Building Nature:
Topics in the Environmental History of
Seattle and Spokane

A Curriculum Project for Washington Schools

Developed by
Matthew W. Klinge
Center for the Study of the Pacific Northwest
University of Washington Department of History
I. Introduction: Two Cities, Two Environments

In the minds of many, Seattle and Spokane are cities where people move to so they can be closer to nature, not removed from it. Seattle stands astride a narrow strip of land between Lake Washington and Puget Sound, ringed by the Cascade Range to the east and the Olympic Mountains to the west. Spokane lies along the Spokane River with a series of falls in its middle, embraced by the Palouse Country to the south and the Rockies to the east. Spokane and Seattle are places where the outdoors sits (or seems to) at the urban doorstep. When visitors come to town, Seattleites take them to Discovery Park or the Space Needle, always for a view of the surrounding mountains that, even when hidden by clouds or fog, are one measure for what makes the city great. Spokanites take visitors to Spirit or Hayden Lakes, on a drive through Spokane Canyon, or to the former Expo'74 Fairgrounds to see a spectacular river flow through the center of town. Residents of both places tell themselves and their visitors with pride that no other city can boast of such beauty so close to town.

Nature is more than scenery, however. It is part of Seattle and Spokane, although today’s buildings and highways seem to mask the natural environment and the role it played in the history of both cities. Nature comes into the city in the form of the produce in local farmers’ markets, fish that line grocery stalls, or lumber stacked behind hardware stores. Nature also enters urban life through power lines carrying the energy of the Columbia or Skagit Rivers, or the pipelines bringing water to homes, schools, and businesses. Nature leaves the city in the shape of products manufactured from the plants, animals, and minerals that flow into urban
factories and companies as raw materials, or in the streams of garbage and sewage destined for treatment plants or landfills. And nature exists in Seattle and Spokane in the form of parks, boulevards, and neighborhoods planned with the out-of-doors in mind. Cities are places where the built and the natural intertwine, often in complex and contradictory ways. The purpose of these materials is to help illuminate such how people shape nature in Northwest cities and how nature shapes people and their cities in turn.

Because of space restrictions, this project consists of particular episodes in the environmental history of two Washington cities: Seattle and Spokane. The project divides into four sections, each exploring particular facets of city’s history. These sections may be taught together as a unit, or used separately as individual lessons. Questions and teaching suggestions accompany each section, as well as more general activities at the end of the essay. A proper name and subject index is included as a finding aid. A timeline provides important dates in the environmental history of Washington and the Pacific Northwest. Finally, the project includes a bibliography, suggested videos, and on-line resources that teachers may consult for further information.

This project is far from exhaustive. It shows how certain documents—business records, booster brochures, newspaper articles, city plans, engineering surveys and political campaign literature, to name a few—testify to the environmental history of urban places. The documents in this packet focus on trade, city boosters, urban design and planning. Of course, there are other topics to explore and other cities to examine: public health and sanitation, wildlife, pollution, waste management, and environmental justice. Instead, teachers and students should use this project as a guide for building their own collections on urban and environmental history, or for teaching these aspects of Pacific Northwest history in their classrooms.

II. Trading Nature: Economic Hinterlands of Seattle and Spokane

Commerce is the economic lifeblood of any city. It provides jobs for citizens and money for development. In the Northwest, as elsewhere, urban life stands upon the ability of cities to transform nature into commodities in order to provide and attract commerce and capital. Seattle and Spokane have sold themselves as places to do business, exploit resources, and organize labor in pursuit of profit. Both cities have tried to secure areas beyond their limits as hinterlands for raw materials and potential markets. They have sold themselves as points of departure for trips to national parks and other recreation destinations. And cities have worked against one another, hoping to capture the trade of their rivals. City and countryside, metropolis and hinterland connect through networks of trade, tourism, and transportation.

Seattle and Spokane are two Northwest examples of how cities organize nature through commerce. From their beginning, each city was connected to its surrounding resources. The North West Company established Fort Spokane in 1810 to collect furs from the Spokane, Nez Perce, Cayuse and other native groups for shipment to Montreal, then London. The Hudson’s Bay Company maintained near present-day Olympia at Fort Nisqually, and routinely traded with the native peoples who lived around Puget Sound. It was this bounty of resources—furs, fish, timber and farmland—that attracted Euro-American settlers first to Oregon’s Willamette Valley, then Puget Sound and the Spokane region. Early colonists in the latter two places quickly established industries to exploit local resources: timber and fishing in Seattle, timber and farming
in Spokane. Developing nature became part of growth and progress by the middle of the nineteenth century. But development required capital and labor, two things lacking in early Washington territory. Throughout most of the nineteenth century, both cities relied on outside investment, distant markets, and migratory labor to fuel commerce. They also relied upon other cities and other regions to make their own growth and progress possible.

California was the major source during this period for capital, markets, and workers. Seattle, Spokane, and outlying areas were resource-rich hinterlands to a booming San Francisco. The discovery of gold in 1848 made California the economic engine of the Pacific slope. Sailing vessels plied the coast carrying timber, coal, and wheat to the Bay Area, and bringing workers and manufactured goods back to the Northwest. Each city had its own close connection to California. Before the arrival of the railroad, Spokane relied on the Columbia River and distant Portland for access to California markets while Seattle depended on direct shipping via Puget Sound for its trading livelihood.

The arrival of the railroad freed both cities from the maritime geography of nature and commerce in the Northwest. The extension of the Northern Pacific to Spokane in 1883 and the Great Northern to Seattle in 1893, created outlets for both cities besides California. Nature was what lured the railroad to the Northwest in the first place, thanks to generous federal government land grants that made railway companies, such as the Northern Pacific, some of the largest owners of timber and farmland in the region. Eager to develop their holdings, as well as the markets that lay upon their routes, the railroads helped to build the cities as feeder lines, branching out from the trunk lines, snaked into the surrounding forests, farms, and mountains, drawing more people and resources into the urban orbit. The railroads seemed to promise economic independence to Seattle and Spokane, but they also limited how each city could trade with the outside world.

Nowhere was the effect of the railroads more dramatic than in Spokane. From its arrival the Northern Pacific worked with local business interests to build feeder lines into the surrounding mountains and farmland. Henry Villard, then head of the Northern Pacific, realized the potential of tapping the rich lands surrounding Spokane and pushed for extending the road throughout the interior Pacific Northwest during the 1880s. Mineral discoveries in the Coeur d’Alene, Colville, and Kootenai districts north and east of Spokane attracted even more investors and workers. Farms sprouted in the Big Bend region to the west and the Palouse to the south at the turn of the century, thanks to the railroad. The creation of Glacier National Park in 1910 and the rise of tourism and outdoor recreation throughout the nation gave Spokane another hinterland as urban residents and distant visitors came to enjoy the Northwest outdoors. The Great Northern Railway was the most active promoter of the park, offering tourist packages that often included an overnight stay in Spokane. By the 1920s, a network of interconnected feeder lines, often owned by the Northern Pacific or the Great Northern, branched out from Spokane, interlacing with mines in the Idaho panhandle, farms along the Columbia or Snake Rivers, and resorts in the Rocky Mountains. Soon, Spokane referred to its vast tributary region as “the Inland Empire.”

In Seattle, the railroad’s effect was less dramatic but just as profound. The Northern Pacific slighted the city in 1883, choosing Tacoma as its terminus instead. A flurry of real estate speculation left the city with empty retail space and frustrated businesses. When James J. Hill proposed building his Great Northern Railway between St. Paul and the Pacific Northwest,
Seattle lobbied to be the western terminus. Hill agreed and began to lay the groundwork to make Seattle his hub. By the time the Great Northern arrived in Seattle in 1893, Hill controlled a large section of the waterfront, built largely upon reclaimed tidelands. The tidelands were the ocean gateway for Hill’s railway. He and other Seattle leaders envisioned a trans-Pacific trade network of rails and steamships, playing upon an old theme in American commerce with China and East Asia. Seattle’s exports to Asia jumped dramatically, as did its shipments to the Midwest. Frederick Weyerhaeuser, a St. Paul neighbor of Hill, came west from the cutover timberlands of the old Northwest with the railroad to harvest trees on public lands in the Pacific Northwest in 1900. Unlike lumber milled earlier at the water’s edge for shipment by boat to San Francisco, Weyerhaeuser timber traveled east to yards in the Twin Cities or Chicago. Seattle had finally broken free of absolute dependency upon California, but like Spokane it was now dependent on Midwestern markets for its livelihood as well.

The railroad also enabled Seattle to take over the Alaska markets that had once belonged to San Francisco, but Seattle did not depend on the railway alone. As a maritime town, Seattle would eventually claim even more tributary territories than Spokane. The 1897 Klondike gold strike gave the city its justification for this expansive hinterland that eventually included Alaska, Canada’s Yukon Territory, and East Asia. Seattle made its fortune on mining the miners who passed through its ports to Alaska and Canada. Companies like Schwabacher Hardware and Filson’s Clothing outfitted prospectors, while Moran Shipyards built flat-bottomed steamers to navigate shallow Arctic rivers. Coupled with the burgeoning Asian market, Seattle soon looked to the entire northern Pacific as its hinterland. The 1909 Alaska-Yukon-Pacific Exposition, held in Seattle, celebrated such ambitions. It proclaimed Seattle as an imperial city built on the wealth of nature and the effort of enterprising residents. Following the fair, Seattle business interests continued lobbying for Alaskan home rule, expanded extractive industry, and emigration to boost the territory’s population. By helping Alaska to help itself, Seattle benefited its own economic interests.

