HECLA
A Century of Western Mining
John Fahey

Of the pioneer mining companies formed in the Coeur d'Alene district before 1900, Hecla is the last in business. The North Idaho mining company that started with a $150 hillside lead and silver claim in 1885 has developed today into a diverse international corporation. This colorful chronicle of its origin, development, and cyclical fortunes gives the reader an insider's look at the making of mines and a singular vantage point into western mining.

262 pp., illus. • Clothbound, $24.95

Available through your local bookstore or call 1-800-441-4115

University of Washington Press
P.O. Box 50096 • Seattle, WA 98145-5096
History Commentary
3
The re-emerging frontier of the American West.
By Frank J. Popper and Deborah E. Popper

The World Fire Created
5
The Willamette Valley field-burning controversy rages on.
By Peter G. Boag

NP vs. John Barleycorn
12
“Demon liquor” and the building of the Stampede Pass Tunnel.
R. Paul Tjossem

History Album
15
The Huggins family around the flagpole at Fort Nisqually.

The Other Explorers
16
Add Alcalá Galiano and Valdés to the list of “important personages” in Pacific Northwest history.
By Donald C. Cutter

Fort Nisqually
22
Archaeology bridges the gap in public awareness of this historic site.
By Ruth Kirk

A Diverse Economy
28
Early 19th-century Hudson’s Bay Company activity in the Pacific Northwest involved much more than beaver pelts.

From the Collection
32
Diary of a sea captain’s wife.

Salmon Bay Charlie
34
Last headman of the Lake People.
By Nile Thompson

Manhattan on the Columbia
38
The birth of Hanford as told by the people who helped build it.
By S. L. Sanger

Columbia Reviews
46
Recent books of interest in Northwest history.
Edited by Robert C. Carriker

Cover: In the 1840s Canadian artist Paul Kane visited the Oregon Country. One of his renderings is this beautiful panorama entitled “The Willamette River from a Mountain,” which shows the effects of Kalapuya Indian burning in the valley—patches of prairie interspersed with forest land. Paul Kane Collection, Royal Ontario Museum, Toronto.
there is a generalized theme to the articles in this issue of Columbia, it might be “path-breaking.” Our cover story focuses on the clearing of prairies by native peoples, followed by the similar use of fire by growers to make way for their crops. At the mega-scientific and technological end of the spectrum you will find S. L. Sanger’s essay on what might be termed Washington’s “nuclear pioneers.” Similarly, James Gibson’s and Ruth Kirk’s articles on general aspects of the Hudson’s Bay Company’s operations and a specific case study, respectively, highlight the period of the Euro-American vanguard in the Northwest.

There is a new group of path-breakers on the Washington State Historical Society scene that I want to bring to your attention. I am referring to the members who responded to the first Annual Fund appeal. Their names are listed below, and I want to acknowledge their generosity in this, the most public and enduring vehicle at the Society’s disposal.

Mary E. Anderson, Shelton
Mildred G. Baker, Tacoma
Redmond J. Barnett, Tacoma
Donald H. Botts, Black Diamond
Donald S. Buchanan, Tacoma
H. E. Christensen, Lompoc, California
Edwin L. Cliffe, Shelton
LaVerna J. Conrod, Milton
Marjorie Cradduck, Tacoma
Foster Cronyn, Mercer Island
Karyl Dein, Redmond
Robert C. Gius, Tacoma
Michael Green, Cheney
Mr. and Mrs. Frank Hart, Connell
James and Marion Haviland, Mercer Island
Anne W. Herp, Des Moines
Helen Hitchman, Seattle
Titus Will Hyndai, Tacoma
Jessie B. Jackson, Soap Lake
Willie Jackson, Tacoma
N. J. Johnston, Seattle
Atsushi Kageyama, Vancouver
Ruth Kirk, Tacoma
J. M. Lancaster, Tacoma
Charles P. LeWarne, Edmonds
Reta Loudermilk, Chehalis
A. E. Lunsdgen/Lumsdgen Dealers Supply, Tacoma
F. Carl Marra, Seattle
John M. McClelland, Ill., Longview
Stuart and Tracy Mork, Port Hadlock
Denise Morris, Roosevelt
James F. Morris, Tacoma
Mr. and Mrs. Harold E. Nelson, Tacoma
Ted and Sharlene P. Nelson, Federal Way
Mr. and Mrs. J. Richard Nolles, Tigard, Oregon
Harold F. Osborne, Kingston
Richard W. Peterson, Seattle
John Poum, Seattle
Weldon W. Rau, Olympia
Dr. and Mrs. John K. Shaw, Tacoma
Mr. and Mrs. Peter Simpson, Port Townsend
Mr. and Mrs. John A. F. Spellman, Cosmopolis
Michael S. Sullivan, Tacoma
Sylvia S. Summerland, Seattle
Dr. and Mrs. Robert C. Weller, Tacoma
Mr. and Mrs. J. P. Weyerhaeuser, Tacoma
Mary G. Wilson, Prosser

