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VIRGIN FOREST TO MODERN FARM:

Picturing Ecological Change in Northern Idaho's Cutover Land

Adam M. Sowards*

Northern Idaho is situated at the eastern edge of the Columbia Plateau where the rolling, treeless hills of the Palouse eventually give way to the rugged, forested Bitterroot Mountains. Geographic factors and ecological processes help shape these landscape transitions, but on the edges human impact has profoundly influenced the nature of the land. Farmers and loggers hacked, carved, and plowed their way into the forest in the early-twentieth century, expanding the extent of cultivated land adjacent to the Palouse, which farmers had largely filled by the 1890s.

The photographs here illuminate one such ecological edge as humans modified it following well-worn cultural prescriptions and economic predilections. Not only do the photos depict environmental transformation, but they portray a historical evolution from a forest economy to an agricultural one. Although they show almost no people, the photographs exhibit ample evidence of enormous human labor and its impact on the landscape. Unfortunately, the photographs cannot provide essential context for understanding this ecological and historical change, and many of the environmental consequences of changing forests to fields and thus simplifying northern Idaho's ecology remain hidden behind the images. In many ways, then, they conceal as much as they reveal.

This set of photographs by Moscow, Idaho, photographer C. C. "Charlie" Dimond frames environmental change in northern Idaho and celebrates the ecological transformation of forest into fields. Born in 1897 in Tennessee, Dimond arrived in Moscow in 1916 and died there in 1948. A community leader, he served in World War One and helped charter the Dudley Loomis post of the American Legion. Some time in the late 1920s or 1930s he produced a scrapbook of photographs to use for publicizing the region's economic potential. He sold the photos—"Special Farm Scenes of Latah County"—for \$0.15 individually or a dozen for \$1.50. Besides the Cutover Land Series highlighted here, Dimond's photos show thriving dairy and beef cattle, vast fields of potatoes, amazing thirty-pound squash, and, seemingly incongruous, melons. Unmistakably, he compiled the collection to promote agricultural development by showing successful crops already growing in northern Idaho. It was typical boosterism, the kind common throughout the West that

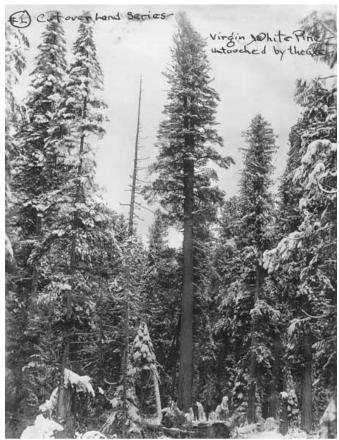


Fig. 1: "Virgin White Pine untouched by the axe." Courtesy of Latah County Historical Society.

generally raised expectations to levels that ecology and economics could seldom meet. 1

The Cutover Land Series visually narrates a history of ecological change common in American history and central to the region's past. As industrial logging spread throughout much of the nation, farmers followed in the wake of timber cutters and sought to make

their living on cutover lands. It was an article of faith among Americans for two centuries that the axe prepared the way for the plow, reducing the forest that stood as an obstacle to highest use of land: farming.² Americans long considered such a transformation as a natural or inevitable social, economic, and environmental evolution. Yet, agriculture also was an act of colonization. One can read the spread of agriculture in the American West, like the transformation depicted in Dimond's Cutover Land Series, as an act of deliberate social will to improve the land by bringing "culture to a wilderness." This photo essay attempts to lift the veil off a seemingly ordinary or predestined process to show the decisions involved, the purposeful environmental and economic conversions, and their unspoken and unpictured ecological and social consequences.

Dimond's photographs are useful, for they accept as natural the vision of forest-to-farm land-use succession. Moreover, his images show an apparently easy transition from a so-called virgin forest to a modern farmstead. Historians have shown how nineteenth- and twentieth-century booster literature raised unrealistic expectations about assured economic success when one applied one's labor to the natural environment. Dimond's photographs constitute a similar, and equally misleading, boosterism through a visual narrative. Nature's and history's contingency meant that environmental change and economic success were seldom as straightforward as depicted in these static photographs from three-quarters of a century ago.