By the beginning of the 1900s, both cities had matured into regional centers for commerce, trade, and tourism. Spokane grew more independent from Portland’s markets while Seattle outdistanced Tacoma, then Portland, in terms of population and economic power by the early 1900s. Both cities had captured or created hinterlands of their own, exploiting them to the advantage of urban growth and prosperity. Yet relying on nature for economic sustenance was an uncertain affair. When the timber market took a nosedive after World War I, both cities suffered; and when mines ran out or the fisheries grew thin, the local economic effects could be profound.

Having hinterlands did not always mean that nature provided, however. There were other environmental costs, too. Irrigated agriculture in the Inland Empire drew down rivers and imperiled salmon runs as a result. Timber cutting left whole mountainsides susceptible to erosion, choking rivers with debris and posing another threat to migratory salmon. Mining rearranged whole river systems in order to use water to extract valuable ore, leaving behind poisonous tailings and denuded hillsides in its wake.

Forging hinterlands also could bring unwanted changes from those who felt trapped in the urban orbit. Farmers throughout rural Washington, like their compatriots across the United States, banded together beneath the banner of Populism at the turn of the twentieth century to fight
against exorbitant railroad shipping rates, expensive agricultural tariffs, and high interest on farm loans. Alaskans welcomed Seattle’s help in their quest for statehood, but often resented how Seattle businesses seemed to profit first.

Urban environmental history, then, is more than about the city. It is also about the connections between the metropolis and the places that change through trade, commerce, and industry. The documents for this section chart how each city created and captured hinterlands to promote growth in the years before World War II. Students should analyze how Seattle used Alaska to boost its fortune, and how Spokane used Idaho mines and eastern Washington farms to fill its civic coffers. Most of these documents come from boosters—groups and individuals, affiliated with business or city government, who tried to attract investment and settlers to their locales. Boosters consciously created particular images of their city, its industries, and its natural resources, but these images, as with any historical document, only tell a partial story of the past.

Spokane: Documents and Questions

Booster pamphlets, Chamber of Commerce reports, and tourist guides are all documents written to entice investors and settlers. The following six documents from Spokane illustrate the changing ways that urban boosters used images of nature to sell their city and its proclaimed hinterland. Consider the following questions as you analyze these documents:

- Did boosters inflate the wealth and status of Spokane? If so, how and in what ways? Why did Spokane residents want to boost the opportunities in their town? Would they have lured you to consider Spokane for business or a place to live?
- What lands and areas did Spokane claim as its hinterland, the "Inland Empire"? Did the Inland Empire seem to change over time? Would residents of places like Lewiston, Idaho or the Okanogan Valley in British Columbia, Canada, have agreed with the assumptions made by Spokane boosters?
- How did boosters describe nature? Did their language change over time? What kinds or types of nature did they emphasize and why?
- What kinds of industry and agriculture did boosters highlight? Did these change over time?
- Do you notice changes in the systems of transportation over time? How might changes in transportation affect how Spokane connects to its hinterland, the Inland Empire?
- Who were Spokane’s major urban rivals in the Pacific Northwest? What cities did Spokane seem to compare itself to? How did these rivalries affect how Spokane sold itself and its natural abundance?

Documents


5. Farming in the Inland Empire. Spokane Chamber of Commerce, *A Farm Home For You in the Inland Empire* (Spokane: Chamber of Commerce, c. 1930?).


---

**Seattle: Documents and Questions**

Beginning with the arrival of the railroad and the Klondike gold rush, Seattle political and business leaders developed Alaska as a hinterland for their city. (For more information on Seattle’s relationship with Alaska, see the [Klondike curriculum packet](#) developed by Kathryn Morse, available through this site.) These documents illustrate how some Seattleites before World War II imagined how Alaska’s natural abundance could boost Seattle’s fortunes. They also show how Seattle tied itself to Alaska and East Asia through transportation, politics, and commerce. Consider the following questions as you analyze these documents:

- Compare Seattle in 1884 to Seattle in 1930 and 1945. How did representations of the city change over time? How did representations of the city’s hinterland—Alaska, the Yukon, and the Far East—change over time as well?
- Did boosters inflate the wealth and status of Seattle? If so, how and in what ways? Why would Seattle residents want to boost the opportunities in their town? Would they have lured you to Seattle?
- How did boosters describe nature? Did their language change over time? What kinds or types of natural resources did they emphasize and why? Did some Seattleites fear that Seattle is too dependent on nature for its livelihood?
- What kinds of industry and agriculture did boosters highlight? Did these change over time?
- Who were Seattle’s major urban rivals in the Pacific Northwest? What cities did Seattle seem to compare itself to? How did rivalries affect how Seattle sold itself and its natural abundance?
- What lands and areas did Seattle claim as its hinterland? Did the boundaries of its hinterland seem to change? How did Seattle’s hinterland compare to Spokane’s?
Why did Seattleites emphasize Alaska’s size, wealth and remoteness? Was Alaska a special region in Seattle’s hinterland? Why? How might Alaskans have felt toward Seattle during this period?

Documents


8. *Building Seattle*, George H. Emerson, *The Building of a Modern City* (Seattle: Metropolitan Building Company, 1907) [from an address given to the stockholders on 14 October 1907], Pacific Northwest Collections, University of Washington Libraries.


III. Constructing Nature: Urban Planning and Design in Seattle

While Seattleites worked to bring Alaska and East Asia into their commercial orbit, they also worked to design for nature within their city. From the earliest days of white American settlement, Seattleites put lines on the land to mark private and public property boundaries. As the city matured, however, residents realized that they needed to manage and direct growth by more comprehensive means. Early planning emphasized the role of Seattle as a port for natural resources. The face of Seattle would reflect its dependence on turning nature into commodities for trade, but it would also reflect how residents had grown concerned that nature was now something to be protected, not merely exploited.

By the end of the nineteenth century, Seattle residents, like Americans across the country, worried that the nation’s natural bounty was failing. Vanishing herds of bison and hillsides stripped of trees pointed to the wasteful and inefficient use of natural resources. The conservation movement grew out of such concerns, and noted conservationists, such as Gifford Pinchot, the first head of the new United States Forest Service, lobbied to enact new policies designed to protect and conserve the nation’s natural abundance. Other Americans, such as John Muir, extended their concern for nature beyond the desire to use resources more judiciously. In contrast to the conservation movement, the preservation movement lobbied to set aside more land for scenery and recreation. While historians have often distinguished between the two movements, arguing that conservationists stressed managing resources more efficiently and equitably while preservationists stressed protecting nature for its beauty and intrinsic value, both spoke to Americans’ broader concerns that nature was under siege.

These changing attitudes toward nature also touched upon the lives of urban residents, especially during the Progressive Era. At the same time that Americans began to rally behind the conservation and preservation movements, they also worried what urbanization would do to their
nation. Cities had become environmental problems, filled with pollution, devoid of open space, and cut off from their surrounding countryside by bands of buildings and train tracks. As early as the 1850s, reformers in Eastern cities, such as Frederick Law Olmsted, began building municipal parks, such as Central Park in New York, to bring nature back into the city. By the 1890s, the park building craze culminated in what historians have called the "City Beautiful Movement," a constellation of reforms that used parks and buildings to uplift residents and eliminate blight. The City Beautiful Movement shaped urban planning and design in almost every major American city and Seattle was no exception.

After the Klondike gold rush, Seattle’s population boomed, bringing with it many of the problems that afflicted larger cities in California, the Midwest, and the northeastern seaboard. From 1890 to 1920, the population swelled by nearly 9000%, from 3,553 to 315,312—the most dramatic increase of any city in the Northwest. As settlement spread across Seattle’s hills and valleys, many residents became concerned that growth would lead to inefficiency, sprawl, and ugliness. Remaining stands of timber fell before real estate developers and streetcar lines. Shacks filled with itinerant workers crammed the waterfront along Elliott Bay and Shilshole Bay. Safe and beautiful parks and playgrounds for the city’s children were scarce. Reformers sought to correct these problems before they ruined the city. Residents listened to reformers and empowered engineers and planners to bring order and beauty to Seattle.

One solution was to make Seattle into an urban garden with more parks, boulevards and open spaces. In 1903, the city government hired the Olmsted Brothers, the famous landscape architectural firm from Brookline, Massachusetts, founded by Frederick Law Olmsted, to design a citywide park system. For the next two decades, the Olmsteds were responsible for designing nearly all of the Seattle’s major parks, including Volunteer Park and Green Lake Park, as well as the 1909 Alaska-Yukon-Pacific Exposition, which was later incorporated into the University of Washington campus.

Parks were not the only vehicles for improving Seattle, however. In 1911, Virgil Bogue, a former railway surveyor and engineer, was hired as the Municipal Plans Commissioner and proposed an ambitious plan to guide the city’s growth and development. Hallmarks of Bogue’s plan included an enormous new civic center just north of the downtown business district, widened and tree-lined streets, and spacious parks based upon the 1903 Olmsted plan that would encompass the entire region from Puget Sound to the Cascade foothills. Together with the Olmsted parks, the so-called "Bogue Plan" was Seattle’s version of the City Beautiful.

