Introduction

I was born into an Oregon logging family in 1974 and grew up in the middle of one of the biggest battles between environmentalists and natural resource industries in American history: the spotted owl crisis of the 1980s. This book is my attempt to reckon with the dominant event of my childhood: loving the forests while relying on my father harvesting them so we could eat. *Empire of Timber* is the story of timber workers and the environment created by industrial forestry in the twentieth century. It argues that workers long used their labor organizations to fight for their own environmental needs, be that a healthy and safe working environment, a forest managed for their interests rather than that of their employers, or work for the unemployed.

My family had long toiled in the hard, tiring, and poisonous work of turning the raw materials of the Pacific Northwest into industrial products. Ranching and logging were common jobs on my father's side, working for the Hanford nuclear site on my mother's. My father came home every morning from his graveyard shift at a plywood mill covered with industrial glue, his shirts stained purple. Scars crisscross his arms from a lifetime of wood splinters cutting his skin. He worked forty to sixty hours a week in an intense, fast-paced repetitive motion job that eventually necessitated carpal tunnel and rotator cuff surgeries. He worked very hard and when his body finally would not let him go on any longer, in his early sixties, he settled into a deserved retirement.

As relief from the daily toil of his job, when my brother and I were growing up, despite his exhaustion, he took us to the Cascade Mountains whenever he could. We might go fishing for the day at Leaburg Lake or take a drive to Crater Lake National Park or hike in the Three Sisters

Wilderness Area. We passed innumerable clearcuts on these drives and he would point to timber company signs saying "Next Harvest, 2010" or "Planted 1972" and tell us how the trees were a renewable resource that would come back and keep the next generation working while providing the beauty Oregon was known for. Today, although I live in faraway Rhode Island, I never feel more at home than on a trail in the Cascades or driving across Oregon's scenic McKenzie Pass. My father instilled that love of the Pacific Northwest forests in me.

But when I first flew in 1994, at the age of twenty, my life changed forever. I was shocked at the horrible damage to the forests I could see from the air. Everything I thought I knew about clearcuts was a lie. They were scars upon the landscape. Maybe the trees would grow back someday but the environmental impact of the timber industry became clear to me for the first time. Moreover, by 1994 the forests no longer even supported families like mine as the short-sighted timber industry prioritized short-term profits over long-term community stability and had laid off thousands of people they no longer needed to process their industrial forests. A transforming timber industry threatened my father's livelihood as well, through technological automation, overcutting the forests, the export of unprocessed logs to Japan, and an increasingly globalized timber resource.

Despite the complexity of the industry's changing economics, like thousands of other loggers and mill workers and their families in the 1980s, my father and the rest of my family pointed their fingers for job losses at the Northwest's growing community of environmentalists. "Save a Logger, Eat an Owl," "Earth First, We'll Log the Other Planets Later," and "Are You an Environmentalist or Do You Work for a Living?" became popular bumper stickers in my hometown when I was a teenager.[1] In the 1980s, environmentalists, organizing to hold the timber industry accountable to federal environmental laws enacted in the 1960s and 1970s, identified the northern spotted owl as a species that needed old-growth timber to survive. Its plummeting numbers became evidence that the timber industry not only had plundered the forest, but had also violated federal law in doing so. In particular, the National Forest Management Act of 1976, which required the U.S. Forest Service to maintain "viable populations" of native species, gave greens a new tool

[1] Richard White, "Are You an Environmentalist or Do You Work for a Living?," in William Cronon, ed., *Uncommon Ground: Rethinking the Human Place in Nature*," (New York: Norton, 1995), 171–85.

to change how the government operated the forests. Environmentalists sued to make it do so. The timber industry then blamed greens for all the job losses, using them as a convenient excuse to avoid responsibility for its culpability in unemployment. Despite industry attempts to paint them as outsiders, in fact local environmental groups made up of Northwestern residents, recent arrivals, or Oregonians for generations, powered much of the opposition to timber industry practices. Environmentalism was as native-born to Oregon as the timber workers.