It is true that there are many ways to become a “contributor”; by donating an artifact or manuscript collection, volunteering time, or writing a check. The important thing is to recognize that the membership of WSHS is the Society in many respects, and that, like the board and the staff, they are leaders and path-breakers in their own right.

LOCAL HISTORICAL SOCIETIES AFFILIATED WITH WSHS
Bainbridge Island Historical Society
Central Washington Agricultural Museum
Clallam County Historical Society
Cowlitz County Historical Society
East Benton County Historical Society
Firecrest Civic and Heritage Association
Fort Vancouver Historical Society of Clark County
Fox Island Historical Society
Franklin County Historical Society
Highline School District Museum at Sunnydale
Historic Fort Steilacoom Association
Jefferson County Historical Society
Kitsap County Historical Society
Maple Valley Historical Society
Mukilteo Historical Society
North Central Washington Museum Association
Okanogan County Historical Society
Peninsula Historical Society (Gig Harbor)
Sumner Historical Society
Tumwater Historical Society
Washington Trust for Historic Preservation
Whitman County Historical Society
Wooden Boat Foundation
Yakima Valley Museum and Historical Association

Subscribers Become Members

Readers of Columbia who are not already members of the Washington State Historical Society are urged to join in one of the categories listed; a subscription to Columbia is included. Schools, libraries and historical associations may take advantage of our “subscription only” category for $25 annually.

<table>
<thead>
<tr>
<th>Membership Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>$28</td>
</tr>
<tr>
<td>Family</td>
<td>$40</td>
</tr>
<tr>
<td>Student</td>
<td>$16</td>
</tr>
<tr>
<td>Senior</td>
<td>$25</td>
</tr>
<tr>
<td>Sustaining</td>
<td>$100</td>
</tr>
</tbody>
</table>

Membership applications should be addressed to:
Washington State Historical Society
315 North Stadium Way
Tacoma, WA 98403
(206) 593-2830
The Return of the American Frontier

In 1893 Frederick Jackson Turner declared the 19th-century frontier closed. The nation accepted his conclusion, and the frontier faded from its awareness, but there is a growing belief that a vast frontier has survived throughout the 20th century in a hidden form few Americans recognize. An even larger frontier will re-emerge in clear public view in the 21st century as a predictable result of governmental and private actions now well underway. The 21st-century frontier, more than those of the 19th and 20th centuries, will constitute a deliberate human creation impossible to overlook.

Turner based his declaration that the frontier was closed on a specific finding of the 1890 census—that there was no longer a continuous line west of which there were fewer than 2 people per square mile (equivalent to Seattle’s having no more than 169 people). A century later, the declaration looks odd and premature. The idea of a single national frontier line as the boundary now seems a huge, meaningless statistical abstraction caused by the east-to-west movement of 19th-century white settlers.

If we disaggregate the population density standard at a county level, the 1980 census shows 143 counties, all in Western states, with fewer than 2 people per square mile. The counties have a small total population of 572,000, representing one American in 396. But they are physically large; they have a total area of 949,500 square miles, over a quarter of the United States. For a place that is supposed to encompass both public and private land, and as it proceeds the Western frontier will expand.

Across much of the 20th-century rural West extractive uses have long been in steep decline, with their low wages also falling. They suffer from wrenching boom-and-bust cycles whose bust sides are coming to predominate. They create immense environmental damage, and they produce dwindling communities that cannot hold their young, requiring increasingly questionable federal subsidies.

These conditions chronically oppress large parts of the American countryside, but have hit with special accelerating force in the rural West. The region is already less populated, less economically diverse, more remote and arid, and often more ecologically vulnerable than the other suffering American hinterlands. In many places, especially Indian and Hispanic areas, the rural West is poorer than the other depressed regions. It is in the rural West that the 20th-century extractive economy is falling most behind its competing economies and regions. It will be in the rural West that the 21st-century preservation economy will most prominently emerge to supplant the extractive economy. Preservation will shape the 21st-century American frontier, and it will refocus the nation’s attention on a land heritage it thought it had lost.

