

Oregon Heritage Fellowship

High Desert Dreams:

Arid Land Management Policy and Visions of a Western Landscape



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Introduction:

During the 1930s, Jefferson County, Oregon, along with much of the American West experienced a widespread economic and ecological collapse of the homesteads which had become the standard means of individual land ownership in the region. The US Stock Market crash of 1929 followed by the Great Depression, worsening drought conditions, and plummeting prices for agricultural goods weighed heavily on inexperienced homesteaders struggling to succeed on marginal land. Even before the Great Depression, however, these homesteaders were already poised for failure. Unlike the eastern United States with its abundant rainfall and rich soils, much of the West was composed of vast expanses of desert. Initial reports from early surveyors of the interior American West made it clear that water management would play a key role in the shaping of the region's future.

On the national scale, irrigation quickly became the rallying solution to the West's water woes. People from all levels of expertise and familiarity with the West, from Washington politicians who had never left the eastern seaboard, to journalists in search of a good story, and intrepid explorers and surveyors who risked life and limb in exploring and documenting the terrain, were all inspired by the landscape to write passionately their vision of the transformation of the land. In their efforts to make the desert bloom, however, all of these men viewed the landscape not as its own, arid ecosystem, but rather as an anti-landscape—a ruined land in need of salvation. The conflicting realities of the physical and the cultural landscapes of Central Oregon came to a head during the Great Depression. The pastoral lens through which framed early settlement plans imparted unrealistic expectations and practices which heightened the

region's risk for environmental and economic collapse during the 1930s. These visions of the land and our transformative power over it continue to have a lasting impact upon both the natural and cultural landscape of the West today.

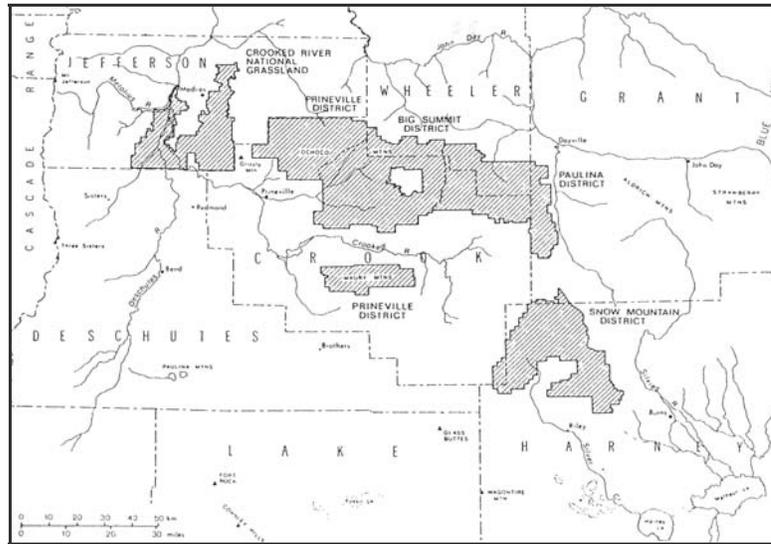


Figure 1: Detail map of the Ochoco National Forest which includes the Crooked River National Grassland (Minor et al. 1987:2).

This paper focuses on a collision between the environmental and cultural landscapes in a small region of Central Oregon which is today known as the Crooked River National Grasslands(CRNG). The Grassland is a subset of the Ochoco National Forest that occupies about 111,676 acres in the south-central portion of Jefferson County (See figure 1).¹ One of 20 public grasslands managed within the United States, the CRNG is somewhat unique in that it is one of only two grasslands west of the Rocky Mountains. Previous to the establishment of the CRNG in 1954, most sections of land were tilled by homesteaders in an attempt to cultivate dryland wheat. However, a combination of poor soil, unpredictable weather, isolation and bad luck made for a challenging existence in the Central Oregon High Desert. By 1934 when the

¹ Kathy Farrell and Glenn Adams, eds., *Crooked River National Grassland Watershed Analysis* (Madras, OR: USDA Forest Service, 2003), 2.

Resettlement Administration arrived to begin buying back land from the homesteaders, most of the fields laid fallow.

The Physical Landscape

The Crooked River National Grassland is located in the southern-most portion of the Deschutes-Umatilla Plateau, which includes much of Jefferson, Wasco, Sherman, Gilliam, Morrow, and Umatilla counties.² It serves as a transition zone between the Deschutes Umatilla Plateau, Blue Mountains and the High Lava Plains physiographic provinces. Geologically, the region is composed almost entirely of Cenozoic era rock formations which reveal its relative youth compared to surrounding geologic formations.³ The Grassland's volcanic origins are show through the high frequency of Columbia River Basalt that is prominent across much of its surface.

As an arid to semi-arid climate, the CRNG experiences low precipitation and wide, un-patterned variation in annual and daily temperature ranges. The Grassland is located within the mid-Columbia drainage sub-basin. The Deschutes River, and the Crooked River which flows into the Deschutes, are the main sources of flowing water in the western portion of the Grassland. It is important to note, however, that the portion of these rivers that flows through the Grassland does so at the bottom of canyons which are several hundred feet in depth. The other significant source of surface water is Willow Creek. It runs from the foothills of the Blue Mountains through the eastern portion of the CRNG in a shallow canyon of volcanic rock, eventually flowing into the Deschutes River.⁴

² Samuel N. Dicken and Emily F. Dicken, *Oregon Divided: A Regional Geography* (Portland, OR: Oregon Historical Society, 1982), 98.

³ Rick Minor, Stephen Dow Beckham, Kathryn Ann Toepel and Ruth L. Greenspan, *Prehistory and History of the Ochoco National Forest* (Eugene, OR: Heritage Research Associates, 1987), 6.

⁴ E. W. Newell, *The Crooked River National Grassland* (Unpublished MS, Lookout Mountain Ranger District Archives, Prineville, OR, n.d.), 4.

These canyons were a significant shaping force in the early history of human settlement in this region. Previous to the construction of irrigation infrastructure, most of this water remained inaccessible to local homesteaders. The canyons also serve as physical barriers which disrupt transportation and the flow of goods through the region. With the exception of major storm events, the topographic setting, precipitation schedule, and soil morphology of the Grassland is not conducive to experiencing any regular water runoff. Surface water is instead recharged through the deep percolation of water from springs and aquifers, such as Opal Springs (See figure 2).⁵

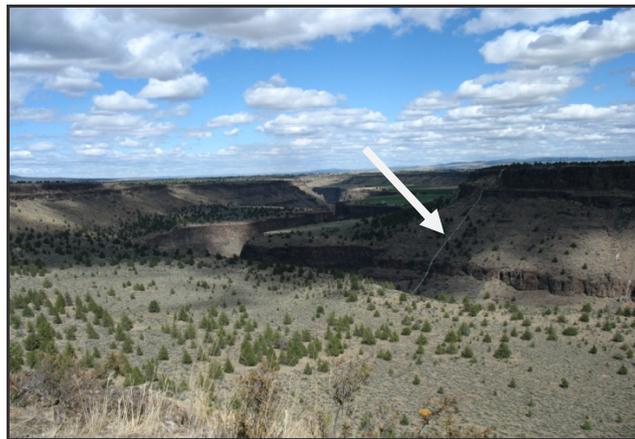


Figure 2: View of the Crooked River Canyon looking towards Opal Springs. The pipeline from the spring can be seen running up the side of the opposite cliff. Opal Springs is today one of the primary water sources for the Jefferson County Area.

