase efficiency in the diggings, even at the expense of thoroughness. For most, the answer was sluices.

First developed in California mines in the 1850s, sluices became the most efficient method of placer mining, and also the most technological. Similar in basic concept to rockers and long toms with water doing the work of separating gold from alluvial gravel, prospectors working more elaborate

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[17] Donna L. Turnipseed, "Lessons from a Ditch: A Study of Three Water Conveyance Systems Located in Idaho County, Idaho, 1860-1880," (Master's thesis, University of Idaho, 1997); chapter 5.

sluices could process up to 100 cubic feet of gravel in one day.[18] While this amount certainly satisfied Euro-Americans' justification for having the technology, not all sluices were created equal, as prospectors in Idaho soon found out. Unlike its predecessors, much was necessary to not only construct sluices, but to operate them, and then most importantly, make them profitable. Longer sluice runs produced swifter currents, for instance, and thus, were more efficient. That meant prospectors built the longest sluices possible, often "stringing" them together to maximize both the velocity and volume of water flowing through. Longer strings, however, necessitated more lumber for boxes, more labor for both whipsawing timber and building the sluices, and more water to operate the setup. And all of this was just to build the sluice. Much more went into constructing the necessary infrastructure to make sluices work including creating dams and holding stations, or flumes for incoming water, constructing channels to dispose of waste, or tailings, and building overflow valves for excess water.[19]

Seasoned prospectors, ironically, knew well the immense work involved in building these supposed labor saving systems, but their

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[18]Jeffrey M. LaLande, "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier," *The Journal of the Society for Industrial Archeology* 11, no.1 (1985):29-52.

[19] Turnipseed, "Lessons from a Ditch," chapter 5.

determination to use the technology in more challenging environments reveals the extent of Euro-Americans' core cultural impulse for technology. Adequate water flow, for instance, was a critical part of sluice operations, but was not always readily available in central Idaho.[20] For claims built near water sources, however, the issue was not in locating *where* the water was, but *how* to construct a grade capable of washing and separating the gravel. Mountain slopes were often too steep, which made controlling the flow of water unpredictable. In such cases, prospectors found they had to carve into mountainsides to reconstruct a new grade that would accommodate most if not all of the sluice, which was no small undertaking. Alternatively, prospectors occasionally made claims near water sources that were, according to early prospector William Goulder, "as flat as a pancake." Goulder, who worked claims in the Oro Fino District and the lower Bitterroot Mountains, explained that in such cases, more than the average amount of labor was involved. Flat claims meant miners had to dam creeks "at the proper distance above [the claim], and the water thus raised above the surface is brought in

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[20] Although according to historian Carlos Schwantes, Idaho receives nearly a hundred million acre-feet of water a year (an acre-foot of water equals the amount of water needed to cover an acre up to one foot), which he argues is more than any other state in the mountain West, most of that precipitation falls in the panhandle area, or northern Idaho. Otherwise, water shortage issues and aridity are key characteristics of central and southern Idaho. See Carlos A. Schwantes, *In Mountain Shadows: A History of Idaho* (Lincoln, NE: University of Nebraska Press, 1991).

boxes to the place where it is to be used." However, "[b]efore proceeding further, the gravel must be removed from the pit…to allow the sluice boxes to be placed at the angle or grade necessary to produce the required current."[21] In other words, in an effort to save time and labor to make their sluices functional, miners not only had to build the standard infrastructure of sluices, but also divert and redirect the entire stream's water flow.

Labor saving or not, sluice use became both troublesome and dangerous when combined with the area's natural aridity. Prospectors with claims near creeks and rivers quickly discovered they could only reliably access water during the spring when snowpack melted and created enough water to operate sluices. Thus, from roughly mid-March through July, prospectors worked a frantic pace, processing as much gravel as possible to make their shortened season as profitable as possible. Often, many didn't even take Sunday off, as was the custom, in order to make the most of the water.[22] To many, this meant teaming up with other prospectors who each assumed a station working the sluice. Such was the case for prospectors, including William Goulder, who recalled no fewer than five men working the

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[21] William Goulder, *Reminiscences: Incidents in the Life of a Pioneer in Oregon and Idaho* (Moscow, ID: University of Idaho Press, 1990); 210-211.

[22] Harold Albert York,"The History of the Placer Mining Era in the State of Idaho," (Master's thesis, University of Oregon, 1939), chapter 5.

sluice directly, and many more prepping the surrounding area for processing. "Thus the work goes on without cessation," he explained, "until Saturday evening, when a halt is called for the final 'clean up' of the week" and each prospector receives his share of the profits.[23]

These efforts at efficiency allowed prospectors to work more cubic feet of gravel in a day, but sluice-use led to some serious drawbacks, both financially and physically. First, sluices were costly, and in more ways than one. Profits had to be divided amongst all members of the company, which reduced each person's overall earnings and thus, incentivized working almost nonstop for a larger clean up. That meant prospectors worked day and night, lifting sod, shoveling gravel, clearcutting trees from the surrounding area, and all of the other countless jobs necessary to keep the sluices running. William Goulder knew well the rigors of working long, hard days in placer claims, but recalled that it was "the extreme slowness of the process and the expense daily incurred in its prosecution" that really caught people off-guard.[24] While this never-ending daily grind only occasionally led to greater profits, prospectors discovered too late that their efforts to develop their sluices frequently cancelled out any additional gains they hoped to make.

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[23] Goulder, *Reminiscences,* 215.

[24] Ibid., 214.

Miners, for instance, did not comprehend how the absence of trees from clearcutting would cease to provide shade over nearby creek beds and mountainsides, which otherwise slowed the pace of snow melting.[25] Without snow, miners realized, there was no water. And without water, prospectors discovered the placering window was even more narrow than the already shortened season.

These financial costs paled in comparison to the physical toll sluices extracted from placer miners, who experienced health problems ranging from mild to severe as a result of the working conditions required to operate sluices. Prospectors' hands and feet cracked and often bled. After shoveling sodden gravel all day, they developed torn ligaments and threw out their backs regularly.[26] According to historian Harold Albert York, most prospectors suffered innumerable colds and coughs after working long, freezing nights in knee-deep water. Such was the case for P.W. Gillette, who recorded a series of illnesses after working his placer claim during several extremely cold and snowy days in July 1862.[27] Hundreds of other prospectors,

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[25] *Idaho Semi Weekly*, August 3, 1875.

[26] Paul Buell, "A Chinese Apothecary in Frontier Idaho," *The Annals of the Chinese Historical Society of the Pacific Northwest* 1 (1983): 39-48.

[27] Diary of P.W. Gillette, 1861, Clatsop County Historical Society, Astoria, OR, https://archive.org/details/gillette.diary.1861/mode/1up.

however, developed far more serious conditions while working sluices including chilblains, frostbite, and snow-blindness, a condition that often resulted in a permanent loss of eyesight.[28] Despite these ailments, however, prospectors prided themselves on their hardiness and physical endurance to not only survive the effects of the climate, but to thrive by working through the challenge. On this, a local newspaper even commended central Idaho's prospectors as "men [who could] go out in the frosts and cold winds, and work in the water as if it were the pleasantest thing imaginable."[29] Although "weaklings" were advised to steer clear of the mines, the newspaper even insisted that "[for] consumptives, who want a dose of 'kill or cure' these mountains is the place."[30]

In reality, though, men frequently became ill. Yet, rather than admit weakness, to prospectors, illness was simply a hardship, not a hazard, and one they proudly bore. To demonstrate their endurance, prospectors rarely took time off while ill, regardless of the immense effort and physicality of operating a sluice. P.W. Gillette, for instance, didn't stop working until he had arranged to have a temporary laborer work his claim. Even then, he took

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[28] Harold Albert York,"The History of the Placer Mining Era in the State of Idaho," (Master's thesis, University of Oregon, 1939), 184-186).

[29] *Washington Statesman*, Feb. 2, 1862.

[30] Ibid.

only one day off.[31] In part, Gillette's refusal to stop working was—like many prospectors—a demonstration of mind over matter, or, the strength of his character and physicality against nature and illness. "[No] danger can be too imminent," he declared in his journal, "no hardship too severe to deter" men from gold. But, in part, his abbreviated convalescence also reveals the hidden costs dictating the relationship between man, machine, and the environment. Quite simply, placer miners couldn't take time to be ill because sluices cost too much time, labor, and money to be left idle and unused. On this, even if Gillette didn't fully appreciate how the sluice dictated the terms of his other relationships, he understood the value of money. "This morning," he wrote, "I hired a man to work in my place; for which I had to pay him $6."[32]

Beyond effecting prospectors' health, sluice operations also played a key role in undermining the integrity of the surrounding countryside and by extension, exposing placer miners to greater dangers. The very nature of sluicing in central Idaho, in fact, increased the risk of many of the natural hazards of the area, which not only affected prospectors' wellbeing, but life and limb as well. According to William Goulder, opening a claim was a "tedious" business, requiring almost herculean levels of "time, labor, and

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[31] Diary of P.W. Gillette, 1861, Clatsop County Historical Society.

[32] Ibid.

expense" just to get operations running.[33] His step-by-step description makes clear the unimaginable efforts placer miners exerted to build and operate sluice systems. Conversely, though, his lengthy account also reveals the immense impact of that effort on the environment. Placer miners removed sod and lifted loam; they carted gravel and clear cut trees, built dams and harnessed water, all to set up shop.[34] In nature, however, they were redirecting streams and rivers, reshaping canyons and hillsides, and removing flora and fauna that had otherwise never been altered so dramatically or so quickly.[35] These changes undoubtedly resulted in significant long term ecological and environmental ramifications.[36] To placer

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[33] Goulder, *Reminiscences*, 210.

[34] Although there are many accounts of how placer miners in central Idaho "opened their claims," all described the immense amount of work required to get operations running as well as the various ways placer miners' efforts physically altered the landscape. For more, see Goulder, *Reminiscences*, 210-214; J.L. Campbell, *Idaho and Its Gold Fields: The Emigrants Guide Overland* (Chicago: J.L.Campbell, 1865), 30-34.

[35] In parts of Idaho, there were traces of earlier mining activity thought be remnants of Spaniards living in the area. See J.L. Campbell, *Idaho and Its Gold Fields: The Emigrants Guide Overland* (Chicago: J.L.Campbell, 1865), 27.

[36] See Clark C. Spence, *A History of Gold Dredging in Idaho* (Boulder, CO: University of Colorado Press, 13); Harold Albert York,"The History of the Placer Mining Era in the State of Idaho," (Master's thesis, University of Oregon, 1939); Liping Zhu, "No Need to Rush: The Chinese, Placer Mining, and the Western Environment" in Montana: The Magazine of Western History 49, no.3 (1999): 42-57. On the effects of hydraulic mining on the

miners living and working in central Idaho at the time, however, the cost was more immediate. When prospectors removed trees, built dams, saturated already unstable topsoil (especially during the spring runoff), and piled gravel and boulders in questionable locations around their claims, the ever present threat of landslides increased significantly.[37] Prospectors like Thornton Morgan discovered too late the side effects of his sluice operation on the landscape, and worse still, how those effects could lead to bodily injury. Morgan, who was working his claim near Idaho City during the height of spring runoff, was completely buried by a landslide. Although he managed to dig himself out, suffering only a broken thigh, newspaper accounts reported that he "had the same leg broken" by a similar incident sometime earlier.[38] Others were not so lucky. Local newspapers reported the deaths of numerous placers miners after they triggered landslides or cave-ins, a by-product of

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environment in general, see Andrew Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005).

[37] Euro-Americans were notorious for randomly discarding the waste, or tailings, from their sluices around the claim. In comparison, Chinese placer miners painstakingly stacked their tailings, often in intricate patterns, in order to thoroughly process and extract all particles of gold. See Zhu, "No Need to Rush," 42-57.

[38] "Serious Accident," Idaho Semi-World Weekly, May 16, 1868. https://chroniclingamerica.loc.gov/lccn/sn89055027/1868-05-16/ed-1/seq-3/.

slides, around their claims.[39] In fact, between November 1864 and November 1865, around Idaho City alone, newspapers reported no less than 125 men either seriously injured or killed by landslides, cave-ins and other accidents "incident to mining."[40] Morgan's experiences, like many other prospectors, reveals the frequency in which prospectors dealt with slides or slide related hazards. Unfortunately, Morgan, like many others, failed to comprehend the role sluices played in making them happen.

From Dry Diggings to Micro-Corporations

The promise of untapped financial gains coupled with a cultural commitment to the machinery trumped the dangers placer miners created for themselves by using sluices. Gold deposits discovered away from natural waterways, or dry diggins, however, marked a turning point for sluice technology, mining in central Idaho, and consequently, the magnitude of hazards and range of people who encountered them in the area. In dry diggins, like other placer claims, prospectors required a consistent supply of water to operate sluices, but had no simple means of accessing it. Water conveyance systems, or ditches, seemed to offer a solution. But, in trying to

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[39] See, e.g., "Distressing Accident," *Boise News*, July 30, 1864, <https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-07-30/ed-1/seq-2/>.

[40] H.H. Bancroft, *The Works: History of Washington, Idaho and Montana, 1845-1889* (San Francisco, CA: The History Company, Publishers, 1890), 422.

solve one problem, prospectors discovered a beaucoup of others arose. Ditches, for instance, could be extremely complicated to construct and operate, thus, they were often hazardous, both to dig and use. On top of that, the intensive labor and significant expense required to construct ditches barred many prospectors from developing their claims. These same obstacles also prevented many miners from attracting the kinds of corporate buyouts that typically occurred in other mining regions at this stage of mining. Without many options, but confident in the true value of their claims, many prospectors in central Idaho sought alternative methods, with the hope that enough improvements would attract corporate capital, or even become a bonanza. What they didn't anticipate though, was how their alternative methods would wreak havoc on the surrounding countryside, or the people living there.

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Unsurprisingly, ditch use was common practice before the discovery of dry diggins and mining in general. Surprisingly, though, it was in many ways always entangled with the needs of the future of mining in Idaho and central Idaho specifically. Considering Idaho's natural aridity, using ditches, or, what historian Donald Worster calls "mastering the technological means of harnessing nature" became a primary means of developing—even

conquering—the West.[41] In Idaho, this "mastery" began in the Boise Basin near the confluence of the Boise and Snake Rivers.[42] There, both settlers and explorers experimented with expanding irrigation to help develop agriculture and farming for residents and transients of the valley.[43] Very quickly, though, when rumors of gold discovered northeast of the valley circulated, farmers shifted gears to supply food to miners, who were neither inclined to nor capable of growing their own crops. Thus began the tradition of mining in Idaho reinforced by agriculture, and agriculture justified by the hope of a strong mining industry.[44] Although this intertwined relationship was frequently unbalanced, often favoring the needs and interests of the mining community, conversely, it's clear that the two areas exchanged more than just food and supplies.

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[41]Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Oxford University Press, 1985), 6.

[42] Earlier efforts to develop irrigation began in what would become Lemhi Valley in 1854 when a small group of Mormons attempted to settle and develop agriculture in the area. Hostile relations with local Native Americans forced them to abandon their efforts and move elsewhere. See John Hailey, *A History of Idaho* (Boise, ID: Syms-York Company, Inc, 1910), 159.

[43]"Early Irrigation Canals Pre-Project Ventures," *Idaho State Historical Society*, Idaho State Historical Society Reference Series no.171; https://history.idaho.gov/wp-content/uploads/0171.pdf.

[44] Merle W. Wells, *Gold Camps and Silver Cities: Nineteenth Century Mining in Central and Southern Idaho* (Moscow, ID: Idaho State Historical Society, 1983), 151.

In fact, both early agricultural methods of irrigation and the expertise of miners from areas like California greatly influenced prospectors building ditches in central Idaho. From agriculture, prospectors gleaned the basics of a strong design and adapted concepts to suit their needs. Although constructing a ditch seemed as simple as excavating soil and rock, farmers and prospectors had to consider numerous variables to make their ditches as efficient as possible.[45] Factors such as location were incredibly important. In agricultural settings, for example, farmers had the advantage of choosing where to irrigate—preferably flat land—whereas placer miners had to dig ditches wherever they found gold. Grade, shape of ditch, and the nature of the soil or rock being dug, farmers realized, played a big part in designing an efficient ditch, and thus, the strongest system for irrigation.[46] Prospectors adapted these lessons to their needs and central Idaho's environment. Miners

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[45] On agricultural canals, see Mark R. Kulp, "Farm Irrigation Ditches, Tools, and Structures," in *University of Idaho College of Agriculture Extension Circular* no. 48 (April 1934); 1-22; on the construction of mining ditches, see Donna L. Turnipseed, "Lessons from a Ditch: A Study of Three Water Conveyance Systems Located in Idaho County, Idaho, 1860-1880," (Master's thesis, University of Idaho, 1997); Jeffrey LaLande, "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier," *The Journal of the Society for Industrial Archeology* 11, no.1 (1985): 29-52; J. Ross Browne, *Report Of J. Ross Browne On The Mineral Resources Of The States And Territories West Of The Rockies,* prepared at the request of the House of Representatives (Washington DC: Government Printing Office, 1868).

[46] Kulp, "Farm Irrigation Ditches, Tools, and Structures,"1-22.

discovered, for instance, that the ideal ditch for mining was trapezoidal in shape, whereas farmers preferred semi-circle designs, because trapezoidal ditches withstood the steep grades of mountain settings better than others.[47] Prospectors also learned to stack the excavated rock and soil on the downhill slope of ditches to add additional support and aid with leaks. Farmers, on the other hand, stacked uphill to help with water flow to flat land. Beyond farmers, much knowledge of building ditches also came from the experience and methods trialed by veteran miners from California, who were rumored to have a superior knowledge of ditch digging.[48] There, miners experimented with building ditches that could maintain large volumes of water over extended distances. Narrow, deep ditches, they discovered, allowed them to maintain the requisite volume, while also reducing loss of water caused by evaporation, one of the biggest issues prospectors faced.

These agricultural influences, as well as the expertise of California miners, meant even the earliest ditches prospectors constructed were

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[47] Turnipseed, "Lessons from a Ditch,"21-22.

[48] York,"The History of the Placer Mining Era in the State of Idaho," 75-92; William J. Trimble, "The Mining Advance into the Inland Empire: A Comparative Study of the Beginnings of the Mining Industry in Idaho and Montana" *Bulletin of the University of Wisconsin* 3, no.2: 137-393.

complex technological systems.[49] While these ditches were fairly straightforward in use, they were not necessarily simple in design or construction. Prospectors dug many ditches in order to move water from one area to another, yet, their purpose within the larger placer operation impacted both the effort needed to build it as well as its size and scale respectively. William Goulder, for instance, explained that in a typical wet placer claim, prospectors dug at least three different ditches: one to provide water to the sluices; one to wash away the waste gravel after being processed; and one to capture seepage water from flowing back into the exposed bedrock. While the role of each ditch was seemingly straightforward, in fact, one required prospectors to divert an entire stream, and another required "[digging] a ditch of liberal width and varying length from a quarter to a half-mile" long.[50] Only one ditch required minimal effort to construct, but because it was one to help remove waste, the real effort was in keeping it clear, not making it.[51] It was this amount of time, labor, and expense, admitted Goulder, that "caused many good and industrious miners to abandon what all

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[49] For more on the complexities of water conveyance systems in mining, see Turnipseed, "Lessons from a Ditch,"chapter 4.

[50] Goulder, *Reminiscences*, 210-214.

[51] Ibid., 210-214.

admitted to be good prospects and ramble over the countryside" in search of richer—and presumably less labor intensive—deposits.[52]

Given the sheer amount of labor spent constructing ditches, it's a wonder why prospectors dug any at all? The answer is, of course, because they had to. Ditches provided water to operate sluices, and such technology, to most placer miners, was *the* way one extracted gold. They had faith in the technology, and thus ditches and the labor involved were a means to a profitable end—at least that was the hope. In May 1862, P.W. Gillette expressed this hope and faith in the capabilities of his sluice and ditch operation in his journal. "I went to work this morning in the 'Wolf Track Gulch Claim.' This claim is supposed to be 'rich.' Those who are mining on this gulch below are doing well. Yet," he confessed, "I get to work with some misgivings. Some heavy doubts hang upon me, and seem to whisper 'beware,' it will not pay. Yet I persist in going to work, striving to believe it; what everybody says must be true. Our first job is to dig a bedrock ditch the whole length of the claims (500 feet) which will be about 7 feet deep. The ground is wet and boggy; Laying it makes nasty work."[53] Gillette's admissions reveal much. Despite his misgivings, despite days later hitting bedrock and finding

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[52] Goulder, *Reminiscences*, 210.

[53] Diary of P.W. Gillette, 1861, Clatsop County Historical Society.

not even one "prospect," Gillette, without hesitation, set about "constructing the machinery and making all the preparations for a [new] pump" and ditch.[54] These acts convey the trust that he and so many other prospectors placed in the technology to transform their claims into veritable bonanzas. Beyond trust though, it also reveals an awareness of the nature of the work. Regardless of how difficult ditches were to build, or indeed, how many problems might arise through constructing it, prospectors accepted the work as part and parcel of using the technology and finding gold.

They didn't, however, envision the degree of problems ditches would cause, or the hazards they generated, especially in central Idaho's rugged mountains. Despite the benefit of prior knowledge that went into making them, the ditches prospectors built were far from perfect. They often leaked. Many developed weak spots if water overflowed its banks and undermined the integrity of the ditch's wall, particularly if the overflow occurred on the downhill side of the ditch.[55] On top of that, prospectors dug many with grades that were too steep.[56] If (and when) the water ran higher than capacity—as

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[54] Diary of P.W. Gillette, 1861, Clatsop County Historical Society, Astoria, OR, https://archive.org/details/gillette.diary.1861/mode/1up.s

[55] Donna L. Turnipseed, "Lessons from a Ditch: A Study of Three Water Conveyance Systems Located in Idaho County, Idaho, 1860-1880," (master's thesis, University of Idaho, 1997), chapter 4.

[56] Although steep grades were a problem in early ditch digging, techniques and engineering improved over time making steep grades more preferable as

was the case in years with heavy snowpack, early warm springs, or even heavy rains—the combination of water volume and velocity frequently burst ditch walls open. While these design flaws certainly created operational and financial problems when inactive sluices slowed down the efficiency of processing gravel, they also created serious hazards. Landslides, again, reared their ugly head when leaking ditch water saturated already unstable ground, along with washouts and flooding. In these instances, though, the resulting hazard not only made the ditch owner (and the succession of miners with adjoining claims down the creek) more vulnerable to physical harm, the slides wiped out the ditches themselves. When this happened, placer miners frequently had to start the whole laborious process of digging all over again.

So common were these hazards, in fact, that placer miners attempted to protect ditches—and presumably themselves—from the effects of slides. Miners developed elaborate techniques to patch leaky ditches by lining the walls with granite or slate slabs, split rails, and lumber. In places where the ditch was too shallow, thus, more likely to develop a leak, miners developed a method known as "cribbing," or building up the sides of the ditch with a combination of rocks, silt, and lumber. In areas identified as more vulnerable,

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a means of preventing snow and ice jams. See George Spaulding, *Gold Mines and Mining in California* (San Francisco: George Spaulding & Co., 1885), 95-96.

miners built barricades, or snow guards, that consisted of strategically planted trees and shrubs to help protect ditches from slides.[57] Although all of these efforts offered some measure of protection for a while, trees, shrubs, and slate were no match against the size and weight of snow, shale, and debris as it gathered momentum. Instead, rather than helping, falling trees then added to the problem and became another source of hazard to prospectors working their claims. Such was the case with Owen McCaler and Patrick McCabe. As they each worked their placer mines near the Placerville gold district, both were killed by falling trees only days apart.[58] Countless others suffered a similar fate.

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Although the hazards caused by ditches continued to plague placer miners in the early years of gold mining, the discovery of dry diggings, or gold claims away from nearby water sources, dramatically changed the nature of the ditches, mining in central Idaho, and the magnitude of hazards people both created and experienced. Dry diggings, like wet claims, still required water to process gravel and ore. In order to get water to claims, though, placer miners realized they had to construct longer, more complex ditches

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[57] Turnipseed, "Lessons from a Ditch," chapter 5.

[58] "Accidentally Killed," *The Idaho World*, June 10, 1865, https://chroniclingamerica.loc.gov/lccn/sn82015407/1865-06-10/ed-1/seq-2/.

from a sufficient source of water, sometimes many away.[59] These complex water conveyance systems required extensive engineering and structures to be able to cross deep ravines, curve around mountains, and carry an adequate amount of water to still be useful once it reached the claim. To placer miners determined to use sluices and other hydraulic technologies, however, these complex systems meant more money, labor, time, and expertise—requirements that often prohibited individual claim owners from developing dry diggings. Many attempted to secure financial backing from Eastern capitalists as they had in other gold mining regions with similar conditions, only to encounter more roadblocks.[60] Capitalists, placer miners discovered, were extremely reluctant to invest in claims that had not yet been proven to be profitable. While this reluctance was anything but new in the world of speculative mining, investors were further dissuaded by the lack of roads to central Idaho's mining regions. To investors, who calculated both the

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[59] It is unclear how long the longest ditches were as modern measurements calculate the distance from the source to a claim, but also include any secondary trenches in the primary ditch leading to multiple claims. Many ditches averaged between one and six miles. See Turnipseed, "Lessons from a Ditch," chapter 5.