Signs of the coming transformation abound, and the West is a willing participant. Most Western states have historically opposed the creation of national parks within their borders, regarding them as barriers to extracting resources as well as abdications of power to the federal government. Consequently, several of the most conservative states have had no national parks. Now they show enthusiasm for them. Nevada acquired its first park, Great Basin, on the border with central Utah, in 1986; Idaho, with none, has been considering a series of parks in the northern Snake River Plain, the Owyhee River Canyons region and the present Sawtooth National Recreation Area; Alaska, which fiercely resisted the Alaska National Interest Lands Conservation Act that created ten new parks in 1980, is now embracing the proposed joint U.S.-Russian park on both sides of the Bering Strait. The American portion, now the Bering Land Bridge National Preserve, is 4,400 square miles—the size of Connecticut.

Consider the consequences of the recent oncush of Western
environmentalism, which often combines with public or private financial concerns to favor preservation over extraction. As of 1986 the Bureau of Reclamation no longer builds the big, heavily-subsidized dam and irrigation projects that have made so much Western extraction possible. Instead, it now considers itself largely a conservation agency concerned with the environmentally and economically wise use of the water its projects produce.

Similarly, throughout the West the livestock and logging industries have come under mounting environmental and economic pressure. In response, the large, mobile parts of both industries are increasingly shifting their operations from public land in the West to private land in the South. This logging pullback is visible in the national forests of California, Oregon and Washington. By 1989 Florida, Kentucky and Tennessee each produced more cattle than Arizona, Idaho, New Mexico, Nevada, North Dakota, Oregon, Utah, Washington or Wyoming. The most plausible uses replacing those on the abandoned lands of the West will usually be preservationist. As environmentalism continues to gather strength globally in coming years, these uses will become even more dominant.

Long-standing Western water transfers show much the same pattern: economic drainage of the frontier that in effect expands and intensifies it. Nearly all the transfers are rural-to-urban, and many are frontier-to-big-city, especially as the region’s thirsty, comparatively wealthy and influential metropolises keep growing in arid settings at the expense of poorer, politically less-influential frontier areas. The on-the-ground effects of the transfers are widely acknowledged. In a 1990 Arizona study at least three-quarters of the leaders in both water-gaining and -losing communities agreed that the latter would suffer in agricultural productivity, overall growth, ability to protect their way of life, flexibility in their land-use choices, and environmental quality.

Additional trends that are only emerging today will also help create the 21st-century frontier. Whatever its economic rationale, the ongoing deregulation of the airline, trucking, railroad, bus and telephone industries will further isolate many remote Western places by making it still harder for the industries and places to afford each other. Cutbacks in medical, educational and other public services will have comparable frontier-making impacts. So will the extensive land buy-ups by the Nature Conservancy and similar preservation-minded organizations. When its final results are in, the 1990 census will probably show more frontier counties than did the 1980 census. Twenty-first-century census reports will show more yet.

What will the 21st-century American frontier look like? It will have grown and become more visible. Large chunks of the rural West, no longer useful for most private enterprise, will eventually drift into public or quasi-public holdings. More ghost towns will appear, to join the large number that already exist in, for example, the eastern reaches of Oregon and Washington. National parks, national forests, federal wildlife refuges, their state counterparts and Indian reservations will all be larger, more prevalent and better protected than they are today. For instance, the recent, seemingly unlikely environmental goal of creating buffer zones in Montana and Idaho to help insulate Yellowstone National Park from development pressures may well become a reality.

In some parts of the West, today’s occasional fax-and-Fedex culture of transplanted urbanites doing essentially urban jobs in (or from) frontier settings will spread. Towns such as Kalispell, Montana, exemplify this on-line West, this urbanly accessible frontier. In other places extractive industries will retain or strengthen their hold. Sometimes they will become more specialized, pursuing what the Stanford Research Institute has called niche agriculture or its equivalents. In other cases extractive industries will become more vertically integrated, as large agribusiness, timber or energy companies intensify their already near-feudal grip on ever-more-isolated frontier towns and counties. But throughout the West extractive activities will give way to preservation, as part of the national—even worldwide—triumph of the service economy.

The return of the American frontier will have profound political and cultural effects that are now largely unknowable. Unlike the 19th-century frontier, the 21st-century frontier will not be a place to conquer. Unlike the 20th-century frontier, it will not be a place to ignore. Unlike the frontiers of both the 19th- and 20th-centuries, it will be primarily an area that will fall between present-day agriculture and full-scale wilderness. Call it a kinder, gentler frontier, or maybe the end-of-history frontier. If we are lucky, it will be a frontier which can sustain development. If we are unlucky, it will be a wasteland. We are no longer a frontier nation, but we are still a nation with a frontier—one that will expand far into the next century.