Changes in vegetation document the impact of 150 years of Euroamerican settlement. No extensive tracts of undisturbed, mature native plant populations remain on the CRNG. The small sections that have managed to survive, therefore, do provide valuable reference points for establishing a sketch of native vegetation communities and plant associations.⁶ Previous to cultivation tall bunch grasses, sagebrush, bitterbrush, bluebunch wheatgrass, Idaho fescue,

⁵ Minor et al. *Prehistory and History of the Ochoco National Forest*, 7.

⁶ *Ibid.*, 17.

bottlebrush squirreltail, Sandberg's bluegrass, and various native forbs grew there.⁷

Overgrazing, fire suppression, and agricultural activity, however, resulted in a drastic shift in the composition of plant communities within the Grassland, which replaced the bunch grass with inferior grasses, thistle, sage and rabbit brush.⁸

One of the largest impacts on the vegetation is the encroachment of western juniper. Juniper have an average lifespan of 400 to 600 years and were traditionally found on the rocky ridge-tops of the CRNG, however, most of the old growth juniper were cut down by homesteaders for lumber, fencing, or firewood.⁹ During the past 100 years, it is estimated that the western juniper has doubled both in distribution and in density.¹⁰ The rapid expansion of juniper in the region is also shown through the fact that within Oregon's 2.3 million acres of juniper woodland, nearly 90% is composed of young trees less than 150 years old.¹¹ This places the growth of the majority of these trees within the post settlement era.

A study in the late 1990s classified the sagebrush steppe ecosystem as an imperiled habitat. This analysis of vegetation changes over the past 100 years revealed a significant decrease in wheatgrass-bunchgrass, fescue-bunchgrass, and big sage cover types (66-75%, 53-92%, and 84%, decrease respectively). During this same time period, the juniper-sagebrush cover type expanded 163% (See Figure 3).¹²

⁷ Steve Gibson, ed., *Crooked River National Grassland Vegetation Management/Grazing Environmental Impact Statement* (Madras, OR: CRNG archives, 2004), 8.

⁸ Dicken and Dicken, *Oregon Divided*, 106.

⁹ Gibson, *Vegetation Management/Grazing Environmental Impact Statement*, 7.

¹⁰ Farrel and Adams *Crooked River National Grassland Watershed Analysis*, 16.

¹¹ Gibson, *Vegetation Management/Grazing Environmental Impact Statement*, 6.

¹² Ibid.

Grey Butte, Early 1900s



Grey Butte, 2004



Figure 3: Juniper populations on the CRNG have increased from 20-40% coverage to about 90% in the past 100 years. This historic photograph of Grey Butte (left) illustrates the dramatic expansion of western juniper when compared with the current conditions as seen in the 2004 photograph (right) which was taken from the same vantage point almost 100 years later (Gibson 2004:28).

The soils in this region range from fine to course sandy loams. The top soil is shallow in most places, ranging from six to twenty inches with a subsoil of course, volcanic rock.¹³ Sandy soils do not hold nutrients well, and shortly after the sod was broken up and tilled for the planting of agricultural crops, much of the soil's nutrients were leached. Additionally, this disturbance in the soil left the land vulnerable to the invasion of noxious weeds, which continue to be an increasingly large issue on the CRNG.

The Lived Cultural Landscape

The history of human activity on the Crooked River National Grassland can be divided into four major economic phases: the (1) prehistoric, (2) range, (3) homestead and (4) modern phases. This sequence of phases represents the shifting cultural influences and land uses which led up to current conditions on the CRNG.

¹³ R. A. Bottcher, *Conditions Justifying the Acquisition of Land and the Execution of the Developmental Plan Proposed on Central Oregon Grazing Area* (Prineville, OR: Ochoco National Forest Archives, 1935), 2.

Nomadic tribal groups with low population densities seasonally occupied the flat lowlands starting at least 11,000 years ago.¹⁴ The tribes seasonally migrated over wide geographic ranges in order to make the most of the sparse subsistence resources available in the desert environment. Seasonal burning encouraged growth of forage for horses and wild game; however, there is minimal evidence of permanent settlements on the grasslands.¹⁵ Centrally located at the foothills of the Cascade Range, on the northern edge of the Great Basin, just south of the Columbia River Plateau, and adjacent to one of the richest natural supplies of obsidian in the world, the High Desert was a cross roads of contact for native groups (See Figure 4). At the time of historic contact in the mid-1820s, the region was a transition zone between the Tenino and Umatilla people of the Columbia Plateau and the Northern Paiute peoples of the Great Basin.¹⁶

Two major events disrupted the traditional hunter-gather lifestyle of native tribes and ushered in the shift to the second economic phase of life in the region. The first was the “Treaty of Wasco, Columbia River, Oregon Territory with the Taih, Wyam, Tenino, & Dock-Spus Bands of the Walla-Walla, and the Dalles, Ki-Gal-Twal-La, and the Dog River Bands of the Wasco” and the “Treaty with the Middle Tribes of Oregon” which established the Warm Springs Indian Reservation in 1855. Under the treaty, “the above-named confederated bands of Indians ceded to the United States all their right, title, and claim to all and every part of the country claimed by them,” and were moved onto what is now the Warm Springs Indian Reservation.¹⁷

¹⁴ Melvin C. Aikens, “Land and Life in the High Desert: Clues to Living in the Present from the Archaeology of 11,000 Years.” *The Chiles Award Papers, December 1995* (Bend, OR: The High Desert Museum, 1995), 1.

¹⁵ Dicken and Dicken, *Oregon Divided*, 113.

¹⁶ George Peter Murdock, “Notes on the Tenino, Molala, and Paiute of Oregon,” *American Anthropologist* 40 (1938): 397.

¹⁷ U. S. Department of State, “Treaty of Wasco, Columbia River, Oregon Territory with the Taih, Wyam, Tenino, & Dock-Spus Bands of the Walla-Walla, and the Dalles, Ki-Gal-Twal-La, and the Dog River Bands of the Wasco,” June 25, 1855, *Indian Affairs. Laws and Treaties. Vol. II*. Charles J. Kappler, ed. (Washington: Government Printing Office, 1904), 714. Electronic Document, <http://digital.library.okstate.edu/kappler/Vol2/treaties/tri0714.htm>.



Figure 4: Estimated territory of the Tenino, Molala, and Oregon Paiute at the time of European contact, ca. 1820-1830s. Based upon ethnographic data gathered about linguistic distribution (Murdock 1938: 396).