[60] Rodman Wilson Paul, *Mining Frontiers of the Far West, 1848-1880* (Albuquerque, NM: University of New Mexico Press, 1974); Sarah E.M. Grossman, *Mining the Borderlands: Industry, Capital, and the Emergence of Engineers in the Southwest Territories, 1855-1910* (Las Vegas, NV: University of Nevada Press, 2018).

costs of freighting supplies and equipment in and (hopefully) gold and ore out, they viewed the inaccessibility of central Idaho as a significant and risky expense.[61] In his report on the mineral resources of Idaho Territory, J. Ross Browne explained that in Idaho, "difficulty of access to the more remote mineral regions increased the expense of transportation, and the uncertainty of remunerative results impaired confidence."[62] Consequently, when the lack of major capital investment retarded the development of hydraulic mining—especially as miners exhausted wet claims—it seemed that it would severely hamper the industry and, more broadly, Idaho's overall development as a state.[63]

Undeterred, miners viewed Idaho's distinct environmental and developmental setbacks as problems that could be solved through a lot of hard work and the miracle of purchasing more technology. The question was, how would they get what they needed? Although hydraulic machinery was

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[61] The issue of inaccessibility and the economic damage it was inflicting on the development of central Idaho was a frequent and popular topic of conversation amongst miners and other denizens of central Idaho. See e.g. Clyde P. Ross, *Mining History of South-Central Idaho, a U.S. Geological Survey prepared for the Idaho Bureau of Mines and Geology* (Moscow, ID, 1963).

[62] Browne, *Report Of J. Ross Browne On The Mineral Resources Of The States And Territories West Of The Rockies,* 9.

[63] Hailey, *A History of Idaho,* 302.

relatively inexpensive, it still cost more than the average placer miner had on his own.[64] The answer emerged when miners sought alternative means of raising capital independently to advance their own claims. Historians have long noted the early practice of establishing formal partnerships in business as a means of organizing and increasing the financial capabilities of two parties.[65] By the nineteenth century, these practices extended beyond traditional business owners and became a way for pioneers and gold seekers headed west to pool their resources and travel with some extra security. So important were these pioneer firms and mining companies, in fact, that according to historian Maureen A. Jung, "they served as models for companies…established in the diggings," as those would go on to transform the organization of mining operations in general.[66]

Such was the case in central Idaho. By the late 1860s, as profitable wet claims dwindled, along with what seemed to be an interest in Idaho mining

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[64] For a comparison between the cheapness of American technology versus British, see Alexander James Field, "Land Abundance, Interest/Profit Rates, and Nineteenth Century British and American Technology," *Journal of Economic History* 43 (June 1983): 405-31.

[65] See Alfred Chandler, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge, MA: Harvard University Press, 1977).

[66] Maureen A. Jung, "Capitalism Comes to the Diggings: From Gold Rush Adventure to Corporate Enterprise," *California History* 77, no.4 (Winter 1998/1999): 62. https://doi-org.udel.idm.oclc.org/10.2307/25462508.

altogether, placer miners and others intimately connected to the mining industry began forming joint-stock companies and minor corporations as a means of pooling assets such as labor, interests, and most importantly, capital.[67] In his recollections of mining, John Hailey noted that by 1869, with few prospects of capital on the horizon, miners "were not daunted." Instead, they "joined together in companies" and tried to make a success of it.[68] Through these efforts, placer miners used their collective resources to hire laborers, construct extensive ditch systems, and purchase more modern hydraulic equipment available at the time. Miners' hopes were to build the technological infrastructure needed to open their dry diggings to hydraulic mining (and later quartz claims if possible), make a significant profit, and then sell their claims to industrial capitalists for a tidy fortune. More than one placer miner even envisioned that his efforts would hasten Idaho's overall development and greatness, and thus, by extension, the miner's as well. So smitten were miners with the prospects of their independent labors, one newspaper editor proclaimed the "individual effort is accomplishing in

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[67] For a similar account of the development of joint stock companies in California, see John Shertzer Hittell, *The Resources of California: Comprising Agriculture, Mining, Geography, Climate, Commerce, Etc Etc and the Past and Future Development of the State* (San Francisco, CA: A. Roman Company, 1863), 357.

[68] Hailey, *A History of Idaho*, 170.

Warrens what associated capital has hitherto failed to effect, i.e. demonstrating that the wealth of the camp is not confined exclusively to the placer ground."[69] In part, these hopes came true. Through the use of joint-stock companies and micro corporations, placer miners managed to raise enough capital for small ventures that, as a whole, became greater than the sum of individual efforts.[70] Extensive networks of ditches and water conveyance systems throughout gold districts in central Idaho helped placer miners open claims and identify which ones had real value for future investment. This period also became a bridge that transitioned the early placer mining era with the growth of more traditional industrial mining that would eventually take over most mining regions by the end of the century.[71]

These developments had clear gains, but with all good things, there were many consequences. While the emergence of countless joint-stock and micro-corporations would eventually stabilize the availability of resources for

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[69] Cheryl Helmers, ed., *Warren Times: A Collection of News about Warren, Idaho* (Wolfe City, TX: Henington Publishing Company, 1988). Originally published as Editorial, *Warren Times*, July 20, 1881.

[70] Hailey, *A History of Idaho*, 170.

[71] Although Idaho historian Merle W. Wells identified four stages in Idaho's mining history, he vaguely referred to the period between independent and industrial as the "era of frustration and delay" for early lode miners because lode operations were limited and placers were worked mostly by Chinese miners. See Wells, *Gold Camps and Silver Cities,* v.

future industrial investment, the numerous interests of so many entities and their often ill-conceived ventures frequently clashed with each other, the environment, and the people living in surrounding areas.[72] While some micro-corporations focused on developing their claims, for instance, they paid little thought to the rights or safety of adjoining property holders—above and below ground—and more importantly, how their actions were making life more hazardous as a result. In part, these conditions emerged because industrial capital did not. As early historian H.H. Bancroft noted, in mining areas where industrial lode mining replaced smaller, independent placer mining operations, the effect of an industrial presence amassed labor forces, stabilized the nomadic habits of miners, and drove out weaker gold seekers "for pursuits for which they were more fitted."[73] In central Idaho, however, without the seeds of industrial mining taking root, micro-corporations formed

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[72] For more on the economic stabilizing effects of joint-stock companies and corporations as a step toward the stability of industrial organization, see Maureen A. Jung, "Capitalism Comes to the Diggings: From Gold Rush Adventure to Corporate Enterprise," *California History* 77, no.4 (Winter 1998/1999): 62. https://doi-org.udel.idm.oclc.org/10.2307/25462508; For more on the stabilizing effects of hydraulic mining on the availability of resource extraction, see Andrew Isenberg, "The Industrial Alchemy of Hydraulic Mining: Law, Technology, and Resource-Intensive Industrialization," in *City, Country, Empire: Landscapes in Environmental History*, ed. Jeffry M. Diefendorf and Kurk Dorsey (Pittsburg, PA: University of Pittsburg Press, 2005), 122-138.

[73] H.H. Bancroft, *The Works: History of Washington, Idaho and Montana, 1845-1889* (San Francisco, CA: The History Company, Publishers, 1890), 418.

in pursuit of their small company's interests but with substantially more means than individual placer miners. The result was that micro-corporations were unchecked by the industrial structures they might otherwise have encountered with corporate capital, but not by all of the financial limitations of an independent miner. It was not uncommon, then, to find a variety of companies at work digging ditches, exploring potential quartz veins, building roads, or blasting jets of water at mountainsides, all within close proximity to each other, and all while disregarding how the result of their actions intersecting with their surroundings, including those living in towns, might become the building blocks of some serious hazards.[74]

Ditch companies, by far, became the worst offenders. As they carved extensive ditch systems into the larger vernacular landscape to connect water sources to dry claims, they left it, as early pioneer Esther Yarber described, "pock-marked with freshly dug holes, presenting inverted V patterns on the slopes where timber grew scarce."[75] Such trenches made it exceedingly difficult to get around and became major hazards for people who tried. An Idaho City newspaper reported that the "interminable net-work of ditches" rendered travel almost impossible as both ditches and trees felled to make

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[74] Andrew Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005).

[75] Yarber, *Land of the Yankee Fork*, 16.

them created a complex obstacle course and slowed any movement significantly.[76] Occasionally, people gave up trying to walk their way out of the maze and instead attempted to jump over them, but that proved equally hazardous. Ditches that were part of larger water conveyance systems were much wider and deeper than before in order to accommodate more water volume and velocity.[77] When people attempted to jump over, they often fell in, and then struggled to get out. John Callaghan, a native born Irishman, attempted to jump a ditch that was reported to be five to six feet wide and seven feet deep. In his haste to get where he wanted to go, accounts claimed, he jumped a ditch, fell in, and in the process hit his head. Unable to recover in time, he drowned in the water.[78] Any children in the area were particularly vulnerable to the dangers of these ditches. In the spring 1864, placer miners happened upon a young boy who had fallen into a ditch near the Buena Vista mining district. Although miners were able to fish the boy out from the fast

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[76] "A Tour of the Basin," *Boise News*, May 21, 1864.

[77] The question of what was the most efficient ditch dimension was a topic of frequent discussion. Many believed narrow, deep ditches were more effective; yet, many people cited claims of the new "scientific management" of ditches by self-proclaimed "scientific miners" who declared wider, shallower ditches to be most efficient. For more, see e.g. "Bed-Rock Flumes," *Boise News*, July 2, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-07-02/ed-1/seq-2/.

[78] "Found Dead," Boise News, Feb. 27, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-02-27/ed-1/seq-3/.

moving water, they noted "the little fellow was in a piteous plight" that could have ended much worse if the ditch had been full and running "its usual number of inches at the time."[79] Such was the case when, only a year later, during peak runoff, a four year old girl was swept into a nearby ditch after attempting to retrieve water. Newspapers reported that the current was so strong it drew her in and carried the child over a mile before her body was found.[80]

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While the sheer volume and size of ditches in central Idaho made life more hazardous, so too did the new, more technological ditch systems, which were both extremely hazardous to construct and more prone to fail. As a general rule, the longer a ditch was, the more complicated it became, especially considering central Idaho's rugged topography and granitic composition.[81] Ditch companies had to engineer elaborate systems that would enable water flows to span ravines and wrap around mountainsides while

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[79] "Dangerous," *Boise News,* May 21, 1864. https://chroniclingamerica.loc.gov/lccn/sn89055016/1864-05-21/ed-1/seq-2/.

[80] "Child Drowned," Idaho World, June 10, 1865. https://chroniclingamerica.loc.gov/lccn/sn82015407/1865-06-10/ed-1/seq-2/.

[81] For an archaeological comparison of the cost and complexities of three different water conveyance systems in central Idaho, see Turnipseed, "Lessons from a Ditch," chapter 5.

simultaneously supplying diggings with an adequate amount of water when it reached its destination.[82] Flumes, pipes, dams, bridges, and trestles all became just a few of the necessary components of the complex water conveyance systems constructed to deliver water to diggings.[83] In order to lift water from deep canyons, noted one miner, it "often require[d] many miles of flume constructed entirely of wood," as "the rocky sides [were] often so high and steep as to require the flume to be constructed upon tresseled (sic) work, a hundred or more feet in height." And where the flume, trestles, and lumber went, unfortunately, so too did the workmen, who "were let down and suspended by ropes from above, while prosecuting their arduous labors."[84]

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[82] The amount of water each digging required differed, but depended on equipment type, number of sluices, quality of claim, number of claims the ditch served, time of the year, and price. Ditch companies sold water by a miner's inch, which equaled the amount of water forced through a fixed 1 square inch hole with a fixed amount of "head" pressure to ensure a consistent and verifiable system of measurement. Although there are slight variations, one miner's inch equals roughly 1.5 cubic feet per minute, or approximately 11.22 gallons of water per minute. See Nevada Irrigation District: Delivering Water for Life (Grass Valley, CA: Sierra Publishers, 2021), 9.

[83] Donna Turnipseed's examination of the North Slate Creek Ditch System, built by Samuel Large and his micro-corporation between 1876 and 1890, demonstrates how complex some water conveyance systems could be. See Turnipseed, "Lessons from a Ditch," chapter 5.

[84] Elisabeth L. Egenhoff, ed., *The Elephant as They Saw It: A Collection of Contemporary Pictures and Statements on Gold Mining in California* (San Francisco: California Journal of Mines and Geology, 1949), 93.

These working conditions were less than ideal considering the very real risk of falling off the precipice, or even just getting hit by falling rocks.

When conventional digging or even elevated trestles and flumes were not possible, workers' use of dynamite to build ditches increased risks exponentially.[85] Dynamite offered ditch diggers many clear advantages, but one had to be precise about how and where to use it, not only to avoid accidental explosions, but to keep ditches within the required dimensions to still be useful. According to archaeologist Donna Turnipseed who investigated the Deer Creek Ditch in the Salmon River District, astonishingly, workmen used explosives to carve a channel no greater than two feet wide so "the resulting ditch maintained proper radius while permitting rapid flow."[86] Such cases demonstrate the skill and precision required of some workers when using dynamite to construct ditches in the area; but of course, not all workers were as skilled or as precise and any carelessness frequently led to disaster. In 1906, for instance, one miner in the Thunder Mountain District attempting to get a head start on constructing his ditch in the early spring

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[85] Dynamite, first used in mining applications after 1866, became a common method of blasting through dense rocky material, thereby eliminating the need for elaborate trestles and flumes, or in the very least, decreasing time spent digging. See Mark Wyman, *Hard Rock Epic: Western Miners and the Industrial Revolution: 1860-1910* (Berkley, CA: University of California Press, 1979), 104-106.

[86] Turnipseed, "Lessons from a Ditch," 70.

season decided to use his oven to thaw six sticks of dynamite. Predictably, the dynamite exploded and blew the miner through his roof.[87] While the man shockingly survived—although he certainly suffered injuries—others were less fortunate. Such was the case in 1881 when a Chinese man working in Warrens decided to use leftover dynamite to go fishing as the mining season came to a close. In his carelessness, the man's "hands were blown to pieces, and he was otherwise injured." According to newspaper accounts of the incident, the doctors "found it necessary to amputate the fragmented [hands] he had." Unsympathetic to his pain, the report then proclaimed, "clearly this disciple of Confusious (sic) will be a burden to himself and his friends the balance of his natural life, accordingly he became defunct within 48 hours and our medical friends' reputation has suffered."[88]

Beyond these dangers, the growing complexity of ditch systems also made them sources of hazards, especially when they failed. Although the largest (and cheapest) component of all ditches was the earthen trench, newer complex ditch systems had many working parts, many wooden parts,

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[87] "Thunder Mountain," *Idaho State Historical Society*, Idaho State Historical Society Reference Series no.20 (January 1966). https://history.idaho.gov/wp-content/uploads/0171.pdf.

[88] Cheryl Helmers, ed., *Warren Times: A Collection of News about Warren, Idaho* (Wolfe City, TX: Henington Publishing Company, 1988). Originally published as Editorial, *Warren Times*, Dec. 1, 1881.

and thus, many places for failures in the system.[89] Flumes, for instance, were largely made from wood, which meant they had a limited—but not predictable—life expectancy.[90] It was not uncommon for various wooden parts to break suddenly or simply fall apart after months or even years of exposure. This life expectancy diminished even further when aided by natural events including landslides, snowstorms, forest fires, floods and natural decay, all common occurrences in central Idaho. In such cases, miners discovered that if and when flumes or other wooden components failed, whether it was due to faulty construction or natural events, hazards soon followed. In diggings near Idaho City in 1875, for example, after a ditch failed repeatedly, high volumes of ditch water saturated surrounding areas and further weakened nearby mountainsides, diggings, and dwellings. The ditch was eventually repaired, but miners' worriedly reported that "[t]he ground [was] so water-soaked…that the giving away of [other] ditches [was] an almost every day occurrence."[91]

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[89] Turnipseed, "Lessons from a Ditch," 70.

[90] Most flumes were largely made from wood and could last up to ten years if conditions were perfect. By the mid- 1860s, flume parts and even whole sections of flumes were often prefabricated in sheet metal and delivered as a unit to locations, but the majority of the structure remained wooden. For more, see Turnipseed, "Lessons from a Ditch," 28.

[91] Editorial, *Idaho Semi-Weekly*, Nov. 23, 1875.

While these side effects would often lead to more significant and deadly events—like landslides—miners discovered that in some instances, an unwelcome consequence of frequent ditch failures and oversaturation created a breeding ground for sickness and disease. Early historian John Shertzer Hittel noted that in many mining areas, "where much water escapes from ditches, and keeps the earth consistently moist, and where new ground is thrown up every day, fever and ague are common."[92] In some cases, efforts to repair complex ditch systems became the source of hazards as well. According to G.L. Sheldon, a foreman who worked in the Lemhi District of central Idaho, when miners identified the imminent failure of a flume serving the Yellow Jacket mine, they took measures to repair it before it became a hazard. As they installed new timber, however, the process produced significant wood shavings, which they burned, only to catch fire to all of the connecting components of the flume.[93]

Although ditch failures created significant issues for those working their claims, these hazards were not limited to the diggings. Towns—and the

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[92] John Shertzer Hittell, *The Resources of California: Comprising the Society, Climate, Salubrity, Scenery, Commerce and Industry of the State* (San Francisco, CA: A. Roman & Company, 1874), 367. https://lccn.loc.gov/rc01001123.

[93] Sheldon, "Mining Experiences in Idaho in the Nineties," *Engineering and Mining Journal* 110, no. 26 (1920), 1212-1215.

people living there—were often located at the base of mountains and below diggings, thus, they frequently suffered the side effects of ditch failures. This meant flooding from escaping ditch water was a common occurrence in most towns, but the types of floods that occurred varied greatly. In 1869, the town of Silver City flooded when the reservoir of a ditch system broke and ended up "filling up cellars, flooding house floors and otherwise doing much damage."[94] Similarly, in 1864, residents in Idaho City complained that after a nearby flume known to overflow flooded residents' houses and cellars, muddy water then filled up the town bank, the Clerk's office, and even the probate judge's chambers.[95] Floods like these meant, in the very least, that residents suffered significant financial losses as a result of the damage caused by prolonged water in their homes.

More often, though, the effects of these hazards culminated in more deadly ways. Such was the case in Idaho City, after residents reported a violent windstorm that "swept through and destroyed large parts of the town and many claims, including flumes, ditches, and buildings."[96] The townspeople almost certainly experienced flooding (again) throughout the

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[94] "Town Flooding," *Owyhee Semi-Weekly Tidal Wave*, May 18, 1869.

[95] "Flood," *Boise News*, June 11, 1864.

[96] "Violent Wind Storms," *Boise News*, July 2, 1864.

burgeoning town. But, the residential cave-ins that later occurred as a result of so much constant flooding became their primary concern. "A Crash," reported one newspaper, shortly after the town had been flooded. "All kinds of dishes, household and kitchen furniture were piled indiscriminately into the corner of the bedrock in a damaged condition…The greatest damage done to the building was the breaking up of the roof. The walls being built of logs, although thrown down, were uninjured, and are now replaced on a bedrock foundation where the gates of the ditch company cannot prevail against it."[97] Similar reports on "crashes" and "cave-ins" under town homes as a result of oversaturation or flooding filled newspapers, especially if there were major damages or any deaths.[98]

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[97] "A Crash," *Boise News*, June 11, 1864.

[98] See, e.g., "A Chinamen," *Idaho Semi-Weekly World*, Nov. 20, 1877.

Chapter 4

LIVING AND LEAVING THERE

When Julius Colmorgan made the walk from the Sunnyside mine to the Dewey mine to visit friends in the early morning of May 29, 1909, he saw something new—and a little terrifying. The whole side of the mountain—a mass of mud, boulders, and debris—was sliding down the canyon and toward the nearby town of Roosevelt, Idaho. Although the mudslide was slow-moving, as it drew nearer the town, residents quickly recognized some of the dangers the slide posed. Not only would the mass of nearly one quarter of a cubic mile of debris potentially wash away the town, it could also wash away access to the nearby mines that were the town's very heart and soul. What actually happened was something nobody anticipated. Much to residents' relief, albeit premature, the mass of mud bypassed the town; it seemed like the danger would be slowly washed away. Yet, when the mountainous heap finally came to a halt, it settled at the exact place where nearby Monumental Creek and Mule Creek intersected. The new wall of mud quickly created a dam that measured roughly 60 feet wide. In only a matter of hours, the streams that had bisected the town began to back up and flood the streets.

Less than 48 hours later, the town was completely submerged in waters measuring the height of the slide—20 meters deep.[1]

Overall, there were many physical and financial losses. Many thousands of dollars in mining property were lost, including the famed placer property of Caswell and Curran, the founders of the town and former owners of one of Thunder Mountain's most valuable mines.[2] Additionally, the rising waters fully and permanently submerged all of the town's buildings and structures. At the time, that consisted of a hotel, five saloons, a doctor's clinic, an assay office, a post office, a restaurant, six specialty stores, and a general store.[3] Yet, curiously, the mudslide's slow but inexorable approach resulted in no deaths. The few remaining residents living in the town could see the debris moving toward them and were able to reach a safe distance in plenty of time.[4] People were also able to gather many of their valuables and personal

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[1] McRae, Robin, "Idaho's Pompeii: A Gold Rush Town Drowned," The Yellow Pine Times. https://yellowpinetimes.wordpress.com/2019/04/28/idaho-history-april-28-2019/, Accessed May 28, 2016.

[2] "Roosevelt is in Ruins: Monster Landslide Cause of Flooding Idaho Mining Town," *Spokane Daily Chronicle*, June 3, 1909

[3] *Thunder Mountain*, Idaho State Historical Society Reference Series (Boise, ID: Idaho State Historical Society, 1966), 67.

[4] Although initial accounts report the loss of several lives, later accounts confirm the mudslide resulted in no known deaths. Syd Allbright, "Idaho Back-Country: The Men, the Mountain, the Gold, and the Town that Drowned," *The Coeur d'Alene Press*, January 31, 2016.

possessions before they were washed away, an opportunity rarely afforded to others in similar kinds of natural events.

Despite their initial shock at seeing Roosevelt, the town, transform into Roosevelt, the lake, miners like Colmorgan and others were not surprised by the destruction—quite the opposite, in fact. They had learned to expect slides. Partly, their reactions were due to the frequency of slides in the area. After almost two decades of mining and settlement in the Thunder Mountain District, residents knew slides of all sorts were a regular occurrence. Between 1901 and 1909 alone, firsthand accounts reported no less than 25 different slides of varying severity in the area, and those from people who had managed to both witness the slides *and* live to report the incidents.[5] Considering the frequency of slides then, for residents, it was only a matter of time before one occurred that would dramatically alter the landscape. Even a nearby newspaper, the Boise Clipper, remarked on the probability of a slide:

> "On the northwest slope on the east side of Monumental creek the snowslides have not done so much damage, as the mountains are covered with a dense growth of heavy timber," the paper noted, "[b]ut, if Roosevelt should make a town this timber will be used and then there will be no protection whatever against snowslides and the danger will be

[5] *Thunder Mountain*, Idaho State Historical Society Reference Series (Boise, ID: Idaho State Historical Society, 1966), 65.

> greater, and some day Roosevelt will be wiped from the face of the earth."[6]

Beyond frequency though, the way people reacted and their general apathy toward the destruction of the town was long in the making. Although residents struggled for years to attract Eastern capital and revitalize mining districts, by the mid-1870s, investment was still slow going. The Panic of 1873 only further stunted interest and development, especially among eastern investors who were reluctant to commit money to an area with virtually no roads and no hard plans for rail access. Without adequate capital, and by extension, the technology people believed would finally allow them to tap into the area's potential, visions of deferred development morphed, instead, into extinguished opportunity. To residents, this transformation was a heavy blow. Despite firm beliefs in the utility of hardships endured to build character, at the end of the day, people dreamed that financial riches—not moral—would be their ultimate reward.

As optimism about even the prospects of gold faded, people became more skeptical of the environment and its hazards with a new and heightened intensity. Not only did this mean that people began to perceive the winds to be colder and the snow deeper, but they viewed any losses—both physical and financial—incurred from such encounters to be a direct result of

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[6] Wells, *Gold Camps and Silver Cities,* 151.

the world around them. From this perspective, hardships and hazards—once borne with purpose—became traumatizing events that, over time, left a major imprint on the morale and strength of struggling communities. By the end of the nineteenth century, after countless deaths, suicides, and losses brought on by what residents perceived to be a vindictive nature, Euro-Americans' perceptions of the area were in tatters. It was no surprise, then, that when prospectors discovered gold in the Thunder Mountain district, the mining town of Roosevelt represented the last chance to fulfill waning dreams of prosperity for the area. However, when the town washed away, it stood as proof to a resigned population that the area, and by extension central Idaho, was indeed a place subject to the forces of nature.

Although Euro-Americans struggled to maintain positive perceptions of the area, one development, however, buoyed perceptions for a time and even bonded communities together until the end of the century: Chinese immigrants. As early as 1860, Chinese laborers rushed to central Idaho along with the larger current of gold seekers to make their fortune. Although Chinese immigrants discovered that they were initially barred from staking new claims at that time, by the 1870's, Euro-Americans willingly sold what they thought were exhausted and depleted claims to eager Chinese buyers. Using a combination of modern mining technologies and age old hydraulic methods, Chinese placer miners quickly demonstrated that placer mining in

central Idaho was not only still productive, but dependable, stable, and—under the right conditions—even profitable. In fact, it was their success in the diggings, in part, that sustained hope within Euro-American communities. Although Euro-Americans harangued the Chinese methods of placer mining as simple and unskilled, especially compared to the increasingly more modern and industrialized methods Euro-Americans valued, they viewed Chinese success as a testament to the true wealth of the area and speculated about what could be accomplished if only Euro-Americans had access to more industrial technology and equipment.