As with so many urban designs, however, neither the Olmsted’s parks nor Bogue’s municipal plan were fully enacted. The "Bogue Plan," was defeated in the 1912 election after voters balked at the enormous expense, but much of the Bogue’s recommendations, from a regional parks system to improved highways and roads, later adopted in subsequent urban designs. The original Olmsted plan was pared back when it proved too expensive, but enough remained to ring the city in garlands of green. While some historians have argued that the original Olmsted and Bogue proposals fell before commercial interests and fiscal conservatives desirous to keep prime real estate out of public hands, this answer is too simple. Seattle was still tightly linked to extractive industries whose fortunes rose and fell on the mercurial swings in metal futures, the fisheries market, or demand for timber. Moreover, while Seattle’s population had exploded after the
Klondike gold rush, the city had a relatively limited tax base thanks, in part, to the large numbers of residents who worked seasonally in extractive industries. Finally, many Seattle residents did not see the need for an expansive park system when so much spacious public land lay within a day’s train ride or drive from their homes.

After the Second World War, Seattleites attitudes toward nature in the city changed yet again with the rise of the postwar environmental movement. Just as reformers during the Progressive Era decried Seattle’s filthy neighborhoods, reformers during the 1960s and 1970s seized upon the same themes in their critique of a Seattle sprawling out of control. As with other cities across the nation during the postwar era, economic growth during the 1950s drove urban expansion into the environs surrounding Seattle. Cold War defense spending poured into Boeing and its local subcontractors, generating more jobs and attracting more migrants. Real estate developers, catering to Americans’ desires for grassy yards and new tract homes, helped to turn the small towns of Renton, Bellevue, Auburn and Kirkland into full-blown suburbs. This sudden growth spurt had unforeseen and unwanted environmental effects. More residents meant more cars on more roads with more pollution and more suburban sprawl. Industries and homes along Lake Union, Lake Washington, and the Duwamish River spilled more and more waste into the water. Salmon had disappeared from many local streams while smog began to obscure the city’s famous views. Nature in Seattle again seemed imperiled.

By the 1960s, many area residents began to embrace what historian Samuel P. Hays has called the pillars of the postwar environmental movement: beauty, health, and permanence. Many Seattleites no longer saw their livelihood tied to fishing, logging, or mining. Instead, they saw nature as a playground or place for contemplation, a thing of loveliness not utility. They considered polluted skies and waters, endangered wildlife, and diminished outdoor recreation as a direct threat to their physical and emotional welfare. And in order to protect what was still left and restore what had been damaged, reformers turned again to better planning and growth management.

The crusade to rescue Lake Washington was emblematic of this new urban environmentalism. The growth of suburbs around Lake Washington led to an increase of untreated sewage dumped into the lake. By the mid-1950s, water in Lake Washington was so polluted that swimming was impossible. Wallis T. Edmondson, a professor of zoology at the University of Washington, sounded the alarm that Lake Washington was becoming eutrophic or dying, in ecological terms, because sewage accelerated the growth of blue-green algae that stripped the waters of life-giving oxygen. Fewer and fewer creatures could thrive in the anaerobic waters. During the hot summers, mats of rotting algae washed ashore along with sewage, poisoning beaches and polluting the air. Concerned city and suburban residents lobbied to create a new regional planning agency, the Municipality of Metropolitan Seattle, or Metro, to clean up the pollution in Lake Washington, manage growth, and expand mass transit.

James Ellis, a Seattle native and local attorney who spearheaded the Metro campaign, argued that Seattle’s environmental problems were the now region’s problems and thus demanded regional solutions. Pollution did not respect property lines or political jurisdictions. But others worried that an expanded county government would limit growth, hurt real estate values, and increase taxes. Nicholas Maffeo, a tax attorney from Renton, led the charge against what he called "the
Metro monster." An August 1958 ad in the Bellevue American caricatured Metro as a snarling octopus, strangling a hapless suburban taxpayer in its tentacles. In hotly contested March 1958 election, King County voters narrowly rejected the first Metro measure. Anti-Seattle and anti-tax forces in Seattle’s suburbs won the first round.

Undaunted, Ellis and his allies put a newer, smaller version of Metro on a second ballot that excluded the suburbs that had voted against the first plan while narrowing the agency’s focus to building sewers and nothing else. Voters approved the second Metro plan in September 1958 by a wide margin—59% for to 41% against—with King County residents outside of Seattle ratifying the plan by nearly two-to-one. Construction on the huge interceptor sewer system to divert sewage from Lake Washington into Elliott Bay and the Duwamish River began in early 1959 with the first phase completed in 1963. By the mid-1960s, the water quality in Lake Washington had dramatically improved. Scientists, planners, and environmentalists had shown the promise of regional management to save urban nature.

Emboldened by their success with the Metro campaign and fearful of continued sprawl and unchecked growth, another group of concerned citizens, business leaders, and city officials joined to form Forward Thrust in 1966. Many of its leaders were veterans of the Metro campaigns, including James Ellis. Surveys by Forward Thrust found that a majority of Seattle and King County residents complained about increased traffic, noxious pollution, inadequate mass transit, and insufficient open space. Armed with these results, Forward Thrust organizers built support for a series of city and county bond proposals to fund improvements for pollution control, setting aside more land for parks, expanding local highways and mass transit, and erecting a county stadium (the Kingdome) for professional sports teams. But Forward Thrust was more than a vote to make more public facilities. It was a vote on managing Seattle’s growth. During a special election in 1968, voters approved some measures but rejected raising money for mass transit. A second round of Forward Thrust proposals also went down to defeat in 1970, due in large part to the regional recession propelled by Boeing’s bust. The underlying message behind both elections was clear: Seattle and King County residents wanted to restrict growth and improve the environment, but they were unwilling to raise taxes or restrict their behaviors, like driving cars or buying suburban homes, that contributed to regional troubles.

The documents for this section are taken from debates surrounding four urban designs for Seattle and its environs: the 1903 Board of Parks Commissioners Report, the 1911 "Bogue Plan," the 1958 Metro campaigns, and the 1966 Forward Thrust campaign. Consider the following questions as you analyze these documents:

- How have Seattleites planned their city and how have their plans changed over time? What different goals and objectives did they plan for and were they realized?
- How did these different plans reflect how prevailing ideas about nature and cities? How and why did ideas about cities, nature, and planning change over time? Do you think that present-day Seattleites would accept any earlier plans for their city today, such as the Bogue Plan?
What were some of the arguments for and against these various plans? Why did residents either approve or reject these plans?

Did these plans work? That is, did earlier plans achieve what proponents hoped they would? If they did not, why not?

What sort of biases do these plans reveal? Do they suggest that class, economy, region, or other factors influence how cities like Seattle were planned?


29. "Vote NO on METRO!" [campaign flyer, c. 1958], from Bellevue American, 5 March 1958, copy in James R. Ellis Papers, Special Collections, University of Washington Libraries, Box 1, Folder 5.


32. Speech Against METRO. Nicholas A. Maffeo, "Speech Against 'Metro,'" 20 February 1958. Seattle—Metropolitan District, Vertical Files, Periodicals Division, Seattle Public Library, Main Branch.

33. Reports to Forward Thrust. [Capitol Hill, Montlake, Madrona District, Denny Blaine, and Bellevue] Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.
IV. Reclaiming Nature: Flattening Hills and Digging Waterways in Seattle

Bringing order to Seattle’s urban environment demanded more than planning. It required building a new city by changing its physical surroundings to fit civic needs. Engineers and workers moved mountains, straightened rivers, leveled hillsides, dug sewers, paved roads and carved canals as part of making Seattle. These changes to the physical features of Seattle’s landscapes reflected a belief in improving nature to make it more suitable for urban industries and growth. As Clarence Bagley wrote in his 1916 History of Seattle, “No great city on the American continent has overcome so many natural obstacles encountered in its growth.” Seattle, Bagley concluded, was literally “one vast reclamation project.”

From 1890 to 1940, a series of public works projects, the heart of Bagley’s “vast reclamation project,” forever changed the face of Seattle and its environs. These projects began after the 1889 fire that destroyed much of Seattle’s downtown retail district. After the blaze, City Engineer R. H. Thomson initiated an ambitious plan to reinvigorate the city. He convinced the municipal government to level hills, fill tidelands,straighten the Duwamish River, and purchase the Cedar River watershed. Most of these projects were completed between 1890 and 1930, when Seattle matched Bagley’s description of a city under near-constant construction.

One important project was the construction of the Lake Washington Ship Canal. Seattle residents had long dreamed of creating a fresh-water, inland port for shipbuilding and maritime commerce. By the 1890s, two opposing plans for canals vied for public approval. The southern route, touted by former Washington territorial governor Eugene Semple, would have connected Puget Sound to Lake Washington by a canal dug along present-day Dearborn Street in south Seattle. But the northern route through Ballard, Lake Union and the Montlake neighborhood won city and state approval. Led by General Hiram M. Chittenden of the United States Army Corps of Engineers, workers assembled the Ballard Locks, the second largest locks ever built by Americans after the Panama Canal at that time, then carved out the Montlake Cut, opening Lake
Union to Lake Washington. When the canal was opened to traffic in 1916, it lowered the lake level almost 12 feet, eliminating lake’s historic outlet at its southern end through the Black and Duwamish Rivers.

Residents on the southern end of Seattle also lobbied to reclaim the Duwamish River, a flood-prone river that was the city’s largest natural waterway. Following a series of destructive floods in November 1906, an investigative board convened the following year to survey the disaster. Chaired by General Chittenden, the board proposed remaking the Duwamish with dams and dikes, dredging and straightening, in concert with the proposed Lake Washington Ship Canal. Local residents agreed with Chittenden’s report and in 1909 created Commercial Waterway District No. 1 to cut the river’s oxbows and meanders, shortening the river’s length by nearly ten miles. The loss of the connection between the Duwamish and Lake Washington stranded hundreds of salmon in the receding Black River. Duwamish Indian Joseph Moses remembered how “people came from miles around, laughing and hollering and stuffing fish into gunny sacks.” Along with other diversions, the subtraction these tributaries reduced the flow of the Duwamish by nearly two-thirds, thereby assisting further construction on the river’s fast-disappearing delta and the southern reaches of Seattle’s growing waterfront.