—Frank J. Popper and Deborah E. Popper

Frank J. Popper chairs the Urban Studies Department at Rutgers University in New Jersey, while Deborah E. Popper is in the Geography Department. This article draws on their presentation to the Western History Association in Sparks, Nevada, in October 1990.
Field Burning in the Willamette Valley

On the morning of August 3, 1988, Willamette Valley grass-seed grower Paul Stutzman set fire to the straw remaining in his recently harvested grass-seed field, which lay one-eighth of a mile west of Interstate 5. Stutzman was engaging in an agricultural practice developed some 40 years ago by an Oregon State College plant pathologist to rid grass croplands of disease. As Stutzman watched billows of smoke rise from his fields, he may have thought about the then-quiescent 20-year protest against field burning waged by citizens concerned with smoke polluting Oregon’s most heavily populated areas during the summer. Stutzman was not aware, however, that cinders from flames engulfing his field would drift to the east and settle in dried grasses alongside the freeway. There, the cinders ignited another fire whose smoke enveloped the freeway, obscuring vision of automobile drivers. When the smoke cleared, 23 vehicles lay mangled on the highway in one of Oregon’s worst auto accidents: 7 people died and 37 others were injured.

By Peter G. Boag

When Paul Stutzman put the torch to his fields that warm summer morning, he unwittingly rekindled a controversy smoldering in the Willamette Valley.

Fire has a long history in Oregon’s Willamette Valley as an ecological tool to shape and control the environment. Prehistorically, if left in a natural state, the valley would have been forested with big leaf maple, Douglas fir and possibly grand fir. But, in order to ensure an abundance of the animals and plants essential to their economy, the Kalapuya Indians used fire to shape the Willamette Valley’s vegetation. Because of this burning, a myriad of wild grasses, well suited to clay soils and seasonal extremes of wet and dry, covered the valley at the time of first European contact.

Early European and Euro-American visitors to the Willamette Valley left less than glowing descriptions of the scenery after Indian burning. David Douglas remarked in September 1826: “Country undulating; soil rich, light with beautiful solitary oaks and pines interspersed through it, and must have a fine effect, but being burned and not a
single blade of grass except on the margins of rivulets to be seen." In September 1841, Charles Wilkes wrote: "The country had an uninviting look, from the fact that it had been overrun by fire, which had destroyed all the vegetation except the oak trees, which appeared not to be injured." Of the smoke which filled the valley during burning, Wilkes' associate W. D. Brackenridge reported on September 15, 1841, "Day very fine but dense with the smoke from prairies in vicinity."

The viewers quoted above made their reports during or just after the time of Indian firing. When these observers, and others, came to the Willamette at other times of the year, they had nothing but praise for the remarkable beauty of its prairies. As early as 1814 trapper Alexander Henry noted, "The country is pleasant . . . . At a short distance are ranges of grassy hills, where not a single stick of wood grows; the prospect is delightful in summer, when blooming and verdant." Charles Wilkes commented in June 1841, "We passed in going thither, several fine prairies . . . . They were . . . carpeted with the most luxuriant growth of flowers, of the richest tints of red, yellow and blue . . . . " In 1851 Wilson Blain wrote, "Turning this point, we immediately enter Pearl Valley, which some have designated 'land of the Bashan,' on account of its unusual fertility and luxuriant grasses. It is . . . a beautiful area . . . ."

Many of these early viewers of the Willamette recognized the connection between Indian burning and the aesthetic appeal and environment of the valley. Francis Xavier Matthieu found the valley in 1846 "beautifully diversified . . . , the practice of the Indians . . . of burning the prairies over, having brought the whole country . . . to the condition of a park." Charles Wilkes commented about the valley's surrounding forests, which had the "appearance of being attended to and kept free from undergrowth. This is difficult to account for, except through the agency of fire . . . ."

Earl and mid 19th-century white explorers and inhabitants of the Willamette Valley used a language to describe their surroundings that did not debate the merits of Indian burning. Nonetheless, in this language there can be detected a subtle, though clearly defined, tension in the appreciation of the aesthetics of the Willamette environment. Visitors to the valley during the few weeks in September were greeted by blackened prairies and smoke-filled skies. If they came at almost any other time of year, they were greeted with extensive, luxuriant grasslands, and prairies filled with a variety of colorful flowers. This tension of environmental aesthetics is the forerunner of the modern field-burning controversy in Oregon's Willamette Valley.