These fantasies maintained Euro-American hopes for the area's future. Yet, in reality, the services, goods and mandatory taxes Chinese laborers were forced to pay each month were what actually sustained local communities and the territorial economy. Euro-Americans failed, however, to see the critical role Chinese immigrants played in building their communities. Thus, when national anti-Chinese sentiment gained momentum, Euro-Americans in central Idaho saw their opportunity to reclaim Chinese owned properties. For Chinese immigrants, that meant by the mid-1880s, most had withdrawn from the area. At first, Euro-Americans' renewed efforts to revive select gold districts seemed promising, especially when industrial capitalists finally decided to invest. But, in the end, it was not enough. Not only did the industrial technology Euro-Americans believed

would allow them to access untapped riches fail to find significant gold deposits, but without the underlying support of Chinese immigrants, towns no longer had the financial or communal means to stay together. To Euro-Americans, these problems barely registered. While these developments—and the active role Euro-Americans played—were the root cause of instability in the gold mining districts throughout central Idaho, by then, Euro-Americans viewed all challenges that emerged through the lens of the hazards of the world around them.

Deferred Development, Extinguished Opportunity

When James Cearley made the journey from North Carolina to Idaho, his spirits were high and his hopes for the future even more so. With rumors of Idaho's fabulous wealth drawing him to the area, there was little doubt that in no time, he would be able to make a success of his efforts. Shortly after arriving, his gamble, so it seemed, had paid off, as he almost immediately met his future bride—Emma Wilmett—married her, and together, they raised nine children—all who managed to live to adulthood.[7] While Cearley's success in finding a wife and making a family almost certainly played a part in his imaginings for the future, so too did hopes of

[7] Esther Yarber, *Land of the Yankee Fork* (Denver, CO: Sage Books, 1963), 124-127; "Death of James Cearley," *Silver Messenger*, April 1, 1902.

discovering riches, creating personal wealth, and helping to build a new community from the ground up. Unfortunately, Cearley, like many others who journeyed to Idaho in the 1870s, found their dreams of grandeur extinguished almost as soon as they arrived. Idaho, it turned out, was not all that it seemed. In Cearley's case, he spent years searching for good mining prospects with little success. By 1880, rumors of new prospects drove him to move his entire family by pack train to the Yankee Fork District of central Idaho. Once there, however, Cearley was, once again, unable to find a profitable claim. For a short time he eked out a living caring for travelers and their horses journeying through the area. Eventually, though, he settled for a job at the nearby Lucky Boy Gold Mine. Shortly after, on his first morning working as the ore car man, Cearley lost control of the car he was loading and both he and the car plummeted over 150 feet into an open shaft.

Despite Cearley's disastrous death, his life in many ways was typical for the people in central Idaho by the mid-1870s to the end of the nineteenth century. When Cearley moved to the area, he followed a pattern that began with a belief in hard work and a feeling of hopeful optimism—about the prospects of finding gold *and* about the world around him. Slowly though, as the promise of success began to dim, and Cearley was forced to work a variety of menial jobs, ending with industrial work, that optimism disappeared. In its place, whereas once he had been hopeful about his prospects—there was only

harsh skepticism—and about the world around him—wariness about the dangers it held.

Although Cearley, like many others, unknowingly took part in the American cycle of boom and bust gold mining, it was this gradual shift to more negative perceptions of the natural world that set their current swirling from the larger stream. True, many people—in fact most—tried and failed to find gold with little consequence. But deep economic uncertainties of the period coupled with an almost desperate desire to be successful factored heavily in how Euro-Americans approached living in central Idaho. Such concerns—for success and later, of failure—shaped the bond Euro-Americans forged with the natural world, including the belief that nature provides. Thus, when Euro-Americans repeatedly failed to find gold or success, to them, nature not only broke its pact; it became the personification of vindictiveness with each failed endeavor or loss of any kind.[8]

These fractured views of nature took time to develop though, thus, casting the optimism Euro-Americans once had for the area in stark contrast. But optimism, it turns out, played an essential role in how Euro-Americans related to the area, and later, how that relationship shaped how they

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[8] For more on the vindictiveness of nature and pioneers' responses, see Alan Taylor, "'Wasty Ways': Stories of American Settlement," *Environmental History* 3, no.3 (1998): 291-310.

perceived the world around them. Although most Euro-Americans believed that hard work would lead to rewards, few recognized that a steady supply of optimism actually inspired people to *keep* working hard. This impulse for optimism—thus driving inspiration—stems from what psychologists and philosophers have identified to be an optimism bias, or, an overinflated outlook that overestimates the probability of positive events, but most especially the likelihood that personal outcomes will exceed those of others.[9] To be sure, such optimism partly accounts for Euro-Americans' continued efforts to keep trying for success. Such was the case with Cearley, who, despite repeated setbacks that both undermined and challenged his efforts over rewards, kept trying to be successful.

Beyond inspiration though, optimism shaped Euro-Americans' perceptions of central Idaho and how those perceptions changed over time. Psychologists and neuroscientists have long demonstrated the importance of humans' cognitive abilities to alter and interpret perceptions of the outside world.[10] According to neuroscientist Tali Sharot, through the cognitive ability of optimism, "[the] brain is organized in a way that enables optimistic beliefs

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[9] Tali Sharot, *The Optimism Bias: A Tour of the Irrationally Positive Brain* (New York: Pantheon Press, 2011).

[10] Tali Sharot, *The Optimism Bias: A Tour of the Irrationally Positive Brain* (New York: Pantheon Press, 2011).

to change the way we view and interact with the world around us."[11] Given this cognitive proclivity to view the world through rose colored glasses, it is little surprise, then, that Euro-Americans—at least at first—channeled their optimism to play down the risks of central Idaho's natural hazards while simultaneously overestimating the prospects of finding gold and success. Conversely, when Euro-Americans' optimism later waned, the cognitive efforts that had once over-optimized gradually recast prospects for personal success and ceased to neutralize the area's inherent dangers.

Despite its powerful influences, few people in central Idaho felt that optimism could be managed. Ironically, however, Euro-Americans believed that their sense of luckiness or "feeling lucky," could. In fact, a belief in one's personal luck played a big part in the risks people were willing to take in the west, and by extension, the possibility of rewards. But the cultural meaning nineteenth century society imbued in "feeling lucky" and simple luck was not the same. According to historians such as David Goodman, Victorian society scorned any gold seekers who relied on luck alone and gold seeking in general as "morally troubling activity." To them, it was rooted in the irresponsibility of leaving life up to chance, which ultimately contributed to the erosion of

[11] Sharot, *The Optimism Bias,* xvi.

virtuous society.[12] And yet, in spite of social criticisms, there is little doubt everybody believed in luck, especially in central Idaho. There, countless gold seekers and settlers alike regularly acknowledged their luck and the power it had in shaping their lives. In the Yankee Fork gold district, for instance, gold seekers revered fellow resident, Charlie Norton, as "shore a lucky cuss" on account of his hunting prowess and ability to remain unscathed despite the constant threat of grizzlies. Similarly, to Silas Romer and those who received the mail he carried, luckiness played no small part in his ability to sense snowslides and know when it was unsafe to trek through the mountains. Even the owners of the Yankee Fork's most profitable mine gave a nod to the role of luck by appropriately naming it "The Lucky Boy."[13]

Beyond just simple awareness though, such incidents reveal the emphasis people in central Idaho placed on one's sense of luckiness as an additional skillset, akin to sensing deer or knowing where to look for water. Both Silas Romer and Charlie Norton, for instance, were renowned for their good fortune, which allowed them to escape the dangers of the world around them. But having luck was different than using luck, and people identified both Norton, Romer, and many others as those who had luck, but also as

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[12] David Goodman, *Gold Seeking: Victoria and California in the 1850s* (Stanford, CA: Stanford University Press, 1994), xiv-xxi.

[13] Yarber, *Land of the Yankee Fork*, 60, 153-155, 132-134.

those who knew how to play their odds accordingly. Silas Romer, for instance, never hesitated to deliver mail in all manner of hazardous conditions with one exception: when he sensed "warming trends" that might lead to melting snow. Although other weather conditions posed a certain amount of risk, to him, the odds were never in his favor on balmy days. "Them mountains are old—and sometimes they get cross," Romer explained. "I learned a long time ago to respect them, especially in slide weather."[14] Romer's perceived ability to sense his luck on the slopes—to him—offered an advantage in nature. But to him and others who laid claim to similar abilities, it also made him feel like he was taking an active role in his own future. Romer was actively making decisions that, in his mind, were enabling him to beat the odds and stay alive.

Ironically, the links people in central Idaho made between using luck and having agency reconciled criticisms of relying on chance with the value society placed on hard work. In nineteenth century America, when it came to luck, as cultural historian Ann Fabian pointed out, there was a "profound ideological bias against acknowledging the role of luck in human affairs" as it challenged values like hard work and beliefs in becoming a self-made man.[15]

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[14] Yarber, *Land of the Yankee Fork*, 132-134.

[15] Ann Fabian, "Rascals and Gentlemen: The Meaning of American Gambling, 1820-1890," (PhD dissertation, Yale University, 1982), 327, https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertatio

Despite these criticisms, American society in general tended to cultivate a climate that supported speculation and gambling.[16] Although much accounts for why American society developed in this way, including size, politics, and social and economic conditions, it was largely because, as Fabian explained, "[Americans] found it hard to face an economic world where a reputed equality of opportunity left every man the master of his own fate."[17] In other words, if some Americans found the prospects of defining one's character and position through work, ambition and competition paralyzing, then luck, or "divine merit" offered an alternative way to achieve distinction. These conclusions certainly made people in general more receptive to the idea of luck. But in central Idaho, using one's luck was not simply an alternative to meritocracy; people there believed it was an indispensable tool for navigating the natural world and in gold seeking.

In fact, gold seekers there—perhaps more than most—understood how essential luck was in locating gold.[18] As they saw it, plenty of gold seekers

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ns-theses/rascals-gentlemen-meaning-american-gambling-1820/docview/303227903/se-2.

[16] Fabian, "Rascals and Gentlemen: The Meaning of American Gambling, 1820-1890," 14-21.

[17] Ibid., 21.

[18] For more on the connection miners made between luck, values of hard work, and industrialization, see Kathryn Morse, *The Nature of Gold: An*

set off steeped in the values of hard work; however, most believed that if they didn't have luck to actually locate gold deposits to then *do the hard work,* their efforts were wasted. The importance of these beliefs appear in stories of locals' lives, such as the story of Clarence E. Eddy, a long-time resident of the Yankee Fork District, when he encountered five new eager prospectors while meandering around the mountains. To them, Eddy's lack of gear and clean shaven appearance was indicative of anything but a hard working gold seeker. Little did they know of Eddy's reputation, not only as the owner of the local newspaper, the *Prospector*, but as the "prospecting poet" who famously searched for gold claims equipped with grapenuts, raisins, and his sense of luck.[19] Thus, when Eddy inquired if they had seen any good prospects, the men felt justified in misdirecting somebody so clearly ill prepared. The five newcomers never managed to find a good claim, despite their hard working ethics—so the story goes. However, none but the newcomers were surprised when Eddy staked yet another good claim, or that its location was squarely where the men thought no gold could be. Stories like Eddy's served as a reminder to locals that one needed both hard work and a sense of luck to find gold or navigate the natural world. There, people not only placed value in

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Environmental History of the Klondike Gold Rush (Seattle: University of Washington Press), 125-130.

[19] Yarber, *Land of the Yankee Fork*, 135-138.

hard physical labor, but their belief in one's sense of luck as a skillset meant it could be recruited for work as much as any physical appendage. When combined, the resulting effort allowed people to believe that their action, not chance, shaped the direction of their life.

Altogether, the nexus between optimism, a sense of luckiness, and hard work set the tone for people's attitudes and how they approached central Idaho. But if attitudes reflected the tone, then technology was the instrument playing the notes as Euro-Americans had long correlated their chances for success with using technology, or in the very least, the prospects of getting ahold of it.[20] In central Idaho, this meant if Euro-Americans perceived easy access to the tools of the modern world, then optimism, their sense of luckiness, and beliefs in hard work were high. Conversely, if Euro-Americans had limited access to technology, then attitudes and overall optimism plummeted. Newspapers, local lore, and reports on the development of Idaho Territory constantly reinforced such connections between the centrality of technology and its perceived accessibility and role in altering attitudes—both positively and negatively. In the *Idaho Daily Avalanche*, for instance, a news article reported that the once "prosperous times" for the area was largely a result of access to technology which allowed

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[20] Carroll W. Pursell, *The Machine in America: A Social History of Technology* (Baltimore: Johns Hopkins University Press, 2007).

for extreme productivity "and many realized fortunes from their operations." Later, however, the author lamented the area's "share of disappointments during the past few years" as "[m]achinery had to be conveyed a distance of many hundred miles, and in many instances, when it arrived [in the area] it was found to be unsuited to the purpose for which it was purchased."[21] While the article concluded on a high note, emphasizing that the territory "exhibits indications of being on the eve of more prosperous times" as long as new mining technologies preceded, the rolling waves of disquietude reveal much.[22] Success, like attitudes, was tethered to technology. When technology was readily accessible, these connections seemed to pay off and spirits were high. Yet, if and when the foundation that technology seemed to offer disappeared, so too did optimistic attitudes and ideas of success.

These associations played out on a small scale in the early years of gold mining in central Idaho when placer deposits required relatively minimal technology, plus, few tools of the trade were beyond the means of most prospectors.[23] By the early 1870s, however, as placer mining shifted to

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[21] "Rocky Bar." *Idaho Daily Avalanche,* October 14, 1975. Nineteenth Century U.S. Newspapers, https://link-gale-com. Accessed July 24, 2020.

[22] Ibid.

[23] Oscar Sonnenkalb, *Reminiscences of Oscar Sonnenkalb, Idaho Surveyor and Pioneer*, ed. Peter T. Harstad (Pocatello, ID: Idaho State University Press), 6.

hydraulic and later quartz mining, people realized that obtaining the technologies they believed to be so essential to their success was much more challenging, which in turn, influenced their attitudes. For starters, gold seekers found that hydraulic and quartz mining machinery and equipment was far more expensive than anything independent prospectors and even those who had been grubstaked could afford.[24] In 1864, for instance, a steam powered stamp mill cost about $9,000, but depending on the number or stamps, tonnage of the mill, or where the equipment was coming from, the price was often much more.[25] And while micro-corporations' efforts to accumulate capital and hopefully attract Eastern investors during the early 1870s led to some renewed interest in investing in the area, by the end of

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[24] Robert L. Romig, "Stamp Mills in Trouble: Quartz Miners Learned the Hard Way on the South Boise Ledges," *The Pacific Northwest Quarterly*, 44, no.4 (Oct. 1953), 166-176. http://www.jstor.org/stable/40487045.

[25] Equipment was a major expense, but depending on where it came from, it could be more. At the time, there was a general understanding that better, more expensive equipment came from San Francisco but took longer to be delivered. In comparison, Chicago manufactured cheaper equipment that was of lesser quality, but usually arrived quicker. In addition, quartz and hydraulic operations often required bigger investments in land as well. This expense developed after an 1864 Idaho mining law passed limiting the length of a claim to two hundred feet. After that time, mine owners needed significant capital to secure the holdings of neighboring claims in order to justify the cost of development. For more on additional expenses, see Romig, "Stamp Mills in Trouble,"170-171.

1873, virtually all outside investments evaporated when national financial corruption and over speculation triggered six long years of depression.[26]

In central Idaho, these events cast a stone in the deep waters of mining communities' notions of progress and development, but the subsequent ripple effect also strained the connections miners made between technology, success, and the state of their attitudes. To be sure, the lack of funding significantly retarded both mine development and the purchase of new equipment.[27] This meant, to most, that without the necessary capital, obtaining technology—and thus the dream of success—was almost impossible. Publicly, locals blamed the area's limited productivity on the failures of Eastern capital and inadequate machinery. In one local newspaper, for instance, an article emphasized that the problems in mining were due to "the proverbially slow movements of Eastern capitalists who,"

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[26] Richard White, "Information, Markets, and Corruption: Transcontinental Railroads in the Gilded Age," *The Journal of American History* v. 90, No. 1 (Jun., 2003), pp. 19-43; M. John Lubektin, *Jay Cooke's Gamble: The Northern Pacific Railroad, the Sioux, and the Panic of 1873* (Norman, OK: University of Oklahoma Press, 2006); Hannah Catherine Davies, "Spreading Fear, Communicating Trust: Writing Letters and Telegrams During the Panic of 1873," *History and Technology*, 32:2, 159-177, DOI:10.1080/07341512.2016.1217597;

[27] W. Turrentine Jackson, "British Capital in Northwest Mines," *The Pacific Northwest Quarterly* 47, no. 3 (July 1956), 75-85; Clark C. Spence, *British Investments and the American Mining Frontier, 1860-1901* (Ithaca, NY: Cornell University Press, 1958).

according to the author, "are always devoid of the pluck and drive that distinguished the career of moneyed men of the Pacific Coast.[28] In another, the article pointed out that only through "the magic power of capital and modern engineering science walking hand in hand" could the "hidden wealth…benefit future generations."[29] Such articles served to shift people's attention to the most immediate obstacle delaying progress: money. As a result, many people intentionally viewed such roadblocks as merely development deferred, but definitely still probable in the near future. In fact, many articles on the state of mining fast-forwarded through the current retardation. They projected, instead, on the slim possibility that the construction of new roads and railways to central Idaho would magnify the area's rich potential, especially when new access to modern machinery became available. In the *Owyhee Daily Avalanche*, for instance, an article describing the current state of mining predicted how important a railway would be to mining in central Idaho. "The proposed route of the Northern Pacific Railroad runs through this section, and when completed will open up here to the world a country unsurpassed in richness of soil, beauty of scenery,

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[28] "Rocky Bar." *Idaho Daily Avalanche,* October 14, 1975.

[29] Cheryl Helmers, ed., *Warren Times: A Collection of News about Warren, Idaho* (Wolfe City, TX: Henington Publishing Company, 1988). Originally published as Editorial, *Warren Times,* July 15, 1881.

and salubrity."[30] Again, such articles redirected people's focus on the role of technology or even the prospects of technology as a salve to the burn of financial woes.

Despite these efforts, however, redirection could not conceal rising discontentment and the way issues with technology undermined miners' attitudes toward mining and the area in general. Public responses to the lack of capital framed the problem as a minor obstacle that, once removed, would usher in a new era of unlimited prosperity. Yet, doubt crept in. In articles written to both attack Eastern failures and remind locals about future prospects, authors hint at growing concerns of deeper problems. In the *Idaho Tri-Weekly Statesman*, one article insists that "our mines are richer and more numerous than they were ever before believed to be." Grudgingly though, the author quietly admits that "[t]he development and progress of the country has been very much slower than was then anticipated."[31] Similarly, the *Idaho Weekly Avalanche*, reported that dozens of miners returned from mining camps who expected to strike it rich, only to be "generally disappointed." "It is possible that money matters may be a little tight in some sections of the

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[30] "Idaho Territory: Its Soil, Climate and Productions," *Owyhee Daily Avalanche*, August 12, 1875. Nineteenth Century U.S. Newspapers, https://link-gale-com.udel.idm.oclc.org/apps/doc.

[31] *Idaho Tri-Weekly Statesman,* July 27, 1867.

Territory," the author admitted, "but we incline to the belief that the condition of things might be very much worse than it is."[32]

These shifting expectations played out in more fatal ways as well. While local newspapers oscillated between reinforcing hopeful optimism and subtly signaling that problems were ahead, many miners and settlers skipped deliberation and determined prospects to be far more grave than acknowledged. Thus, by the 1870s, frequent announcements of deaths by suicide appeared in local and regional newspapers. Although such reports called attention to the tragic—and often violent—method of death, almost all emphasized the deceased's struggle to remain optimistic in light of the area's financial, and by extension technological, obstacles. On July 29, 1873, the *Rocky Mountain News*, for instance, noted that John Black, "a carpenter by trade, committed suicide by cutting his throat with a razor…and [stabbing] himself with a jack-knife twice in the region of the heart."[33] The article suggests that only someone "partially insane from the effects of whiskey"

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[32] "Coming Back," *Idaho Daily Avalanche*, November 12, 1875. Nineteenth Century U.S. Newspapers, link-gale-com.udel.idm.oclc.org/apps/doc/GT3002522764/NCNP?u=udel_main&sid=bookmark-NCNP&xid=ad2d1560. Accessed 20 Oct. 2022.

[33]"Suicide at Idaho," *Rocky Mountain News,* July 29, 1873. Nineteenth Century U.S. Newspapers (accessed October 21, 2022). https://link-gale-com.udel.idm.oclc.org/apps/doc/GT3015921569/GDCS?u=udel_main&sid=bookmark-GDCS&xid=94b17ea9.

could carry out such personal violence. Yet, the report noted that Black confessed to his roommate only hours before his death that "he had had enough of the ups and downs of this world and would end his days."[34] Many others seemingly made the same conclusions.[35] In the *Idaho Semi-Weekly World*, news of mill owner and wholesale liquor dealer B.N. Liellienthal's suicide made the top of the page. Although the article emphasized the loss of such a "thorough going businessman, and one generally liked by the people" on account of "unmistakable evidence of insanity," markedly, it noted that his was not the first—or even last suicide—the area would see that year. "His death makes the fourth suicide that has occurred in the Basin since the beginning of the present year," the article noted.[36] And on the cause of so many suicides, the article only speculated, "[b]lack, terribly black, indeed, must be the despair of him who leaps into the great unknown—who dies by

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[34] "Suicide at Idaho," *Rocky Mountain News*, July 29, 1873.

[35] Numerous newspapers across the nation reported on suicides in Idaho. See, for example, "Reports of the Area," *The Albany Chronicle*, November 9, 1870; "Miscellaneous," *Galveston Daily News,* March 17, 1880.

[36] "Suicide of B.N. Liellienthal at Quartzburg," *Idaho Semi-Weekly World*, November 9, 1875. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1875-11-09/ed-1/seq-2/.

his own hand. An impenetrable pall of the blackest darkness must hang in hopeless gloom over the mind of the poor suicide."[37]

Such suicides not only reflected the rising tide of despair people felt individually, but as a community, such deaths significantly impacted people's overall sense of optimism about their chances for success in the area. Deaths by suicide, unsurprisingly, weighed heavily on community morale. In the Warrens mining district, for instance, when Charlie Johnson reportedly "blew his brains out," local newspaper accounts noted that "his untimely taking off has cast a gloom over the entire community."[38] While the *Warren Times* emphasized that Johnson "was known and respected by all," as did many other newspapers announcing countless local suicides, more than sentiment and personal loss account for larger community reactions to acts of suicide.[39] Rather, to many, suicide was an expression of hopelessness. And in areas where communities had placed so much faith in the prospects of gold mining, hard work, and a belief that one could make one's own way in the world, people associated such expressions of hopelessness as a reflection of the

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[37] "Suicide of B.N. Liellienthal at Quartzburg," *Idaho Semi-Weekly World*, November 9, 1875.

[38] Cheryl Helmers, ed., *Warren Times: A Collection of News about Warren, Idaho* (Wolfe City, TX: Henington Publishing Company, 1988). Originally published as Editorial, *Warren Times*, Oct. 26, 1882.

[39] Helmers, ed., *Warren Times: A Collection of News.*

failures of those endeavors. Evidence of such associations often appeared in newspaper descriptions of the deceased. In Johnson's case, the *Warren Times* explained he "was a Swede by birth, a pioneer of the territory, and has been largely connected with the mining interests of this camp since its discovery."[40] These descriptions of his early beginnings and interests in mining developments reveal his longtime faith in the prospects for the area. Yet, the news of his suicide juxtaposed to his early hopes represented a determination that he had ultimately lost faith in those visions.

Over time, as communities became more accustomed to such reports, their cumulative effect played havoc on individual and community attitudes toward the area. In part, this impact stems from the way Euro-Americans in central Idaho intertwined their values in gold mining, hard work, and luck with prospects for success. To Euro-Americans living there, as it turns out, all such values were conditional and dependent upon each other. Thus, when the frequency of suicides increased, and as people there gradually associated such deaths with broader financial woes, suicide as a statement of hopelessness also became a tacit admission that one's luck—and optimism—had run out. Again, local newspapers picked up on these associations. According to the *Idaho Semi-Weekly World,* when saloon owner Frank Gavird

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[40] Ibid.

of Quartzburg committed suicide, reports proposed that he had taken a gamble by investing in the area, and had lost. "It was not excessive drinking that led to the suicide," the article noted. Rather, he was "getting behind in financial affairs, and unable to meet his liabilities," he "canceled his indebtedness by dancing a jig on thin air."[41] While the account of Gavird's death indelicately alludes to the way he died, it also underscores the relationship people drew between downturned prospects, suicides, and failing luck. In fact, such notions of failing luck steadily infected how people in communities thought and by extension, interacted with their environment—often with devastating consequences. Most notably, such was the case with Silas Romer and Charlier Norton. Although each was renowned for taking chances and weighing their odds, the sense of failing luck caught up with them in the end. Norton, "the man who had nerve," was eventually mauled by a bear and lived the remainder of his life in excruciating pain without a jaw or any way to eat food.[42] And Romer, the man who claimed to recognize "slide weather" was lost to an avalanche in an attempt to retrieve a doctor for a sick child. While his end was tragic, given that the child recovered without any

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[41] "Suicide—A Leap from Time to Eternity," *Idaho Semi-Weekly World* (Idaho City, Idaho Territory), October 12, 1875. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1875-10-12/ed-1/seq-3/.