The indefatigable Thomson and his allies labored on another front to secure reliable, publicly owned water and electrical power for Seattle. Throughout the 1880s and 1890s, city officials and private interests battled over who would control municipal water utilities. After several rounds of political fights, Thomson convinced Seattle voters to acquire the Cedar River watershed in the Cascade Mountains in 1899. City workers completed the first Cedar River pipeline in 1901. After World War II, Seattle would also claim the nearby Tolt River watershed as an additional water source.

Electrical power was another concern for the growing city. Municipal reformers worried that a private, Boston-based company, Puget Sound Traction, Light & Power Company (known as Puget Power), would have a monopoly on the city’s electrical utilities. An early generating plant, built at Snoqualmie Falls in 1895, quickly proved inadequate, so voters approved the construction of a new plant at Cedar Falls in 1902. In 1910, City Light became an independent city agency and its most-famous superintendent, John D. Ross, appointed in 1911, launched his fight for public power. By 1918, Ross secured federal rights to build hydroelectric plants on the Skagit River, in the North Cascades, east of Bellingham. Workers completed Gorge Dam, the first of three dams to be built on the Skagit, in 1924, with the second facility, Diablo Dam, finished in 1936. Thanks to Ross’s efforts, Seattle residents enjoyed some of the lowest electrical rates in the nation at the time, cheap power for the public good.

Building utilities was only part of what was a massive renovation of Seattle’s physical environment. The scale of these projects, as illustrated by the famed hill regrades, was sometimes immense. A series of glacial ridges and hills originally divided city neighborhoods from the downtown waterfront, making horse and rail travel difficult. In nearly sixty separate projects, workers removed many of these features, moving over 50 million cubic yards of earth in the process. Work began in the 1890s with pickax and horses and concluded in the 1920s with hydraulic cannons and conveyor belts, powered by water and electricity from the city’s Cedar
River. Engineers used this material to reclaim tidelands for piers and railway lines, or to add to Harbor Island, the manmade isle that replaced the sandbars at the mouth of the Duwamish River.

While regrading looks wasteful and ugly to us today, Seattlesites at the time saw it as an instrument for improving nature, not destroying it. Charles Evans Fowler, an engineer writing in 1926, said that the regrades improved “much of the primeval forest” within the city “for the pleasure of future generations.” “This system is certainly a wonderful creation of man,” he concluded, “and is the result of allowing full play to the imagination and creative energy of the engineer.” Other observers pointed to how regrading would boost the city’s economy. V. V. Tarbill noted that after the Second Avenue regrade in 1906, street front lots sold for $2,000 per front foot at the corner of Pike Street. One block to the north, where Second Avenue ran into Denny Hill, similar frontages were worth less than $300 per front foot. Two years later, City Engineer Thomson estimated that regrading boosted business real estate values 400 percent and residential real estate 1000 percent throughout downtown Seattle. Beauty lay in both how regarding removed ugly and dangerous hills, making the reclaimed land more valuable.

But the regrades also had negative effects. Letters to city officials complained about blocked streets, broken water and sewage mains, shattered windows, collapsed foundations, triggered landslides, buried debris, muddy streets, unwanted noise, unhealthful dust, destroyed sidewalks and disrupted traffic. Residents who originally had supported the regrades implored contractors to finish early, fearing further erosion of their realty and sanity. In turn, the Engineering Department threatened contractors with lawsuits, citations, and nonpayment. Some litigious residents took matters to court over forty separate cases made their way to the state Supreme Court, which forced the city to pay more damages or change its plans to protect property owners. Since regrading operations often proceeded ahead of judicial decisions, engineers and their contractors removed earth and destroyed buildings before court proceedings concluded. This tactic further complicated legal remedies. Under city guidelines, individual owners arranged for the regrading of their own property upon approval of a given city project. Without an owner’s consent, however, city workers could only remove earth to the edge of private lots, but no farther. Those who refused to cooperate found their lots turned into towers of dirt, popularly known as “spite mounds,” that loomed as high as fifty feet above the flattened land below.

Spite mounds came to symbolize what regrading had cost many Seattlesites. In a 1975 interview, Sandy Moss recalled how in 1907 the Dearborn Street Regrade destroyed her family’s home along with other houses occupied by fellow African-American residents. After being evicted by city engineers, their house tumbled down the regrade face “three blocks down below…and about two hundred feet lower.” “It was just a bunch of matchwood down there…it was all broke up, like you would step on an apple box and crush it.” The house was destroyed and the damage award never covered the loss.

The first round of regrading came to an end by World War I when the city ran out of funds and energy to complete all of its hill-removal projects. A 1926 New Republic article noted that “mastering the natural environment” at the expense of the “defenseless taxpayer” left Seattle “nearly insolvent.” One regrading project remained unfinished, however: the famed Denny Hill regrade, which left half of the hill towering nearly 100 feet above the new “Regrade District”
north of downtown when work stopped in 1911. After real estate owners lobbied the city to complete the job, workers began the second Denny Hill Regrade in 1928, moving earth into Elliott Bay with steam shovels and webs of conveyor belts. This second round of regrading elicited further protests, but it was the onset of the Great Depression in 1929 that eventually made further regrading financially impractical. When the shovels finally stopped in 1931, Denny Hill had disappeared and Seattle’s regrading mania came to an end.

The documents for this section focus on three projects designed to reclaim and improve nature in pre-World War II Seattle: the regrading of Seattle’s hills, the straightening of the Duwamish River, and the construction of the Lake Washington Ship Canal. Consider the following questions when analyzing these documents:

- What justification did city officials, engineers, and city boosters offer for these projects? Why did others oppose these projects?
- Did Seattleites feel that projects like the Ship Canal, regrades, and Duwamish Waterway improved or destroyed nature? How did their attitudes reflect the context of their times?
- What effects did these projects have on the physical and social environment of Seattle? Were they worth the cost? In condemning their consequences, do present-day residents distort history?
- Who supported these projects and why? Who opposed these projects and why? What groups might have had opinions about projects like the regrades or Ship Canal, but are not represented here? Where might you find information about their reactions?
- What role did technology and labor play in creating Seattle? How do these projects reveal how residents came to understand the natural world through working to improve it?
- How did these projects shape Seattle’s identity as a city close to nature? Or did they undermine the city’s environmental image instead?
- What factors accounted for the changing attitudes that Seattleites had toward nature before and after World War II? Why did later Seattleites worry about growth and pollution whereas earlier Seattleites saw such things as symptoms of a healthy city?


42. **"The Straightening."** *The Duwamish Diary* (Seattle: Cleveland High School, 1948), 65-72.


46. Denny Hill Regrade. O. A. Piper, "Regrading in the Seattle North District," [c. 1910], Local Improvement District 4818. Seattle Municipal Government, Engineering Department, Local Improvement District Files, Seattle Municipal Archives, Office of the City Clerk, Control No. 2600-00, Microform, Letters, Folder 1.


52. Slow Progress of Regrades. Uptown Seattle Association to W. D. Barkhuff, City Engineer, 6 August 1929 and W. D. Barkhuff to George Nelson and Co., 7 October 1929, Local Improvement District 4818. Seattle Municipal Government, Engineering Department, Local Improvement District Files, Seattle Municipal Archives, Office of the City Clerk, Control No. 2600-00, Microform, Letters, Folder 1.

While Seattle regraded hills, dug canals, and straightened rivers, Spokane grew up around its namesake. From the earliest days of Euro-American settlement, Spokanites saw the Spokane River as a symbol. The original name for the city, Spokane Falls, emphasized the importance of the river to civic identity. Originally a site for industry, the Spokane River later became a place for parks. Yet even this new emphasis on preserving the “scenic” river reflects a change in attitude that scenic nature could turn profits as lucrative as industrialized nature.

Initially, the river mattered because it provided energy for industry and commerce. James Glover, the so-called “father of Spokane,” saw the importance of the river when he remembered his first visit in 1873. In an oral interview several decades later, Glover recalled that the river “lay just as nature had made it, with nothing to mar its virgin glory. I was determined that I would possess it.” Glover’s attitudes reflected mid-nineteenth century values toward natural resources, especially water, where the first claimants claimed superior and unalienable rights to ownership and development. Glover’s “owning-it-all” mentality was typical of many settlers in the nineteenth-century West, but his prediction that controlling the river would yield power proved accurate. Later Spokane residents used the river to power sawmills, remove industrial waste, and generate electricity. Havermale Island, located in the middle of the river, adjacent to the city’s downtown business district, became a railroad yard, housing engines and cars from the Great Northern, Northern Pacific, and other railways. River and rail became intertwined. Trains brought silver ore from Idaho, wheat from the Palouse, or timber from the Okanogan Valley into Spokane, where mills used power from the river to transform them into commodities like flour, lumber, and ingots for sale across the nation.