When Dimond labeled his first photo as a "virgin" forest, he followed a cultural convention that suggested a pristine, untouched land. Certainly, the snow helped convey that notion of purity. Like all of nature, however, the white pine forest Dimond photographed had a more dynamic and messier history. It was neither pure nor untouched. The white pine (*Pinus monticola*) was the most commercially valuable tree species, which is why the forest type is named after it. According to contemporary ecologist J. A. Larsen, however, northern Idaho white pine forests were "rarely found in pure stands," and another ecologist, M. A. Huberman, maintained that the forest type's proper name ought to be the cedar-hemlock-white fir association reflecting greater biodiversity than the simple virgin white pine moniker suggests. One typically would also find interspersed with the western white pine stands of western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), grand fir (*Abies grandis*), Douglas fir (*Pseudotsuga taxifolia*), and western larch (*Larix occidentalis*). White pine forest types usually established themselves after fires, so white pine stands in northern Idaho generally appeared in even-aged forests after some historic fire a century or more before.

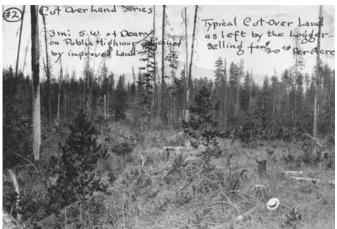


Fig. 2: "Typical cut-over land as left by the logger--selling for \$20.00 per acre." Courtesy of Latah County Historical Society.



Fig. 3: "The initial step in clearing." Courtesy Latah County Historical Society.

Before Euroamericans arrived, American Indian groups also used the forest, again belying the "virgin" label. Present-day Latah County sits in a cultural borderland where three tribal groups conjoin: the Coeur d'Alene from the north, Nez Perce from the south, and the Palouse from the west. The region's Native populations used the forest and its flora and fauna for subsistence and cultural needs, no doubt shaping the forest, however marginally, in the process. This white pine forest, however, does not seem to have been routinely burned like other regional forests, especially ponderosa pine types that frequently coevolved with Native fire regimes.

As the U.S. Army and federal Indian policy dispossessed those Native peoples of their lands, Euroamerican prospectors, lumber interests, and farming families moved into northern Idaho and began manipulating the landscape for economic gain. The first sawmill served the region from Colfax, Washington, beginning in 1871. Several small mills soon dotted the Palouse to serve local needs, but the region's timber economy transformed at the dawn of the twentieth century when timber capitalists from the upper Midwest acquired abundant timberland in the Northwest. In the first decade of the twentieth century, the Potlatch Lumber

Company incorporated and bought up mills and forests, initiating a marked change in kind and degree for the region's forest and farmland ecologies.⁹

Loggers and farmers, often the same individuals, set about clearing the forest. Northern Idaho's timber and agricultural economies developed a close relationship. Local farmers purchased Potlatch Lumber Company goods, and as the town of Potlatch grew with the "largest white pine sawmill in the world," farmers enjoyed a larger market for their products. As timberland converted to farmland, then, the region's economy became interdependent. It seems clear that Dimond meant for his photographs to sell that possibility of economic prosperity to others. Indeed, Figure 4 demonstrates how easy it would be to find a local market for products of the land, in this case the initial product—the timber itself. ¹⁰

Following initial clearing, farmers in northern Idaho tended to



Fig. 5: "Slashing is next or cutting of small brush which is piled against the old stumps and burned at an appropriate time." Courtesy of Latah County Historical Society.



Fig. 4: "Cordwood is next removed and marketed at from \$5.00 to \$9.00 per cord. Haul is 1/2 to 3 miles." Courtesy of Latah County Historical Society.

burn their land. Burning to convert timberland to farmland has been as common as it has been controversial. Indigenous groups in many environments frequently burned to prepare land for planting. Europeans arriving on the Atlantic Coast of North America continued and expanded the process as they and their descendants took it with them throughout the continent, scattering rural fire regimes wherever they went. Farmers, thus, commonly used fire to clear forests. Indeed, as fire historian Stephen J. Pyne has noted, farmers saw "no point in slashing without the hope of burning." For thousands of years throughout the globe, agriculturalists used fire to expand their plots and to prepare ground for crops.