The second major development to impact traditional lifeways was the construction of a military wagon road under the direction of U.S. Army officer Major Enoch Steen in 1860. The road connected The Dalles with outposts in Northern California, running through the Hay Creek Valley.¹⁸ The McKenzie Pass wagon road which crossed the Cascade Mountains and connected Central Oregon with the Willamette Valley followed in 1862. Over the next decade, several more roads would be built making this formerly isolated region accessible and open for white settlement from both the east and the west. As a result of the wagon roads over the Cascades, many of the first settlers to arrive in Central Oregon were first or second generation children of

¹⁸ Lynda J. Sekora, “Central Oregon Regional Context,” *Archaeological Investigations: PGT-PG&E Pipeline Expansion Project. Idaho, Washington, Oregon. Vol. III summary reports: Historical Sites*. Lou Ann Spuelda, ed. (Fresno, CA: Infotec Research, Inc., 2002), 5-3.

homesteaders from the Willamette Valley or California who were looking to set off on their own.¹⁹

The first Euroamerican settlers were primarily hunters or ranchers running sheep and cattle on the open rangelands. When John B. Evans first settled near Willow Creek in 1866, there were few other settlers in the region. As Evans would later recall of his first winter in Central Oregon, “at this time the grass grew very high and rank...There were only a few settlers in the country and practically all of them were engaged in hunting. The game was very plentiful and the skins and dried meats were sold in The Dalles.”²⁰ Soon, however, several sizable ranching outfits were operating within Crook County.

Among the most successful of the ranches was the Baldwin Sheep Company which operated on the Hay Creek starting in 1873. Founded by Dr. D. M. Baldwin, the ranch soon earned a reputation as one of the largest fine wool breeding plant in the United States. At its peak, the Hay Creek Ranch ran 50,000 head of sheep and encompassed 27,000 acres, not including leased or summer pasture in the national reserve.²¹ The quality of the Baldwin sheep was world renowned and at the time, the company boasted the only pure-bred French Rambouillet flock in the United States.²²

While the mild winters and seemingly endless expanses of grass initially brought success for the ranchers, a population boom in both humans and stock quickly resulted in monopolized resources and scarce water.²³ Resource scarcity heightened already existing tensions between the sheepmen and the cattlemen resulting in a range war by the turn of the century. The cattlemen insisted that the sheep cut the meadows too short during grazing, depleting forage and

¹⁹ Phil F. Brogan, *East of the Cascades* (Portland, OR: Binford & Mort, 1964), 87.

²⁰ Power, “History of Hay Creek,” manuscript Mss 632, n.d., Oregon Historical Society, Portland, Oregon, 1.

²¹ *Ibid.*

²² “Famous Ranch Will Be Closed,” *The Bend Bulletin* (OR), December 22, 1909.

²³ Newell *The Crooked River National Grassland*, 16.

contributing to soil erosion. Sheepmen in turn spoke out about cattle destroying stream banks and cattlemen's "claim" to public lands, for which they paid no taxes or grazing fees, instead citing entitlement as the first generation of settlers to arrive.²⁴ Within the four year span of the range wars in Central Oregon from 1902 to 1906, members of groups such as the Crook County Sheep Shooters Association carried out guerrilla style attacks on the grazing sheep (see figure 5). These attacks resulted in the slaughter of more than ten thousand animals, the burning of numerous sheep sheds and hay stacks, and the general terrorization of many involved in the sheep industry.²⁵



Figure 5: Massacred sheep. Photograph taken during the Central Oregon Range Wars, ca. 1904. (Crook County Historical Society)

While the sheep and cattlemen were busily engaged in their range wars, another group was beginning to hold influence in Central Oregon. A shift in dominance from ranching to agriculture marked the third phase of economic development. The disruption among the sheep and the cattle ranchers in tandem with completion of the rail road to Central Oregon in 1911 provided an opportunity for homesteaders looking to settle in the region. In recalling this transitional period, Evada Power later noted "When Central Oregon was opened for travel by the

²⁴ Minor et al. *Prehistory and History of the Ochoco National Forest*, 134.

²⁵ Brogan, *East of the Cascades*, 121.

railroad, land hungry people arrived and soon the vast domain of free land surrounding the Hay Creek Ranch was all homesteaded.”²⁶ The expansion of land grant laws also played a key role in motivating homesteaders to look towards the High Desert. The Desert Land Act (1877), the Enlarged Homestead Act (1909), and the Three Year Homestead Act (1912), all variations on the Homestead Act of 1862, provided for larger tracts of land to be claimed in areas such as the High Desert that were deemed marginal farmland.²⁷ In 1910, the Baldwin Sheep company sold off most of their world renowned sheep, citing the restriction of summer range by the U. S. Forestry Department as the primary motivator for the sale.²⁸



Figure 6: The Cyrus homestead. This site is one of the few on the Grassland with an available water source. The poplar trees and apple orchards planted by the Cyrus family are still living today (Ochoco National Forest archives).

Land acts targeting America’s arid regions aided agriculturalist’s ability to obtain land in Central Oregon during the early twentieth century (See Figure 6). After congress passed the Desert Land Act in 1877, homesteaders were able to claim up to 640 acres of land in those regions deemed marginal for agriculture. This was a significant increase in acreage when compared with the 320 acres provided by the original Homestead Act in 1862. To qualify under

²⁶ Evada Power, “History of Hay Creek,” manuscript Mss 632, n.d., Oregon Historical Society, Portland, Oregon, 20.

²⁷ Sekora, *Central Oregon Regional Context*, 5-4.

²⁸ “Famous Ranch Will Be Closed,” *The Bend Bulletin* (OR), December 22, 1909.

the Desert Land Act, land had to be un-timbered, contain no significant mineral deposits, and not currently be producing usable grasses. Upon arriving on the land, homesteaders had three years in which to “prove up” the land by constructing an irrigation system and planting a crop (typically dryland wheat). In addition to this, the claimant was required to pay a fee of \$0.25 per acre plus an additional \$1.00 for every acre that was brought into production by irrigation.²⁹

Several small communities sprang up throughout Jefferson County as people began to populate the High Desert in the early 1900s. The largest of those on what is today the CRNG was the town of Lamonta. At its height, Lamonta boasted a school, post office, blacksmith, livery barn, hotel, drugstore and four saloons.³⁰ Located roughly at the midpoint between Prineville and Madras, Lamonta served as a social gathering point for the surrounding community. Rice Drug Store provided a location for local homesteaders to gather and socialize for a brief while before returning to their fields (See Figure 7).



Figure 7: Men gathered in the interior of Rice Drug Store, Lamonta, OR (Ochoco National Forest archives).

Lamonta was also home to the first Grange Hall in Central Oregon, constructed in 1904, and a dance hall that attracted youth from as far away as Redmond, Madras and Prineville on

²⁹ Minor et al. *Prehistory and History of the Ochoco National Forest*, 135.

³⁰ Sekora, *Central Oregon Regional Context*, 5-5.

dance nights.³¹ These communities served both as a source of valuable supplies and a venue for social networking. The Grange Hall, for example, with a peak membership of around 100 individuals, provided means for farmers to work together to seek wider markets and fairer prices for their products.³²

By the end of the homestead era in 1935, there were approximately four homesteads per 640 acre section of land. Approximately 65,000 acres, half of the CRNG's total acreage had been dryland farmed for a period of time ranging from a single season to forty years.³³ However, the draught and economic depression hit Jefferson County hard. By 1934, fewer than 50 of the estimated 700 homesteads that were claimed on the Grassland were still occupied.³⁴ These collapses, in turn, fit within the larger collapse of the American economy during the 1930s.