Not everyone saw the river in strictly industrial terms, however. By the turn of the century, Spokane residents worried about the loss of open space and scenery within an industrial, congested city. In 1908, John C. Olmsted of the Olmsted Brothers visited Spokane and identified the river as a prime park site. Olmsted also submitted a report calling for more parks, boulevards and playgrounds in Spokane. Such improvements, they argued, needed to happen quickly before available and inexpensive land disappeared. Aubrey L. White, Spokane’s first park board president, followed the Olmsted’s recommendations enthusiastically. He led the planting of 80,000 trees along Spokane streets, persuaded voters to approve a one-million dollar bond issue in 1910, and encouraged real estate developers such as Jay Graves to donate land to the city. The riverfront, though, was not set aside for parks because it remained too valuable to industry and real estate developers.
Making parks did not free the river from industrial development or the control of Spokane’s business community. What changed was how Spokane business saw the river and its effect on their economic livelihood. Before and during World War II, the railroads increased their operations on Havermale Island. Simultaneously, as more migrants poured into Spokane, enjoying high employment rates and low housing costs, businesses and shoppers moved to the expanding suburbs. Newcomers settled in outlying towns like Airway Heights and took their business away from Spokane’s Central Business District. Downtown businesses quickly learned that the railroad and industry repelled these new suburbanites, who preferred shopping in quieter, less-crowded, less blighted suburban shopping malls. Highways replaced rails as the preferred avenues for shipping while serving as escape routes for residents leaving for the suburbs. The switching yards and roundhouses, ringed by a phalanx of warehouses and terminals, began to slide into decay along with its once vital retail core. As in postwar Seattle, suburban growth became an enemy to manage instead of a friend to embrace. Downtown firms began to blame the railroad and the suburbs for the problems of the central business district.

There was little that Spokane could do to stop suburban growth. Indeed, as throughout most of its history, Spokane had embraced growth. In 1940, the mostly rural Spokane Valley had a population of 10,000; by 1960, the population had jumped to 45,000 and again in 1970 to 60,000—making the area nearly a city in its own right. Suburbanization created a whole new set of environmental problems for city and county officials to manage. The sudden growth left the suburbs without adequate sewer and water systems. The rocky valley soil made sewage disposal easy, but it also allowed sewage to mix with the city’s underground aquifer, an important drinking water supply. The Spokane County Commission, formed to oversee rural problems, was unable to handle the situation.

As in Seattle, regional solutions seemed to be the only remedy. Spokane voters changed their city government from rule by commission to rule by city manager, hoping for more effective ways to manage sprawl while promoting urban renewal. The city also began to work with county officials to plan for improved water quality, sewerage lines, and zoning ordinances. But as in Seattle, Spokane area voters rejected transit initiatives, relying on the new regime of the car and freeway.

Nevertheless, urban redevelopment and environmental planning did find some support among Spokanites who hoped that the river could now power urban renewal. In 1959, Spokane business and downtown property owners founded Spokane Unlimited, a group committed to reviving the city’s retail core. As early as 1961, Spokane Unlimited director, King Cole, suggested turning Havermale Island into a park or cultural center. Eventually, Cole and his allies latched onto an even grander ambition: bringing a world’s fair to Spokane. As with Seattle’s 1909 fair, Spokane leaders would use the exposition to redesign their city. Cole suggested the theme of ecology, playing to popular concerns, and set about acquiring Havermale Island from the railroads. The negotiations, which lasted most of the 1960s, led to an agreement between the city and the four railroads that used the island as a switchyard. With the lands in hand, Spokane Unlimited gave birth to the Spokane Exposition Association, which then turned to private investors, state legislators, and Congress to provide the funds for the world’s fair.
The theme of Spokane’s fair, Expo’74, “Man and the Environment,” demonstrated how Spokanites had rediscovered their river. Fair backers proclaimed that this was the first environmental world exposition, and that Spokane’s plan would be at the forefront of ecological sensitivity. By the early 1970s, environmentalism had become a powerful national and regional political movement, but it was more than lobbying and sloganeering. According to many postwar historians, environmentalism had become a way of life for many Americans, especially urban and suburban Americans, who increasingly defined their relationship to nature through consumer culture. Buying environmentally friendly products, practicing recycling or composting, spending money on outdoor gear and vacations in national parks, and pasting green-minded bumper stickers on cars became markers of this new environmental consciousness. Northwesterners in particular cultivated this idea of an ecologically sensitive lifestyle native to the region, a notion reinforced by Ernest Callenbach’s cult classic novel, Ecotopia, published in 1972, which told of a future where northern California and the Pacific Northwest seceded from the United States to found an independent state based upon environmental sustainability. When the doors to Expo’74 opened in the summer of 1974, visitors were already predisposed to see Spokane’s fair as yet another celebration of how the Northwest led the nation in its efforts to protect the environment.

While the environmental merits of Expo’74 are questionable, the fair did succeed in bringing the river back into the heart of the city. It also provided Spokane with new space for an opera house and civic center while attracting shoppers and retailers to the central business district. Riding the crest of the successful fair, Riverfront Park opened nearby in 1976, attracting swarms of people back to the city. Today, a refurbished island stands in the middle of a reclaimed space filled with museums, parks, and other civic facilities. Expo’74 did not stop urban sprawl or solve Spokane’s persistent environmental problems, but it did help to revive a dying downtown.

The following primary sources, from pioneer reminiscences to planning reports, trace the development of Spokane’s urban planning, focusing on its park system. This section concludes by focusing on Expo’74. Consider the following questions when analyzing these documents:

- How did Spokanites originally view the river? How might their perceptions differ based upon their occupation, race, gender or time of arrival?
- What assumptions did the Olmsted Brothers bring to their report for the Spokane Park Commissioners? What roles did they feel that parks should play in urban life? What role did they think that nature should play in the city?
- What did the urban plans from the 1950s and 1960s see as the major problems facing Spokane? What other problems did the city face and where would you find information about these concerns?
- How did Spokane’s plans compare with Seattle’s plans from the 1950s and 1960s? What might account for the similarities and the differences?
- What was the impetus behind creating Expo’74? Who supported the ideas of a world’s fair in the heart of the city and why?
- How and why did Expo’74 become an “environmental” world’s fair? What interests and forces led to the change in the fair’s theme? What did the new theme say about Spokane’s changing relationship with nature?
• Did Expo’74 work in bringing business back downtown? Did it work in changing local attitudes towards nature? Why or why not?


58. **Spokane Parks.** "Report, Olmsted Brothers, to A. L. White, Board of Park Commissioners, Spokane," in *Board of Park Commissioners, Spokane – Annual Report, 1891-1913* (Spokane: Board of Park Commissioners, 1914), 71-75, 88-97.


63. **Meeting of Spokane Property Owners.** "Minutes, Downtown Property Owners," 13 August 1959, Spokane Chamber of Commerce Papers, Box M, Eastern Washington State Historical Society.

64. **Meeting of Spokane Property Owners.** "Minutes of the Meeting of the Downtown Property Owners," 16 April 1959, Spokane Chamber of Commerce Papers, Box M, Eastern Washington State Historical Society.

65. **Downtown Spokane Property Owners.** List of Downtown Property Owners, c. 1959, Spokane Chamber of Commerce Papers, Box M, Eastern Washington State Historical Society.


67. **Membership Roster, Spokane Unlimited.** c. 1963, King Cole Papers, Box IV, Eastern Washington State Historical Society.

VI. Conclusion

The human and the natural coexist in Seattle and Spokane today, just as they have in the past. Cities, suburbs, and countryside are part of a complex, evolving environments that tie humans and their creations to the processes of nature. Planning, commerce, and recreation are only a few of the many human activities that tie people to the natural world in cities, whether in the Pacific Northwest or elsewhere in the world.

Here, where nature seems to occupy a special place in our regional state of mind, we tend to see our cities as separate from the outdoors. We work and live in the city while we relax and play in the countryside. This is a misleading assumption. The histories of this region and the health of its communities, natural and human, rest upon the development of its cities. Seattle and Spokane have always been urban by nature. Studying each city’s environmental history is but one way to understand what makes this region so special—a place where cities and nature have always coexisted, often uncomfortably, over time.

VII. Suggested Activities

These activities are suggested for teachers who want to expand upon or move beyond the documents presented here. They can be used in conjunction with the documents in this curriculum, or used separately.
Have students read their local newspaper for a week, tracking environmental issues individually or in teams. Then ask students to take their topic and research the history behind the current controversy. Ask them to present their results in a short paper or poster. Remind them to document how the environmental problem they study has historical roots, how it has changed and evolved over time.

Ask students to collect their dry garbage at home for a week. Then have them bring their “findings” to class. Have students analyze their garbage piles, pick one or two items that interest them, and trace the origins of that piece of garbage. Teachers might want to suggest items that have a regional connection—newspapers, computer disks, etc.—or represent an important environmental concern. You could also do a similar exercise with food, clothing or other materials to illustrate the environmental connections of urban places to other places through networks of trade, transportation, and disposal.

Do students know where their garbage goes? Or where their water comes from? Have students pick one utility—electricity, water, heating oil, natural gas, solid waste disposal, or sewerage—and trace its historical development in your area. Remind them to use historical sources to trace the change and growth of their local utilities.

Organize a debate on the environmental health and future of your region. Assign one group of students to play the prosecution, who will be present-day environmentalists, urban planners, and local citizens concerned about the present state of their community’s ecological well being. Assign another group to play historical figures from your community’s past—timber companies, fishers, real estate developers, or other resource users—who were responsible for shaping the community you live in today. The remaining students can play the jury, who will weigh the charges that present will make against the past.

Organize another debate, this time around a contemporary local environmental issue, real or imagined. Have students split into teams, playing various roles in the dispute. For example, a debate over a proposed real estate development along a salmon spawning stream would include local contractors who would built the site, nearby residents who might fear increased traffic, environmentalists concerned about habitat loss and business people who want to balance growth with environmental health. Be sure to have students research their positions—and to play their roles with zeal!