Time and space do not allow a complete review
of the agricultural and environmental history of the Willamette Valley between the 1840s and 1940s. Large-scale immigrations of whites at the beginning of this hundred-year span brought an end to the Kalapuyas’ burning of the prairies; by the end of it farmers found fire a useful tool in the emerging grass seed agricultural economy.

At the risk of oversimplifying, it can be said that between the 1840s and 1900 wheat was the single most important crop in the Willamette Valley. Its dominance was especially profound between the 1860s and 1880s. Beginning in the 1880s, but most certainly from 1900 into the 1930s, Willamette Valley agriculture became increasingly diversified, though still into the 1920s wheat, as a single crop, was planted in the highest number of acres. It was during this period, however, that other crops like oats, vetch and hay, fruit and nut orchards, and dairy and poultry became increasingly important to the Willamette Valley agricultural economy. Also beginning in the 1890s, but more apparent from 1900 through the 1920s, farmers converted much of the valley’s poorly-drained clay soil prairie land to pasturage, and increasingly cultivated the fertile and well-drained floodplains.

A number of interrelated factors contributed to these changes. First, combined social and economic forces in the early 20th century led to a growing urban population and declining rural population, as family farms gradually gave way to large-scale commercial ventures. Another economic factor contributing to the abandonment of the valley prairie farmland was the drop in the price of wheat below local production costs in the wake of World War I. By the 1890s Willamette Valley wheat producers had already been in fierce competition with the Inland Empire of eastern Washington and northeastern Oregon. Human-caused changes in and natural exigencies of the valley’s ecology also contributed. Valley soils, having been depleted after years of intensive cultivation, combined with their predomiance of heavy clay and marshy condition during the long, wet winter season, and the climate in general, could not support the traditional wheat crop and compete with the Inland Empire. Finally, as agriculture grew more diversified and dairy farming gained in importance, pastureland naturally expanded.

Beginning in 1900 and continuing into the 1940s, a series of ecologically and economically suitable crops were introduced into the Willamette Valley. First came seed-producing and nitrogen-fixing legumes such as clover and vetch. By the 1930s the Willamette Valley became the major domestic source for United States vetch seed. In the 1920s Willamette Valley farmers began to sow annual ryegrass as a back-up crop for when other grain crops did poorly. By the 1930s perennial ryegrass could be found in the valley, as well as other grass-seed crops such as fescues, bluegrasses, cheat grasses and orchard grasses.

The grass-seed industry in the Willamette experienced a meteoric rise, especially in the southern portion of the valley, after 1930. The ecology of the Willamette Valley is ideal for grasses, a fact to which the earliest European and Euro-American viewers of the valley environment could testify. The flat land and heavy clay soils soak up and retain large amounts of water during winter and spring. The soil retains its moisture through early summer, at which time grass seed matures. Then, the warm days of July and August allow seeds to dry before harvest.

After 100 years of absence, fire once again became an essential component of the Willamette Valley’s environment and economy.

Another factor in the strength of the Willamette grass-seed industry concerns economy. Beginning in the 1930s, grasses came into demand. Federal soil conservation programs used grasses to stabilize soils, and encouraged farmers to use them in crop rotation, as a winter crop cover, and for livestock forage. This demand was then buttressed by the demand from homeowners for lawn grass, and increasing numbers of city parks and golf courses, and finally a growing foreign market after World War II.

In 1930 less than 10,000 Willamette Valley acres held grass-seed crops; by 1940 this number had risen to only about 11,000. It was at this time that the fledgling grass-seed industry encountered its first crisis. By the early 1940s a fungus, blindseed disease (Gloeotina or Phialea temulenta), infected the valley’s ryegrass crops in epidemic proportions. John Hardison, an Oregon State College agriculture research pathologist, found that burning harvested grass fields eliminated the fungus from the following year’s crop, thereby increasing the yield. Soon another economic benefit from the use of fire became apparent: it removed straw left after harvest in an efficient and cheap manner. After 100 years of absence, fire once again became an essential component of the Willamette Valley’s environment and economy.
By 1950 the number of acres sown to grasses rose to around 100,000; from 1960 to 1982 the number of acres in grass-seed crops has remained almost constant at around 300,000. In the 1960s farmers, in uncontrolled and unregulated burns, annually torched about 260,000 acres of grass-seed cropland. The smoke from these burns often enveloped the Willamette Valley’s growing metropolitan areas.