[42] Yarber, *Land of the Yankee Fork*, 153-155.

assistance, his reported final words suggest an awareness of his luck failing. When asked about the odds of his chances of returning alive, Romer declared, "[m]e…I'm young and strong, and I know these mountains like the back of my hand. I'll leave at once, and with luck, I'll be back here tomorrow morning."[43]

These shifts marked a turning point in how Euro-Americans began to view the natural world around them, especially when more financial obstacles emerged. By the early 1870s, most Euro-Americans living in central Idaho had hitched future visions for the area on their continued access to technology—either for gold mining or general improvement. Although capital investments slowed significantly, many still held high hopes that prospective railways would finally open the area up to extensive development. In his 1872 address to the Idaho Territory legislature, for instance, governor Thomas Warren encouraged people to look forward to "several projects in embryo for the construction of railways in our Territory," including plans from the Portland Dalles and Salt Lake City Railroad Company, the Central Pacific, and "still other projects set on foot by worthy and enterprising gentlemen of our own Territory. All of these enterprises have merit, and the success of either of them," Warren noted, "would be of incalculable benefit to

[43] Yarber, *Land of the Yankee Fork*, 132-134.

every interest of the Territory."[44] Unfortunately, after 1873, these plans were waylaid when railway companies as a whole faced greater public and private scrutiny. Most discussions for building railroads were indefinitely suspended.[45] To people in central Idaho, this realization was devastating. Not only did railway access represent the next—and last—link to achieving a technological sublime, but practically speaking, people realized that if and when they could purchase industrial mining equipment, railways were the easiest and most reliable method of hauling large, weighty machinery. Without even the prospects of railways on the table anymore, people thus felt cut off—both from the world *and* future prospects for success. Congressional delegate John Hailey was acutely aware of this severance. In late December 1873, he proposed legislative bills to approve wagon roads and telegraph lines to the area, as "present methods of obtaining news were absurdly primitive,

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[44] "Governor's Meesage." *Owyhee Avalanche*, December 7, 1872. Nineteenth Century U.S. Newspapers (accessed October 25, 2022). https://link-gale-com.udel.idm.oclc.org/apps/doc/GT3012817243/NCNP?u=udel_main&sid=bookmark-NCNP&xid=7262c273.

[45] John Lubetkin, *Jay Cooke's Gamble: The Northern Pacific Railroad, the Sioux, and the Panic of 1873* (Norman, OK: University of Oklahoma Press, 2014); for more on the first railroads to reach parts of cental Idaho, see Thornton Waite, *Get Off and Push: The Story of the Gilmore and Pittsburgh Railroad* (Columbia, MO: Brueggenjohan/Reese, 2002).

to say the least."[46] In addition, J. McCracken & Co., a large wholesaler with business in central Idaho sent letters to the local newspaper noting regretfully, "[n]o country can progress rapidly without railroads, nor is it likely that a railroad will be built into a country situated as Idaho is by unaided capital until an urgent need for…a road exists and has existed for some time."[47] Faced with the very real possibility that central Idaho would remain technologically isolated and thus, to many, underdeveloped, Euro-Americans sought someone or something to blame.

Talk initially circled back to the failures of Eastern capitalists, yet without any prospects on the horizon to at least spark future anticipation, gold miners and settlers shifted blame closer to home. Although locals had always linked the challenges of accessing gold and developing the area with distant investors who—in locals' eyes—had created unnecessary and inconvenient obstacles, such obstacles had always appeared to be surmountable, and certainly temporary. Around 1875, however, it seemed clear to most that recent setbacks were more than just deferred—they were

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[46] *The Idaho world*. (Idaho City, Idaho Territory), 18 Dec. 1873. Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn82015407/1873-12-18/ed-1/seq-2/>

[47] "Reduction of Freight Rates," *The Idaho world*. (Idaho City, Idaho Territory), 18 Dec. 1873. Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn82015407/1873-12-18/ed-1/seq-2/>

extinguished. To locals, this realization struck deep. Not only did it urge people to question whether their time, money, and efforts on the area were wasted, it forced them to consider whether their hopes and aspirations for success were also an illusion. In response, locals struggled to identify more than the obstacles preventing development; instead, they sought the very source of problems that could be held accountable for so much expended effort.

While locals first fingered the Idaho Legislature for failing to pass bills that would help open the area to "future operations," then each other for refusing to pay for and build roads for community rather than personal use, all eyes gradually turned to the role of nature itself.[48] First miners—intent on working with what they had despite limited operations—began to take note that nature was a frequent source disrupting gold production. Reports of nature's obstacles surfaced repeatedly, such as "the great amount of water in the [mining] shaft" at the Rescue Mine that brought production to a halt, or the "three mountain ranges from 9,000 to 10,000 ft. in altitude" that stalled efforts at the Yellow Jacket Mine when packing in cables for an aerial

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[48] Helmers, ed., *Warren Times,* March 7, 1885; *The Idaho World*, March 3, 1873, Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn84022135/1876-03-03/ed-1/seq-3/>; *The Idaho World*, July 24, 1873, Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn82015407/1873-07-24/ed-1/seq-2/.

tramway.[49] Later, reports of nature's problems trickled down to the larger community. In the Salmon River area, cattle, reports noted, were not "dying from the lack of feed as [they] are being killed by sliding down over rocky points and into almost bottomless canyons."[50] And while some locals scorned the excess snow contributing to such slick conditions in Warrens, others in Idaho City condemned nature for the *lack* of snow, for too little snow in the winter would surely mean even less water during the mining season.[51] "Under the circumstances we have good cause to feel discouraged," noted one resident, "for, having just passed through the ordeal of a poor mining season, another one of like character immediately succeeding it would be a heavy blow to the prosperity of the Basin." Over time, such news of nature's role in locals' problems became common, if not anticipated, which reveals much about Euro-Americans' shifting perceptions of the area. Despite earlier beliefs in the value of hardships doled out by nature, by the late 1870s, nature emerged quite literally as an obstacle blocking access to gold. More

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[49] Helmers, ed., *Warren Times*, June 5, 1875; G.L. Sheldon, "Mining Experiences in Idaho in the Nineties,"1212-1215.

[50] Helmers, ed., *Warren Times,* January 30, 1875.

[51] Helmers, ed., *Warren Times*, January 30, 1875; "Idaho City Letter," *Owyhee Avalanche*, March 6, 1875, Nineteenth Century U.S. Newspapers, link-gale-com.udel.idm.oclc.org/apps/doc/GT3015607908/GDCS?u=udel_main&sid=bookmark-GDCS&xid=06b2033e. Accessed 26 Oct. 2022.

importantly, nature, so people began to believe, became one of the biggest constant sources of problems to every attempt to bring technology and the modern world to central Idaho.

Chinese in Central Idaho

By 1880, it seemed clear that Euro-Americans' optimistic attitudes toward nature and the area in general were waning, along with any long term desire to see the area developed. However, through the efforts—and money—of Chinese immigrants living and working in the area, their contributions went a long way toward buoying perceptions of both the economy and morale in central Idaho's communities—at least for a while. In fact, despite popular beliefs at the time that Chinese laborers were a blight on the values and ideals Euro-Americans prized, in reality, the Chinese population of central Idaho played an essential role in not only sustaining local economies, but in resuscitating interest in the region's mining communities.[52] To Euro-Americans, however, such contributions seemed to go unnoticed, or worse still, unacknowledged. Thus, when Euro-Americans saw an opportunity to rid themselves of the Chinese, their efforts amounted to

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[52] Historian Merle Wells refers to this period as one of "new mining trends," and mentions the increased Chinese mining activity, but doesn't necessarily credit them with resuscitated interest. For more, see Merle Wells, *Gold Camps and Silver Cities: Nineteenth Century Mining in Central and Southern Idaho* (Moscow, ID: Idaho State Historical Society, 1983).

little more than throwing the baby out with the bathwater. Although interest and capital briefly began to flow back into central Idaho beginning around the mid-1880s, leading to a second, albeit considerably smaller mining boom, it did not last. Without the financial and auxiliary support once provided by Chinese populations, Euro-Americans discovered they had little else to prop up their communities or, more importantly, their perceptions of the world around them.

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Despite Euro-Americans' persistent eagerness to expel Chinese populations, when they arrived in central Idaho beginning around 1860, they became integral to the Territory's development almost immediately.[53] To Chinese immigrants, however, such supportive roles were not by choice. While rumors of Idaho's mineral wealth drew Chinese immigrants far and wide, much like their Euro-American counterparts, when they arrived ready to work in Idaho's gold mining camps, Chinese miners quickly discovered they were barred from owning or working the diggings. In 1861, for instance, the mining districts surrounding the Nez Perce and Salmon Rivers, and Orofino and Pierce City had all quickly passed laws prohibiting Chinese

[53] Jeffrey Michael Fee, "A Dragon in the Eagle's Land: Chinese in an Idaho Wilderness, Warren Mining District, 1870-1900," (Master's thesis, University of Idaho, 1991).

"from working in the mines under any and all circumstances."[54] Such discriminatory laws, according to historian Roger Daniels, were not uncommon in the nineteenth century American West, and stemmed in part from white Euro-Americans' fears that the Chinese would overwhelm new mining districts.[55] Thus, given their limited options, Chinese immigrants filled the large demand for labor in vital construction projects throughout the territory. Such projects included ditch digging, road and bridge building, and laying tracks for railroads, many of which depended on Chinese labor.[56] While Chinese immigrants continued to provide labor for various industries, by 1865, the mining industry in central Idaho experienced a labor shortage as well, which meant Chinese laborers were finally allowed to work the diggings, although most were still prohibited from owning their own claims.[57]

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[54] Li-hua Yu, "Chinese Immigrants in Idaho" (PhD dissertation, Bowling Green State University, 1991), 34, ProQuest Dissertations & Theses Global. (303968082). Retrieved from https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/chinese-immigrants-idaho/docview/303968082/se-2.

[55] Roger Daniels, *Asian America: Chinese and Japanese in the United States since 1850* (Seattle: University of Washington Press, 1988), chapter 2.

[56] Yu, "Chinese Immigrants in Idaho," 11; for more on the role of Chinese laborers in agriculture and in other industries, see Daniels, *Asian America, 19-20.*

[57] Robert G. Bailey, *River of No Return: The Great Salmon River of Idaho* (Lewiston, ID: Bailey-Blake Printing Co., 1935); Liping Zhu, *A Chinaman's Chance: The Chinese on the Rocky Mountain Mining Frontier* (Niwot, CO: University Press of Colorado, 1997).

In this way, Chinese immigrants supported central Idaho's communities primarily through their labor, but by 1870, Chinese money and mandatory taxes stimulated the economy as well. Initially, Euro-Americans were content to hire Chinese laborers in white-owned mines—especially at extremely low wages—yet keep the door closed to Chinese ownership; however, plans changed. For starters, around that time, many of the once-rich placer claims showed signs of depletion. Thus, as many mining districts in central Idaho struggled to attract capital and the mining equipment needed for industrial mining, many white claim owners reconsidered the financial sense of prohibiting Chinese ownership, especially if the Chinese were willing to pay *and* if Euro-Americans could make a tidy profit from what they believed to be exhausted claims. To Chinese laborers, placer mines were appealing, even if they had been worked through, because they had little knowledge of lode or quartz mining. Plus, unlike industrial mining, placer mining required little money for equipment.[58]

As a result, when some districts opened claim ownership to Chinese miners, they not only flooded many of central Idaho's gold districts to buy previously worked claims, but, as they did so, the Chinese provided new cash

[58] Zhu, "On Chinese Immigrants," 47-48.

flows to both individual Euro-Americans and the broader community.[59] Between 1861 and 1890, in the Orofino Mining district alone, the resale of both mining and water-related properties totaled $286,494.[60] Unfortunately, once some mining districts opened the doors to Chinese ownership, many Euro-Americans in central Idaho worried that an influx of Chinese miners would create more competition and reduce white men's wages. In fact, the "Chinese Question" became such a popular topic of discussion in the area that correspondents for local newspapers regularly reported on the "evils or the values of Chinamen in this country."[61] As might be expected, many emphasized the daring and energy of white men who had actually penetrated

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[59] According to Li-hua Yu, white men who had the task of tax collecting received a kickback or percentage of the taxes they collected from Chinese immigrants. Thus, not only did Chinese ownership of mines mean former white owners received new sources of income, but individuals who were collecting taxes. For more see Yu, "Chinese Immigrants in Idaho," 70.

[60] According to Darcy C. Stapp, this figure also includes the repeated resale of some properties, but the fact that they were resold still demonstrates the eagerness of Chinese buyers. See Darby Campbell Stapp, "The Historic Ethnography of a Chinese Mining Community in Idaho" (PhD dissertation, University of Pennsylvania, 1990), 57. Available from ProQuest Dissertations & Theses Global. (303882855). Retrieved from https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/historic-ethnography-chinese-mining-community/docview/303882855/se-2;.

[61] "The Chinese," *Idaho Semi-Weekly World*, March 10, 1882. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1882-03-10/ed-1/seq-2/.

the wilderness, juxtaposed to the "heathen Chinamen" who "submit[s] to the degradation of working side by side with, and being treated like, slaves or dogs."[62] In response to white concerns, in 1864, the new Idaho Territorial legislature passed *An Act to Provide for the Taxing of Foreign Miners,* which "prohibited 'any foreigner' from holding a mining claim without a license."[63] Despite its broad framing, as historian Liping Zhu pointed out, the law targeted Chinese miners almost exclusively.[64] Thus, by 1865, Chinese immigrants paid four dollars per month for their license to hold a mining claim—a sum that increased in 1866 to five dollars.[65] Considering that by

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[62] "The Chinese Question," *Idaho Semi-Weekly World*, March 3, 1877. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1877-03-13/ed-1/seq-3/; "Chinese Labor," *Idaho Semi-Weekly World*, August 28, 1877, Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1877-08-28/ed-1/seq-2/.

[63]Darby Campbell Stapp, "The Historic Ethnography of a Chinese Mining Community in Idaho" (PhD dissertation, University of Pennsylvania, 1990), 57. Available from ProQuest Dissertations & Theses Global. (303882855). Retrieved from https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/historic-ethnography-chinese-mining-community/docview/303882855/se-2 Liping Zhu, "No Need to Rush: The Chinese, Placer Mining, and the Western Environment," *Montana: The Magazine of Western History* 49, no.3 (1999): 47-48.

[64] Zhu, *A Chinaman's Chance,* 47-48; Although Zhu notes that the tax law applied exclusively to Chinese foreigners, historian Li-Hua Yu notes that some districts targeted both Chinese and Tartar populations. For more, see Yu, "Chinese Immigrants in Idaho," 34-35.

[65] Zhu, "No Need to Rush," 47-48

1870, Chinese miners accounted for roughly 59 percent of Idaho's mining population, the mandatory tax added up to a considerable sum of money.[66] And both the larger territory and local communities made sure to get their cut. In places like Idaho City, for instance, in 1866, after a season of drought and a devastating fire led to a significant portion of white miners migrating, town organizers arranged to have at least half of the mandatory taxes that Chinese miners paid to go directly back into the operation of the town.[67]

In fact, between 1870 and 1880, as white miners moved out of central Idaho and Chinese moved in, Chinese people became increasingly more essential to local communities, even as Euro-Americans grew more resentful. While white disillusionment reached new peaks during the 1870s and many miners happily sold their claims and moved on, countless once-white occupations were either abandoned or made available—especially if any white women left with the men. To Chinese laborers who were willing to work wherever there were economic opportunities, according to historian Li-hua Yu, this meant a variety of occupations opened up that had otherwise been inaccessible or distasteful to Euro-American men. Many Chinese offered goods to the local community as merchants, or packed much needed food and

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[66] Yu, "Chinese Immigrants in Idaho," 48.

[67] Zhu, "No Need to Rush," 50-51.

supplies into remote areas once supplied by white packers.[68] But a good amount of Chinese laborers took up domestic operations including cooking, laundry services, and gardening for the marketplace.[69] Chinese gardens, in fact, became extremely important to local mining communities, not only because food produced by Chinese gardeners was synonymous with freshness and quality, but because—unlike their Euro-American counterparts—they could produce a lot of it.[70]

Unfortunately, Chinese immigrants' occupational successes in central Idaho—especially in contrast to Euro-Americans' failures—became a big source of white resentment. Whether it was gardening, packing, laundry, cooking, ditch digging, or mining, Chinese laborers appeared to quickly adapt to both the needs of the job at hand and central Idaho's environment—much to the consternation and suspicion of Euro-Americans. In part, Chinese success in central Idaho stemmed from their entrepreneurial spirit and, as

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[68] In many local communities in central Idaho, Chinese apothecaries provided much needed medicinal services and treatments in addition to standard dry goods. For more see Paul Buell, "A Chinese Apothecary in Frontier Idaho," The Annals of the Chinese Historical Society of the Pacific Northwest 1 (1983): 39-48.

[69] Yu, "Chinese Immigrants in Idaho," chapter 4.

[70] Jeffrey M. Fee, "Idaho's Chinese Mountain Gardens," in *Hidden Heritage: Historical Archaeology of the Overseas Chinese,* ed. Priscilla Wegars (Amityville, NY: Baywood Publishing Company, Inc., 1993), 65-96.

historian Li-Hua Yu noted, because they never passed up an opportunity to make money, especially when jobs in America paid more than jobs in China.[71] Thus, even though white employers habitually paid Chinese laborers a fraction of the wages paid to Euro-Americans, to the Chinese, the wages they earned were still worth their time and effort.[72] Although white employers certainly took advantage of Chinese laborers' willingness to earn less than their Euro-American counterparts, their fellow white workers viewed these developments as competition at best, but mostly as a threat to overall white employment. In local newspaper reports on the effects of Chinese workers on what most considered to be the white job market, accounts always pointed out that "the wages of white men have been reduced" as a result of Chinese laborers accepting less.[73] And while many of central Idaho's local newspapers reported on happenings of Chinese laborers in urban—not local—job markets, local white residents failed to draw a distinction between local and national developments.

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[71] Yu, "Chinese Immigrants in Idaho," 48.

[72] Christopher Corbett, *The Poker Bride: The First Chinese in the Wild West* (New York: Atlantic Monthly Press, 2010), 70-75.

[73] "The Chinese," *Idaho Semi-Weekly World*, March 10, 1882. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1882-03-10/ed-1/seq-2/.

Beyond wages though, much of Chinese immigrants' success in central Idaho came down to the culture, values, and social traditions they shared in China. Historians like Zhu have long noted that Chinese peoples' strong family values and social traditions fostered a cooperative culture, which afforded them some physical and financial protections when they travelled in groups for work.[74] As it turned out, such cooperation, not Euro-American individualism, made living and working in central Idaho much easier. Placer mining operations, for instance, worked best when numerous laborers each worked a different part of the operation to achieve a consistent flow of water over an equally consistent supply of alluvial gravel.[75] Thus, the Chinese tradition of working for the collective made them a perfect fit. This culture of cooperation aided Chinese laborers in other areas as well including ditch digging, gardening, and shared living arrangements.[76]

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[74] Zhu, "No Need to Rush," 48.

[75] For more on the division of labor while running a placer mine, see William Goulder, *Reminiscences: Incidents in the Life of a Pioneer in Oregon and Idaho* (Moscow, ID: University of Idaho Press, 1990).

[76] For more on the types of habitation Chinese miners preferred, see David A. Sisson, ""Archaeological Evidence of Chinese Use along the Lower Salmon River, Idaho," in *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, ed. Priscilla Wegars (Amityville, NY: Baywood Publishing Company, Inc., 1993), 33-65.

When it came to water usage though—especially coupled with Chinese cultural skills in aquatic management—working for the collective paid off in dividends. In central Idaho's semiarid environment where water resources were limited, Chinese laborers worked together to save and reuse water so that no water went to waste.[77] Chinese gardeners, for example, redistributed waste water collected in ditches for mining purposes with tools like the Chinese pump, which was basically a chain-pallet system with wooden troughs that allowed laborers to move water from low to high ground.[78] Through such synergistic efforts in mining and gardening, Chinese laborers carefully conserved their water, which had a significant effect on their overall gold production. First, with more water, Chinese miners could work their placer claims more thoroughly, which meant they often produced more gold—even in claims Euro-Americans thought to be exhausted. Perhaps more importantly, however, through the knowledge of manipulating water, Chinese laborers frequently started their mining season earlier and also extended it *past* the time most Euro-Americans' water sources were dried up.[79] Such was the case in Idaho City when, on March 10, reports noted that

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[77] Zhu, "No Need to Rush: The Chinese, Placer Mining, and the Western Environment," 42-57.

[78] Ibid., 51.

[79] Ibid., 51.

a "company of Chinese who own the large mining claim on the south side…commenced piping yesterday," while Euro-American miners were only "making active preparations to commence work…and will be in full blast in a few days."[80] In an area where water was second in value only to gold, such power over water gave Chinese miners a marked advantage in the diggings.

Such seeming advantages in the diggings and in other industries did not escape Euro-Americans' attention or their ire, especially as national and local anti-Chinese sentiment increased.[81] By 1880, Chinese immigrants made up roughly 37 percent of Idaho Territory's population, but they accounted for more than half of Idaho's miners.[82] In other words, Chinese miners and their methods dominated the mining industry in central Idaho. While these numbers spoke volumes about the level of success Chinese immigrants experienced in mining, and by extension, in central Idaho, local white people did not see it that way. Instead, to Euro-Americans who believed themselves to be morally and racially superior to Chinese "heathens"

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[80] *Idaho Semi-Weekly World*, March 19, 1878. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1878-03-19/ed-1/seq-3/.

[81] Beth Lew-Williams, *The Chinese Must Go: Violence, exclusion, and the Making of the Alien in America* (Cambridge, MA: Harvard University Press, 2018).

[82] Yu, "Chinese Immigrants in Idaho," 48.

who "[come] with his sack of rice and can of opium" and [get] "possession of what has been developed by his forerunner," Chinese success—in their eyes—was tantamount to a moral and racial injustice.[83] And although whites had willingly sold their claims to Chinese buyers under the belief that the mines were practically worthless, as Chinese-owned mines produced consistent quantities of gold, Euro-Americans criticized both Chinese methods as unskilled and the mines as wasted without adequate—and superior—Euro-American technology.[84]

Thus, when the national anti-Chinese movement gained more momentum throughout the economic turmoil and depression of the 1870s, Euro-Americans in central Idaho took action. When local newspapers reprinted discussions about Chinese peoples' "dangerous and demoralizing" influence on the labor market and the "poor white man" who would be "driven

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[83] "The Chinese," *Idaho Semi-Weekly World*, March 10, 1882. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1882-03-10/ed-1/seq-2/.

[84] Although Euro-Americans tended to believe their methods of mining were superior because they employed more advanced technologies, especially when it came to hydraulic mining, many Chinese also borrowed techniques and technologies from Euro-Americans in various places when the more technological method made sense. Overall though, Chinese methods tended to require less machinery and equipment, which is why placer mining tended to appeal to Chinese miners. For more, see Jeffrey LaLande, "Sojourners in Search of Gold: Hydraulic Mining Techniques of the Chinese on the Oregon Frontier," *The Journal of the Society for Industrial Archeology* 11, no.1 (1985): 29-52.

to the wall to make room for John," Euro-Americans in central Idaho interpreted national concerns about the Chinese threat to white laborers as an opportunity to strike at the Chinese.[85] Throughout the 1870s, Euro-Americans not only boycotted Chinese labor and vandalized Chinese owned businesses, but by the early 1880s, whites regularly attacked and killed Chinese people.[86] While Euro-Americans viewed these "extreme measures" as a last resort "to protect themselves against the Chinese hordes that have been pouring into the country," their attacks failed to accomplish what white miners in Idaho really wanted: to take back the now-prosperous property Euro-Americans had once sold.[87]

This changed, however, when national debates about the "Chinese Question" prompted the U.S. Congress to pass the Chinese Exclusion Act in 1882.[88] Although the act primarily banned all new Chinese immigration for ten years and imposed restrictions on Chinese immigrants already in the

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[85] "Chinese Labor," *Idaho Semi-Weekly World*, August 18, 1877. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1877-08-28/ed-1/seq-2/.

[86] Yu, "Chinese Immigrants in Idaho," 248-253.

[87] "Chinese Labor," *Idaho Semi-Weekly World,* August 18, 1877. Chronicling America: Historic American Newspapers. Lib. of Congress. https://chroniclingamerica.loc.gov/lccn/sn84022135/1877-08-28/ed-1/seq-2/.

[88] Chinese Exclusion Act of 1882, Pub.L.No.47-126, 22 Stat.58, Chap. 126 (1882).

United States, according to historian Li-hua Yu, the importance of decisions made at the federal level gave impetus and legitimacy to developments on the state and local level.[89] In Idaho, this meant stakeholders passed new local and state laws and resolutions to further restrict Chinese immigrants, including a new law prohibiting Chinese born outside of the United States from holding land or mining claims.[90] In response, a number of Chinese property owners challenged such laws in the Idaho Supreme Court and several actually won.[91] However, from 1883 to 1900, the vast majority of Chinese people who brought civil suits to Idaho courts lost, and even more were not even given the chance.[92] By the mid-1880s after a series of federal acts passed further targeting Chinese immigrants, they strengthened Idaho's local anti-Chinese movement considerably. Throughout Idaho, but especially in areas where Chinese mine ownership was dense, towns simply issued orders that all Chinese must vacate immediately or else. For those who left but went back later, they discovered their property destroyed and housing

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[89] Yu, "Chinese Immigrants in Idaho," 253-255.