The homesteaders' struggles to succeed on the High Desert had long been a topic of discussion, and this was reflected in the articles of local newspapers. Somewhat ahead of his time, D. C. Sharp wrote a critical review of High Desert homesteading in the April 15, 1914 edition of the *Bend Bulletin*:

Going out into the desert with a government claim and the necessary plow, the necessary wire fence, the necessary years of residence, and other things made necessary by law, to say nothing of those required by nature and perhaps by marriage, is to pay all too dearly for death and to make one's funeral a needlessly desolate thing. A man plowing the sage! His woman keeping the shack—a patch of dust against the dust, a shadow within the shadow, and nothing then but sage and sand and space.³⁵

In Sharp's opinion, attempting to homestead on the High Desert was a futile endeavor, one which would ultimately lead to destitution and the destruction of dreams. While the words of

³¹ Crook County Historical Society, *Crooked River National Grassland Historic Tour* (Prineville, OR: Crook County Historical Society, 1996), 22.

³² *Ibid.*

³³ Farrel and Adams *Crooked River National Grassland Watershed Analysis*, 1.

³⁴ Gibson, *Vegetation Management/Grazing Environmental Impact Statement*, 4.

³⁵ Raymond R. Hatton, *High Desert of Central Oregon* (Portland, OR: Binford & Mort, 1977), 30.

people such as Sharp were certainly extreme and inflammatory, they were becoming increasingly difficult to ignore by the late 1920s.

In efforts to curtail the effects of the Great Depression, president Franklin Delano Roosevelt enacted several new programs under the New Deal. Many of these programs were to have a direct impact on the fate of southern Jefferson County in the latter half of the twentieth century. The Resettlement Administration was one of the most influential New Deal programs in this region. The program contained two main components: 1) temporary relief in the form of grants or low interest loans and 2) long-range planning which called for readjustments of land use and the retirement of sub-marginal crop lands.³⁶ Those homesteaders stranded on lands which were classified as sub-marginal were to be given the opportunity to resettle on better farming lands.

Reviewers deemed the land which is today the CRNG to be within the submarginal category and in 1935 the Resettlement Administration began the process of buying back homesteads from those families within the project area. Much of the land purchased back by the Resettlement Administration in Central Oregon was then placed in the hands of the Soil Conservation Service (SCS), whose main task was to see to it that the land be returned to its 'natural' state. Entire towns, such as those at Lamonta, Grandview, and Genieva, were razed along with almost all standing structures left by homesteaders.

The boom and subsequent bust in population can be seen in data from the US Census Office for Jefferson County. One area that showed particularly dramatic change is the Lamonta Valley region (See Figure 8). The Lamonta Precinct, which included the town of Lamonta and surrounding homesteads, shows a spike in population around 1910, followed by a rapid depopulation of the precinct over the next 30 years. Here, the population reflects the

³⁶ Clarence A. Wiley, "Settlement and Unsettlement in the Resettlement Administration," *Farm Tenancy* 4(4): 457.

homesteaders who arrived in the region in the early twentieth century followed by the failure of dryland farming and the repurchase of the land by the resettlement administration. As late as 1932, the town of Lamonta continued to be a viable, albeit struggling, community with a store and a resident doctor. By the end of 1936, however, the town, which had once been a social hub for the region, had effectively ceased to exist; its buildings razed and the streets seeded over to blend in with the surrounding sage flats.³⁷

Figure 8: Demographics of the Lamonta Vicinity³⁸

Year	Haystack Precinct	Lamonta Precinct	County Total	Foreign-Born
1900	353	—	3,164	3 %
1910	456	319	9,315 ³⁹	6 %
1920	316	204	3,211	0 %
1930	85	88	2,291	6 %
1940	174	0	2,042	—

In his book, *Old Fences, New Neighbors*, Peter R. Decker describes dryland farming’s similar fate in remote Ouray County, Colorado. In Colorado, too, the tensions between ranchers and the “squatters”, as they called dryland farmers, were never far from the surface. In modern decades, the fences that for a time disrupted the grazing ranges have faded into the landscape, and, “For those who survived the Depression, the skeletons of these homesteads serve as a visual reminder of how bad luck combined with poor judgment could devastate the life savings and dreams of an entire generation.”⁴⁰ While in this case it was ranching operations, not the Federal government, who bought the dryland farmers out, the sentiments were much the same. Homesteaders attempting to settle in the arid regions were primarily those who were late to jump on the wagon of westward expansion, had limited practical farming experience (little if any of it

³⁷ Sekora, *Central Oregon Regional Context*, 5-5.

³⁸ Ibid.

³⁹ The drastic drop in total county population from 1910 to 1920 is the result of Crook County being subdivided into Jefferson County in 1914 and Deschutes County in 1916.

⁴⁰ Peter R. Decker, *Old Fences, New Neighbors* (Tuscon: University of Arizona Press, 2006), 70.

in arid environments), and were viewed by others (particularly ranchers) as the bumbling sort who would upturn their lives and move west in response to a ‘get rich quick’ ad read in newsprint (See Figure 9).



Figure 9: Sign on highway near Madras, Oregon.
July, 1936 (Ochoco National Forest Archives)

The transfer of land back into Federal hands marks the transition into the fourth, and current, phase of human activity on the landscape. The Soil Conservation Service managed the land from 1938 to 1954. Under the Central Oregon Land Utilization Project, the SCS conducted several intensive erosion control and development activities, such as removing homestead infrastructure, installing fences, developing water sources for livestock, and reseeded projects to reclaim the eroded farm fields.⁴¹ During this time, the SCS also established grazing associations, such as Grey Butte Grazing Association (GBGA). This association is still in operation today and approximately 2,500 head of cattle graze on the Grassland’s 23 allotments annually.⁴²

The Crooked River National Grassland was established in 1954. Today, one of the Forest Service’s main projects is restoring the land to pre-settlement conditions. Controlled burns are being reintroduced to management plans and efforts are being undertaken to contain the

⁴¹ Gibson, *Vegetation Management/Grazing Environmental Impact Statement*, 4.

⁴² Gibson, *Vegetation Management/Grazing Environmental Impact Statement*, 8.

encroachment of junipers and noxious weeds. In addition to grazing, the CRNG is increasingly used by recreationalists who are attracted to the Grassland because its low precipitation levels and relative lack of snowfall in the winter make it accessible year round. A number of trails and campgrounds have been developed to accommodate and encourage this usage.

The completion of irrigation projects in Central Oregon, primarily in the post-WWII era, had a major impact on the future of agriculture and human population in the region. Irrigation helped to make farming feasible, and today, several small farms have fields in the area immediately surrounding the Grassland. The Grassland is no longer remote and isolated. Homes are being constructed right up to its borders and every day thousands of vehicles zoom past on the highways bisecting the CRNG. Again, farmers and ranchers are selling their land. This time, however, it is not to the government, but rather to be subdivided into housing developments to accommodate the rapidly expanding population. Increasingly, the Crooked River National Grassland is becoming an island of open space in the center of a developed landscape and a final refuge for many native plant and animal species.