Rhetoric ran high on both sides of the debate, with environmentalists accusing the timber industry of destroying the forests and loggers like my father pointing to the indifference of many environmentalists regarding the human costs of environmental protection. While some environmentalists certainly did show indifference toward workers' future, mostly this charge was unfair, although easy for desperate workers to believe. Still, some environmentalists did use harsh rhetoric against the timber industry and its workers. Too typical was Roy Keene's 1990 *High Country News* article entitled, "Raping the Private Forests." Keene's criticism of multinational corporations that abandoned small Oregon towns through unsustainable logging, the environmental impact of clearcutting, and log exports was valid. These issues had potential for building bridges with workers. Yet while the word "rape" may have caught readers' attention and galvanized people to action, it certainly did not generate understanding with the timber workers struggling to hold onto their jobs.[2] Rhetoric that the timber industry was "raping" the forest was overly harsh and unnecessarily sexualized, tapping into long-held gendered relationships with nature, but the long-term effects of clearcutting on forests, mountainsides, streambeds, and wildlife did engender an urgency among greens. The last old-growth forests were disappearing fast. Simplifying the timber industry into a monolith without differentiating between workers and owners might have made rhetorical sense, but did not accurately describe how many loggers felt about the forests. People such as my father and the many other timber industry employees I grew up with had complex relationships with the forest, loving the outdoors as much as greens but also having no way to make a living without permanently altering that forest.

[2] Roy Keene, "Raping the Private Forests," *High Country News*, November 19, 1990, 13–14. Of course, many publications provide article titles for pieces accepted so I do not know whether it was Keene or *High Country News* staff who suggested this term.

Growing up torn between environmentalism and work, between the conservative logging town of Springfield and the counterculture environmentalism of nearby Eugene, between the extractive and ecotopian Northwest, shaped who I am and stoked my desire to tell a more complete story about the history of the Northwest forests. As a historian who came to graduate school with a strong environmental ethic and with a background in the labor movement, I found myself drawn back to this foundational story of my youth and of Pacific Northwest history. As an environmentalist, I came to understand that the environmental critique of the timber industry was spot on and as a unionist, I felt deeply for the men and women and children like myself and my family who found their lives torn asunder by a timber industry mismanaging the forests.

The history of the forest is one of trees and owls, of timber executives and government foresters. But it is also a history full of human stories, lives crafted cutting down old-growth timber, laboring in remote timber camps, and dying in timber mills' saws. It is a history of workers acting collectively to demand that industry respect the integrity of their bodies and the long-term health of the forest. Logging transformed the forest into an industrial environment that loggers and mill workers had to negotiate every day to stay alive and employed. They worried about a future without timber. They went hunting and camping and hiking in their free time. They produced forest products and consumed forest leisure. Throughout the twentieth century, they acted collectively to press their interests on all of these issues.

This story places the actions of timber workers and their labor organizations at the center of twentieth-century forest history. The Northwest timber industry began in the mid-nineteenth century and scholars have explored its development in depth, centering around the tensions between the growing industry and the rise of conservationists trying to develop the forests rationally. Compared to the twentieth century, little labor agitation or worker critique of timber industry practices, either in its logging methods or working conditions, marked the period.[3] This changed with the rapid expansion of the timber industry after 1890. By the 1900s,

[3] Among the most important literature on the early history of logging in the Northwest is Robert Ficken, *The Forested Land: A History of Lumbering in Western Washington* (Seattle: University of Washington Press, 1987); Norman H. Clark, *Mill Town: A Social History of Everett, Washington, from Its Earliest Beginnings on the Shores of Puget Sound to the Tragic and Infamous Event Known as the Everett Massacre* (Seattle: University of Washington Press, 1970); Thomas R. Cox, *Mills and Markets: A History of the Pacific Coast Lumber Industry to 1900* (Seattle: University of Washington Press, 1974); Robert

Northwestern workers began organizing around the increasingly brutal conditions of their work, leading to the rise of the Industrial Workers of the World in the forests beginning in 1907. The labor history of the timber industry has detailed how loggers in the 1910s became radicalized and engaged in widespread strikes. These historians have expressed more interest in the radicalism of workers and the violence used against them by employers than placing them within the larger context of the larger twentieth-century timber industry.[4] The smaller labor history of the New Deal-era timber-worker unions either sees them as a minor part of a larger