[90] Ibid, 265.

[91] John R. Wunder, "The Chinese and the Courts in the Pacific Northwest: Justice Denied?," *Pacific Historical Review* 52, no. 2 (May 1983), 191-211. https://www.jstor.org/stable/3638795.

[92] Wunder, "The Chinese and the Courts in the Pacific Northwest: Justice Denied?,"208.

burned. Faced with the constant risk of violence and no guarantees that mining property would remain in their hands, most Chinese immigrants abandoned central Idaho by the early 1890s.[93]

The Making of Disaster

Once most Chinese immigrants abandoned their mines and properties in central Idaho, their absence ushered in some significant new—and not so new—developments in the area. For starters, around the mid-1880s, when Euro-Americans eagerly clamored to reclaim former Chinese mines, the surge in whites to central Idaho led to the discovery of what seemed to be several new sources of gold and other mineral deposits.[94] To Euro-Americans, who were confident in their moral, racial, and technological superiority when it came to mining, the predicted "promise" of the new deposits was merely a formality until arrangements could be made for real development. Thus, when locals finally managed to attract a new wave of eastern and European capitalists willing to invest in the area, a number of mining districts throughout central Idaho boasted a brand new boom in mining—or in some places a second wave—that was largely characterized by a flood of new

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[93] Yu, "Chinese Immigrants in Idaho," 266-268.

[94] Wells, *Gold Camps and Silver Cities,* 132.

industrial mining machinery.[95] From 1885 to the end of the nineteenth century, countless eastern dollars poured into central Idaho to develop claims, import mills, and build roads. All was due to Euro-Americans' faith in the power of technology and a persistent belief in central Idaho's natural hidden wealth.[96] Locals heralded such technological and financial infusions as almost preordained. According to newspapers such as the *Idaho County Free Press*, the "turn of the tides" was "apparent to all" as they were "on the eve of a great transformation in mining matters within our boundary lines." Of course, such prosperity could only be made possible, the newspaper noted, by "[r]eoccupation and a renewed lease of life" on the "shadow of abandonment from those old landmarks."[97] These none too subtle references to forcing the Chinese out served as a reminder to Euro-Americans' of their technological, cultural, and racial triumph in central Idaho. But more than

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[95] Although historians tend to date the new boom in mining around 1885, many areas that are not lumped into the "new trends" in mining were also experiencing a boom including Muldoon, Gilmore and the Viola Mining region, Mineral City, Mackay and Copper Basin, Era and Martin. Areas that are typically classified as part of the "new boom" wave include Florence, Yankee Fork, Graham, Big Creek, Pine Grove, Bennett Mountain, Lime Creek, Wood Creek, Neal, Blackbird, and Thunder Mountain. For more see Wells, *Gold Camps and Silver Cities*, 122-155.

[96] Clark C. Spence, *British Investments and the American Mining Frontier, 1860-1901* (Ithaca, NY: Cornell University Press, 1958).

[97] "The Turn of the Tide," *Idaho County Free Press,* November 15, 1895.

anything, they were vindication and reinforced deep seated beliefs that Euro-Americans' time had finally come—development was here.

Despite expectations and long awaited anticipation, however, over the next decade, almost every major attempt to develop new mineral claims flopped.[98] Although miners finally had all the technology they thought they needed at their disposal, in most cases a lack of ore—not machinery—significantly retarded production.[99] As it turned out, no amount of technology or money could make gold materialize. Both local Euro-Americans and the investors they attracted learned this hard—and costly—lesson through countless attempts to develop areas that locals were certain held great possibilities for large-scale quartz mining. Most notably, such was the case when Eastern capitalists poured over one million dollars into what locals believed to be a promising new vein later known as Graham, only to discover that there was no ore and their total investment brought a paltry five hundred dollar return.[100] Shockingly, between 1885 and 1900, such disproportionate returns on "promising" ventures were common.[101] In fact,

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[98] Wells, *Gold Camps and Silver Cities,* 132-155.

[99] Ibid., 132-155.

[100] Ibid., 134-135.

[101] When it came to late nineteenth mining discoveries, there is a general consensus that most new ventures failed, or failed to produce as much as was anticipated in central Idaho with one exception, Blackbird. Overall, it did

despite local Euro-Americans' beliefs that outside capital was just a key that would simply unlock the door to Idaho's vast hidden wealth, as historian Merle Wells noted succinctly, the majority of the area's new wealth came from "Pittsburg investment," not local mineral sources.[102]

By 1900, such knowledge—that Eastern capital, not local mineral deposits—was the real source of wealth in the area began to weigh heavily on miners and settlers alike. Considering most people living there at that time were financially and physically invested in the idea that central Idaho would be transformed, any suggestions otherwise were anathema to them. Much like when previous attempts to develop failed, locals sought someone or something to blame. However, as Eastern capitalists couldn't easily be at fault, locals dug deep to find a guilty party. When rumors that rich ore was "petering out" in mines around the Buffalo Hump area, for instance, locals quickly redirected concerns. "While nobody here seems to take any stock in the story about the failure of the ore quality," one newspaper noted, "there is some anxiety as to the effect of the report on the outside world." "From these circumstances many argue that the disparaging report is an attempt to injure

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manage to become a productive mine, but only later in the twentieth century, and for cobalt, not gold. Other mining ventures in central Idaho became productive in the twentieth century as well, but all were for minerals other than gold. For more, see Wells, *Gold Camps and Silver Cities*, 132-155.

[102] Wells, *Gold Camps and Silver Cities,* 132.

the reputation not only of the Big Buffalo property, but of the entire camp, because it threatened to draw too heavily from the mining capital and territory immediately tributary to Spokane." [103] Such reports offered locals some temporary assurances that the area's current difficulties were nothing more than the result of envious neighbors poaching their investors. Other reports, though, focused on the persistent physical challenges of getting equipment to the mines, and then hauling ore back out. In the Buffalo Hump area again, locals declared that although there was "many times more gold than the Klondike," the Idaho mountain trails in the area "are harder to travel than those in the Klondike country" because "these places are too near home to excite much interest."[104] Again, such reports shifted people's attention to nature's obstacles delaying development, which offered people a temporary reprieve from the truth. In the end though, little could disguise the lack of rich ore.

As this reality blossomed, with a hope and a prayer, all eyes seemed to turn to central Idaho's last promising source of mineral wealth: Thunder

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[103] "Buffalo Hump Ore: Reports That it is Getting Base are Premature," *The Morning Oregonian,* April 21, 1899. Nineteenth Century U.S. Newspapers, https://link-gale-com.udel.idm.oclc.org/apps/doc/GT3006310750/NCNP?.

[104] "Roads to the Hump," *Portland Oregonian*, April 24, 1899. Nineteenth Century Newspapers, http://link-gale-com.udel.idm.oclc.org/apps/doc/GT3006311300NCNP

Mountain. In many ways, when gold seekers discovered gold in what would become the Thunder Mountain mining district, it echoed previous discoveries in central Idaho. However, unlike others before, there were key differences. Foremost, people had more expectations for the area to finally produce. In fact, if previous discoveries amounted to a "bang" in Idaho's gold mining history, to locals and later nationally, when gold seekers discovered gold in Thunder Mountain, anticipation ran so high that it was most definitely predicted to be a "boom." In part, such high expectations for the area came down to need. Euro-Americans needed to find gold in order to make meaning of their efforts and failed investments. After countless unsuccessful mining ventures, locals needed to vindicate their faith in the value of gold. And, finally, with few other hopes on the horizon, people needed the money and wealth a large discovery would provide. Beyond need though, high expectations for the area also stemmed from the mountain itself. From the start, rumors circulated that Thunder Mountain was made of gold, especially when Ben and Lou Caswell claimed they first discovered the mineral there by simply digging around in mud flows.[105] Such rumors possessed a kernel of truth. As it turned out, depending on the time of year and the amount of water the soil had absorbed, the mountain produced mud flows that appeared

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[105] L.G. Caswell Pocket Diaries, MS2, file 437, Lewis G. Gaswell Papers, Idaho State Historical Society, Boise, Idaho.

to be rich with mineralized gold deposits.[106] Later, some mineral experts even confirmed these hopes. "Thunder Mountain is a mountain of ore," noted William E. L'Hame, and "[t]here is all the reason in the world to believe the deposit is continuous."[107] To Euro-Americans there, who needed gold, the mountain seemed to solve all of their problems, especially because Thunder Mountain's conspicuous display of gold was a resounding confirmation that nature was abundant.

Importantly, this notion of nature's abundance went a long way towards reassuring Euro-Americans about their perceptions of nature itself. To many who had followed attempts to develop claims in the last decade, only to see elements of the natural world delay or prevent development, it appeared as if nature had become an obstacle to their efforts. More than that though, to Euro-Americans who believed in the idea of a benevolent nature, when they perceived it to be a barrier to their success, nature's benevolence—to them—turned vindictive. However, when gold seekers discovered what appeared to be so much gold, and because Euro-Americans equated gold with nature, such negative personifications of nature seemed to disappear. In fact, when Euro-Americans discovered gold in Thunder Mountain, they went out

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[106] Wells, *Gold Camps and Silver Cities*, 139-140.

[107] Ibid., 145.

of their way to not only neutralize the role of nature in central Idaho, but to emphasize nature's magnanimity. When people questioned how so much gold could be present outside any significant quartz deposits, for example, reports addressing such oddities were simple: "It is a geological revelation," explained one expert. "How it got there, no one knows. A vast primeval conflagration might have melted the gold…[but] there it is, a puzzle to all who see it." [108] Yet another proclaimed, "[n]ature did wonders for this property."[109] While reports such as these pointedly emphasized the area as a miracle of nature, unlike before, others underscored that there were few, if any natural obstacles to development. Lem York, a miner who had been to the mountain, reported that, "[n]o timber is required [and] the ground is easy drilling and breaks fairly well."[110] In fact, regarding nature's past fickleness when it came to gold, one report announced, "[t]here is none of the usual uncertainty about following the course of a ledge that drops into the earth and no mining is necessary except to carry out the mineralized conglomerate and convey it to the mill."[111]

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[108] "Thunder Mountain," Idaho State Historical Society, Idaho State Historical Society Reference Series (1966):11

[109] Ibid., 11.

[110] Wells, *Gold Camps and Silver Cities*, 142

[111] Ibid., 150.

Such efforts to white wash nature's role in shaping the area's prospects were successful, as both local and then national interest in the area skyrocketed by 1902. As it turned out, people wanted to believe nature presented no problems. But there were problems, first with nature, then with gold. Despite stories of gold simply flowing from the mountain, when investors inevitably had to purchase heavy machinery, as usual, the area's remote location became a severe roadblock. "Supplies and machinery are freighted to Bear Valley, about 100 miles above Boise, where they are transferred to the big pack trains and transported 80 miles further to the mines," explained one miner. "To one who has not been over the route no conception of the difficulties encountered can be had."[112] Most notably, Colonel Dewey, owner of the Dewey Mine, experienced such difficulties when he ordered two stamp mills to be packed into the area. One arrived after significant delays, but one only made it as far as Emmett, a small town roughly one hundred miles away, where it "languished there for two years and was never used."[113] Significant snow made matters worse, as people discovered. As early as January 1902, miners living in the area struggled to

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[112] Ibid., 142-143.

[113] "The Men, the Mountain, the Gold and the Town that Drowned," *Yellow Pine Times*, last updated November 1, 2022, http://www.yellopinetimes/wordpress.com/2019/01/27/idaho-history-jan-27-2019/.

survive when provisions ran dangerously low on account of the deep snow that prevented packers from delivering. On top of that, for those who attempted to leave, snow drifts and dangerous winds awaited.[114] This combination, miners realized, formed crests of snow 50 to 100 feet deep that frequently became the start of snowslides. In February 1902, three miners found this out when they were lost to such a snow slide en route to nearby Warren for supplies.[115]

Nature presented other problems as well including food and fuel shortages, frequent landslides, extreme temperatures, and ongoing transportation issues. But all paled compared to the gold problem: there was none, or at least, not nearly as much as was anticipated. Despite predictions and experts' assays that the area's mountain of gold would surpass production of both the Klondike and Transvaal combined, by 1906, few could deny the low quality of the mountain's ore. "The general impression among some very conservative mining men now in the district," reported one expert, "is that there is nothing whatever so far developed to justify the boom; that it is the most overestimated district that has ever been foistered on the public, and there will be a string of disappointed investors, who paid fancy prices

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[114] Wells, *Gold Camps and Silver Cities*, 148-149.

[115] "Thunder Mountain," Idaho State Historical Society, Idaho State Historical Society Reference Series (1966): 17.

and forfeit money, when they have had a chance to examine their claims."[116] Although investors attempted to open what seemed to be another promising rich claim on the mountain in 1908, little came of it.[117] All told, by 1909 aside from the fractional return of $350,000 produced by the area's primary mine, the Dewey, only one other gold mine produced more than $1,000.[118]

For both investors and locals, the realization that there was no gold was the last straw, but for very different reasons. Although investors had willingly provided capital for the area's development, they did so based on confirmations and analyses of appraisers and mining engineers who agreed the area was rich. In fact, most invested in the area because they were told that compared to other mining ventures, Thunder Mountain was beyond reproach.[119] Thus, when most mines failed to produce enough gold to make their investments worthwhile, investors realized they had allowed themselves to be swept away once again with wild speculation over Idaho's riches. To them, Thunder Mountain's failure to return was a public embarrassment and a financial disaster. By 1910, then, when even the suggestion of investing in the area surfaced again, investors were clear:

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[116] Wells, *Gold Camps and Silver Cities*, 153.

[117] Ibid., 155.

[118] Ibid.

[119] Wells, *Gold Camps and Silver Cities*, 156.

"Thunder Mountain and Big Creek seems still to be on the make but that is about all that can be said for it. It is out of funds and has little prospect of raising any, and what is really more discouraging has nothing to work on even if the funds could be raised for it."[120] As a result, interest in investing in the area virtually disappeared.

For locals, the realization that there was no gold was a double blow. Not only had people committed their efforts and hopes to the area with no return once again, but they had allowed themselves to be convinced that the newest round of hardships endured while living in the area were not problematic. Thus, when nature's seeming abundance of gold turned out to be an illusion—to them—nature's benevolence transformed into nature's deceit. People had trusted nature to provide, only to discover that their trust had been misplaced with disastrous consequences, both financially and physically. By the early 1900's, such realizations had a dramatic effect on how Euro-Americans perceived the world around them and, in turn, how they interacted with the area—first in Thunder Mountain, but later in central Idaho. For starters, after enduring repeated financial and physical hardships, Euro-Americans resigned themselves to the belief that the area was not going

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[120] "No Merry Xmas in Thunder Mountain," *The Detroit Times*, December 24, 1910. https://chroniclingamerica.loc.gov/lccn/sn83016689/1910-12-24/ed-2/sec-8/.

to produce—gold, or anything else. On the question of the potential for mining in the nearby Lemhi Mining district, one critic announced, "[i]t is time we realized that MINES IN LEMHI WILL NEVER BE DEVELOPED…IN THE FACE OF A PESSIMISTIC PUBLIC OPINION."[121]

Admissions such as these reveal much. Not only had most people lost any hope in the prospects of finding gold in central Idaho, but they had developed a general pessimism towards the area that characterized how they regarded it. As a result, most people abandoned Thunder Mountain and any nearby mining towns by 1908. But when people still living there inevitably encountered natural hazards, they tended to anticipate nature's worst. Such was the case when the mudslide blocked two creeks running through Roosevelt and effectively drowned the town and any prospects for mining in Thunder Mountain. C.G. Caswell, the first pioneering miner of Thunder Mountain, commented on the event. When interviewed a few days later about his thoughts on the landslide, Caswell noted that he had predicted the probability of a landslide years earlier. "While I regret very much that the people…were overwhelmed," explained Caswell, "at the same time I am not surprised. It was something that might have occurred at any time. The

[121] "What is Wrong with Mining Industry?," *Idaho Recorder*, June 19, 1913.

wonder is it had not occurred before."[122] As these attitudes toward central Idaho spread, by the early twentieth century most people had concluded that the area was too hazardous and risky for habitation.

[122] "Idaho Visited by Landslide and Floods: Town of Roosevelt Scene of Disaster," *Salt Lake Herald*, June 3, 1909.

Chapter 5

A NEW "THERE"

When Nick Mamer took to the skies in 1925, his mission to begin aerial fire patrol for Region 1 of the National Forests was nothing less than a technological triumph for the Forest Service.[1] For years, the Forest Service had struggled to protect the nation's last and most precious resource—timber—against what they believed at the time to be the biggest and most disastrous threat—forest fires. With the aid of aerial photography, not to mention the expert spotting skills of highly decorated aviators like Mamer, the Forest Service felt they finally possessed the tools they needed to detect and eradicate backcountry blazes.

The modern marvel of aerial photography, however, was only the latest weapon against fire in the Forest Service's growing arsenal to fight forest fires. In addition to aviation, beginning in 1910, the Forest Service eagerly

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[1] See Richard H. Holm, *Bound for the Backcountry: A History of Idaho's Remote Airstrips* (McCall, ID: Cold Mountain Press, 2013), 13. Although Holm marks Mamer's first flight using aerial photography for Region 1 of the Forest Service in 1925, numerous newspapers highlight Mamer's work as an aerial patrol in parts of Eastern Washington and Northern Idaho as early as 1920. For more see "Work Far from Earth," *Perth Amboy Evening News*, August 24, 1923; "Good Use for Army Aviators," *The Idaho Recorder*, February 13, 1920.

sought out any technology they believed would help extinguish the flames, including building more roads and pack trails, telephone lines, fire patrol lookouts, and even exploring the science of meteorology to decipher central Idaho's weather patterns in order to predict dry thunderstorms.[2] In fact, after several successful seasons of detecting fires by air, between 1925 and 1945, the Forest Service expanded their small scale efforts to later include aerial cargo dropping, smoke jumping, the construction of remote air strips, and the use of water and chemical bombs to try and snuff out resistant flames.[3]

While these technologies appeared to help the Forest Service accomplish its prime objective—to put out the flames—they signified some important developments in central Idaho in the early twentieth century. First, that the Forest Service—and by extension the federal government—invested so much time, money, and effort into technologies intended to mitigate forest fires reveals that Euro-Americans living in Idaho shifted away from mineral wealth and, instead, turned toward timber as the area's most

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[2] Forest Service leadership developed a deep intertest in meteorology and the influences of weather on forest fires. In 1923, an entire issue of *Monthly Weather Review* was dedicated to the topic with many of the articles written by rangers and even the chief of the Forest Service. See, for example, Howard R. Flint, "How weather forecasting can aid in Forest Fire Control," *Monthly Weather Review* 51 (1923): 567-569.

[3] Harold Steen, *The U.S. Forest Service: A History* (Seattle, WA: University of Washington Press, 1976).

valuable resource. By the turn of the century, timber and forests, not gold and gold rushes, dominated the nation's attention. A growing interest in some notion of timber conservation fueled much of this shift nationally. Yet, in Idaho this motivation was not so clear cut. Some key locals were inspired by and promoted national conservation efforts, but the culmination of years of failures, hardships, and disasters related to mining drove most people to find a new—and hopefully more dependable—resource for local wealth.

Idaho's forests promised to be just such a resource, yet the turn to timber rather than mining had a pinball effect on the way stakeholders viewed disasters. Many, who had grown accustomed to and knew the hazards associated with mining, quickly identified new risks and hazards that went along with timber and timber management—namely forest fires. Hazards associated with mining often impacted miners or those living in the surrounding area more directly, yet threats to timber, people realized, cast a much wider—and more devastating—net. As a result, due to the new material value and cultural significance stakeholders placed on timber as a resource, people gradually reframed the importance of these hazards, often without state or legislative support. Timber companies, for instance, knew the hazards fires posed to their industry. But settlers, miners, stockmen, and even those far removed discovered they stood to lose something in the event of a massive conflagration. Upon this realization, many Euro-Americans soon

viewed forest fires—once perceived by locals to be a natural phenomenon—to be the most catastrophic threat, not only to timber but to themselves.

Not by coincidence, this disaster reframing occurred in conjunction with the emergence of a governmental agency created to administer and manage national forests: the U.S. Forest Service. Initially, the Forest Service emerged in response to a national interest in forest and watershed conservation. However, the organization soon realized they had little real traction as an agency of authority. In part, these problems came about because forest conservation, foresters insisted, was more complex than simply protecting timber for the greatest number of people. Rather, early foresters understood that there was a relationship between forests, soil, and water, and were concerned about preserving the quality of that relationship as much as they were about keeping track of trees. Thus, when foresters identified the practices and actions of Euro-Americans living in and using central Idaho to be the root cause of many of the disasters facing forest reserves, the Forest Service's attempts to mitigate only came across as interference in locals' affairs. Such perspectives, combined with limited public and congressional support, and the growing pains of a newly created governmental organization, created real problems for the Forest Service. Not only did these obstacles make the agency seem ineffective in their duties—and thus unnecessary as an agency tasked to manage the nation's timber—but they

greatly challenged individual foresters' reputations and credibility in the field as figures of authority.

Luckily, the growing concern to safeguard what many perceived to be Idaho's last and thus, most valuable resource from forest fires became the Forest Service's salvation. It turns out, while Euro-Americans could dismiss many other disasters that developed in forest reserves—and their root causes—fires were both impossible to ignore and often became catastrophic to all, not only to those who had an interest in timber. The timber industry, in fact, understood the risks of fires and took collective action to snuff out the flames. Yet, increased Euro-American activities combined with increasingly limited access to central Idaho's remote backcountry presented real challenges to private cooperative fire management associations. And although the Forest Service assisted with fire suppression efforts each year, their limited funding and ability to make lasting changes were not enough to keep up with the fires. These problems came to a head in 1910. When the combination of record setting aridity and low humidity set off a chain of forest fires throughout the Pacific Northwest, fire fighters and foresters alike could do little to put out the flames. The resulting destruction, however, changed more than the landscape. Locals, who had once been resistant to the Forest Service's presence, grudgingly recognized the determination, bravery, and dedication many foresters exhibited in their efforts to control the burn,

which steadily shifted public perceptions of the agency. In turn, these events created an opportunity for the Forest Service. After the fires of 1910, people wanted fires suppressed. By emphasizing their growing knowledge of fighting fires, the Forest Service stepped in to answer the call for protection against the flames and assumed their position as self-professed experts in forest management.

Over the next decade, the Forest Service steadily evolved into *the* final authority of the nation's forests. Yet, their emphasis on forest fires and the technologies and technocratic methods used to suppress them meant a significant shift in agency policy, and later, even changed the way people saw the forests. Through the threat of fire hazards, the Forest Service gained more authority as stewards of the forest because they claimed they could suppress fires. In order to do that, however, they insisted they needed more technology—roads, pack trails, fire lookouts and more—especially because a lack of access to fires and a limited ability to detect them early, foresters claimed, made suppression virtually impossible. Thus, as the Service employed more sophisticated technologies and steadily tailored their management of the forests using a technological approach to fire suppression, such efforts, again, reinforced the idea that technology was necessary to engage with—and even control—nature. What's more, the Forest Service's

focus on fires and mitigating the hazards of fires alone painted a picture to the public that fires were the *only* hazard facing forests.

In reality, however, many of the actions and practices of Euro-Americans using the space—including the Forest Service—continued to make hazards in central Idaho worse. Eventually, a new group of advocates emerged who were in favor of establishing wilderness areas, or places they envisioned to be free of all modern marvels and man-made materials. Specifically, they cited the toll that the Forest Service and their technologies took on the environment and insisted that technologies, not fires, were the true disaster facing the nation's forests. As wilderness advocates gained momentum, they argued for a need to protect, not just preserve, national forests. Importantly, the presence of the technologies themselves became a dividing line as notions of the forest and wilderness evolved. While this battle occurred nationally, in central Idaho, the conceptual reframing of technology as disaster had a powerful effect on the landscape, and ultimately led to a re-envisioning of National Forests and Wilderness Areas alike.

From Mining to Timber: A Shift in Perspective

On December 30, 1920, attorney-at-law William A. Edwards wrote the first of many complaints to the U.S. Forest Service regarding his son, Annesley Napier Edwards, and his homestead application for land in central Idaho's Thunder Mountain District. In each letter, he questioned the delays

preventing the application from getting approved and accused the Service of intentionally stalling in order to force him, William Edwards, to consent to the installation of both telephone lines and access roads across his property. Edwards insisted that he was "anxious to have telephone service and good roads in this country and [would] cheerfully grant such rights of way at the proper time." However, he asserted, "[y]our attempt to hold up and delay my son's homestead application under such a pretext is both arbitrary and illegal. The law does not place such autocratic power in your hands."[4] Over the next few years, both William and Napier, as he preferred to be called, engaged in a writing war with their regional foresters in an effort to secure Napier's application. But difficulties arose on both sides. More than once, for instance, Napier altered his claim application to include new coordinates of the overall property. After each alteration, foresters then had to reinspect the "new" property and make another report of their findings. After what seemed like countless, alterations, forester reports, on-site inspections, and surveys redefining the exact coordinates, in 1922 Napier's application was finally approved. Five years later, he went on to prove up his claim through hard

[4] William A. Edwards to Mr. J. Raphael, Forest Supervisor, December 30, 1920, Payette National Forest Collection, USDA Forest Service, McCall, Idaho.

work and enough improvements to the property to demonstrate his good faith intentions.[5]

Despite Napier Edwards' protests, his experience—the rigmarole of getting his homestead application approved, countless delays and inspections, and the increased presence of the Forest Service—was not unusual at the turn of the century in central Idaho. In fact, after 1906, the Forest Service had good reason to thoroughly inspect all homestead applications to ensure the validity of claims—especially in the Thunder Mountain Region. Miners, foresters realized, who could no longer find gold in the area made homestead claims on newly available timbered land, only to sell it at a profit to timber companies looking to expand their holdings. As the discoverer and former manager of the Eagle Mining Company's Sunday Mine, William Edwards and his son—to foresters—would have appeared to be likely candidates for filing false homestead applications.[6] Concerns of fraudulent claims were so common, in fact, that when it came to homesteads, one of the primary duties of foresters was to inspect homestead claims for evidence of

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[5] R.H. Rutledge to U.S. Land Office, June 6, 1927, Payette National Forest Collection, USDA Forest Service, McCall, Idaho.