The Collision of the Physical and Cultural Landscapes:

John O’Sullivan coined the term Manifest Destiny in 1845. It expressed the expansionist belief that the United States was ordained by God to stretch from the Atlantic to the Pacific.⁴³ In 1839, O’Sullivan wrote on the topic of westward expansion: “The expansive future is our arena, and for our history. We are entering on its untrodden space, with the truths of God in our minds, beneficent objects in our hearts, and with a clear conscience unsullied by the past. We are the nation of human progress, and who will, what can, set limits to our onward march?”⁴⁴ The passionate, religiously charged writings of journalists and politicians, such as O’Sullivan,

⁴³ John O’Sullivan, “Annexation,” *The United States Democratic Review* 6 no. 23 (1845): 7.

⁴⁴ John O’Sullivan, “The Great Nation of Futurity,” *The United States Democratic Review* 17 no. 1 (1839): 427.

ensured that the campaign to settle the west remained highly ideological by adding religious overtones and emphasizing its importance in realizing the American dream. This distracted from other interconnected issues such as the balance between slave and free states and the desire to expel remaining European colonial powers from North America.

John Wesley Powell was among the first to explore the West with an eye toward water. Greatly influenced by his Methodist upbringing, Powell adhered to the words of his namesake, John Wesley, who believed that God's will must rule over any man's.⁴⁵ Following from this, Powell argued that attention had to be paid to the physical realities of the land when planning how it should best be managed. In his famous *Report on the Lands of the Arid Region* in 1879 Powell argued that only small portions of the country were actually irrigable. The remainder of the land was to be classified as mineral lands, coal lands, timber lands, or pasturage lands and managed as was appropriate to its designation.⁴⁶ The precedent set by the Homestead Act in relation to land distribution concerned Powell. It was based upon land management practices for regions drastically incompatible with the environments present in the arid West. By encouraging homesteaders to establish homes where they could not maintain themselves, the report elucidated Powell's fears that the course of western development was destined to end in the misuse of resources and in unnecessary human suffering.⁴⁷ Rather, the physical constraints of each piece of the landscape should be studied and understood to best utilize the land as God had intended.

The high idealism in William E. Smythe's *The Conquest of Arid America* in 1899 echoes the blind optimist of Manifest Destiny over Powell's rendition of a land with a divinely ordained

⁴⁵ Donald Worster, *A River Running West: The Life of John Wesley Powell* (New York: Oxford University Press, 2001), 5.

⁴⁶ John Wesley Powell, "Report on the Lands of the Arid Region," *Seeing Things Whole: The Essential John Wesley Powell*, William deBuys ed. (Washington DC: Island Press, 2001), 208.

⁴⁷ William deBuys, *Seeing Things Whole: The Essential John Wesley Powell* (Washington DC: Island Press, 2001), 146.

purpose to man. A poem, entitled *Emancipation*, appears in the front of the book and sets the tone for Smythe's writing. It begins:

The Nation reaches its hand into the Desert,
And lo! Private monopoly in water and in land is scourged
From that holiest of temples,—the place where men
Labor and build their homes!

The Nation reaches its hand into the Desert.
The wasting floods stand back, the streams obey their
Master, and the stricken forests spring to life again
Upon the forsaken mountains!⁴⁸

Smythe's book called for the expansion of the American population into the arid regions that had thus far been largely skipped over by settlers in favor of regions more conducive to agriculture.

Smythe was one of the key proponents for irrigation in his time and he saw considerable promise in the High Desert of Eastern Oregon, stating that, "No state offers greater attraction for national enterprise, in the way of large areas of fertile desert lands and abundant water supply, than Oregon."⁴⁹ The emphasis on irrigation as a way to make homesteading in arid regions possible, coupled with the fact that by the end of the 19th Century much of the more desirable land had already been homesteaded, sparked an interest in arid regions of the West, such as Central Oregon. Smythe's vision of water management in the West was more optimistic and more aligned with the existing structures of land ownership and distribution in the United States and, therefore, it won out over Powell's watershed based management plans.

On paper, the reclamation of the desert was straightforward. Science and hard work, if put to the right endeavors, were the promise of the future; realigning nature in a linear, precise, and mechanistic system. A. G. Seiler's 1915 pamphlet published by the U. S. Reclamation Service is representative of the optimism of future development. Entitled "The Story of An

⁴⁸ William E. Smythe, *The Conquest of Arid America: 1969 Reprinted edition* (Seattle, WA: University of Washington Press, 1899), vii.

⁴⁹ Smythe, *The Conquest of Arid America*, 319.

Irrigated Farm”, Seiler’s scenario depicts the investment of federal money into land development which in turn would allow farmers to enjoy the fruits of their labor (See Figure 10).⁵⁰ It is arguable, however, that publications such as Seiler’s represent more than naïve confidence, intentionally smoothing over troubling conditions in the hopes of future federal investment. Pressing realities for homesteaders, such as draught, water rights disputes, weeds, insects, diseases, and crumbling infrastructure are noticeably silent from Seiler’s story.⁵¹

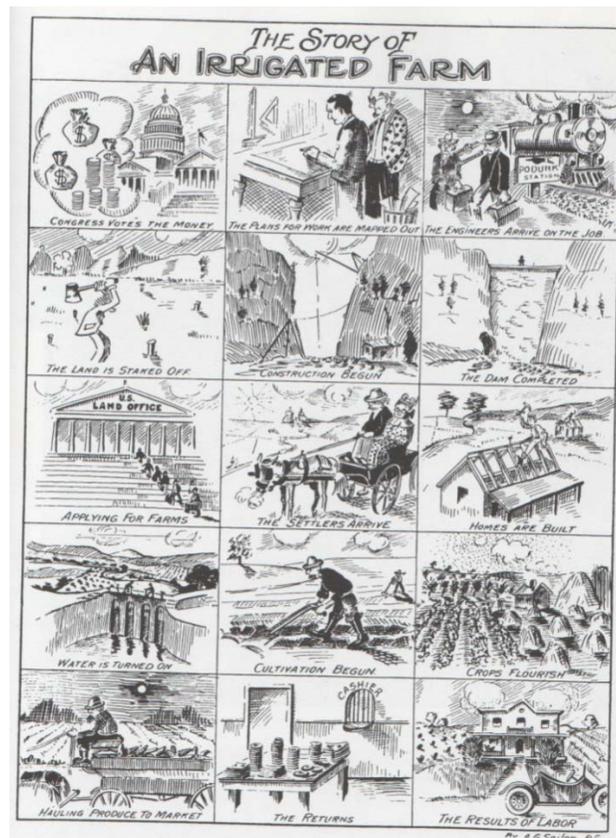


Figure 10: a cartoon from A. G. Seiller’s “The Story of an Irrigated Farm,” 1915. It depicts a linear process from land development to success for farmers (Fiege, 1999).