Furthermore, although not highlighted in these photographs —indeed perhaps deliberately hidden—clearing and preparing agricultural land in cutover districts required enormous investments of labor and capital. For instance, nearby Palouse prairies could be prepared for planting at a rate of an acre every

couple days, while an acre of cutover land often required more than a month. In addition, burning did not always complete the work, and farmers resorted to dynamite and stump pullers to clear stumps.¹² Such work required time and capital that could stymie and certainly slowed the "natural" transition to productive farms.

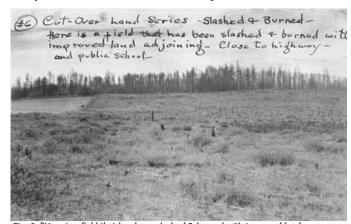


Fig. 6: "Here is a field that has been slashed & burned with improved land adjoining. Close to highway and public school. Courtesy of Latah County Historical Society.

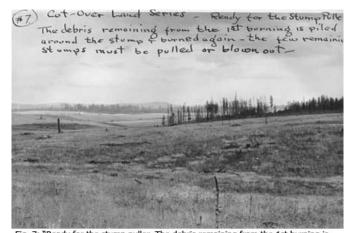


Fig. 7: "Ready for the stump puller. The debris remaining from the 1st burning is piled around the stump & burned again - the few remaining stumps must be pulled or blown out." Courtesy of Latah County Historical Society.

Nevertheless, as these photographs indicate, fire remained the favored alternative, as well as having certain environmental and economic benefits. While foresters may have fretted about the potential escape of flames and the destruction of valuable timber, farmers concentrated on the ecological repayment of the flames.¹³ Besides aiding in the monumental task of clearing trees, stumps, and brush, fire produced advantages for the farmland, adding precious nutrients to the soil and creating agriculturally viable habitats. Initial harvests after burning often far exceeded subsequent crop yields.¹⁴ But fire could also consume soil nutrients,

especially if it burned too hotly, increase erosion by removing vegetative cover, make soil temperature fluctuate to greater extremes, and change evaporation rates.¹⁵ All these factors could adversely affect agricultural prospects.

Once loggers and farmers successfully cleared the trees and prepared the ground, planting could proceed. Ironically, despite "bountiful forage native to this land," farming required the planting of exotic species such as timothy for pasture or wheat for the market. Such activities-replacing native species with exotic species and plowing the earth - were the hallmarks of agriculture. Simply defined, farming supplanted one biota with another; agriculture required wholesale ecological substitutions. Imported grasses like timothy rapidly outcompeted and thoroughly replaced native bunchgrasses throughout the West. Indeed, according to the U.S. Department of Agriculture in the 1920s, timothy became the most important forage crop in the nation, and it "naturalized" to the land so well that some agronomists mistakenly viewed it as indigenous. 16 However natural it seemed, one of the most common problems associated with

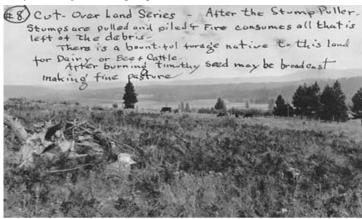


Fig. 8: "Stumps are pulled and piled & fire consumes all that is left of the debris. There is a bountiful forage native to this land for dairy and beef cattle. After burning timothy seed may be broadcast making fine pasture." Courtesy Latah County Historical Society.

new plant species was the influx of weeds that invariably accompanied them into new ecosystems often not only displacing native plants but also threatening crops. ¹⁷ Although their arguments were not as developed as they would become by the late-twentieth century, some government agencies in this era expressed concern over the loss of native plant species. Today, this combined loss of native species and concern over weeds is of critical concern to farmers, scientists, and environmentalists. ¹⁸

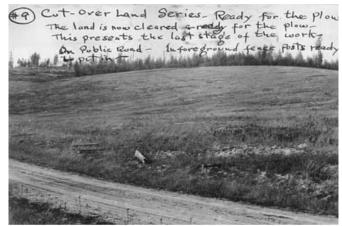


Fig. 9: "The land is now cleared & ready for the plow. This presents the last stage of the work." Courtesy of Latah County Historical Society.