[6] According to records, even Napier's mother, Annie, worked in the mining industry as the deputy mining recorder of the Sunday Mine. Undated email from Alexandra Botello to Virginia Vaught, Photo 74.278, MS 262, Payette National Forest Collection, USDA Forest Service, McCall, ID.

the good faith of settlers.[7] To foresters, this meant they had to determine if claimants' acts and intentions on their homestead demonstrated a genuine attempt to develop the land as they claimed as evidenced through noticeable improvements to any structures, newly cleared lands, or increases in the type or amount of livestock they owned.

Such was the case with Napier Edwards' claim. When Forest Ranger Lee D. Miles filed his inspection of Edwards' property, he noted features such as Napier's modest cabin, "partially complete and only one room of even doubtful habitability," thirteen sheep, and the agricultural value of the land, which, according to Miles, was limited as it could only grow hay or forage crops for feeding stock due to the elevation and the "[d]istance from any market except the limited one of the Forest Service personnel employed in the neighborhood."[8] Mostly though, foresters thoroughly inspected how much marketable timber might be on a homestead, and if it was enough to warrant attempts to "fraudulently acquire the land."[9] Ranger Miles, for instance,

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[7] James Muhn and Hanson R. Stuart, *Opportunity and Challenge: The Story of BLM* (Washington, D.C.: U.S. Government Printing Office, 1988), 26-31.

[8] Lee D. Miles, report on Forest Homestead Application of Annesley L. Edwards, November 3, 1921, Payette National Forest Collection, USDA Forest Service, McCall, ID.

[9] U.S. Department of Agriculture, *The Use of the National Forest Reserves: Regulations and Instructions*, Issued by the Secretary of Agriculture (Washington, DC, 1905), 13.

exhaustively examined Edwards' claim to assess the forest value of the property. Although he identified an "excellent rather even aged growth of young lodgepole, forty years old," he concluded it had "no market" and Edwards had "no probability of a sale within several decades."[10] All subsequent inspections of the property noted that there was "no merchantable timber," which, luckily for Edwards, ultimately led to the approval of his homestead claim as valid.[11]

Although the Edwards' links to mining and questionable good faith were the likely cause of Napier Edwards' delayed homestead approval, such experiences in central Idaho were significant. Importantly, they reflected the changes brought on by a larger shift from the value Euro-Americans had once placed on mining and minerals in the region to the new worth they attached to timber when mining didn't pan out. For many miners, this shift came about as a last option. As any real prospect of finding gold in central Idaho disappeared and perceptions of the area as disastrous hardened, individuals that remained tried their hand at working the land, either through

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[10] Lee D. Miles, report on Forest Homestead Application of Annesley L. Edwards, November 3, 1921, Payette National Forest Collection, USDA Forest Service, McCall, ID.

[11] Hubert B. Knipe, Three Year Report on the Edwards' claim status, March 16, 1926, Payette National Forest Collection, USDA Forest Service, McCall, ID.

agriculture or by rearing cattle or sheep. While such efforts paid off for some, most found the combination of central Idaho's short growing season and distant markets to be significant challenges to profitability. Thus, when miners discovered the timber on their land—not minerals or crops—to be the most valuable resource available to them, many quickly capitalized on the growing demand.

In part, the increased exploitation of Idaho timber came about as a result of long simmering interests over the nation's forests, conservation, and the scarcity of national resources. Historians of the American environment have long analyzed America's complex relationship to the natural world.[12] But as historians such as Harold K. Steen highlight, the nature of that relationship began to change dramatically by the mid-nineteenth century with the realization that the impact of man's actions on the natural world had real and lasting consequences.[13] As a result, a growing interest in

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[12] See, for example, William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983); Richard White, *The Organic Machine* (New York: Hill and Wang, 1995); Donald Worster, *Under Western Skies: Nature and History in the American West* (New York: Oxford University Press, 1992); Matthew W. Klingle, *Emerald City: An Environmental History of Seattle* (New Haven, Yale University Press, 2007).

[13] Harold Steen explains that when George Perkins Marsh published his book *Man and Nature* in 1964, his emphasis on "environmental deterioration" and the ethics of certain land uses caused concern among key figures in America's forestry movement, including Franklin B. Hough, which fueled the drive to create forest reserves. For more, see Harold Steen, *The U.S. Forest Service: A*

conserving portions of the nation's forests gained momentum. Ideas about what should be conserved, and more importantly, how and why it was to be conserved challenged the movement's growth, and by extension, legislative support.[14] But by the 1890s, conservationists' efforts resulted in significant strides toward the creation of a national forest reserve system in 1891.[15]

Not by coincidence, the movement to create a forest reserve system for the public domain reached new peaks around the same time people began to perceive scarcity among all the nation's natural resources. For most Americans, this was especially apparent when it came to how they perceived the American frontier, a concept that American's had long intertwined with resource abundance. To most, the concept of the "frontier" was more than

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History (Seattle, WA: University of Washington Press, 1976): 8-9; See also George Perkins Marsh, *Man and Nature: or, Physical Geography as Modified by Human Action*, ed. David Lowenthal, Weyerhaeuser Environmental Classics, rev.ed (1965; repr.,Seattle: University of Washington Press, 2003).

[14] Samuel P. Hays, *The American People and the National Forests: The First Century of the U.S. Forest Service* (Pittsburg, PA: University of Pittsburg Press, 2009); William G. Robbins, *Lumberjacks and Legislation: Political Economy of the U.S. Lumber Industry, 1890-1941* (College Station, TX: Texas A&M University Press, 1982).

[15] In 1891, Congress passed the Forest Reserves "Creative" Act, which allowed the president to withdraw forest lands from the public domain. Shortly after the Act was passed, President Benjamin Harrison made Yellowstone National Park the first in the nation. See Robert Bassman, "The 1897 Organic Act: A Historical Perspective," *Natural Resources Lawyer* 7, no.3 (Summer 1974): 503-520.

vast lands and seemingly infinite natural wealth. Instead, as historian Patricia Nelson Limerick explains, Americans understood it as "exploration, fur trade, overland travel, farming, mining, town founding, merchandising, grazing [and] logging."[16] Given the breadth of such a concept, and by extension, the natural resources associated with each, when key figures announced the closing of the frontier at the end of the century, it's little wonder that people grew concerned.[17] Such fears of shortage crystalized around timber, however, when, by 1890, most of the virgin forests of the Great Lakes area—the primary region for timber production—were cut over and the lumber industry had to find a new source of timber.[18] With seemingly

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[16] Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W.W. Norton & Company, 1987), 21.

[17] For more on the growing concern about waning natural resources see Frederick Jackson Turner, "The Significance of the Frontier in American History" in *The Frontier in American History* (Penguin Books, New York, 1920), 3-13; For the superintendent's full report, see *Report on the Population of the United State at the Eleventh Census: 1890, pt.1* (Washington, D.C., 1895), xxxiv.

[18] On waning timber reserves see Ralph W. Hidy and Frank Ernest Hill, *Timber and Men: The Weyerhaeuser Story* (The Macmillan Company: New York, 1963), 207-228; For more on the logging industry in the Great Lakes region, see Theodore J. Karamanski, *Deep Woods Frontier: A History of Logging in Northern Michigan* (Detroit, MI : Wayne State University Press, 1989.

few large timber reserves left, the lumber industry eventually turned to Idaho's forests as a new source of timber.[19]

Surprisingly, despite concerns that timber reserves were becoming more scarce, the threat of a potential national timber shortage actually increased speculative activity throughout Idaho. This occurred when large lumber companies like the Weyerhaeuser Corporation purchased mass quantities of timbered land from railroad companies that had acquired the land through government land grants.[20] When this happened, both large- and small-scale timber companies viewed the sudden interest in Idaho's timber as an opportunity to tap into what they predicted could be a significant source of future wealth.[21] As a result, between 1899 and 1908, several prominent lumber families invested heavily into several large Idaho timber ventures in

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[19] According to Hidy and Hill, most lumber companies initially preferred Southern timber prospects because of the high quality of the timber and the more well-developed railroad infrastructure made getting timber to market easier and cheaper. For more, see Hidy and Hill, *Timber and Men,* 207-212.

[20] Although the Weyerhaueser Corporation made significant purchases for timberland from the Northern Pacific Railroad beginning in 1890, in 1900, Weyerhaueser interests made one of the biggest single purchases in U.S. history when they bought 900,000 acres of timberland from the Northern Pacific Railroad for $5,400,000,00. See Hidy and Hill, *Timber and Men,* 213.

[21] Hidy and Hill, *Timber and Men,* 207-228; John H. Cox, "Organizations of the Lumber Industry in the Pacific Northwest, 1889-1914," (PhD dissertation, University of California, 1937), 16; Richard A. Rajala, "The Forest as Factory: Technological Change and Worker Control in the West Coast Logging Industry," *Labour/Le Travail* 32 (Fall 1993): 73-104.

what historian Ralph W. Hidy refers to as "the great buying rush."[22] Companies discovered quickly, however, that acquiring additional timbered lands would not be so easy. In an effort to curb a long practice of speculative land grabs, companies found that earlier legislation such as the Timber and Stone Act prohibited anyone from buying larger tracts of land for any purpose and limited land claims to family-sized portions of timberlands.[23] For timber companies in Idaho, these limitations greatly restricted their ability to legally acquire more land. Yet, for settlers, miners, and any other single claimant in

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[22] Ralph W. Hidy, "Lumbermen in Idaho: A Study in Adaptation to Change in Environment," *Idaho Yesterdays* Winter 1962, 2-17.

[23] Although land speculation dated as early as the colonial period, by the mid-nineteenth century, speculation and fraudulent land claims had reached a new peak. As many believed such speculative activity merely delayed development and took available lands away from bona fide settlers, Congress passed a series of acts, starting with the Homestead Act of 1862, that were intended to remedy speculation by making lands available for purchase to settlers only. Speculators, of course, found ways around these acts, which prompted Congress to revise and create new acts designed to deter speculation including the Timber Culture Act of 1873 and the Timber and Stone Act of 1878. On a comprehensive history of speculation in the United States, see James Muhn and Hanson R. Stuart, *Opportunity and Challenge: The Story of BLM* (Washington, D.C.: U.S. Government Printing Office, 1988), 22-27; Benjamin Horace Hibbard, *A History of the Public Land Policies* (New York, Peter Smith, 1939), 209-227; for more on specific acts which were violated, see Barron C. McIntosh, "Use and Abuse of the Timber Culture Act," *Annals of the Association of American Geographers* 65, no. 3 (1975): 347–62. http://www.jstor.org/stable/2561886; Janel M. Curry-Roper, "The Impact of the Timber and Stone Act on Public Land Ownership in Northern Minnesota," *Journal of Forest History* 33, no. 2 (1989): 70–79. https://doi.org/10.2307/4005103.

need of money, such legislation greatly incentivized people's willingness to make homestead claims—especially on timbered land—with the future intention to sell their title to the highest bidder.[24]

As people became aware of the value of their homesteads, or more importantly, the speculative value of a land patent that could later be sold to lumber companies, fraudulent homestead applications in Idaho skyrocketed. In 1904, early forester, J.B. Lafferty noted such increases as he assessed homestead claims for "good faith intent," or indications of sincere attempts to settle the land.[25] After inspecting 92 homestead claims in Orofino, Idaho—a once prominent mining region—Lafferty noted, "in my opinion none were legal."[26] Such practices, in fact, were especially prevalent in former mining districts. There, newly unemployed miners and lumber companies developed an unspoken partnership: miners got much needed money and in exchange, lumber companies got more timberlands.[27] The most famous of these arrangements occurred in 1902 when the Barber Lumber Company, a subsidiary of the Weyerhaeuser Corporation, took title to a massive block of

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[24] Merle Wells, "Timber Frauds on Crooked River," *Idaho Yesterdays* 29, no.2 (1985):2-13.

[25] Muhn and Stuart, *Opportunity and Challenge,* 22-27.

[26] J.B. Lafferty, *My Eventful Years* (Weiser, ID: Signal American Printers, 1963), 27.

[27] Wells, "Timber Frauds on Crooked River," 2-13.

land patents acquired through the Timber and Stone Act. Such transactions were illegal and, in theory, highly discouraged, as evidenced through years of legal suits brought against the Barber Lumber Company by the U.S. government.[28] Yet, the frequency in which they occurred and relative impunity people experienced—if caught—had meaning. Many people who had once valued the land for the minerals *below the surface* began to prioritize the land according to what was *on the surface*.

In central Idaho, these developments became a catalyst for change, first in the new value stakeholders attached to timber, and later in how timber issues influenced the local culture. Timber's new economic importance to the region played a big role in this change. Key Euro-Americans quickly determined that timber production could be a significant source of revenue for the state rather than as just a tool for mining or a steppingstone for agrarian pursuits.[29] In his 1890 report of the state, for instance, although

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[28] Wells, "Timber Frauds on Crooked River," 2-13; Harold K. Steen, *The U.S. Forest Service,* 59.

[29] According to Harold K. Steen, for the first two centuries of the nation's existence, timberland was not officially recognized as a type of land, rather public land was classified as either agricultural or unfit for agriculture. Thus, when Congress passed the Timber and Culture Act in 1873 to make heavily forested lands, otherwise viewed as "unfit for farming," more appealing to homesteaders, there was an underlying presupposition that forests were an impediment to a homestead's intended agrarian purpose. However, other historians note that people sought out timbered lands because of a belief that forested areas were more fertile than grasslands without trees. For more on the viewpoint of timberland as impediment, see

Governor George L. Shoup, still identified mining as Idaho's principle industry, his concern about timber, or more specifically—who controlled the sale of timber—weighed heavily on his mind. "The protection and sale of timber on the forest should…in my opinion, be under the control of the State Government," Shoup noted, "and would be husbanded and disposed of under wise legislation."[30] While Shoup aimed to divest the state of speculative land purchasing and make a claim for forests controlled by the state, such concerns about who should own the timber presupposed a belief that Idaho's timber was indeed going to become a new cornerstone of the economy. In only a matter of years, others quickly caught on to such thinking. An 1892 pamphlet published by the Union Pacific Railroad about Idaho's resources and attractions emphasized to passengers the large variety and abundance of merchantable timber which was "convenient to all sections" of the state.[31] Likewise, in 1897, when an investigative committee commissioned with the

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Steen, *The U.S. Forest Service,* 6-9; for more on timberland as desirable, see E. Livingston-Little, "An Economic History of North Idaho, 1800-1900" (PhD dissertation, University of Southern California, 1961), https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/economic-history-north-idaho-1800-1900/docview/302120288/se-2.

[30] *Report of the Governor of Idaho,* 1890, 51st Cong., 2d sess., H.R. Exec. Doc. No. 1. (Washington D.C., 1890), 498-499.

[31] *The Resources and Attractions of Idaho: Facts on Farming, Stock-Raising, Mining, Lumbering, and Other Industries*, prepared by the Union Pacific Railroad (St.Louis, MI, Woodward and Tiernan Printing Co., 1891, 5, 14-16.

task of assessing the timberlands of the west made their report, they determined that forest products and the industries that relied on them easily employed more than one million workers.[32] Overall, such attempts by stakeholders to highlight the anticipated value timber would create in Idaho's economy had purpose. To them, it was a firm reminder that timber and timber products offered employment, capital, and the promise of financial stability for Idaho's future as a state. Ironically, even the struggling mining industry eventually acknowledged the growing economic value of timber evidenced by a surge in new mining companies at the turn of the twentieth century that—despite their reason for incorporation—primarily cut timber for profits instead of extracting minerals.[33]

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[32] In addition to investigating the state of the timberlands of the west, the primary purpose of the committee, which included Gifford Pinchot, was to assess the value of the timberlands to determine what plan of action the government should take to conserve the nation's timber for future use. Notably, the committee's formation and findings fueled the growing conservation movement and were a precursor to the creation of the United States Forest Service. For more, see Gerald W. Williams and Char Miller, "At the Creation: The National Forest Commission of 1896-97," *Forest History Today*, Spring/ Fall 2005, 32-41; Secretary of the Interior, *Report of the Committee appointed by the National Academy of Sciences upon the Inauguration of a Forest Policy for the Forested Lands of the United States* (Washington, DC, 1897), 6.

[33] According to J.B. Lafferty, one of the biggest issues foresters had to deal with between 1905 and 1907 was the fraudulent incorporation of mining companies such as the old Iron Springs Mining Company that were formed ironically to cut timber. By forming as a mining corporation, companies found a loophole in extant restrictions placed on lumber companies that

Profits aside, as stakeholders increased their timber proselytizing, such efforts to promote the benefits of the timber industry also attempted to reframe most public concerns about timber into two narratives. The first highlighted timber and a thriving timber industry as the protagonist; a hero underscored as a mechanism that would finally allow Idaho to reach its full potential. The second, or antagonist, appeared as any threat to timber—and by extension Idaho's future. Nowhere was this narrative more apparent than in local newspapers reporting on timber developments. An 1892 article in Salmon City's *Idaho Recorder,* for instance, lamented easterners who had improperly denuded the hill and mountain slopes of the east. "The appalling loss of life and property in the east this season by floods, is at once a severe lesson and a warning that should not go unheeded."[34] In contrast, the article celebrated Idaho's "magnificent timber belt, and forest area, that should be protected and made to serve for all time."[35]

At first glance, accounts such as these appear to be a simple review of local timber news. However, the deeper messages they carried reveal

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limited their access to timberland in the public domain. See J.B. Lafferty, *My Eventful Years* (Weiser, ID: Signal American Printers, 1963), 31.

[34] "Preserve the Forests," *The Idaho Recorder* (Salmon City, ID), June 29, 1892.

[35] Ibid.

attempts to reform local cultural values around the economics of timber. First, the reports persuaded readers that Idaho timber reigned supreme, unlike poorly managed eastern forests "that have been disappearing with almost incredible rapidity."[36] Instead, accounts stressed, "Idaho should profit by this experience."[37] Between the lines, the emphasis on timber's manageability not only alluded to the superior quality of Idaho timber (and people) compared to the east, it also tapped into growing concerns about the sustainability of mining at the time, especially as reports portrayed timber as Idaho's next—and possibly last—dependable resource, whereas mining, clearly, was not. If managed correctly, accounts noted, "[t]imber should be harvest like any other crop, and, with proper protection, Idaho has an ample supply for all mechanical and industrial purposes."[38]

Not by coincidence, many reports frequently referenced the role large lumber companies and capitalists played on this path toward progress.[39]

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[36] "Preserve the Forests," *The Idaho Recorder* (Salmon City, ID), June 29, 1892.

[37] Ibid.

[38] Ibid.

[39] Railroads tended to be the biggest landowners in the west, thus, it was in their interest to promote the west, timber production, and the role of lumber companies and capitalists to profit from their land holdings. See Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (New York: W.W.Norton, 2011).

According to newspapers, when it came to timber, Eastern capitalists were seemingly always "en route to… [Idaho]…to purchase timber" or building roads and logging railways that would finally make accessibility possible.[40] Such lumber companies were, of course, motivated by profits to invest in the area and equipped with the capital to build what people had long desired: technologies to access Idaho's resources. Yet, stakeholders assured, in Idaho, at least initially, these motives spoke not of profits, but of the financial blessings lumber companies could bestow on the region. Thus, when newspapers reported Eastern capitalists purchasing Idaho timberland, reports usually highlighted how lumber companies introduced capital and also developed the land. On June 7, 1899, the *Idaho Recorder*, for example, reported that not only had Eastern capitalists negotiated to purchase the Ellsbury, a local logging railroad, but "road[s] will now be extended and improved in order to reach large [bodies] of excellent timber" previously out of reach.[41]

Next, because timber represented so much promise, such accounts implied, if anything (or anyone) tampered with such stability, it was tantamount to a threat to the larger community. By the early twentieth

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[40] "News of the Northwest: Miscellaneous News Items," *The Idaho Recorder* (Salmon City, ID), January 3, 1899.

[41] "Industrial Notes," *The Idaho Recorder* (Salmon City, ID), June 7, 1899.

century, forester-turned-academic David Townsend Mason captured the essence of this current, noting how timber in the Inland Pacific Northwest put into circulation "great sums of money" for "labor, supplies, and freight." Timber became so important, Mason argued, that "[t]he continued prosperity of the Inland Empire as a whole depends in no small degree upon the stability of the lumber industry."[42] While Mason made clear timber's importance to the regional well-being, public officials promoted such sentiments about the relationship between timber and the community's economic health in the early 1890s. "Idaho has millions of dollars worth of timber," one newspaper reported, "which she should turn into cash and thus reduce the burden of taxation and build up and beautify her public institutions." Timber, the article went on, "would give employment to every idle man in the state and would furnish a home market for all our home products."[43] In other words, such articles implied, a healthy, well-managed forest also meant a healthy, well-managed community.

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[42] David Townsend Mason, "Timber Ownership and Lumber Production in the Inland Empire," prepared by the Forest Service of the United States Department of Agriculture (Portland, OR: Western Pine Manufacturers Association, 1920), 12-13.

[43] "State Timber," *The Caldwell Tribune* (Caldwell, Idaho Territory), March 6, 1897, Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn86091092/1897-03-06/ed-1/seq-2/>.

Framed in this way, once Idaho acquired statehood, stakeholders scrutinized all potential threats to the health of Idaho's timber, and by extension, their expectations for Idaho's greatness. By their calculations, safeguarding Idaho's forests was not just good practice, but, as one editorial remarked, "an economic proposition of the first importance to the state."[44] Thus, when reports of insect infestations and timber theft circulated, people viewed such threats as the loss of potential revenue, not as a hazard to the forests or a threat that might increase the vulnerability of people nearby. Again, David Townsend Mason captures this materialistic assessment of the forest in his report on forest protection and losses. "Forest insects are responsible for insidious losses," Mason calculates, "which in the aggregate are very large."[45] Similar threats (including fungal diseases) weighed heavily on stakeholders' minds as a potential risk.[46] In addition, sheep herders' use of the forests for grazing generated major concern about the health of forests,

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[44] "The Forest Reserve Problem," *The Gem State Rural* (Caldwell, Idaho), Dec. 25, 1899. Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/2019269501/1899-12-25/ed-1/seq-4/>.

[45] Mason, "Timber Ownership and Lumber Production in the Inland Empire," 22.

[46] Ibid.

and by extension, the quality and value of timber reserves.[47] However, none measured up to what many eventually realized to be the most destructive, and thus, the biggest cause of losses: fire.

Forest Fires, Careless Locals, and Malicious Miners

Forest fires, of course, were not new to the area, nor were they new to the people who lived there. Natives' use of fire to clear brush was common if unremarkable knowledge to most Euro-Americans in the area who either had firsthand experience of the devastation fires caused or were frequently alerted to catastrophic fires in the east.[48] What was new, however, was Euro-

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[47] Debates about the damages of sheep grazing centered largely on the Oregon Cascades, however, as Idaho was a significant producer of sheep, many concerns people had about Oregon forests bled into Idaho discussions. For more on the sheep debate in Oregon, see Lawrence Rakestraw, "Sheep Grazing in the Cascade Range: John Minto vs. John Muir," *Pacific Historical Review* 27, no. 4 (1958): 371-82; for more on sheep in Idaho, see Louise Shadduck, *Andie Little: Idaho Sheep King* (Caldwell, ID: Caxton Printers, 1990); Steven S. Seefeldt and April B. Leytem, "Sheep Bedding in the Centennial Mountains of Montana and Idaho: Effects on Vegetation," *Western North American Naturalist* 71, no.3 (2011): article 7.