A series of land acts, such as the Desert Land Act and the Enlarged Homestead Act, along with a national advertisement campaign encouraged people to start claiming land in

⁵⁰ Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West* (Seattle, WA: University of Washington Press, 1999), 143.

⁵¹ *Ibid.*, 144.

marginal regions at an increased rate. These promotional advertisements and articles echoed the writings of Smythe and his contemporaries in their desire to see the desert bloom. Billed as America’s next “Wheat Lands,” the Central Oregon High Desert received national attention following the arrival of the railroads in 1911 (See Figure 11).⁵² To draw people into the region, railways offered tickets as low as \$30 from cities such as Omaha, Duluth, Kansas City, and St. Paul to people looking to settle in Central Oregon.⁵³



Figure 11: Promotional advertisements such as this ran in the Madras Pioneer and other Central Oregon newspapers regularly during the late 1920s.

In 1914, the Jefferson County Chamber of Commerce released a promotional brochure designed to attract homesteaders to the Madras area. The brochure, entitled *Opportunity Awaits you in Jefferson County, Oregon* describes the burgeoning potential of the region:

Jefferson county has...modern conveniences and good living conditions to offer prospective settlers...The soil is a rich volcanic ash or sandy loam. New settlers are faced with no drainage problems...Fruits, vegetable and

⁵² Brogan, *East of the Cascades*, 94.

⁵³ Lela Gard Ramsey, “South Agency Plains,” *Jefferson County Reminiscences* (Portland, OR: Binford & Mort, 1957), 283.

farm crops of practically all kinds produce exceptionally well if watered...The climate in this section is delightful almost the year round. The air is dry and invigorating and the Central Oregon brand of sunshine is unequalled and is enjoyed more than 300 out of the 365 days.⁵⁴

Following the list of crops which were cited as producing exceptionally well was one slight disclaimer; “if watered”. This clause, added in almost as an afterthought would be particularly telling of the future fortune of those farming in the region.

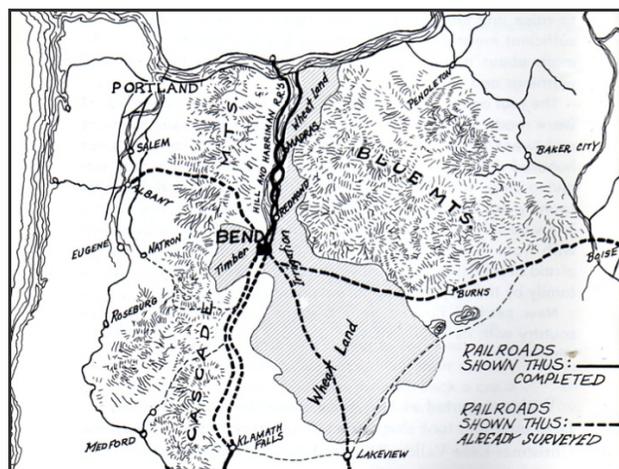


Figure 12: This map, which labels much of Central Oregon as “Wheat Land,” ran in the Bend Bulletin July 3, 1912 as a part of an article discussing future railroad and irrigation development in the region.

The glowing promises of the Chamber of Commerce, however, were not entirely out of place. The 1910s were a promising decade for Central Oregon. During this same era of booming progress and success in Central Oregon, articles were running in newspapers, such as the Madras Pioneer and the Bend Bulletin, touting the economic boom and the growth that impending developmental projects, such as irrigation and rail lines, would surely deliver (See Figure 12). These promotional brochures and development project discussions attracted many people to Central Oregon in anticipation of their completion.

⁵⁴ Jefferson County Chamber of Commerce, *Opportunity Awaits you in Jefferson County, Oregon*. (Madras, OR: Jefferson Co Chamber of Commerce, 1914).

For many of the region's homesteaders, however, the promised developments would come too late. By the end of the 1920s, the tone of most articles running in Central Oregon newspapers had shifted to reflect the increasingly tense situation for farmers. Articles about fluctuation in the wheat market, drought, and pending federal relief legislation took the place of those touting future development. Suddenly, rain, in any amount, became front page news. One outlet for the frustrations of local farmers provided by the newspapers was through editorial cartoons (See Figure 13). These cartoons highlight some of the underlying problems with the system that existed at the time.

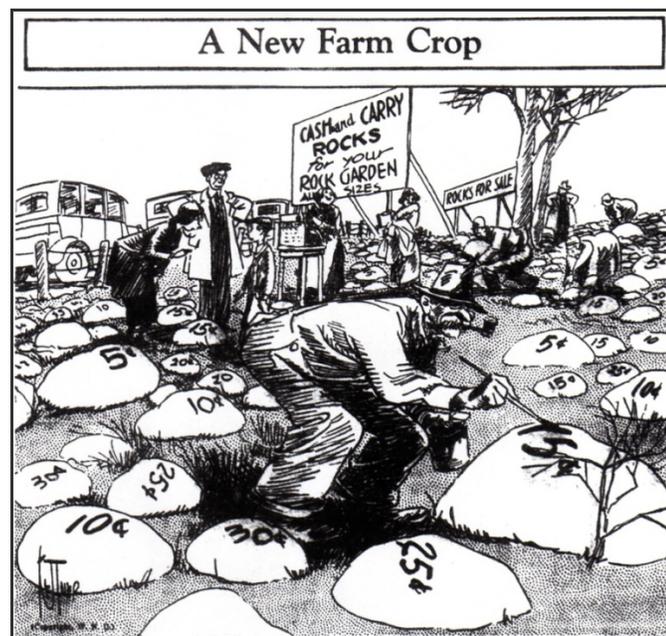


Figure 13: Editorial cartoons, such as the one pictured above which ran in the May 10, 1934 *Madras Pioneer*, reflect some of the frustrations felt by farmers in Central Oregon during the 1930s.

Viewed in comparison to one another, the promotional advertisements and the editorial cartoons published during this era reveal some of the core problems with the homesteading system. While the homesteading advertising of the early twentieth century is by no means the sole cause of the farming collapse, nor is it even one of the primary factors, it is reflective of

many the of issues that did have a direct impact. These advertisements raised unattainable expectations of the landscape as a paradise, promised resources and water that were unavailable in the arid region, and attracted an unprepared demographic that was unfamiliar with both the landscape and the farming techniques.

While these factors were undoubtedly significant in setting up a culture prime for collapse, it was ultimately the region's poor environmental conditions for traditional agriculture which pushed the human community over the edge. Dryland farming was advocated as the cure for arid America—requiring less water, dryland wheat could be grown in the “wasted” desert land that marked the interior of the American West. Even dryland farming, however, required more than the few inches of precipitation to fall annually over the CRNG. Additionally, most of the nutrients from the sandy, volcanic ash soil that covers much of the Grassland were originally tied up in the sod of the native grasses. Within a few years of breaking up the sod mats and planting wheat, much of the nutrient value in the soil had been effectively stripped.⁵⁵ In the rush to tame the remainder of the American West, little effort was initially devoted to conducting scientific research on the impact of such agricultural activity in these arid regions, and even less attention was directed towards the results of these studies, particularly if the results were negative.