Ask students to draw a map of their present-day community, noting important environmental and social features. Then have them research and design maps of their community from earlier periods in history, perhaps in ten or twenty-five year increments. After the maps are completed, arrange them on the wall and ask students to explain the origins and results of the environmental and social changes in their community.

Have students find, research, and map the former streams in their local neighborhoods or communities. In many cities and towns, former waterways were converted to storm sewers that now provide habitat for urban wildlife such as salmon, raccoons, and waterfowl.
Have students write an environmental history of their community by using a particular theme. Students might choose to focus on an important animal or plant species, natural disasters, disease, transportation, tourism, parks and urban planning, pollution or another related topic. Remind them to illustrate change over time through careful research of historical documents (e.g. newspapers, diaries, etc.) on their community. Students may want to use William Cronon’s essay, "Kennecott Journey" (cited in the bibliography to this project) as a potential model.

Ask students to create a “map” of their ecological footprint—the resources that they consume and use daily. Ask them to find the connections to their utilities—electricity, gas, water, sewerage—as well as their clothing, food, transportation, and other daily consumer goods. Have students bring their ecological footprint maps to class and compare their individual connections to the environment as consumers.

Have students interview a parent or grandparent about their memories of place and nature growing up. Ask students to focus on changes in transportation, utilities, and household goods, from food to lighting and entertainment. Also ask students to interview their parent or grandparent about changes outside of the home, changes to the larger landscape in which they lived. Students may want to use William Cronon’s essay, "Kennecott Journey" (cited in the bibliography to this project) as a potential model.

Take a field trip to a local utility site—water treatment plant, sewage treatment plant—or park to trace the environmental history of a particular part of your city or town. Have students map how basic utilities—electricity, water, sewage, or natural gas—move into and out of their homes and neighborhoods.

Have students design a guidebook for people thinking about moving to the Pacific Northwest at the turn of the last century. Ask them to think about what attributes of the environment—resources, recreation, scenery—they will emphasize in their imaginary guidebooks. Give them copies of actual guidebooks from the era for comparison.

### VIII. Timeline of Pacific Northwest Environmental History

<table>
<thead>
<tr>
<th>Year</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1730s</td>
<td>Pacific Northwest Indians incorporating horses into their societies for transportation and wealth.</td>
</tr>
<tr>
<td>1774</td>
<td>Juan Jose Perez Hernandez explores Pacific Northwest coastline and trades with Indians.</td>
</tr>
<tr>
<td>1775</td>
<td>Bruno de Heceta and Juan Francisco de la Bodega y Quadra sail northward, landing and claiming territory at points in present-day Washington and British Columbia.</td>
</tr>
<tr>
<td>1788</td>
<td>John Meares takes cargo of ship spars to China from Puget Sound.</td>
</tr>
<tr>
<td>1792</td>
<td>Captain George Vancouver explores Puget Sound as part of Royal Navy expedition.</td>
</tr>
<tr>
<td>1804</td>
<td>Lewis and Clark’s &quot;Corps of Discovery&quot; depart.</td>
</tr>
<tr>
<td>1805</td>
<td>Lewis and Clark arrive at the Pacific Ocean, near present-day Astoria, Oregon. They return to St.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>1810</td>
<td>North West Company establishes a trading post near present-day Spokane.</td>
</tr>
<tr>
<td>1824</td>
<td>George Simpson of the Hudson’s Bay Company launches aggressive trapping policies to create a &quot;fur desert&quot; and drive out American competitors.</td>
</tr>
<tr>
<td>1827</td>
<td>First lumber mill in the North American West started by the Hudson’s Bay Company at Fort Vancouver, operated by Hawaiian labor.</td>
</tr>
<tr>
<td>1833</td>
<td>Hudson’s Bay Company establishes post at Fort Nisqually, near present-day Olympia.</td>
</tr>
<tr>
<td>1840</td>
<td>Pre–Euro-American timber stand for all of Washington estimated at 578 billion board feet.</td>
</tr>
<tr>
<td>1845</td>
<td>Overland migration to the Oregon Country begins in earnest.</td>
</tr>
<tr>
<td>1849</td>
<td>Gold discovered near Sacramento, California; subsequent boom in San Francisco and Sacramento increases demand for Northwest timber.</td>
</tr>
<tr>
<td>1851</td>
<td>First permanent white American settlement established on Puget Sound at Alki Point.</td>
</tr>
<tr>
<td>1858</td>
<td>Gold rush begins on the Fraser River in British Columbia.</td>
</tr>
<tr>
<td>1859</td>
<td>Mining rushes in Nevada, Colorado, and Eastern Washington near Colville.</td>
</tr>
<tr>
<td>1862</td>
<td>Congress passes the Homestead Act, granting 160 acres of public land to settlers after five years of residence.</td>
</tr>
<tr>
<td>1864</td>
<td>Congress grants Northern Pacific Railway land in a 40-mile strip at $2.00/acre.</td>
</tr>
<tr>
<td>1869</td>
<td>First transcontinental railroad completed to San Francisco Bay area.</td>
</tr>
<tr>
<td>1873</td>
<td>James Glover, so-called &quot;Father of Spokane,&quot; arrives at Spokane Falls.</td>
</tr>
</tbody>
</table>
| 1880 | Seattle population: 3,553  
Spokane population: 350  
Tacoma population: 1,098  
Portland, Oregon: 17,577 |
<p>| 1881 | Donkey engine invented, transforms Northwest logging. |
| 1882 | Large deposits of copper found at Anaconda mine in Butte, Montana. |
| 1883 | Northern Pacific Railroad reaches Spokane. |
| 1885 | Power station built at Spokane Falls. |
| 1889 | Washington becomes a state. Devastating fires destroy large sections of Seattle and Spokane. |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
</table>
| 1890 | Seattle begins its first regrades, dredging of the Duwamish River.  
      | Seattle population: 42,837  
      | Spokane population: 19,922  
      | Tacoma population: 36,006  
      | Portland, Oregon: 46,385 |
| 1891 | Introduction of non-native freshwater fish (large-mouthed bass, crappie, sunfish, perch) to Washington. |
| 1893 | Great Northern Railroad reaches Seattle. |
| 1895 | Power generating plant built at Snoqualmie Falls. |
| 1897 | News of the Klondike gold fields reaches Seattle. |
| 1898 | Seattle begins its first regrading project along First Avenue. |
| 1899 | Mount Rainier National Park created in Washington. Seattle acquires control of the Cedar River for its municipal water supply. |
| 1900 | Frederick Weyerhaeuser moves lumbering operations to the Pacific Northwest, opening his "Sawdust Empire."  
      | Seattle population: 80,871  
      | Spokane population: 36,848  
      | Tacoma population: 37,714  
      | Portland, Oregon: 90,426 |
| 1901 | First Cedar River pipeline to Seattle completed. |
| 1902 | Newlands Reclamation Act establishes federal role in constructing dams and irrigation projects.  
      | Crater Lake National Park established in Oregon. Yacolt (or Cispus or Lewis River or Cowlitz) Fire burns 600,000 acres; 18 killed; skies darkened in Seattle |
| 1903 | Seattle hires the Olmsted Brothers to design city park system. |
| 1905 | Creation of the United States Forest Service. |
| 1908 | Spokane hires the Olmsted Brothers to design city park system. |
| 1909 | Alaska-Yukon-Pacific Exposition held in Seattle. |
| 1910 | Spokane voters approve bond initiative to build an extensive urban park system. Glacier National Park established in Montana. "Big Blowup" fire burns nearly 3 million acres in northern Idaho and western Montana, helps to set federal forest fire policy for the next seventy-five years.  
      | Seattle population: 237,174  
      | Spokane population: 104,402  
      | Tacoma population: 83,743  
<pre><code>  | Portland, Oregon: 207,214 |
</code></pre>
<p>| 1912 | Seattle voters reject the Bogue Plan for redesigning that city, but approve the creation of a municipally owned Port. Interstate Fair held in Spokane to promote regional resources and industries in the Inland Empire. Dredging of the Duwamish Waterway completed |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>U.S. enters World War I. Shipbuilding in Portland and Seattle booms.</td>
</tr>
<tr>
<td>1918</td>
<td>Cedar Reservoir dam breaks, flooding lower Cedar River drainage east of Seattle, cutting off the city's water supply.</td>
</tr>
<tr>
<td>1920</td>
<td>Seattle population: 315,312  Spokane population: 104,437  Tacoma population: 96,965  Portland, Oregon: 258,288</td>
</tr>
<tr>
<td>1925</td>
<td>Construction of Diablo Dam on the Skagit River begins.</td>
</tr>
<tr>
<td>1930</td>
<td>Bad fire year in Washington; 131,745 acres burned.</td>
</tr>
<tr>
<td>1931</td>
<td>Seattle finishes its final regrading project, the second Denny Hill regrade.</td>
</tr>
<tr>
<td>1933</td>
<td>Washington State Department of Game founded. “Tillamook Burn” forest fire in Oregon destroys 240,000 acres of forested land.</td>
</tr>
<tr>
<td>1934</td>
<td>Huge maritime strike ties up Pacific Coast ports from San Diego to Seattle. Taylor Grazing Act regulates stock grazing on Western public lands.</td>
</tr>
<tr>
<td>1936</td>
<td>Diablo Dam finished, begins providing municipally-owned electricity to Seattle.</td>
</tr>
<tr>
<td>1938</td>
<td>Olympic National Park established.</td>
</tr>
<tr>
<td>1941</td>
<td>Grand Coulee Dam completed. U.S. enters World War II.</td>
</tr>
<tr>
<td>1942</td>
<td>Construction begins on the Hanford Works, along the Columbia River near Richland, Washington, to produce atomic bomb material for the Manhattan Project.</td>
</tr>
<tr>
<td>1945</td>
<td>World War II ends, postwar economic boom begins in the Puget Sound region.</td>
</tr>
<tr>
<td>1947</td>
<td>European starling, introduced on the East Coast, first reported in western Washington that year.</td>
</tr>
<tr>
<td>1956</td>
<td>Seventeen Washington public utility districts formed the Washington Public Power Supply System (WPPSS) to meet project shortfall in electrical power by the 1960s.</td>
</tr>
<tr>
<td>1957</td>
<td>State Department of Natural Resources established.</td>
</tr>
<tr>
<td>1958</td>
<td>Seattle and King County voters approve creation of Metro, a new agency, to protect water and manage waste.</td>
</tr>
<tr>
<td>1962</td>
<td>Century 21 World’s Fair held in Seattle.</td>
</tr>
<tr>
<td>1964</td>
<td>Congress passes the Wilderness Act.</td>
</tr>
<tr>
<td>1966</td>
<td>Forward Thrust campaign begins in Seattle.</td>
</tr>
<tr>
<td>1968</td>
<td>North Cascades National Park established. “Forward Thrust” urban redevelopment package put before Seattle voters; partially approved, but transit bonds are rejected.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1969</td>
<td>Congress establishes Environmental Protection Agency</td>
</tr>
<tr>
<td>1971</td>
<td>Washington begins to adopt statewide environmental protection laws. Shoreline Protection Act passed.</td>
</tr>
<tr>
<td>1975</td>
<td>Severe epidemic of spruce budworm along east slope of the Cascades. Plans for Riverfront Park in Spokane are developed.</td>
</tr>
<tr>
<td>1976</td>
<td>Construction begins on the first of five proposed WPPSS nuclear power plants, but construction quickly falls behind schedule and over budget.</td>
</tr>
<tr>
<td>1980</td>
<td>Eruption of Mt. St. Helens in southern Washington results in ash clouds and severe flooding.</td>
</tr>
<tr>
<td>1983</td>
<td>WPPSS defaults on $2.25 billion of revenue bonds, the largest municipal default to date in American history.</td>
</tr>
<tr>
<td>1990</td>
<td>Northern spotted owl listed as an endangered species. Inauguration Day storm in Washington sinks the I-90 floating bridge. 81.7% of Washington state residents live in metropolitan areas, making it 12th most urban state in the nation. California (95.7%) is 2nd. Seattle population: 512,259 (city only) Spokane population: 177,196 (city only) Tacoma population: 176,664 (city only) Portland, Oregon: 437,319 (city only)</td>
</tr>
<tr>
<td>1991</td>
<td>The Seattle Commons initiative develops in Seattle.</td>
</tr>
<tr>
<td>1995</td>
<td>Seattle voters reject the &quot;Seattle Commons&quot; plan for urban redesign.</td>
</tr>
<tr>
<td>1998</td>
<td>U.S. Fish and Wildlife Service places several regional runs of the Pacific chinook and Coho salmon on the Endangered Species list. The Makah Indian Nation of Washington announces plans to exercise their treaty rights and resume hunting of the gray whale for the first time since 1926, prompting widespread protests.</td>
</tr>
<tr>
<td>1999</td>
<td>The Makah successfully hunt and kill their first gray whale near Neah Bay. Seattle launches the Urban Creeks Legacy, an effort to restore the city’s four largest creeks: Thornton, Piper, Longfellow, and Taylor. Proposals offered to breach or remove dams on the Snake River to revive salmon runs.</td>
</tr>
</tbody>
</table>
2000
30th anniversary of Earth Day. Proposal to remove the Glines Canyon Dam on the Elwha River in Washington elicits widespread debate. Northwest Environment Watch predicts that regional population with double within 32 years.