At the same time that the ever-increasing summer field-burning smoke affected the valley’s growing urban and suburban areas, Governor Tom McCall (1967-75) led Oregonians in a crusade to reverse environmental deterioration in the state. This crusade would ultimately include the Oregon Bottle Bill, a ban on ozone-harming fluorocarbons, and the Oregon Scenic Rivers law. In 1967 McCall secured strict legislation not only to clean up the all-but-ecologically-dead Willamette River, but also to protect its banks from development. Six years later the legislature passed the Willamette River Greenway Plan, which allowed the state to acquire easements for parks along the river. And, significantly, the Greenway Plan was designed to maintain the viability of farming in the Willamette Valley. In 1969 McCall brought to fruition the Land Conservation and Development Commission, which required all Oregon towns and counties to zone their lands in order to regulate growth, concentrate industry in designated areas, and prevent urban sprawl.

The seasonal but very apparent air pollution of field burning was not immune from this environmental movement. Because of weather and geography, smoke intruded into the Eugene-Springfield area, in the southern portion of the valley, more often than any other urban area in the 1960s. It is not surprising, then, that Eugene citizens led the urban protest against the smoke. Representatives to the state government unsuccessfully introduced legislation to curb and control field burning as early as 1965. By 1969 conditions in the southern Willamette Valley had reached crisis proportions. Tom McCall lent his sympathies. On August 3 he described the situation as "completely intolerable . . . . It is ridiculous that while we are phasing out Wigwam burners and other polluting industrial practices we allow ourselves to be subjected to this air pollution, which shocks our sensibilities and is a threat to health and safety."

But when a ten-member Eugene delegation met with him under the sunny skies of Salem a week later, on August 12, McCall could only tell them that the state legislature left him powerless to do anything about field burning. As the delegation somberly returned to Eugene they were met with one of the worst smoke episodes to date. Mayor Les Anderson immediately telephoned McCall, requesting him to come to Eugene and see the problem for himself. And McCall came. From Skinner Butte, McCall and a group of local officials looked into the smoke-laden air hovering over Eugene. The governor, with squinting, watery eyes, queried the small crowd, "Does this stuff bother your eyes?"

After a moment a voice in the crowd was heard to claim, "It does mine." At the affirmative response, McCall, a giant of a man in many respects, reportedly feigned relief and, still squinting, said, "I thought maybe I was a pansy." He dubbed what he witnessed "the scene that can't be seen."

The governor now reversed his position and issued an executive order banning field burning for ten days. He stated, "Leaving aside all aesthetic considerations I find that an emergency situation..."
exists requiring prompt and firm action to ameliorate a grave and imminent danger to the public health and safety."

For an entire decade from this infamous day in 1969, known as Black Tuesday, the flames of controversy raged at various levels of state and local government. The controversy has traditionally been seen in terms of urban versus rural, town versus country, and city versus farm. But by listening carefully to the language used in the controversy, we can see that the problem has much deeper, historical roots in the Northwest: the difficulty of integrating environmental and aesthetic protection with economic development.

In the language McCall used on August 3 and August 12, 1969, he immediately couched the offensive position in terms of public health and safety, hinging it on the environmental consideration of clean air. He even hinted that one way to stop field burning might be through a lawsuit, arguing it is the public's civil right to breathe fresh air. Undoubtedly, the "scene that [couldn't] be seen" influenced his language as well, and although he thought he put aesthetic considerations aside in issuing his order, by simply mentioning them he all but equated them with environmental reasons for the ban.

Not surprisingly, grass-seed growers immediately countered with an economic argument. Charles Kizer, chairman of the Oregon Seed League Field Sanitation Committee, responded to McCall's statements, "I don't think it is reasonable to ask farmers to . . . stop something that is essential to their next year's livelihood." Between August and September seed industry representatives frantically cited the annual importance of the seed industry to Oregon's economy at anywhere from thirty million to two-and-a-half billion dollars. A ban on field burning, they argued, would "drive agriculture right out of the state" because no efficient and economic alternatives had been found.

The tide was turning against the grass-seed growers. In the spring of 1971 the state senate and house of representatives debated and passed legislation to phase out field burning in the Willamette Valley by January 1, 1975.