Of all the factors that could make or break a homestead, however, water was the most definitive. It does not take more than a casual glance at the landscape to realize that water is scarce. Few months in Jefferson County measure more than an inch of rainfall. Anna L. Martin Merchant would later recall the scarcity of water as one of her most vivid impressions of life on a High Desert homestead: “We didn’t have any water in those days. We had to haul all the water

⁵⁵ Paul Gleason and Stephanie Freid, “Just Deserts: Bad Soil Practices Create a Sea of Sand,” *E Magazine: The Environmental Magazine* 17 no. 5 (2006), 29.

that we had to use. We hauled water from those [Gray Butte] hills.”⁵⁶ While both the Deschutes and Crooked Rivers flow through the western portion of the CRNG, they travel through the desert at the bottom of deep canyons which effectively prevented their utilization for agriculture without the completion of major irrigation projects. While the canyon is not as deep, this is also the case for Willow Creek in the eastern section of the Grassland.

People came to Central Oregon expecting that water would not be as accessible as in other regions; however, few homesteaders were prepared for how difficult it would actually be to obtain water. It was taken for granted that after getting established a well could be dug to supply water for household and agricultural use. The process of digging a well turned out to be much more of a challenge than anticipated. Not only is the water table low, but most of the Grassland is covered with around 10 to 18 inches of sandy topsoil, a thick layer of hardpan and a base of basalt or other volcanic rock.⁵⁷ Even in those places where wells could be successfully drilled, they usually had a depth of 250 to 400 feet.⁵⁸ While people were resourceful, setting up water collection traps on roofs for those rare occasions when it rained and recycling water through as many uses as possible, for most there simply wasn't enough water.

⁵⁶ Anna L. Merchant Oral History Interview Transcript, December 8, 1981, SR 0021, Oregon Historical Society, Portland, Oregon.

⁵⁷ Newell, *The Crooked River National Grassland*, 35.

⁵⁸ Brogan, *East of the Cascades*, 94.

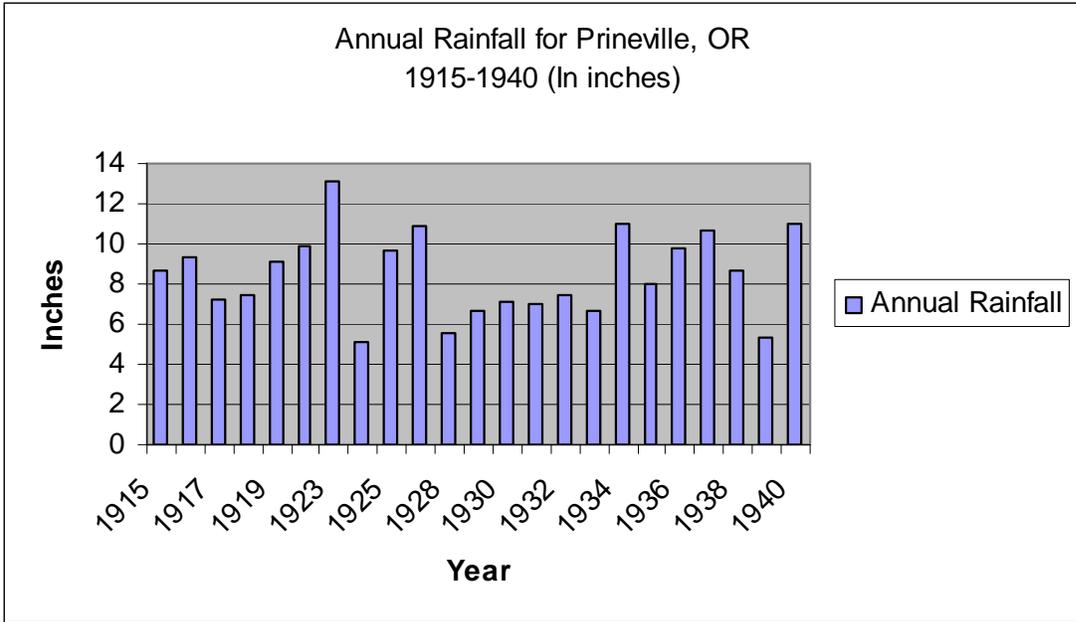


Figure 14: Annual rainfall levels for the Prineville, OR weather station from 1915-1940. Note the drop in rainfall in the late 1920s and early 1930s. Some years missing due to incomplete archival data (NOAA 2006).

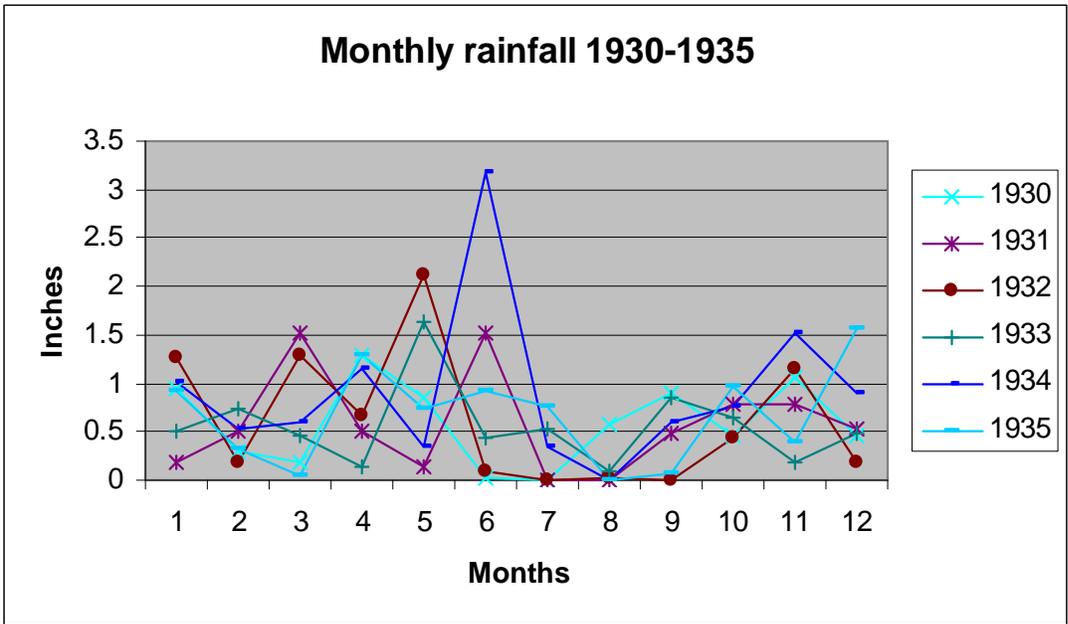


Figure 15: Graph measuring monthly rainfall levels from 1930-1935 at the Prineville, OR weather station. It illustrates the inconsistency in the distribution of rain from month to month in any given year. Without irrigation, this unpredictability in the rainfall adds additional challenges to growing crops (NOAA 2006).