Bunting, *The Pacific Raincoast: Environment and Culture in an American Eden, 1778–1900* (Lawrence: University of Kansas Press, 1997); Richard White, *Land Use, Environment, and Social Change: The Shaping of Island County, Washington* (Seattle: University of Washington Press, 1980); William G. Robbins, *Hard Times in Paradise: Coos Bay, Oregon, 1850–1986* (Seattle: University of Washington Press, 1988); Michael Williams, *Americans and Their Forests: A Historical Geography* (New York: Cambridge University Press, 1989), 289–330; Greg Gordon, *When Money Grew on Trees: A.B. Hammond and the Age of the Timber Baron* (Norman: University of Oklahoma Press, 2014). On the development of conservation and the forests, see Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement* (Cambridge: Harvard University Press, 1959); Samuel P. Hays, *Wars in the Woods: The Rise of Ecological Forestry in America* (Pittsburgh: University of Pittsburgh Press, 2007); David Clary, *Timber and the Forest Service* (Lawrence: University Press of Kansas, 1986); Henry Clepper, *Professional Forestry in the United States* (Baltimore: Johns Hopkins University Press, 1971); William B. Greeley *Forests and Men* (Garden City: Doubleday and Company, 1951); Harold T. Pinkett, *Gifford Pinchot: Private and Public Forester* (Chicago: University of Chicago Press, 1970); William G. Robbins, *American Forestry: A History of National, State, and Private Cooperation* (Lincoln: University of Nebraska Press, 1985); William G. Robbins, *Lumberjacks and Legislators: Political Economy of the U.S. Lumber Industry, 1890–1941* (College Station: Texas A&M University Press, 1982); Harold K. Steen, *The U.S. Forest Service: A History* (Seattle: University of Washington Press, 1976); Stephen Fox, *The American Conservation Movement: John Muir and His Legacy* (Madison: University of Wisconsin Press, 1986); Char Miller, *Gifford Pinchot and the Making of Modern Environmentalism* (Washington, D.C.: Island Press, 2001); Thomas R. Cox, *The Lumbermen's Frontier: Three Centuries of Land Use, Society, and Change in American Forests* (Corvallis: Oregon State University Press, 2010).

[4] Carlos Schwantes, *Hard Traveling: A Portrait of Work Life in the Pacific Northwest* (Lincoln: University of Nebraska Press, 1994); Andrew Mason Prouty, *More Deadly Than War: Pacific Coast Logging, 1927–1981* (New York: Garland Publishing, 1985); Philip Dreyfus, "Nature, Militancy, and the Western Worker: Socialist Shingles, Syndicalist Spruce," *Labor* 1, no. 3 (2004): 71–96; Robert L. Tyler, *Rebels of the Woods: The I.W.W. in the Pacific Northwest* (Eugene: University of Oregon Press, 1967); John McClelland, Jr. *Wobbly War: The Centralia Story* (Tacoma: Washington State Historical Society, 1978); *Soldiers and Spruce: Origins of the Loyal Legion of Loggers and Lumbermen* (Los Angeles: Institute of Industrial Relations, University of California, Los Angeles, 1963); Tom Copeland, *The Centralia Tragedy of 1919: Elmer Smith and the Wobblies* (Seattle: University of Washington Press, 1993); Vernon Jensen, *Lumber and Labor* (New York: Farrar and Rinehart, 1945).

organization, in the case of those affiliated with the United Brotherhood of Carpenters (UBC), or focuses on internal radical politics in the case of the International Woodworkers of America (IWA). This has led to large gaps in our understanding of the role timber-worker unions have played in shaping the timber industry through the twentieth century.[5]

If the history of workplace activism remains largely unconnected to the Northwest's larger environmental debates, the sizable literature on forest policy and environmental debates in the postwar period has mostly relegated workers and their unions to passing references and footnotes. The postwar housing crisis and political pressure to increase the cut led to a vast overharvesting of the national forests after World War II. In the 1950s, wilderness advocates began putting pressure on the government to preserve not only high mountain areas but also valuable stands of old-growth timber from the saw. The Forest Service sought to exclude these forests from preservation and the cut largely continued unabated. By the 1970s, the growing environmental movement began using the courts to enforce environmental legislation such as the Endangered Species Act and National Forest Management Act. This included suing to protect the northern spotted owl, whose habitat requires preserving the last old-growth forests in the region. The growing ecological crisis in the forest, embodied in the spotted owl controversy, began to make national headlines as environmentalists clamored for locking up the remaining old growth and the timber industry proclaimed the doom that would result.[6]

[5] Jerry Lembcke & William M. Tattam, *One Union in Wood: A Political History of the International Woodworkers of America* (New York: International Publishers, 1984); Andrew Neufeld and Andrew Parnaby, *The IWA in Canada: The Life and Times of an Industrial Union* (Vancouver: IWA Canada/New Star Books, 2000); Walter Galenson, *The United Brotherhood of Carpenters: The First Hundred Years* (Cambridge: Harvard University Press, 1983).