The grass-seed industry, anticipating such a decision, attempted to redefine their language of economic defense by drawing on the language of the environmental movement. Thus on March 2, 1971, at a legislative hearing, Senator Hector Macpherson, representing rural, grass-seed dependent Linn County, warned that if burning were banned, sterilants, herbicides and insecticides might be introduced into the Willamette Valley environment. Even more ominous was his warning that farmers would go out of business and give up development rights to their lands and "nothing is quite so frightening as wall to wall people in the Willamette Valley." This new line of defense anticipated by almost two years McCall's now-famous "grasping wastrels" speech to the Oregon legislature, in which he warned against the "shameless . . . unfettered despoiling of the land . . . the ravenous rampage of suburbia in the Willamette Valley . . ., [which] mock Oregon's status as the environmental model for the nation." One and a half years after arguing from a purely economic perspective, the grass-seed industry effectively co-opted McCall's language of environmental protest, integrated it with a sound economic argument, and made the language its own.

Even more interesting is the fact that at this same hearing Maradel Gale, president of the Oregon Environmental Council, took Macpherson's bait and stated that while her group "feels the termination of field burning is necessary . . . it is important to keep . . . agricultural use instead of opening
the Valley to subdivisions." Besides, she remarked, reminiscent of the 19th century, "greenfields are a pleasure to the eyes of all Oregonians."

Over the next 10 to 20 years the urban protesters never again, after Gale's pronouncement, mentioned, let alone questioned, the validity of the growers' environmental argument. In fact, from this 1971 date the urban protest became all too apparently narrow in scope and singular in issue. Environmental quality was an urban concern only when it was the urban environment and its inhabitants who were adversely affected. For instance, a Salem newspaper editor proclaimed in 1973 that "next summer just has to be the last when half a million people are blinded, sooted and polluted so that an industry can make a profit." And in February 1975 Mayor Les Anderson once again argued that "as long as field-burning persists, the seed-growers will be violating the constitutional rights of the people of Eugene to breathe clean air and see the sun."

While legislation in the spring of 1971 instituted stricter controls over burning and required fees to be collected from growers to fund research into alternative measures, when 1975 rolled around, the date for the complete ban to become effective, it proved all but a dead letter. At this time the grass-seed industry took the offensive with its own litany of environmental, aesthetic and economic considerations. The Oregon Grass Seed Council showed statistics indicating that 25 square feet of actively growing grass released sufficient oxygen into the air to sustain life for a grown person. The council also noted that on a warm summer day one acre of grass is equal in cooling effect to a 70-ton air conditioner. They showed that growing grass as a crop had stabilized Willamette Valley soils while wheat, which did not require burning, resulted in wind and water erosion, and therefore dust and gullies. The growers countered the smoke issue with newspaper articles from September 1974 showing that a carbon monoxide problem in Eugene resulted from automobile use, and that when Eugenians were urged to take mass transit and leave their cars at home, they refused. Finally, growers argued the lack of economically feasible alternatives, and dangled the notion once more that "if farmers are forced out of the seed business, much of the land will eventually go for industrial development and residential use."

The ban to go into effect in 1975 was revoked, and the controversy raged anew. Over the next four years the Oregon legislature worked to reduce the numbers of acres burned to 95,000, and to ensure, through the active participation of the Department of Environmental Quality, that tough guidelines be followed when burning. But whenever smoke filtered into large urban and suburban areas, or when smoke enveloped highways and automobile accidents resulted, the controversy immediately took center stage. Urban protesters and grass-seed growers again rallied to their respective causes.

In the March 13, 1978, issue of the Portland news-magazine Willamette Week, "Gus" Keller, mayor of Eugene, and Gene Maudlin, communications director for an Oregon Seed Trade Association's lobbying group, faced off in an editorial debate. Keller defended Eugene's attempts to clean up its indigenous pollution and blamed the profit-motivated mentality of the grass-seed industry for "the pollution which intrudes [upon] Eugene." In his reply, Maudlin put forth a formidable argument
based on environment, aesthetics and economy. He showed
evidence of the importance of grass-seed to
Oregon's economy, that Eugene's summer pollution
problem was self-created, and that no other suitable
crop could be grown on the poorly-drained clay
soils. Again he alluded to the many acres of grass-
lands that "surrounded cities, or lie along much-
used highways." In ways mirroring the eloquence of
Chief Sealth's purported 1855 lecture to the federal
government, Maudlin commented:

Should open field burning be phased out, these fields
will become vulnerable to tract development, shop-
ing centers, parking lots . . . Lost would be the
beautiful agrarian countryside close to the city [of
Eugene] with its oxygen-producing plants performing
day after day. Gone would be wildlife habitat, open
space, food production capabilities, buffers for water
supply, and critical wetlands. Gone will be forever
another piece of the environment, another piece of
that identifiable whole we call the quality of life.