The environmental strain placed on the land by homesteading was further exacerbated by drought and the inconsistency of rainfall. Measurements taken from the weather station outside of Prineville, Oregon between the years of 1910 and 1940 show the fickle nature of rainfall (see Figure 14). These figures reveal not only the inconsistency in annual rainfall, but the inconsistency in the months in which that rainfall occurred (see Figure 15). With no definable rainy season, it is remarkable that homesteaders were able to grow crops in the area before the introduction of irrigation.

It is important to note that the hardships felt by homesteaders in Central Oregon were only a small part of the larger economic depression of the 1930s. People in the Mid-Western United States were undergoing the same, if not worse, conditions as a Dust Bowl of dried soil whipped across the landscape. Those farmers who were able to harvest a crop experienced market prices so low that they only made back a fraction of their initial investment. The entire United States, along with much of the rest of the world, was in the grips of the Great Depression and few were left untouched by the economic instability.

Despite the harsh conditions and the long hours of work necessary to survive on an arid homestead, however, there is still a strong bond and an often expressed fondness for the land expressed in the writings of those who settled in the region. Alice Day Pratt, a single school teacher who traveled west in 1911 to file a claim to a homestead in Central Oregon, wrote extensively about life on the High Desert. In her memoir, "A Homesteader's Portfolio," originally published in 1922, Pratt writes:

On the evening of the twentieth to the twenty first of June, on the high, Central Oregon plateau, there was well-nigh no intermission between twilights. White daylight faded out and sifted in again imperceptibly among the stars, and the longest day of the year began almost literally at midnight.

Scattered over the vast sagebrush reaches, cattle awoke and stirred after brief dozing, nibbling at the tender bunch grass. Rabbits scarcely ceased their leaping from cover to cover. Coyotes mixed their vespers and matin rhapsodies, and the infrequent birds hovered their young for a brief hour or two and returned to the chase. East of the Crooked River, the bare, clear-cut mountain range grew slate-blue against a golden sky. The air was crystalline in its purity.⁵⁹

For Pratt, and several others who homesteaded in this area, a special attachment to the land shows through their writing, despite the difficulties they faced in attempting to homestead in Central Oregon.

By the 1930s, though, even the sentiment expressed in the writings of homesteaders could not help but be overshadowed by the looming effects of draught and depression. At the height of the Great Depression in 1934, novelist Erskine Caldwell stopped in Madras, Oregon as part of his national mission to chronicle the trials and tribulations of his fellow Americans. Caldwell chose to open his recounting of his travels, *Some American People*, with his experiences in Central Oregon. The Madras he described was bleak, dusty and a far cry from the land of opportunity early promoters had promised it to be:

In Central Oregon, on the eastern slope of the Cascade Mountains, the shriveled grass is lying on the range like scraps of steel shavings. A gust of hot wind sweeps down to earth, and with your ear to the ground, you heard a sound like somebody kicking rusty springs through the wiry brown grass.

Over on a hillside, the wind is making ripples on the dusty contour of the range; down below, in the pocket of a dry stream bed, the wind is carving precise images on the drifted sand...The brown sod is frequently broken by squares and ovals of dusty, drifting fields. They look as though they might be tumbled-over tombstones, once erected to the faded hope of dry-farming.⁶⁰

⁵⁹ Alice Day Pratt, *A Homesteader's Portfolio, 1922* (Corvallis, OR: Oregon State University Press, 1993), 46.

⁶⁰ Erskine Caldwell, *Some American People* (New York, NY: Robert M. McBride & Co, 1935), 13.

Caldwell arrived in Central Oregon in 1935, at the height of the Resettlement Administration's operations. Where Pratt had once seen life and promise in the landscape, Caldwell saw death and suffering.

Conclusions:

Following the risk categories of environmental degradation, this region of Central Oregon, by modern standards would be considered a high risk for heavy development. Of the eight key categories of environmental degradation that are considered markers of past collapsed societies, five were major forces shaping the development of a stable agricultural society in southern Jefferson County.⁶¹ Farmer's faced poor soils which quickly began to erode and experience salinization and other fertility problems within a few planting seasons. Water was extremely scarce and homesteaders, in some cases, did not have enough water for normal daily living, let alone irrigating their fields. Introduced species such as dryland wheat and unintentionally introduced noxious weeds quickly took hold in the region, edging out native plant communities. Human population experienced a rapid increase within only a few decades. Compounding the rise in population, when compared with the hunter-gather lifestyle of native tribes, and to a lesser extent the lifestyle of range men, the per capita impact of homesteaders was greatly increased. The remaining three factors—deforestation and habitat destruction, over-hunting, and over-fishing—were also felt in the region to a lesser extent. Taking into consideration all the markers for collapse present, it is amazing that homesteading was able to persist for as long as it did.

⁶¹ Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin Books, 2005), 6. Diamon lists the following as the eight major categories of environmental degradation: deforestation and habitat destruction, soil problems (erosion, salinization, and soil fertility losses), water management problems, overhunting, overfishing, effects of introduced species on native species, human population growth, and increased per capita impact of people.

With the list of undermining environmental factors stacked so high against homesteading in Central Oregon, one might wonder why such a practice was so actively promoted and encouraged. A possible answer to this comes in Redman's theory of governance from afar.⁶² Redman addresses the issues that arise as societies begin to expand and urbanize while simultaneously centralizing power. Such redistributive systems have the potential to increase production in sectors such as agriculture by coordinating irrigation and crop selection and organizing labor. However, Redman argues that as decision makers become increasingly distanced from the land, environmental degradation and the increase in unsustainable land management practices often follow.⁶³ These symptoms of governance from afar can certainly be seen in the case of land management laws passed to encourage settlement of arid regions in the American West which looked at parcels of land as squares on a map, paying little attention to soil quality, topography or water availability. Most of the people involved in the decision making process of land laws and management in the West were located 3,000 miles away in Washington, D.C. Many of them had limited, if any, actual experience traveling through the West. Instead, their knowledge was gained second hand through reports, which themselves may or may not have been written by people who had actually spent time in the field.

People who were closely connected with the land in Central Oregon, and who had witnessed its changes in the first 30 years of the Twentieth Century, were well aware of the impact that the great distances between decision makers and the land they were making decisions on had on how the land was managed. As one man interviewed in Caldwell's novel stated:

That wheat-raising business wasn't the people's fault. These scientific fellows who do their wheat farming in an office building with a stenographer sitting on their laps brought about all that dry-farming foolishness. Cows wasn't good enough for them. If they

⁶² Charles L. Redman, *Human Impacts on Ancient Environments*. (Tucson, AZ: University of Arizona Press, 1999).

⁶³ Redman, *Human Impact on Ancient Environments*, 162.

had come out and lived on the range, they'd have learned what the range's good for.⁶⁴

As convenient as it might have been to view the American West as neatly parceled squares of land laid out nicely on a map, soil quality, topography and the availability of water proved to be inescapable forces of nature. The West was not an anti-landscape in need of restoration, and plans which neglected to account for the specific needs of an arid region were destined to fail. Those people who lived and worked with the land saw different value in the land and many were quick to realize the un-sustainability of the homesteading model in Central Oregon. Most, however, felt powerless in the wake of the larger national movement and were swept along for the ride.

⁶⁴ Caldwell, *Some American People*, 17.

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