[6] On logging and forestry after World War II, see Paul Hirt, *A Conspiracy of Optimism: Management of the National Forests since World War Two* (Lincoln: University of Nebraska Press, 1996); Nancy Langston, *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (Seattle: University of Washington Press, 1995); Susan R. Schrepfer, *The Fight to Save the Redwoods: A History of Environmental Reform, 1917–1978* (Madison: University of Wisconsin Press, 1983); James Morton Turner, *The Promise of Wilderness* (Seattle: University of Washington Press, 2012); Richard Rajala, *Clearcutting the Pacific Rain Forest: Production, Science, and Regulation* (Vancouver: University of British Columbia Press, 1998); David Clary, *Timber and the Forest Service* (Lawrence: University of Kansas Press, 1986); Carsten Lien, *Olympic Battleground: The Power Politics of Timber Preservation* (San Francisco: Sierra Club Books, 1991); Ben W. Twight, *Organizational Values and Political Power: The Forest Service versus the Olympic National Park* (State College: The Pennsylvania State University Press, 1983); Gerald W. Williams, *The U.S.*

With few exceptions however, the literature on forest history largely leaves everyday workers out of the discussion. If workers play a role in these histories, they only participate in protests against spotted owl protection without exploring these actions in the context of workers' historical relationships with the forest and their employers.[7] In contrast, *Empire of Timber* places labor organizations squarely at the center of the environmental history of the Pacific Northwest forests through the twentieth century. Individual loggers had very little power to transform their day-to-day interactions with the forests; employed as an independent contractor or as an employee of a large corporation, the logger's or millworker's day meant the production of timber in order to keep his (and increasingly by the 1970s, her) job. However, like laborers throughout the nation, timber workers created or joined labor organizations, whether labor unions or cooperatives, to advance their personal and political goals. They sought an equitable environment that prioritized both shepherding of the timber resource and workplace protection from the dangers of industrial logging. Different union cultures created different reactions to the rise of environmentalism and environmental organizations found common ground with some unions for the mutual benefit of both.

Forest Service in the Pacific Northwest: A History (Corvallis: Oregon State University Press, 2009); Mark Harvey, *Wilderness Forever: Howard Zahniser and the Path to the Wilderness Act* (Seattle: University of Washington Press, 2005); Kevin Marsh, *Lines in the Forest: Creating Wilderness Areas in the Pacific Northwest* (Seattle: University of Washington Press, 2009); Darren Speece, "From Corporatism to Citizen Oversight: The Legal Fight over California Redwoods, 1970–1996," *Environmental History* 14, no. 4 (October 2009): 705–36; Speece, "Defending Giants: The Battle over Headwaters Forest and the Transformation of American Environmental Politics, 1850–1999," Ph.D. Dissertation, University of Maryland, 2010; Douglas Bevington, *The Rebirth of Environmentalism: Grassroots Activism from the Spotted Owl to the Polar Bear* (Washington, D.C.: Island Press, 2009; Christopher McGrory Klyza and David J. Sousa, *American Environmental Policy, 1990–2006: Beyond Gridlock* (Cambridge: The MIT Press, 2007); Christopher Klyza, *Who Controls Public Lands?: Mining, Forestry, and Grazing Policies, 1870–1990* (Chapel Hill: University of North Carolina Press, 1996); Thomas R. Wellock, "The Dickey Bird Scientists Take Charge: Science, Policy, and the Spotted Owl," *Environmental History* 15, no. 3 (July 2010): 381–414; Hans Brendan Swedlow, "Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest," Ph.D. Dissertation, University of California, 2002; William Robbins, *Nature's Northwest: The North Pacific Slope in the Twentieth Century* (Tucson: University of Arizona Press, 2011); William Robbins, *Landscapes of Conflict: The Oregon Story, 1940–2000* (Seattle: University of Washington Press, 2004).