If one were successful in getting through these stages of environmental modification, one might achieve the ultimate prize: a wheat harvest and a "modern and up to date" farm. The result of countless hours of struggle against the forest, stumps, and weeds could lead to a productive farm, a distinct cultural landscape imprinted on the erstwhile northern Idaho forest. Unfortunately for families planning to relocate to northern Idaho's cutover land at the time these photographs circulated, the soil beneath the western white pine forest proved poorer than the excellent loess of the neighboring Palouse. Cutover farmers might harvest wheat, but they could not hope to challenge the prodigious wheat farmers of the adjacent Palouse hills owing not only to the Palouse's superior soils, but its larger operations and national market connections. ¹⁹ Moreover, the farmers who transformed the forest when Charlie Dimond photographed the transitional landscapes of northern Idaho did so against economic trends contrary to the success of independent small farmers.

Between 1910 and 1950, the number of farms in the county declined by twenty-five percent, while the county experienced increased tenancy rate between 1910 and 1940 of almost thirty percent.²⁰ The days of the celebrated yeoman farmer were slipping away, and northern Idaho's cutover land would become even more marginal. Indeed, today, the forest has recolonized many of the farms hewn out of the cutover land.



Fig. 10; "Harvesting grain grown on cuto-over land showing typical surroundings and survey in this district." Courtesy of Latah County Historical Society.



Fig. 11: "J. M. Horine place 5 mi. east of Viola, old house 1st one in this section. New home modern & up to date shows what can be done on logged off land." Courtesy of Latah County Historical Society.

Boosters like Dimond exist in all times and places, of course, and cannot foretell such future trends on which scholars can rely to contextualize a historical moment. Their desire to promote their region may originate in munificent motives, but Dimond's photographs portray an economic and ecological transformation that would likely lead to a marginal financial and environmental future. While this series of photographs embraced and celebrated Jeffersonian agrarianism, what actually occurred in the region's agricultural development in these decades belied that ideal.

The environmental transformation so celebrated in the photographs of C. C. Dimond suggests a simple, natural, inevitable transformation of forest to field while being unable to show the poorer soils, increased erosion, and irreversible ecological succession that were part and parcel of that environmental change. And the Cutover Land Series certainly could not illustrate the downward economic trends that appear most readily in statistics after the fact. Inscribed on the landscape, the movement of forest to farm represents one of the most important environmental changes in western history. By viewing it simply as a natural and profitable process, boosters like Charlie Dimond and subsequent writers who celebrate the pioneering spirit can misrepresent the profound long-term ecological problems and fail to factor in contrary social and historical trends. Pictures may speak a thousand words, but they still do not tell the whole story.



Fig. 12: The contemporary Palouse landscape demonstrates the recolonization of farmland by trees

Adam M. Sowards is associate professor of history and director of the Institute for Pacific Northwest Studies at the University of Idaho. He is the author of United States West Coast: An Environmental History (ABC-Clio, 2007) and The Environmental Justice: William O. Douglas and American Conservation (Oregon State University Press, 2009).

Notes:

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- 1. Personal information from C. C. Dimond Obituary in Latah County Historical Society Archives, Small Collection 87-31.
- 2. Richard White, Land Use, Environment, and Social Change: The Shaping of Island County, Washington (1980; repr., Seattle:

University of Washington Press, 1992), 113.