[48] Oral histories and early explorers' accounts in the Pacific Northwest make frequent mention of Natives' use of fire in the Pacific Northwest and Rocky Mountains for signaling, hunting, and collecting insects. Accounts also indicate that Natives also used fire for agriculture by promoting the production of grass for grazing and berries. Some researchers argue, however, that Indians played a small part in fire ignition and that lightning was largely responsible for areas that experienced high rates of fire. On Natives' use of fire, see Cathy Whitlock and Margaret A. Knox, "Prehistory Burning in the Pacific Northwest: Human versus Climatic Influences," in *Fire, Native Peoples, and the Natural Landscape*, ed. Thomas R. Vale (Washington: Island Press, 2002), 195-232; Albert J. Parker, "Fire in the

Americans' need to *suppress* fire just long enough to cut and sell timber when it was most advantageous to them to harvest.[49] Such shifts in how people changed (or want to change) the pattern of natural fire regimes to suit cultural goals, or as historian Stephen J. Pyne calls "fire histories," have deep roots and account for many of the ways people have changed landscapes historically.[50] In Idaho, this meant the new market for lumber made timber precious, and the hazard of fire threatened to jeopardize that market as well as any economic or cultural stability timber promised. Thus, Euro-Americans

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Sierra Nevada Forests: Evaluating the Ecological Impact of Burning by Native Americans," in *Fire, Native Peoples, and the Natural Landscape*, ed. Thomas R. Vale (Washington: Island Press, 2002), 233-268. On arguments supporting lightning ignitors rather than Native peoples, see William L. Baker, "Indians and Fire in the Rocky Mountains: The Wilderness Hypothesis Renewed," in *Fire, Native Peoples, and the Natural Landscape*, ed. Thomas R. Vale (Washington: Island Press, 2002), 41-76. Local Idaho newspapers reported regularly on fires that occurred in eastern and mid-western states. Such reporting suggests that not only were news of fires extremely popular among locals, but that fires in those places were common as they occurred so regularly. For examples, see "The Spoil of the Fire King," *The River Press* (Fort Benton, MT), Oct. 12, 1910; "Indiana Forest Fires," *Weiser Signal* (Weiser, ID), April 4, 1895.

[49] Interestingly, after the creation of the Division of Forestry, Forester Francis Elliott noted that the primary objective of forestry work was to protect the present stand of timber until such time as they are cut or harvested, a sentiment that foresters gleaned from stakeholders' objective when it came to fire protection. See William G. Robbins, "The Good Fight: Forest Fire Protection and the Pacific Northwest," *Oregon Historical Quarterly* 102 (2001): 270-289.

[50] Stephen J. Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Seattle: University of Washington Press, 1997), 42-44.

sought ways to control or even eliminate all fire rather than risk any financial losses as a result of a blaze.

Unfortunately, when stakeholders, especially lumber companies, first assessed Idaho's vast virgin forests, they failed to take in—or in some cases ignored—the tell-tales signs of the area's proclivity for fires. When scouts assessed unsurveyed timberlands in 1900, for instance, they were so intent on being the first to file a claim that their reports of steep trails, rugged mountains, and dark forests became anecdotal rather than portentous. [51] To them, dense old growth tree stands of valuable Douglas fir and white pine only meant uncontested access to seemingly inexhaustible and priceless forests. In reality, however, lumber scouts missed the sinister nature that lay before them. Virgin forests meant no preexisting trails had been cut. Dense tree stands meant even denser undergrowth. And Douglas fir happened to be a highly resinous—thus flammable—species of tree. These components, when combined, promised to start an occasional burn. In Idaho, however, where an arid climate prone to dry lightning storms met with rugged mountain peaks

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[51] According to lumber legend, two competing lumber companies sent scouts to assess unsurveyed timberlands in Idaho. The crews reported trying to race through dense undergrowth in forests that were so dark they required illumination and along mountain peaks so rugged they risked personal bodily injury just to be the first to file their claim. See Hidy and Hill, *Timber and Men,* 250-251.

and extremely flammable trees, forest fires were not just a possibility, but a certainty.[52]

Lumber companies especially realized just how devastating such compound conditions could be. Although large lumber companies only took notice of Idaho timber at the end of the century, by 1900, they owned a significant amount of timberland in Idaho, most of which consisted of the oldest, and thus, the most valuable stands of Douglas fir and white pine in the region.[53] Such holdings seemed to promise stockholders immense returns on their investments. Yet, stockholders soon discovered, the very characteristics that made such timberland valuable—remote old trees in dense stands—also made it more vulnerable to fire and loss. No one understood this relationship more clearly than expert logger, Theodore (Theo)

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[52] Although factors contributing to wildland combustion vary, both wind and slope, two significant conditions in Idaho, concentrated fire heat and increased acceleration, which partially accounts for the severity of wildfires there. See J.A. Larsen and C.C. Delavan, "Climate and Forest Fires in Montana and Northern Idaho," *Monthly Weather Review* 49, no. 2 (1922), 55-68; For a more detailed discussion of fire behavior and the mechanics of wildfires, see Stephen J. Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Seattle: University of Washington Press, 1997), chapter 2.

[53] Although the exact amount of timberland owned by lumber companies in 1900 is difficult to determine, the Weyerhaeuser Corporation and its syndicates made several famously large purchases of Idaho timberland, beginning in 1900. By 1927, the Weyerhaeuser Corporation and its syndicates held over 220,000 acres in North Central Idaho alone. See Hidy and Hill, *Timber and Men,* 248-251.

Fohl, and lumber company owner, Charles O. Brown. An immigrant from Germany, Fohl had experience working in German forests, and later, "cruising," or determining the quality of the forests of Michigan and Wisconsin.[54] Given his history, in 1900, Brown invited Fohl to "cruise" Idaho timberlands with him. In the process, both Brown and Fohl learned to navigate and assess the forests of Idaho, not only to determine the worth of specific stands of timber, but the nature of the area itself. As they measured tree circumferences and searched for unsurveyed scrip, for instance, they also noted the lack of trails and heavy undergrowth that slowed their progress. Such information proved indispensable, as it not only gave them a good understanding of the value of the timberlands, but of the financial losses they would face if fires occurred. Later, as the number of forest fires steadily increased, Fohl's future fire control methods reflected his awareness of the area's proclivity to fires and the many challenges of trying to reduce or even eliminate the risk. Despite such efforts, however, as other timber companies discovered, even the best managed timberlands often proved no match against the constant fire threat.

In part, the nature of how lumber companies owned, logged, and managed their timber holdings contributed to their vulnerability. For

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[54] William Pinkney Lawson, *The Log of a Timber Cruiser* (New York: Duffield & Company, 1915).

starters, as lumber companies began logging Idaho forests, many companies felled the most easily accessible trees first, and worked outward.[55] Over time, such practices meant many companies' most valuable holdings were also farthest away. As such, the threat of fires could mean significant losses, especially when lumber companies realized how difficult it was to detect and access fires in more remote parts of the region. Recognizing how precarious their holdings were, many companies built trails and cleared dense undergrowth to increase accessibility. Theo Fohl, for instance, developed a "fire technique" by creating a close network of trails throughout all the holdings he supervised for the Clearwater Timber Company. According to those who knew of his expertise, he "was convinced that many rough trails covering his area, rather than a few good ones many miles apart, would materially reduce the loss time in reaching a fire."[56] While such efforts seemed promising, especially as more trails appeared to offer better access and (hopefully) fewer fires, they weren't a curative for all burns. First, many timberlands were part of the public domain, thus, large timber interests had little ability or budget to manage timberlands beyond their holdings. In addition, many companies either didn't see the need or couldn't justify the

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[55] Karamanski, *Deep Woods Frontier,* 66-69.

[56] A.B. Curtis, *White Pines and Fires: Cooperative Forestry in Idaho* (Moscow, ID: University of Idaho Press, 1983): 8-9.

expense of building trails and roads through their holdings. Such decisions, according to many smaller lumber companies, stemmed from a belief that the burden of fire protection and management fell to those who stood to gain the most in profits.[57] To make matters worse, even if all lumber companies built trails through all the timberlands they owned and beyond, most companies' holdings were not contiguous, and instead, resembled a checkerboard pattern of ownership.[58] Thus, fires could break out on neighboring timberlands and easily jump property lines despite the efforts taken to increase the accessibility of an area. Altogether, these obstacles presented significant challenges to lumber companies as they sought to create better more efficient methods of safeguarding their timberlands against fire.

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[57] George T. Morgan Jr., "Conflagration as Catalyst: Western Lumbermen and American Forest Policy," *Pacific Historical Review* 47, no.2 (May 1978): 167-187.

[58] Laws curbing speculative purchasing, including Timber Culture laws, meant large timber interests had to buy land when and where it was available. As a result, their holdings often resembled a checkerboard pattern of ownership, as Lawrence Rakestraw notes, that not only made their holdings more vulnerable, but urged timber companies to take a leading role in forest conservation efforts, if only to reduce the vulnerability of their timberlands. See Lawrence Rakestraw, "Before McNary: The Northwestern Conservationist, 1889-1913," *Pacific Northewest Quarterly* 51, no. 2 (April 1960): 49-56; Janel M. Curry-Roper, "The Impact of the Timber and Stone Act on Public Land Ownership in Northern Minnesota," *Journal of Forest History* 33, no. 2 (1989): 70–79. https://doi.org/10.2307/4005103.

Despite such efforts, however, most large timber interests determined that the biggest threat to their timberlands was not Idaho's unique fire environment or even establishing greater accessibility, but rather, the fires locals started. No amount of forest management, timber companies discovered, could compete against locals who started fires yet had little interest in ensuring the flames didn't spread. And as it turned out, locals started a lot of fires. Whether it was the bee hunters who set fires to rid hives of bees for their honey, or the campers, fishermen, or hunters who started fires for cooking and warmth, timber companies struggled to stay ahead of the flames. In part, such fires were problematic simply because locals set so many each year. Newspapers such as *The River Press* regularly reported on forest fires started by "berry pickers, fishermen, and campers out" as a result of their forest activities.[59] In fact, so frequent were such blazes that by 1900, even government officials grew alarmed at the "prevalence of forest fires" and "the destruction of a vast amount of valuable timber, generally in districts where the quantity is scarce and fast disappearing."[60] Beyond frequency, however, the number of fires locals set was not the biggest problem. Rather, the way locals thought about fires in nature, as timber companies discovered,

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[59] "Fighting a Forest Fire," *The River Press* (Fort Benton, MT), Oct. 12, 1910.

[60] "To Prevent Forest Fires," *Elmore Bulletin* (Rocky Bar, ID), July 26, 1900.

was what made their practices of setting fires so hazardous. Few locals viewed forest fires as a problem within their control, thus, they made little effort to fully extinguish the flames. In fact, the combination of the myth of inexhaustibility and what historian George T. Mason identifies as public and individual apathy regarding forest fires meant few people even considered their own role in starting massive conflagrations.[61] More importantly, few considered how they might decrease more fires from happening.

In an effort to call attention to the destructive nature of forest fires, promoters and other stakeholders took action. Many sought ways to publicize the disasters fires caused in newspapers that contrasted Idaho's vast virgin forests against the east's depleted and "disappearing" forests. Headlines such as "Fierce Forest Fires" and "Enormous Timber Frauds" drew attention to the "disastrous forest fires" plaguing the Great Lakes Region and "incalculable timber frauds in the east" when "timber pirates" cut timber illegally and then "set fire to the remaining stumpage to camouflage the stumpage stolen."[62] Such actions, newspapers declared, resulted in losses that were "hard to fully

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[61] Morgan Jr., "Conflagration as Catalyst," 167-187.

[62] "The Fierce Forest Fires," *Cottonwood Report*(Cottonwood, Idaho), June 7, 1895. Chronicling America: Historic American Newspapers. Lib. of Congress. <https://chroniclingamerica.loc.gov/lccn/sn88056164/1895-06-07/ed-1/seq-2/>; "Enormous Timber Frauds," *Blackfoot News* (Blackfoot, Idaho), Sept. 15, 1894.

comprehend."[63] Initially, such reports reveal how politicians and promoters attempted to emphasize eastern carelessness and mismanagement of regional forests, which bolstered promoters' claims that people in Idaho were both morally superior and wiser than their eastern counterparts. One account noted, "[o]ther states have waited too long before meeting this question… The experience of other states has shown the necessity of surrounding our native forests with every possible protection." Therefore, to protect Idaho timber and revenue, stakeholders urged, "[s]tringent measures should be taken to prevent the ravages of fire and the unnecessary destruction from any sources."[64] On the protection of the forests, even the governor of Idaho chimed in. "The legislature would enact laws," promised the governor, "for the protection of our grand and extensive timber belts."[65]

Despite such proclamations, they had little effect on reducing the number of forest fires locals caused. In fact, in the last quarter of the century, the Idaho state legislature took little action to prevent the frequency of burns

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[63] "Enormous Timber Frauds," *Blackfoot News* (Blackfoot, Idaho), Sept. 15, 1894.

[64] "Preserve the Forests," *The Idaho Recorder* (Salmon City, Idaho), June 29, 1892.

[65] *Report of the Governor of Idaho,* 1890, 51st Cong., 2d sess., H.R. Exec. Doc. No. 1. (Washington D.C., 1890), 498-499.

in the area.[66] Beyond the general apathy regarding forest fires, much of their inaction was an extension of the differences in how locals viewed their relationship with nature and the purpose of the forests. Simply put, locals viewed nature differently. Despite the deep convictions that many elitists developed by the late nineteenth century about the need to conserve forests, in contrast, many in Idaho challenged the need for conservation or the presupposition that deforestation was problematic.[67] In fact, many people

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[66] Although Idaho State legislators took little action to protect state forests, in 1897, the federal government passed several statutes aimed to decrease forest fires set by locals on federal reserve lands. While the punishment if caught maliciously setting a fire or setting fire to property belonging to others included a $5000 fine and up to two years in prison, federal legislators failed to ensure such laws were enforced. As a result, although the federal government took steps to prevent fires, they had little to no impact on how people used the forests, or the number of fires people set each year. See Jay P. Kinney, *The Development of Forest Law in America: A Historical Presentation of the Successive Enactments by the Legislatures of the Forty-eight States of the American Union and by the Federal Congress Directed to the Conservation and Administration of Forest Resources* (New York: John Wiley & Sons, 1917), 252; Morgan Jr., "Conflagration as Catalyst," 169.

[67] Despite the slow burn of conservationist efforts throughout the nineteenth century, by the 1890's, many people nurtured deep convictions about the need to conserve. As historians such as Roderick Nash have frequently demonstrated, though, these ideas often stemmed from elitists' notions of forest conservation. More recent scholarship highlights the complexities of conservation efforts, including the role played by everyday people. For more, see Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 2001); George A. Gonzalez, *Corporate Power and the Environment: The Political Economy of U.S. Environmental Policy* (New York: Rowman & Littlefield Publishers, Inc., 2001); Benjamin Johnson, "Wilderness Parks and Their Discontents," in *American Wilderness: A New*

even welcomed forest fires as they believed trees were an impediment to settlement and land cultivation.[68] By the end of the nineteenth century, a significant portion of Idahoans, as historian J.M. Neil explains, believed that any government policy of conservation exceeded the role and power of the government and limited development in Idaho.[69] Such was the case with Idaho Senator Weldon B. Heyburn, whose noted opposition to suggestions of a federal forest reserve system became a cornerstone of his career.[70] Thus, in 1897, when President Grover Cleveland set aside forest land in Idaho for the public domain which, locals felt, deprived them of their right to the forests, both locals and legislators were outraged. Local newspapers denounced the president's withdrawal of land in Idaho as "unlawful" and "evidence that Cleveland has violated a natural law"—that of passing laws "without the consent of the people affected."[71] Senator Heyburn, of course, was not shy in

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History, ed. Michael Lewis (New York: Oxford University Press, 2007): 113-131.

[68] Morgan Jr., "Conflagration as Catalyst," 169.

[69] J.M. Neil, *To The White Clouds: Idaho's Conservation Saga, 1900-1970* (Pullman, WA: Washington University Press, 2004), 5.

[70] Timothy Egan, *The Big Burn: Teddy Roosevelt and the Fire that Saved America* (Boston: Houghton Mifflin Harcourt, 2009).

[71] "Senate Amends Cleveland's Forestry Proclamation," *Shoshone Journal* (Shoshone, ID), March 5, 1897; "Cleveland's Forest Reserves," *Lewiston Teller* (Lewiston, ID), March 4, 1897.

his contempt for the act. On the subject, Heyburn declared that the reserves were "an expensive, useless burden to the public."[72]

Additionally, such legislative inaction stemmed from larger debates about how best to use timberlands, which ultimately came down to how people perceived the purpose of the forests. Locals and others who were not directly connected to timber did not view the benefits of a growing logging industry in the same way. Stakeholders orchestrated public discussions about the economic contributions of a thriving timber industry that painted a picture of community growth and regional development. Yet, in reality, locals discovered large timber companies offered them little. This included employment. Cutting timber, locals discovered, was dangerous and required skilled workers, especially in the Inland Pacific Northwest.[73] For that reason, lumber companies simply relocated their trained employees—usually from the Great Lakes region or the South—to new jobsites to keep operations

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[72] Egan, *The Big Burn*, 102.

[73] In part, the technological requirements of logging in the Pacific Northwest changed rapidly between 1880-1930 to accommodate the steep slopes and remote environment to make logging more efficient. One result of such changes led to extremely dangerous working conditions. For more, see Richard A. Rajala, "The Forest as Factory: Technological Change and Worker Control in the West Coast Logging Industry, 1880-1930," *Labour / Le Travail* 32 (1993): 73–104. http://www.jstor.org/stable/25143727; For more on the technological change of the logging industry, see John G. Franzen, *The Archeology of the Logging Industry* (Gainsville, FL: University Press of Florida, 2020).

rolling.[74] To locals, that meant few found direct employment with big timber companies, especially as the timber industry developed in the region. Thus, outside any sales of homestead land to timber companies, few local Euro-Americans enjoyed the wages and steady work that promoters and politicians assured. Beyond employment, locals also realized that the presence of timber companies did not always result in development and increased infrastructure to make the region more accessible. In North Central Idaho, for instance, although there were more than twenty railway systems operating more than 300 miles of track to remote logging camps, many such railroads were cheaply built and not meant to last long.[75] Plus, once an area had been

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[74] Steven C. Beda, "Landscapes of Solidarity: Timber Workers and the Making of Place in the Pacific Northwest, 1900-1964" (PhD dissertation, University of Washington, 2014), https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/landscapes-solidarity-timber-workers-making-place/docview/1652874774/se-2.

[75] The railways in question were mostly smaller branch lines owned by smaller logging companies that extended from main line railways including the Northern Pacific, Union Pacific, and the Great Northern. While some branch lines had a significant impact on community development, like the branch line that extended to Idaho's Silver Valley, most branch lines that extended service to rail car camps were too windy and rough for regular commuter traffic. In fact, engineers developed specially geared locomotives known as Shay "sidewinders" to be used on such rough branches because they had the torque to pull excessively heavy loads and because the locomotives could then be moved to other locations when they were no longer needed. For more, see David F. Barton, *Idaho Panhandle National Forests Oral History Study: Final Report*, report prepared at the request of the USDA Forest Service, April 18, 1980, 19-20.

thoroughly clean cut, it was common practice for lumber companies to lift the tracks and re-lay them to reach the new location of a rail car camp.[76]

Thus, by the end of the nineteenth century, timber companies made little progress in convincing people not to start fires. However, between 1900 and 1905 one development steadily increased people's awareness: the heightened competition between the timber and mining industries over public lands. By 1900, it was no secret that timber and mining interests in Idaho were at odds over public lands. Although it seemed as if the two industries would be a perfect complement to each other—timber companies seeking lands for what was on the surface and mining companies for what was below—the matter of timber complicated such interests. As it turned out, miners needed timber to construct sluices, trestles, braces, and any manner of device thought necessary to access valuable minerals. At the same time though, miners readily set fire to forested lands if it meant exposing any mineral deposits hidden beneath heavy undergrowth. To miners, then, timber was dispensable. They used it if it was needed and destroyed it if it wasn't.

As might be expected, such practices outraged timber interests. Although timber companies had struggled to keep on top of the fires locals

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[76] Tom Farbo, *White Pine Wobblies and Wannigans: A History of Potlatch Logging Camps, North Central Idaho 1903-1986* (Lewiston, ID: Steeley Print and Binding, 1996).

accidentally set for years, miners' deliberate use of fire to get rid of otherwise valuable timber was a step too far. If locals' careless activities could result in the destruction of so much timberland—as it had in 1902 in Yacolt, Washington when campers and berry pickers accidentally set a fire—then how much damage could miners' intentional fires cause?[77] Such questions and the topic of miners' flagrant destruction of timber surfaced regularly amongst timber companies who were desperate to rid themselves and the forests of miners. By 1905, when timber companies, foresters, and state representatives gathered to discuss the state of the nation's forests, they lambasted miners for their "utterly extravagant" use of timber and wasteful practices of setting fire to the forests.[78] According to timber companies, miners cut timber excessively because it "costs [the miner] nothing" and he

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[77] Robert F. Ficken, "Gifford Pinchot Men: Pacific Northwest Lumbermen and the Conservation Movement, 1902-1910," *The Western Historical Quarterly* 13, no.2 (April 1982): 165-178.

[78] Although timber companies often singled out the mining industry for its destructive practices in the forests, the timber industries' own practice of cutting down the forests far surpassed any other industry, despite big timber's early conservation efforts. Some argue that the timber industry's turn on miners was a way of deflecting criticism by scapegoating a different industry. See Mark Hudson, *Fire Management in the American West: Forest Politics and the Rise of Megafires* (Denver, CO: University Press of Colorado, 2011).

cuts with no thought to the damage he creates.[79] To make matters worse, timber companies claimed, miners illegally cut timber—often on property belonging to timber companies—because to cut timber on their land was to publicly call attention to their claim, which miners didn't want to do.[80] Altogether, the magnitude of such accusations finally struck a public chord. As timber companies emphasized the malicious intent of miners who "deliberately [set] fire to the forest to clear the ground"… "without thought of the injury he may do to the others or even to himself," in response, local newspapers took action. Many called attention to "firebugs," which one newspaper defined as those seeking revenge or are "quite willing to see his enemy's timber destroyed and his land burnt over and even to see him burn in his bed."[81] Overall, these and other such public denunciations were significant. Not only did they allude to the role that miners played in starting fires at the expense of everybody else, but by calling attention to the arsonist, such stories made clear that fires of any kind should be prevented.

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[79] American Forestry Association, *Proceedings of the American Forest Congress, January 1905* (Washington, DC: H.M. Suter Publishing Company, 1905), 322.

[80] American Forestry Association, *Proceedings of the American Forest Congress, 321*-322.

[81] Ibid., *321*-322.

The Science of Forestry, Fires, and the Fight for Wilderness

While these efforts had some effect, forest fires remained a constant source of devastation. In part, this occurred because locals continued to set and use fires while living and working in the area—despite timber companies' extensive campaigning. Although the public was more cognizant of the role people could play, such fires, as timber companies knew well, were impossible to control as locals had almost unchecked use of the forests. Beyond locals' actions and practices though, the inability to suppress fires came down to size. There was simply too much territory to monitor and not enough people, equipment, or access to reach all areas if a forest fire broke out. As a result, fires ignited constantly because of both human and natural ignitors with little hope of being able to suppress them. Such was the state of fires and fire control in Idaho through the early years of the twentieth century.

By 1905, however, when the newly minted United States Forest Service took a lead role in organizing fire suppression protocols, monitoring Idaho's forests, and in general—putting out the flames—their efforts, combined with timber companies and concerned locals, changed how people fought fires in the area.[82] Aided by the most modern methods of forest

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[82] U.S. Department of Agriculture, *Highlights in the History of Forestry Conservation* (San Francisco, CA, 1951), 7.

management at the time, forestry officials immediately divided the nation's forests into regions, staffed the forests with able bodied foresters, and set out to create a systematic and accessible approach to reaching and snuffing out fires. To timber companies that had long struggled to implement a more comprehensive approach to managing both forests and fires, the Forest Service's guidance was a welcome contribution. Timber companies also welcomed Forest Service funds. After years of having to foot the bill to fight fires and monitor the forests—often including timberlands outside of company holdings—the addition of federal funding, even if small, was much appreciated.[83]

Despite the Forest Service's pledge to fight fires, in the early years of their existence, their involvement was not always welcome or appreciated. Partly, early tensions arose because of the Forest Service and foresters themselves. As legislators and conservationists debated for years about the

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[83] For many years, the expense of monitoring forests, including those within the public domain, fell on individual timber companies. By 1907, timber companies, property owners, and the state board of land commissioners worked together to form fire districts in Idaho supervised by appointed fire wardens but only if property owners were willing to pay the fire warden's salary. See "Forest Protection Comes Under the Microscope: An Interview with Charles S. Cowen," by Elwood R. Maunder, October 30 and November 2, 1957, https://foresthistory.org/wp-content/uploads/2022/05/Cowan_Charles_S.pdf; John James Little, "The 1910 Forest Fires in Montana and Idaho: Their Impact on Federal and State Legislation" (Master's thesis, University of Montana, 1968), 16, https://scholarworks.umt.edu/etd/1455.

need to establish and protect a national forest system, similar debates raged over whether it was necessary to have a designated governmental organization to manage it.[84] Proponents of a national forest system ultimately made their case. But at the turn of the century, many still challenged the need for a forest steward, especially if having one meant limiting what historian Samuel P. Hays identified as people's belief in their right to encroach on public lands.[85] Thus, when the Bureau of Forestry became the United States Forest Service in 1906, foresters not only struggled with the problems of a newly organized department, but both national and local resistance as they supervised and managed forest resources.[86] On top of that, locals, especially in Idaho, resisted the interference of young and newly hired foresters whose only experience in forests was either limited or often

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[84] "Forest Protection Comes Under the Microscope," by Elwood R. Maunder, October 30 and November 2, 1957, https://foresthistory.org/wp-content/uploads/2022/05/Cowan_Charles_S.pdf; Harold Steen, *The U.S. Forest Service: A History* (Seattle, WA: University of Washington Press, 1976): 1-25

[85] Samuel P. Hays, *The American People and the National Forests: The First Century of the U.S. Forest Service* (Pittsburg, PA: University of Pittsburg Press, 2009), 4.