[7] The most prominent exception is Robbins, *Hard Times in Paradise*. By non-historians, see Brinda Sarathy, *Pineros: Latino Labour and the Changing Face of Forestry in the Pacific Northwest* (Vancouver: University of British Columbia Press, 2012); Beverly A. Brown, *In Timber Country: Working People's Stories of Environmental Conflict and Urban Flight* (Philadelphia: Temple University Press, 1995).

In examining these issues, this book builds upon the growing literature on work and nature to center the role played by labor unions in shaping workers' responses to a natural world transformed by industrialization.[8] Labor unions are the most established method of workers channeling discontent toward employers and displaying power on the job. Understanding how labor unions shaped the responses to people knowing nature through labor must be central to the environmental history of work. Examining how unions conceptualized nature to appeal to members or how unions articulated a specific environmental program that shaped resource usage are understudied questions in the environmental history of work. Labor historians have begun exploring these questions, particularly how unions began influencing environmental policy based upon members' desire for leisure. However, there remains a great deal of room for expanding our understanding of the roles working people have played in environmental debates.[9]

This book focuses on five labor organizations to tell the story of timber workers' activism over the industrial forests created by the timber

[8] Thomas G. Andrews, *Killing for Coal: America's Deadliest Labor War* (Cambridge: Harvard University Press, 2008); Scott Dewey, "Working for the Environment: Organized Labor and the Origins of Environmentalism in the United States, 1948–1970," *Environmental History* 3, no. 1 (January 1998): 45–63; Myrna Santiago, *The Ecology of Oil: Environment, Labor, and the Mexican Revolution* (New York: Cambridge University Press, 2006); Gunther Peck, *Reinventing Free Labor: Padrones and Immigrant Workers in the American West, 1880–1930* (New York: Cambridge University Press, 2000); Gunther Peck, "The Nature of Labor: Fault Lines and Common Ground in Environmental and Labor History," *Environmental History* 11, no. 2 (April 2006): 212–38; Don Mitchell, *The Lie of the Land: Migrant Workers and the California Landscape* (Minneapolis: University of Minnesota Press, 1996); Mitchell, *They Saved the Crops: Labor, Landscape and the Struggle over Industrial Farming in Bracero-Era California* (Athens: University of Georgia Press, 2012); Chad Montrie, *Making a Living: Work and Environment in the United States* (Chapel Hill: University of North Carolina, 2008); Stefania Barca, "Laboring the Earth: Transnational Reflections on the Environmental History of Work, *Environmental History* 19, no. 1 (January 2014): 3–27; Gregory Rosenthal, "Life and Labor in a Seabird Colony: Hawaiian Guano Workers, 1857–1870," *Environmental History* 17, no. 4 (October 2012): 744–82; Kathryn Morse, *The Nature of Gold: An Environmental History of the Klondike Gold Rush* (Seattle: University of Washington Press, 2003).

[9] Lawrence Lipin, *Workers and the Wild: Conservation, Consumerism, and Labor in Oregon, 1910–1930* (Urbana: University of Illinois Press, 2007); Lisa M. Fine, "Workers and the Land in US History: Pointe Mouillée and the Downriver Detroit Working Class in the Twentieth Century," *Labor History* 53, no. 3 (August 2012): 409–34; Scott Dewey, "Working for the Environment: Organized Labor and the Origins of Environmentalism in the United States, 1948–1970," *Environmental History* 3, no. 1 (1998): 45–63.