King County population: 1,737,290 (2000 Census estimate)
Spokane County population: 418,476 (2000 Census estimate)
Pierce County population: 703,631 (2000 Census estimate)
Multnomah County, Oregon: 660,767 (2000 Census estimate)

2001
Marine scientists raise concerns over declining Orcas ("killer whale") populations, increased pollution in Puget Sound. "Icicle Complex" fire burns over 6,500 acres near Leavenworth.
Thirtymile Fire near Winthrop claims lives of four firefighters, burns over 8,200 acres.

2002
Reports of Northwest Douglas fir trees infected with sudden oak death, a destructive invasive fungus. U.S. Forest Service officials declare summer of 2002 one of the worst fires seasons on record for the Pacific Northwest.

IX. Bibliography and Outside Resources

Bibliography: Books and Articles

This bibliography is eclectic for two reasons. First, there are few comprehensive, scholarly studies of either Spokane or Seattle. Second, environmental history may be a new subject for some users of this curriculum packet. So this bibliography includes books about places as Northwestern as Chicago or Long Island, New York. Interested teachers can consult the bibliographies of some of the titles listed here for additional works on Northwest history.


Berner, Richard C. *Seattle in the 20th Century* 3 vols. (Seattle: Charles Press, 1991-1997). Berner’s exhaustive and highly detailed three-volume history focuses largely on Seattle’s political and social history. The first volume concentrates on 1900 to 1920, the second on the interwar years, and the third on World War II to the Cold War.


__________ "Kennecott Journey," in *Under an Open Sky: Rethinking America’s Western*


____________. Shaping Spokane: Jay P. Graves and His Times (Seattle: University of Washington Press, 1994). Fahey is the leading historian of Spokane. The first title focuses on the economic development of Spokane and its “Inland Empire” region; the second uses the career of developer Jay Graves to explore the role of business and capital in the shaping of that city.


Klingele, Matthew W. Emerald City: An Environmental History of Seattle (New Haven: Yale University Press, 2007). The author of this packet has gone on to publish the first comprehensive environmental history of Seattle.


available to date on the construction of the Ship Canal. Designed as a guide to historic preservation, the book also includes excerpts from primary documents that might prove useful in the classroom.

MacDonald, Norbert. *Distant Neighbors: A Comparative History of Seattle and Vancouver* (Lincoln: University of Nebraska Press, 1987). This comparative history of the two largest cities in the Pacific Northwest begins with the 19th century and continuing into the post-WWII period.

Manning, Harvey, *Walking the Beach to Bellingham* (Seattle: Madrona Publishers, 1986). An engaging account of how Manning, a noted Northwest outdoors writer, walks along the eastern shore of Puget Sound, recounting the region’s human and natural history along the way.


Morgan, Murray. *Skid Road: An Informal Portrait of Seattle* (Seattle: University of Washington Press, 1982). Informal is the best adjective here, for this is not a scholarly book. But the anecdotes are good and there is much material here for discussions on the changing environment of Seattle.


_____________. *Landscapes of Promise: The Oregon Story, 1800-1940* (Seattle: University of Washington Press, 1997). This is a solid survey of Oregon’s environmental history to World War II, full of good analysis and useful information.


Sato, Mike. *The Price of Taming a River: The Decline of Puget Sound’s Duwamish/Green Waterway* (Seattle: The Mountaineers, 1997). This slim book is an anecdotal history of Seattle’s urban waterway backed by some historical research. May be appropriate for some students. Sato is a leading figure in People for Puget Sound.


Schwantes, Carlos A. *Railroad Signatures Across the Northwest* (Seattle: University of Washington Press, 1993). A lavishly illustrated book about railroads and Northwest history that has abundant material on how the railroads sold the Northwest as nature’s treasure chest and tourist wonderland.


Taylor, Joseph E. *Making Salmon: An Environmental History of the Northwest Salmon Crisis* (Seattle: University of Washington Press, 1999). Taylor’s definitive and award-winning history of the salmon crisis focuses mostly on Oregon, but also includes useful information about Washington. Includes an excellent bibliographical essay about salmon and fisheries history as well as superb maps.

*The Duwamish Diary* (Seattle: Seattle Public Schools, 1949, 1996). Originally written for a creative writing assignment at Cleveland High School, this book is a history of the Duwamish River, as told by the river itself. Plenty of interesting anecdotes for lecture or discussion, it is not a scholarly history.


farming and tourism changed this rural place, offering superb examples of how environmental historians work.

______________.


Wynn, Graeme and Timothy Oke, editors. *Vancouver and Its Region* (Vancouver: University of British Columbia Press, 1992). This collection of essays, mostly by geographers and historians, details many aspects of Vancouver’s environmental history. It is a useful book for comparing American and Canadian urban environments.


**Other Resources: On-line**

*American Environmental Photographs, 1891-1936* A website from the Library of Congress American Memory collection, containing images from the University of Chicago depicting various aspects of environmental history.
[http://memory.loc.gov/ammem/award97/icuhtml/aehome.html](http://memory.loc.gov/ammem/award97/icuhtml/aehome.html)

*American Society for Environmental History* The web site for the major professional organization for environmental historians in the United States. Their home page contains links to a variety of environmentally-related resources, archives for discussions from the H-ASEH discussion list, and tables of contents from back issues of *Environmental History*, the society’s quarterly journal. [http://www.aseh.net/](http://www.aseh.net/)

*Center for the Study of the Pacific Northwest, University of Washington* An on-line course syllabus for HSTAA432 (History of Washington State and the Pacific Northwest), developed by Professor John Findlay, provides a superb overview of the region’s history. Several lessons tie directly to the environmental history of Seattle, Spokane, and the greater Pacific Northwest.