[86] James P. Gilligan, "The Development of Policy and Administration of Forest Service Primitive and Wilderness Areas in the United States," (PhD dissertation, University of Michigan, 1953), 50, https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/development-policy-administration-forest-service/docview/301999691/se-2.

not based on hands-on experience. To timbermen, stockmen, and settlers, such ideologically minded foresters epitomized the tensions between eastern wealth and privilege and western individualism and pragmatism. Most locals, according to early forester Rolf Anderson "were bitter and antagonistic [about the reserves] and Forest officers had few friends among them."[87] When a Forest Ranger reported that he had "charmed the locals in one area to give him a bed," his announcement amounted to a minor victory amongst a sea of criticism.[88] Overall though, such criticisms played a pivotal role in shaping the Forest Service's mission in Idaho.[89] Against the weight of constant antagonism and pressure to demonstrate their value, Forest Service leaders sought ways to ingratiate itself with the public.[90] Thus, when people in Idaho

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[87] Rolf Anderson, *"We had an objective in mind": The US Forest Service in the Pacific Northwest* (Portland, OR: Pacific Northwest Forest Service Association, 2005), 17.

[88] Anderson, *"We had an objective in mind,"* 34.

[89] The Forest Service's primary interest in forestry was not only to manage and supervise the forests but to protect the drainage basins of streams and watersheds for irrigation. These interests never really changed, but once the Forest Service took up the cause against fighting forest fires, it took precedence over watershed concerns, at least publicly. See Gifford Pinchot, *A Primer in Forestry, Part One: The Forest* (Washington, DC: Government Printing Office, 1903),87.

[90] These efforts began, in fact, when the Bureau of Forestry changed its name to the Forest Service in an effort to emphasize the organization's philosophy and purpose. See James P. Gilligan, "The Development of Policy and Administration of Forest Service Primitive and Wilderness Areas in the United States," (PhD dissertation, University of Michigan, 1953),

took note of forest fires that were becoming increasingly more destructive, Forest Service leadership recognized the opportunity that it was—a chance to prove their worth as an organization by fighting fires using the newest methods and technologies of forestry management they valued so much.

Once the Forest Service determined fighting fires was the pathway to legitimacy, its increased organization and new methods of firefighting appeared to offer practical, modern, and even scientific solutions to the problem that had plagued the area for years. How to get to fires before they became too big? Much of the Forest Service's plan for success, in fact, came down to the science behind modern forestry. Although professional forestry in America was a new development, interest in the field stemmed from a conservation movement that, at its core, emphasized the importance of technology and science to make sense of spaces. To the Forest Service, rationalization was necessary, as historian Samuel P. Hays explains, to "promote efficient development and use all natural resources" of the forest.[91] Such thinking shaped how the Forest Service engaged with the forests. In

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https://login.udel.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/development-policy-administration-forest-service/docview/301999691/se-2.

[91] Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Pittsburg, PA: University of Pittsburg Press, 1999), 2.

addition to establishing research and experiment stations designed to determine which exact class of tree produced the best seed, the Forest Service also sought to better understand the history and mechanics of forest fires. Through field investigations and meticulous observations, rangers sought the causes of fires—often noting that pilings and slashings left behind by timbermen and stockmen fueled sparks. As a result, the Forest Service soon published the first *Use Book*, or compilation of regulations and objectives designed to instruct foresters about forest issues in rational, practical ways.[92] Foremost among their concerns though were fires, which, as the chief duty of a forester, according to the *Use Book*, was "to protect the reserves against fire."[93] Thus, within its pages, a ranger could find detailed steps on the best "means of defense," both in preventing small fires from becoming larger and in fighting them. In the name of efficiency, for instance, the *Use Book* instructed forest rangers to seek a commanding viewpoint of wooded valleys

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[92] Although the Forest Service published the first "Use Book" in 1905, many earlier publications addressed the same concerns and approaches to problems. Gifford Pinchot's *A Primer in Forestry* published in 1903, for instance, outlined many of the major threats to forests, including forest fires, and the best "means of defense" for eradicating such threats. While Pinchot's primer was a precursor to the "Use Book," his was aimed to inform fellow foresters and legislators whereas foresters intended the "Use Book" to be available to the public as well. For more, see Gifford Pinchot, *A Primer in Forestry, Part One: The Forest* (Washington, DC: Government Printing Office, 1903).

[93] *The Use of the National Forest Reserves,* 12.

rather than spend hours riding along each route. Foresters could also choose the best method of fighting fires, including backfiring or constructing fire lines, thanks to the detailed instructions the book provided.[94]

In theory, such carefully laid plans for efficiency offered the perfect solution to fires and forests. From the start, however, there were problems. Money and budgetary issues were at the top of the list. Opponents to the Forest Service and reserves believed that such organizations were a waste of taxpayers' money. As such, they believed, the Forest Service should be able to show its value to the American people, not just by reducing funds earmarked for forest management, but by adding revenue to the national coffers. In other words, the Forest Service was supposed to be self-sufficient.[95] These expectations, combined with the sizeable disdain critics nurtured for foresters in general severely limited what the Forest Service could do compared to what it envisioned. Much of the organization's plans for success, for instance, required significant manpower to not only protect against fires, but—thanks to expectations of self-sufficiency—to manage timber sales and regulation profitably. Manpower never materialized, however, largely because of the paltry wages the Forest Service could offer. "The salary paid a forest guard

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[94] Ibid., 67-69.

[95] Steen, *The U.S. Forest Service,* 107-110; *The Use of the National Forest Reserves,* 12.

was so low it was difficult to find reliable men," recalled early forester J.B. Lafferty. "For $60 a month, a guard had to furnish himself at least two horses, a riding saddle and a pack outfit. He had to board himself and his horses at his own expense." Often, continued Lafferty, "my expenses were MORE than my salary."[96] Unsurprisingly, such expectations made it difficult for the Service to attract men willing to accumulate debt rather than wages.

Such budgetary issues trickled down in other ways that greatly impacted the Forest Service's technological approach to fighting fires. Despite pledges to have forest officers "devote all time that can be spared from other work to building and keeping open roads and trails," a lack of manpower slowed plans.[97] Efforts to educate the public and associated industries about the dangers of not completely extinguishing a fire often only amounted to signs posted in the woods.[98] New hires continued to receive mattocks, axes, and shovels in spite of grand declarations of the need for "scientific methods and [a] technically trained force."[99] And although the Forest Service pledged to protect the forests against fires, if a forester determined that expenses to

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[96] J.B. Lafferty, *My Eventful Years* (Weiser, ID: Signal American Printers, 1963), 28-29.

[97] *The Use of the National Forest Reserves,* 72.

[98] Ibid., 66.

[99] Ibid., 12.

fight any fire would exceed $300, they were required to seek approval before continuing with their efforts.[100] Overall, such setbacks mattered because they limited what the Forest Service could do in the event of a conflagration. Without the money and by extension the technological means the Forest Service claimed was necessary to control the fires and rationalize the forests, they had little ability to demonstrate the efficacy of modern forestry. Perhaps more importantly, though, the organization lacked the ability to show their true value to the national forests.

No event highlighted such limitations more than the fires that swept through Idaho and Montana during the summer of 1910. That year the combination of an unusually dry summer and low humidity gave way to extreme drought. By August such conditions created the perfect setting for a massive conflagration. Over two days, as hurricane-force winds fanned flames into firestorms that exploded trees on contact, more than three million acres of timberland burned and 86 people died as a result. Through it all, the Forest Service struggled, but failed to keep up. From the start that year, despite foresters' observations that spring runoff and humidity levels were

[100] Ibid., 71.

less than usual, their many attempts to curb settlers' and stockmen's fire-starting habits went unheeded.[101]

Overall, the fires of 1910 exposed some major deficiencies in the Forest Service's promise to protect against fires. Importantly though, the event became a crucible that the organization used to recast its value to the nation and forests. Much of this momentum became possible, ironically, because of Forest Rangers' efforts to fight fires *without* any significant equipment or technology at their disposal. Stories of one ranger in particular, Edward Pulaski, captivated the nation's attention. Immediately after the crisis, reports revealed Pulaski's bravery and quick thinking in the face of danger as he single-handedly saved all but five of his men from burning during the peak of the firestorm. Tragically, accounts noted, Pulaski himself suffered severe injuries, including serious burns and permanent damage to his vision in an effort to save his own men.[102] To the public, stories such as these were powerful. Years of rising tensions and public disdain engulfed the organization as many viewed it unnecessary. Yet, Pulaski's valiant sacrifice to save his men and his interest in securing the safety of the people from the

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[101] Timothy Egan, *The Big Burn: Teddy Roosevelt and the Fire that Save America* (New York: Houghton Mifflin, 2009).

[102] Edward C. Pulaski, "Surrounded by Forest Fires: My Most Exciting Experience as a Forest Ranger," *American Forestry* 29 (August 1923): 485-486.

threat of fire painted foresters and the Forest Service in a new light. To the public, as Pulaski and others made clear, foresters were not only useful, but critical amid disaster situations. What's more, the public took note of foresters racing to the frontlines armed with little more than their shovels, axes, and dedication, especially when all others were running away. Such actions generated much admiration publicly. Forest Service leadership capitalized on the growing sentiment by urging people to consider how much more foresters could have accomplished if only they were properly equipped. On this point, Assistant District Forester Ferdinand A. Silcox was clear, "With a well-distributed patrol force and a coordinated system of trails and telephone lines, the question of location and control is largely covered with one exception—equipment. As a fire department in a city maintains engines, men, and horses as a form of insurance against loss of city property, in no less degree is it necessary to be adequately equipped to meet a fire in the forests. There must be men, tools, and packtrains immediately available if the fire is to be controlled, and it must be reached when it is fairly small."[103]

Building on this momentum and the public's new esteem for the Forest Service, over the next few decades, the organization doubled its technological pursuits—it claimed—in the name of duty and for the sake of the people and

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[103] F.A. Silcox, "How the Fires Were Fought," *American Forestry* 16 (November 1910): 633-634.

forests. And for the most part, it was successful. But in attempting to solve one problem, others surfaced. Almost immediately after the "Big Blowup," as it came to be known, the Forest Service set about expanding their means of communication.[104] Throughout the forests, they built more telephone lines, fire lookouts, and an extensive network of trails which allowed rangers to more easily send word if small fires broke out. But such measures had limits, as foresters soon realized. They were really only effective if foresters were close enough to the fire when it began to be able to control it before it got bigger. Otherwise, forest fires could too quickly develop beyond the point of control, as foresters learned when major fires broke out again in 1919 despite extensive communications.[105] As foresters realized they needed to be able to reach *and* detect fires while they were small, the solutions they pursued grew increasingly more technological. Thus, by the 1920's and into the 1930's, the Forest Service's technological arsenal to fight fire expanded to include aerial photography and patrol, weather and humidity analyses, smoke jumping, and more.

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[104] Lincoln Bramwell, "When the Mountains Roared: The 1910 Northern Rockies Fires," *Montana, The Magazine of Western History* 60 no.3 (Autumn 2010): 54-69; Little, "The 1910 Forest Fires in Montana and Idaho,"16.

[105] Steen, *The U.S. Forest Service,* 107-110.

Far from permanently solving the problem of forest fires, however, in many ways, such technologies opened a chasm of debate. Initially, people questioned the efficacy of such technologies, and by extension, the need for them when forest fires continued to wreak havoc throughout the forests. Even foresters, many of whom staunchly believed in the foundational science of modern forest management, wondered whether such measures were necessary. In 1935, forest ranger Elers Koch, for instance, called attention to the "puny" efforts made by foresters and other organizations against massive conflagrations and "in the face of Nature's forces." In fact, "the country would be shocked," Koch claimed, "at the lack of results for the millions [of dollars] expended."[106] Criticisms such as Koch's reignited older arguments grounded in the belief that the Forest Service and forest rangers were a drain on taxpayers' money. It didn't help that around the same time, the Forest Service reported on the current status of the nation's forests and determined that the best way to conserve forest resources was to place privately owned forests under the management of the U.S. Forest Service.[107] To those

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[106] Elers Koch, "The Passing of the Lolo Trail," *Journal of Forestry* 33(2): 8, 11.

[107] United States Forest Service, , *1933* (Washington, DC, 1933), (https://digital.library.unt.edu/ark:/67531/metadc799647/: accessed September 10, 2022), University of North Texas Libraries, UNT Digital Library, https://digital.library.unt.edu; crediting UNT Libraries Government Documents Department.

resistant to an increase in the federal government's powers, these developments fanned the flames of discontentment.

Beyond efficacy though, people took issue with the technology itself, first because of its role in physically changing the environment, but later because it came to represent the antithesis of a natural forest. Many of these concerns stemmed, again, from earlier debates about the purpose of the forests and how they would serve the nation's future. Preservation advocates, as historian Paul Sutter notes, had always supported the creation of forests untouched by the fetters of man.[108] But by the 1930's, as the Forest Service introduced automobiles, roads, telephone lines, observation towers, and air strips into central Idaho's otherwise remote backcountry more rapidly than ever before, such intensive infiltration dramatically altered a landscape that had seemed more remote only a few years earlier.[109] In his 1935 article on the subject, Elers Koch mourned the transition. "The Lolo Trail is no more. The bulldozer blade has ripped out the hoof tracks of Chief Joseph's ponies. The trail was worn deep by centuries of Nezperce and Blackfeet Indians, by Lewis and Clark, by companies of Northwest Company fur traders, by General

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[108] Paul Sutter, "Putting Wilderness in Context: The Interwar Origins of the Modern Wilderness Idea," in *American Wilderness: A New History*, ed. Michael Lewis (New York: Oxford University Press, 2007): 167-185.

[109] William G. Robbins, "The Good Fight: Forest Fire Protection and the Pacific Northwest," *Oregon Historical Quarterly* 102 (2001): 283.

Howard's cavalry horses, by Captain Mullan, the engineer, and by the early-day forest ranger. It is gone, and in its place there is only the print of the automobile tire in the dust."[110] To Koch, such alterations as a result of modern technology were unforgivable. The forest landscape—he claimed—should be only *slightly* modified by man, as evidenced by Koch's nostalgic recitation of Chief Joseph's ponies and the highlights of other salient events in the area's history. Never mind that those events ushered in changes to the landscape that were perhaps less evident but equally as impactful. To Koch and others like him, the Forest Service's fire suppression policies were not just an overabundance of technologies, but a "mistake." And rather than "plunge blindly ahead because a certain line of action has been started," according to Koch, the better alternative would be to "[leave] the country to pretty much the forces of nature."[111]

Over the following years, such views of the Forest Service's use of technology in the forests grew. Yet, as they did, many came to believe that technology—not fire—was the true disaster facing the nation. In many ways, these changes in thinking reflected the growing symbolic importance that Americans imbued in their forests. Through the 1920's, wilderness advocates

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[110] Elers Koch, "The Passing of the Lolo Trail," *Journal of Forestry* 33(2): 8, 11.

[111] Koch, "The Passing of the Lolo Trail," 12.

persisted in their belief that that nation's wilderness was "an essential part of American society and culture."[112] Yet, as the Forest Service continually introduced more equipment and technology, wilderness advocates charged that it not only marred the essence of a primeval forest, but by extension, chipped away at the character of the American people. Such fears crystallized during the 1930's when the Service's new 10am policy transformed a steady trickle of technology into a torrent. According to the Forest Service, forest fires were the number one threat facing the nation's forests.[113] Thus, at its core, it was a plan to suppress any fire detected by 10am the next morning. Yet, the "10am policy," as it came to be known became a gateway through which the Service could justify any manner and degree of technological assistance as a means to end fires.[114] In other words, it was the Forest Service's declaration of war on fires anywhere using any means necessary. Overall, this policy was important, but for more than just the license it gave foresters to bring in more technology. As the policy implied, all fires presented a threat. Thus all lands were vulnerable and needed protection. This included lands in central Idaho previously considered by the Service to

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[112] Mark Harvey, *Wilderness Forever: Howard Zahniser and the Path to the Wilderness Act* (Seattle, WA: University of Washington Press, 2005), 5.

[113] Pyne, *Fire in America,* 250-252.

[114] Ibid., 260-294.

be low-value, too inaccessible, or "backcountry." By the 1930's, however, wilderness advocates prized such land because its remoteness reflected a primitive America, and because fires, some argued, were natural and beneficial.[115] In their perspective, if such an all-encompassing protocol tampered with the core of Americans and America, that—not fire—would be the real catastrophe.

Over the next few decades, such competing notions of disaster in central Idaho's backcountry fueled deep ideological debates about best use practices in national forests. But these notions of disaster represented far more than the question of land use. On the surface, the Forest Service's 10am policy reflected a continuation of forest utilitarianism, but on steroids. The organization's objective to suppress all fires underpinned multi-use policies and seemed to bring an end to *the* hazard of the forest, as defined by the Service. Yet, according to wilderness advocates, this approach was problematic. Not only did such unprecedented use of technology and equipment override the core mission of the Forest Service—to preserve the

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[115] By the 1930s, proponents of wildfires known as "let-burners" believed it was fiscally irresponsible to attempt to suppress all fires as fire management was expensive and not all land was worth protecting. From the 1940s-1960s, many started to welcome the ecological value of fires in forests and its natural benefits, which eventually led to the Forest Service reversing its comprehensive fire suppression policy by 1978. See Pyne, *Fire in America,* 287–92.

spirit of the forests through rational management—but the Service's campaign against fire, they claimed, exposed the vulnerability of something truly precious: spaces in nature untouched by man. By 1964, these arguments reached a peak. In Idaho, the result led to the creation of over 2 million acres of land untouched by man, which at the time amounted to the largest contiguous wilderness area in the country.[116] While the new Wilderness act represented a major win for advocates nationwide, the creation of the wilderness space in central Idaho revealed a dramatic shift in how people previously envisioned it. Plans to develop dissolved in favor of letting nature take its course. Technology once coveted became a force of destruction. But why? Simply put, notions of disaster forced people to reassess what was vulnerable, which meant they redefined what was valuable. But value is not inherent; culture plays a part. Thus, by the 1960's, as notions of disaster isolated what was most vulnerable—the primitiveness of central Idaho's backcountry—Euro-American culture emphasized the value of such a place. This tug-of-war between the shaping forces of disaster and culture played out, again, in central Idaho.

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[116] Frederick H. Swanson, *Where Roads Will Never Reach: Wilderness and Its Visionaries in the Northern Rockies* (Salt Lake City: University of Utah Press, 2015).

CONCLUSION

When a series of wildfires broke out throughout central Idaho in early July 2000, fire ecologists quickly recognized how serious the situation was. After a three year period of dry, hot weather and record-low fuel moistures, experts suspected there was only one outcome: an early and intense season for wildfires that might be difficult to contain.117 As it turned out, the experts, in this case, were correct. Although the Northern Rockies in general experienced a slew of fire activity that reached greater severity than had been seen in decades, central Idaho especially suffered from one wildfire after another. Fires that broke out in Burgdorf Junction, Maloney Creek, and Clear Creek alone blazed through almost 300,000 acres of Wilderness and United States Forest Service Inventoried Roadless Areas.118 In the Inland North Pacific, state governors called more than 2300 service members from the Army, Marines, Air and National Guard and Air Force Reserve to assist and support firefighting operations.119 However, despite such efforts, the

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[117] Northern Idaho and Western Montana Summer 2000 Wildfires: Service Assessment, prepared by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce (Silver Spring, MD, 2001), 3.

[118] Peter H. Morrison et al., "Assessment of Summer 2000 Wildfires: Landscape History, Current Condition and Ownership," Pacific Biodiversity Institute (Winthrop, WA, 2000), 2-6.

[119] Department of Defense, "President Bill Clinton shakes hands and talks with soldiers who are on fire duty near Burgdorf Junction, Idaho," accessed

fires persisted. It wasn't until the first snowfall in early October when they were finally extinguished. Later, when experts assessed the extent of fire damage, all agreed. "The perspective that has dominated the current wildfire discussion is that it is a disaster that so much area has burned."120

While such expert conclusions firmly solidified the connections people made between the sanctity of the wilderness and the tragedy of its destruction by wildfire, they did something else too. They highlighted the most recent evolution of the perceptions of disaster in central Idaho. Fire, once again, became the true threat to what people held most valuable. However, whereas once people held dear the dream of industry and development through mining or timber production, by the end of the twentieth century, people prized notions of wilderness and wildlife above all. Nothing epitomized this shift more than the photograph John McColgan took while fighting fires that summer in the Bitterroot Forest. In the photo, two elk stood knee deep in the Bitterroot River as wildfire lit up the mountains behind them.121 "Elk Bath," as it came to be known, not only captured the

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October 5, 2023, https://www.defense.gov/Multimedia/Photos/igphoto/2002018785/.

[120] Morrison, "Assessment of Summer 2000 Wildfires," 74.

[121] The physical location of the photograph, "Elk Bath," was in Montana as the Bitterroot National Forest crosses state boundaries from Idaho to

plight of the Wilderness movement's most beloved animal caught within the flames, but symbolically, it portrayed the vulnerability of a Noble Nature against a seemingly ever present fire hazard.122 As might be expected, the photo garnered significant national attention. As a result, firefighting efforts and funds increased significantly by the next year.123

Montana. However, fires swept through the entirety of the forest in 2000 and images like this were still used to publicize Idaho fires.

[122] "The Year in NATURE," *TIME Magazine* 156, no. 27 (December 26, 2000): 58. https://search-ebscohost-com.udel.idm.oclc.org/login.aspx?direct=true&db=tma&AN=3894096&site=ehost-live.

[123] Tim Woodward and Rocky Barker, "Anti-Wildfire Funds Help Idaho Subdivisions Prepare for Season of Fear," *Los Angeles Times*, April 8, 2001.

Figure 1.1 Photo by John McColgan, "Elk in Bitterroot Surrounded by Fire, Bitterroot River, Sula Complex, Montana, August 6, 2000." Wildfire lit up the mountainside as two elk sought shelter in the nearby Bitterroot River. Courtesy Forest Service Museum, U.S. Forest Service.

Much of these efforts, of course, hinged on the belief that the frequency and intensity of forest fires had increased over the years. In part, such beliefs were true. Central Idaho's topography of steep slopes and narrow ravines had always increased the odds of wildfire spreading more easily there. That year, though, La Niña and its influence on weather patterns meant an increase in the usual number of dry periods and lightning storms in

an already arid area.124 Add such conditions to a long standing Forest Service practice of fire exclusion and selective thinning, and the result seemed clear: wildfires seemed to be, indeed, increasing.125

However, perception, as usual played a part too. When people established the Wilderness Areas to protect what they viewed most vulnerable forty years earlier, they built a nature. At first glance, such a place seemed to embody the essence of the natural world in its untouched state. Yet, its "naturalness" was as much a modern construct as any industrial or agricultural landscape. As such, preserving nature required constant maintenance and supervision, which, ironically, meant the Forest Service employed more technology, not less, to maintain and protect the forests from fires. Consequently, meteorological technology and aviation became so sophisticated over the years, it could detect where and when micro-climates and significant wind events made prime environments to start fires. The Storm Prediction Center, for instance, could issue a fire weather outlook that forecast conditions in exact locations. Then, firefighting crews could be on the ground before the fire even began.126

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[124] Morrison, "Assessment of Summer 2000 Wildfires," 16.

[125] Ibid., 6-8.

[126] *Northern Idaho and Western Montana Summer 2000 Wildfires*, 8-13

In theory, such technology should have eliminated fire hazards altogether—including those that set off the fires of 2000. What it did, instead, was far more catastrophic. First, it reinforced perceptions that fires were beyond the control of an average resident if they lacked such technology. At the same time, it lulled people into a false sense of security because of the value placed on technology. Ken Wells, a fire captain working the fire season in 2000, noted such developments when asked about homes built on or near the borders of Wilderness Areas in central Idaho. According to Wells, although a few homeowners had taken precautions by cutting low-hanging branches, removing brush, and keeping grasses mowed to a height of four inches, not all of their neighbors were so-well prepared. "A lot of people move to a place like this because they want to be away from it all. They like being surrounded by trees and nature and the feeling of seclusion." But, Wells explained, only "about 30 percent of the people here have taken the precautions for a fire."127 In fact, because most people didn't see their own place in fire precaution, fewer still acknowledged their own role in causing fires, which, according to the National Interagency Firefighting Center in Boise, Idaho, accounted for at least eighty percent of wildfires in the area.128

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[127] Tim Woodward and Rocky Barker, "Anti-Wildfire Funds Help Idaho Subdivisions Prepare for Season of Fear," *Los Angeles Times*, April 8, 2001.

[128] According to the National Interagency Firefighting Center, human activity causes 80 percent of wildfires each year and in 2001, the first year they provided data, human

Such developments underscore a critical issue: the juxtaposition of people's longing for seclusion in nature with their often inadequate preparation for fire hazards. The technology that they believed would eliminate these hazards didn't achieve its goal. Instead, it fostered the illusion of security among residents and highlighted how people's desire for isolation in nature can inadvertently lead to increased vulnerability to fire hazards.

And here is the great irony. For nearly two hundred years, European-Americans have employed various kinds of technologies, either to subdue the natural environment or to protect it. In both cases, those technologies have contributed to catastrophic events that were and are perceived as disasters. This historical pattern is clear, as this dissertation has shown, and so is the historical lesson. Changing the narrative around disasters from inevitability to preventability may be desirable, but doing so necessitates a shift from technological dependency to a culture of personal accountability and resilience in the face of natural hazards.

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activity could be traced back to 4,135 wildfires. See National Interagency Firefighting Center, "Statistics," accessed October 17, 2023, https://www.nifc.gov/fire-information/statistics.

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