industry. First, it examines the Industrial Workers of the World (IWW). The IWW organized Northwest loggers between 1907 and World War I, focusing primarily on the brutal conditions industrial capitalism forced upon timber workers: flea-ridden bedding, adulterated food, unsanitary toilets, untreated disease, death and dismemberment from logging machines. Second, it considers the Loyal Legion of Loggers and Lumbermen (Four-L), an industry-wide company union created by the U.S. Army in 1918 in order to organize loggers to cut trees for military airplane production. Crafted as a response to the IWW and continued on a voluntary basis until 1937, the Four-L solved most of the sanitation problems that led Wobbly loggers to strike, demonstrating the power of workers to force responses to environmental problems, even outside of unionization. Third, the book explores the International Woodworkers of America in significant detail. Organized in 1937, the Congress of Industrial Organizations-affiliated IWA was the first union to challenge timber-industry forestry policy, going so far as to hire a professional forester to lobby for its agenda of federal regulation over private forestry. The IWA built connections with environmental organizations from the 1930s to the 1980s, supported wilderness areas, and argued for forest protection based upon protecting members' right to recreate after collectively bargained higher wages and shorter hours gave them the ability to play in the forests. In the 1970s, the IWA used environmental language to reinvigorate its workplace health program, pushing companies and the federal government for a reshaping of the timber workplace environment. However, the IWA was not the only labor union representing timber workers. Fourth, the book examines the United Brotherhood of Carpenters. The UBC opposed the IWA forestry agenda from the 1930s through the 1980s, arguing that real worker representation meant opening more forests to logging. Particularly in the response to Redwood National Park expansion in the 1970s, the Carpenters channeled worker activism in opposing greens as anti-worker outsiders. Finally, the book takes countercultural reforestation workers in the 1970s and 1980s seriously. It details how their experiences with herbicide poisoning shaped their life within the forest, built class consciousness among people who thought of themselves as independent operators in the forest, and created the potential for a new alliance between traditional labor unions and these new forest workers. The IWA, UBC, and reforestation cooperatives all created and adjusted to a radically transforming Pacific Northwest forest economy, one that laid off thousands of workers to increase corporate profits while the

region's changing demographics meant that many forests had more economic value remaining standing than being logged.

Examining these five organizations helps elucidate three major themes in the historical relationship between work, unions, and the Northwest forests. First, life in the forest placed timber workers on the front line of environmental transformations and they acted to protect themselves from the worst effects of the new timber ecology. Limiting a discussion of loggers' environmental activism to forest policy would sell short the loggers' own understanding of the environmental impact of logging, which they also connected to the physical impact upon their bodies. It would also reinforce popular notions of environmentalism as "out there," not in the workplace, home, and body. Rather, timber workers responded to the "workscape" created by the timber industry by organizing to moderate its impact upon their bodies.[10] Environmental historians have developed a vigorous literature on health and the body in recent years that demonstrates the centrality of understanding landscape and protecting oneself from the impact of industrial hazards for environmental history, a literature to which this book contributes.[11]

In their daily lives in the logging camps, timber workers faced a "slow violence" to their bodies, "a violence that occurs gradually and out of sight . . . an attritional violence that is typically not viewed as violence at

[10] Thomas Andrews defines the "workscape" as "a place shaped by the interplay of human labor and natural processes," a concept "that treats people as laboring beings who have changed and been changed by a natural world that remains always under construction." Andrews, *Killing for Coal*, 125.

[11] Linda Nash, *Inescapable Ecologies: A History of Environment, Disease, and Knowledge* (Berkeley: University of California Press, 2006); Conevery Bolton Valencius, *The Health of the Country: How American Settlers Understood Themselves and Their Land* (New York: Basic Books, 2002); Nancy Langston, *Toxic Bodies: Hormone Disruptors and the Legacy of DES* (New Haven: Yale University Press, 2010); Gregg Mitman, "In Search of Health: Landscape and Disease in American Environmental History," *Environmental History* 10, no. 2 (April 2005): 184–210; Gregg Mitman, *Breathing Space: How Allergies Shape Our Lives and Landscapes* (New Haven: Yale University Press, 2009); Neil M. Maher, *Nature's New Deal: The Civilian Conservation Corps and the Roots of the American Environmental Movement* (New York: Oxford University Press, 2008); On the environment of the workplace, see Brett Walker, *Toxic Archipelago: A History of Industrial Disease in Japan* (Seattle: University of Washington Press, 2010); Christopher Sellers, *Hazards of the Job: From Industrial Hygiene to Environmental Health Science* (Chapel Hill: University of North Carolina Press, 1998); David Rosner and Gerald Markowitz, *Dying for Work: Workers' Safety and Health in Twentieth-Century America* (Bloomington: Indiana University Press, 1986); Arthur McEvoy, "Working Environments: An Ecological Approach to Industrial Health and Safety," *Technology and Culture* 36 (April 1995): S145–73.