- 3. Frieda Knobloch, *The Culture of Wilderness: Agriculture as Colonization in the American West* (Chapel Hill: University of North Carolina Press, 1996), 4-5, quotation from 5.
- 4. For example, see William G. Robbins, *Landscapes of Promise: The Oregon Story*, 1800-1940 (Seattle: University of Washington Press, 1997).
- 5. Dimond's use of "virgin" also shows the common cultural practice of depicting nature as feminine, pure, and passive waiting for a masculine civilization actively to subdue it. Many scholars have shown the way such gendering of the landscape is culturally and temporally bound, as well as being problematic in terms of both gender and environmental history. The most sophisticated analysis of this may be Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill: University of North Carolina Press, 1989).
- 6. M. A. Huberman, "The Role of Western White Pine in Forest Succession in Northern Idaho," *Ecology* 16 (1935): 137-39, 142, 145-50; J. A. Larsen, "Forest Types of the Northern Rocky Mountains and Their Climatic Controls," *Ecology* 11 (1930): 648-51, quotation from 651; J. A. Larsen, "Fires and Forest Succession in the Bitterroot Mountains of Northern Idaho," *Ecology* 10 (1929): 68-72. Johnson Parker, "Environment and Forest Distribution of the Palouse Range in Northern Idaho," *Ecology* 33 (1952): 451-61 provides greater detail about forest distribution in this region.
- 7. Gary B. Palmer, "Coeur d'Alene," in *Plateau*, ed. Deward E. Walker, Jr., vol. 12 of *Handbook of North American Indians*, ed. William C. Sturtevant (Washington: Smithsonian Institution, 1998): 313-26; Deward E. Walker, Jr., "Nez Perce," in ibid.: 420-38; and Roderick Sprague, "Palouse," in ibid.: 352-59.
- 8. For Indian burning in the ponderosa pine forests of the Blue Mountains, see Nancy Langston, *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (Seattle: University of Washington Press, 1995), 46-47. Keith Petersen, *Company Town: Potlatch, Idaho, and the Potlatch Lumber Company* (Pullman and Moscow: Washington State University Press and Latah County Historical Society, 1987), 219 n. 7.
- 9. Petersen, *Company Town*, 4-59. A model study of Palouse agricultural and environmental history is Andrew P. Duffin, *Plowed Under: Agriculture and Environment in the Palouse* (Seattle: University of Washington Press, 2007).
- 10. Petersen, Company Town, 99-103.
- 11. Stephen J. Pyne, *Fire: A Brief History* (Seattle: University of Washington Press, 2001), 65-90, quotation from 65; Stephen J. Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (1982; repr., Seattle: University of Washington Press, 1997).
- 12. Petersen, *Company Town*, 101, 246-47 n. 8. Dynamiting stumps could even be a sport, evidenced by a tri-county competition in northern Idaho in 1926 that judged the time, efficiency, cost, and ultimate results. "Announce Stump Blowing Contests," *Daily Star-Mirror* (Moscow, ID), February 24, 1926, 1.
- 13. For instance, E. T. Allen, Practical Forestry in the Pacific Northwest: Protecting Existing Forest and Growing New Ones, from the Standpoint of the Public and that of the Lumberman, with an Outline of Technical Methods (Portland: Western Forestry & Conservation Association, 1911), 106-7; Pyne, Fire, 83; Pyne, Fire in America, 100-22.
- 14. Pyne, Fire, 74, 88.
- 15. J. A. Larsen, "Effect of Removal of the Virgin White Pine Stand Upon the Physical Factors of Site," *Ecology* 3 (1922): 302-5; Larsen, "Fires and Forest Succession," 74.
- 16. Knobloch, Culture of Wilderness, 98.
- 17. White, Land Use, 46-47, 69; Knobloch, Culture of Wilderness, 113-45.
- 18. Anne E. Black, et al., "Biodiversity and Land-use History of the Palouse Bioregion: Pre-European to Present," in *Perspectives on the Land Use History of North America: A Context for Understanding Our Changing Environment*, ed. T.D. Sisk (Washington, D.C.: U.S. Geological Survey, 1998), http://biology.usgs.gov/luhna/chap10.html (accessed October 12, 2003). A useful history devoted to American attitudes toward exotic species is found in Peter Coates, *American Perceptions of Immigrant and Invasive Species: Strangers on the Land* (Berkeley: University of California Press, 2007).
- 19. Duffin, *Plowed Under*; D. W. Meinig, *The Great Columbia Plain: A Historical Geography*, 1805-1910 (1968; repr., Seattle: University of Washington Press, 1995), 223-26 and passim; Petersen, *Company Town*, 2.
- 20. "Historical Census Browser," University of Virginia Library, http://fisher.lib.virginia.edu/collections/stats/histcensus/, (accessed 21 January 2005).