*Center for History and the New Media, George Mason University* A site with links to primary and secondary documents, libraries, museums and other sites devoted to American history and new teaching technologies. This is arguably the best overall web site for historians in American history. [http://chnm.gmu.edu/index.php](http://chnm.gmu.edu/index.php)

*High Country News* A weekly environmental newspaper, published out of Colorado, that focuses on the Western United States. While most articles focus on the rural west, the paper is an indispensable tool for keeping abreast of environmental issues in the West. Discount copies and readers available for teachers and students. [http://www.hcn.org/](http://www.hcn.org/)
HistoryLink  An award-winning website focusing on the history of Seattle and King County that contains bibliographies, links to photographs and documents, and short historical essays. This is an on-line clearinghouse for Seattle and Pacific Northwest history and a superb resource for teachers and students alike. http://www.historylink.org/

Nature Transformed: The Environment in American History A collection of essays by leading historians on the environmental history of North America from contact to the present day, compiled by the National Humanities Center, divided by topic and period. http://nationalhumanitiescenter.org/tserve/nattrans/nattrans.htm

Seattle Public Library The library’s main branch has an Environmental Research Center that can help with historical or contemporary research projects. Additional materials are available at the various branch libraries throughout the city. http://www.spl.org

Spokane Public Library Like its counterpart in Seattle, the main branch also contains links to environmental topics and branches throughout Spokane. http://www.spokanelibrary.org/

University of Washington Libraries Several branch libraries have both on-line and physical collections detailing the region’s rich environmental and social history. http://www.lib.washington.edu/

Manuscripts, Special Collections, University Archives houses most of the Library’s rare and regional materials, plus an on-line data base to thousands of historical photographs and documents. http://www.lib.washington.edu/specialcoll/


UW Built Environments includes current and rare documents detailing city planning and design in the Northwest and beyond. http://www.lib.washington.edu/Aup/

Other Resources: Video

Lake Union Reflections: Past and Present (Seattle: KCPQ Television, 1997). Prepared to commemorate KCPQ’s move to the Westlake Neighborhood, this video tells the history of Seattle’s second-most prominent lake. Contains many nice images but has uneven analysis.

The Great Age of Salmon and the PAF: The Story of the Pacific American Fisheries Company (Seattle: John Sabella and Associates, 1994). One of the few historical videos of the once-great Puget Sound salmon fisheries. Also contains footage from several Alaska canneries.
Trail to the Klondike (Seattle: KOMO Television, 1996). Television documentary filmed in commemoration of the Klondike centennial. Illustrates an important environmental event in the history of Seattle.

When the Salmon Runs Dry (Seattle and Oakland: KIRO Television and The Video Project, 1992). A solid television documentary that focuses on the impact of over fishing and habitat destruction on several Pacific Coast salmon species, with a focus on the Columbia River.

Salmon: On the Brink (Seattle; KCTS Television, 1998). Another documentary on disappearing salmon in Washington state, focusing on urban areas in and around Puget Sound.

Other Resources: Museums, Local Government, and Community Organizations

Burke Museum of Natural History and Culture Located on the University of Washington campus in Seattle, the Burke Museum provides curriculum for area teachers as well as hands-on exhibits and tours. 206-543-5590. http://www.washington.edu/burkemuseum/

Center for Urban Horticulture, University of Washington Located on the shores of Union Bay, the Center offers curriculum, tours, and courses on urban environmental topics while maintaining the nearby Washington Park Arboretum. 206-543-8616. http://depts.washington.edu/urbhort/

King County Watersheds Map is an on-line resource with comprehensive information for specific watersheds including news, reports, data, activities, grants, and stewardship organizations. The map is part of the County’s Department of Natural Resources website. http://www.kingcounty.gov/environment/watersheds.aspx

The Lands Council is a Spokane-based group focusing on the preservation of public lands in the interior Pacific Northwest. http://www.landscouncil.org/

Mountains to Sound Greenway Trust The MTS Trust offers student programs on forest management and land use, materials for classroom use, and workshops for teachers to immerse themselves in regional environmental issues. http://www.mtsgreenway.org/

Museum of History and Industry. MOHAI has a variety of educational programs and materials for K-12 teachers. Their permanent exhibit, "Salmon Stakes: People, Nature and Technology" focuses on the Pacific Northwest salmon fishing industry, and includes educational materials for teachers to borrow. http://www.seattlehistory.org/

Pacific Science Center Located at the Seattle Center, the Pacific Science Center offers tours and curriculum on environmental issues, including programs at the Mercer Slough, a wetland on the eastern shore of Lake Washington. http://www.pacsci.org/
People for Puget Sound A local environmental group, People for Puget Sound provides educational materials and activities for interested educators. http://www.pugetsound.org/

City of Seattle Several city government departments offer programs and public services of interest to teachers and students. Details for each agency can be found via the City of Seattle’s website. http://www.ci.seattle.wa.us/

Seattle Municipal Archives houses rich historical material on all facets of Seattle and King County history. http://www.cityofseattle.net/cityarchives/

Washington State Government Several state agencies offer materials and programs for teachers on environmental issues. http://access.wa.gov/

Puget Sound Partnership is the governing agency for water quality in Puget Sound. They also provide several publications useful for classroom activities and field trips. http://www.psp.wa.gov/


Washington State Archives is the gateway to the state’s rich historical materials. The main website, under the Secretary of State’s homepage, contains links to the five regional archives as well as the main branch in Olympia. http://www.secstate.wa.gov/archives/


X. Index to the Documents

1. Spokane Falls, John F. Carrère, Spokane Falls, Washington Territory, and its Tributary Country, Comprising All of Eastern Washington and the Idaho Panhandle (Spokane: City Council and Board of Trade, 1889).

2. Spokane Transportation, John R. Reavis, First Annual Report of the Secretary of the Chamber of Commerce of Spokane for the Year 1891 (Spokane: W. D. Knight, 1892).


5. Farming in the Inland Empire, Spokane Chamber of Commerce, A Farm Home For You in the Inland Empire (Spokane: Chamber of Commerce, c. 1930?).

7. **Industries and Products of King County.** Seattle Chamber of Commerce, *Statistical and Descriptive Report of the Seattle Chamber of Commerce to the Governor of Washington Territory* (Seattle: Hanford, 1884).

8. **Building Seattle.** George H. Emerson, *The Building of a Modern City* (Seattle: Metropolitan Building Company, 1907) [from an address given to the stockholders on 14 October 1907], Pacific Northwest Collections, University of Washington Libraries.


18. "**Seattle, Ten Years Hence.**" R. H. Thomson, "Seattle, Ten Years Hence" [speech, c. 1928], 1, 3-4, 6-7. R. H. Thomson Papers, Accession 89, Part 1, Box 13, Folder 5, University of Washington Libraries.


29. "**Vote NO on METRO!"** [campaign flyer, c. 1958], from *Bellevue American*, 5 March 1958, copy in James R. Ellis Papers, Special Collections, University of Washington Libraries, Box 1, Folder 5.


31. **"Put METRO to Work."** [campaign flyer c. 1958], Seattle—Metropolitan District, Vertical Files, Periodicals Division, Seattle Public Library, Main Branch.
32. **Speech Against METRO,** Nicholas A. Maffeo, "Speech Against 'Metro,'" 20 February 1958. Seattle—Metropolitan District, Vertical Files, Periodicals Division, Seattle Public Library, Main Branch.

33. **Reports to Forward Thrust,** [Capitol Hill, Montlake, Madrona District, Denny Blaine, and Bellevue] Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.

34. "**Forward Thrust Begins,**" 15 September 1966, Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.


36. **Seattle Stadium Campaign,** "Would you Pay $1.21 per year for a new all-weather stadium?" [Forward Thrust campaign literature], c. 1968, Reports to Forward Thrust, Mercer Island and Bellevue, Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.

37. **Forward Thrust Campaign,** "When they’re 21, it will be too late," [Forward Thrust campaign literature], c. 1968, Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.

38. **Forward Thrust Campaign,** "Vote TUESDAY Feb. 13th 'Your Day of Decision,'" [Forward Thrust campaign literature], c. 1968, Reports to Forward Thrust, Mercer Island and Bellevue, Forward Thrust Papers, Acc. 1704-4, Box 1, University of Washington Libraries.


42. "**The Straightening,**" *The Duwamish Diary* (Seattle: Cleveland High School, 1948), 65-72.


Municipal Archives (at Puget Sound Regional Archives, Washington State Archives), Control No. 2600-01, Box 1.

46. Denny Hill Regrade. O. A. Piper, "Regrading in the Seattle North District," [c. 1910], Local Improvement District 4818. Seattle Municipal Government, Engineering Department, Local Improvement District Files, Seattle Municipal Archives, Office of the City Clerk, Control No. 2600-00, Microform, Letters, Folder 1.


52. Slow Progress of Regrades. Uptown Seattle Association to W. D. Barkhuff, City Engineer, 6 August 1929 and W. D. Barkhuff to George Nelson and Co., 7 October 1929, Local Improvement District 4818. Seattle Municipal Government, Engineering Department, Local Improvement District Files, Seattle Municipal Archives, Office of the City Clerk, Control No. 2600-00, Microform, Letters, Folder 1.


70. Planning Expo’74. A. Jerry Keyser, Executive Vice President, Metrecon Division, Larry Smith, and Company, Inc. to King Cole, 25 May 1971, King Cole Papers, Box I, Eastern Washington State Historical Society.


74. King Cole [interview with Sean Elwood], 9 June 1975, Expo’74 Transcripts, Eastern Washington State Historical Society.

75. Tom Adkison [interview with Sean Elwood], 8 April 1975, Expo’74 Transcripts, Eastern Washington State Historical Society.