In late May 1979 the Oregon legislature passed a
bill that increased the number of acres burned to
250,000. It was the business-oriented governor
Victor Atiyeh who introduced the legislation.
Willamette Week described the bill as an environ-
mental disaster. But surprisingly, in December of
that year, the city of Eugene and grass-seed growers
amicably signed an agreement designed "to ensure
that no degradation of Eugene's air quality occurs
from field burning and to assure the continued eco-
nomic viability of the grass seed industry."

The decade of debate that began on Black
Tuesday had ended. The Willamette Week proclaimed the controversy
"Gone with the Wind." And in a sense
that was true. A decade of DEQ study,
the refinement of weather and wind predictions
and of field-burning procedures now made it pos-
sible to burn more acres of grass with less likelihood
of the smoke invading Eugene and other Willa-
mette Valley urban areas.

The agreement between the city of Eugene and
the grass-seed growers appeared a success for both
sides. The heart of the agreement dealt with envi-
nmental protection of urban populations and the
economic maintenance of agriculture so important
to Oregon's economy and so important to retaining
much of the valley in an undeveloped condition.

From 1979 to 1988 the truce between the two
sides held. Though the controversy occasionally
flared up in isolated pockets around the valley, it
was quickly suppressed. But the controversy contin-
ues to smolder because the arguments employed in
the debate cannot extinguish the burning problem.
The language has revolved around humanly ma-
nipulated constructs of environment, aesthetics
and economy, and has left out one crucial compo-
nent: the broader environmental consideration
that humans cannot control nature.

During the summer of 1988, when Paul
Stutzman's field-burning leaped out of control and
smoke enveloped I-5, resulting in one of the worst
traffic accidents in Oregon's history, the contro-
versy again came to the fore. It was predictable that
protesters rallied to the same old colors, and the
Oregon Seed Council prepared a glossy 32-page in-
sert for Oregon Business magazine that argued more
coherently than ever the economic importance of
grass-seed to Oregon, the perfect ecology of the
Willamette for grass-seed crops, the benevolence of
grasses to the environment, and the aesthetic ap-
peal of greenswards of grassland described in "tour-
ism brochures."

But the tragic failure of the language of contro-
versy can be seen in that summer's accident. The
controversy would not have flared again if the traf-
ffic accident had not occurred, and the accident
would not have occurred if it had not been for
quickly-changing wind conditions—the whim of
nature—something that, despite more precise DEQ
measurements, neither Eugenians nor grass-seed
growers can control. But people did not and do not
recognize this fact, and use the old language of con-
troversy to blame each other. Indeed, the contro-
versy that was gone with the wind has returned with
it as well.

Peter G. Boag is Assistant Professor of History at Idaho
State University, and teaches Pacific Northwest, environ-
mental and Native American history. He received his Ph.D.
at the University of Oregon in 1988.

COLUMBIA 11 SUMMER 1991
By R. Paul Tjossem

NP vs. John Barleycorn

"Demon Liquor" and the Building of the Stampede Pass Tunnel

When the Northern Pacific Railroad accepted the terms of the Act of Congress authorizing the construction of a transcontinental railroad in 1864, the company was obligated, in order to receive the lands granted under the terms of the act, to build a railroad from a point on Lake Superior to Puget Sound by July 4, 1876. By a subsequent act, Congress extended the time for completion to July 4, 1879. The company completed a line running from Kalama to Tacoma by 1873 and had built west from Lake Superior to Wallula, where it connected with the line of the Oregon Railroad and Navigation Company (later the O.W.R.N. and now the Union Pacific) and obtained track rights over that line to Portland. By using barges between Portland and Kalama, the company was able to operate between Lake Superior and Puget Sound prior to 1879. Because of concern over the possibility of a contention being raised that this line did not meet the exact terms of the act (an issue raised and rejected in litigation that reached the United States Supreme Court in 1940), or for other reasons, the company was anxious to complete a direct line over the mountains to Puget Sound.

In 1885 the Northern Pacific called for bids to build the Stampede Pass Tunnel through the Cascades. Nelson Bennett, whose company had constructed the railroad between...
Pasco and Ellensburg, was awarded a contract on January 21, 1886. Bennett started work on the tunnel on February 1, and the work of building the railroad through Kittitas County progressed rapidly during 1886. The Illustrated History of Klickitat, Yakima and Kittitas Counties (1904) quotes the Yakima Signal of October 13, 1886: "On this side the track has reached McGinnis's, twelve miles from the main tunnel. The grade is nearly if not quite completed to the east face of the main tunnel, barring the trestles and the minor tunnels, which will be finished in time to allow of the track's reaching the switchback by the first of December . . . . If the present favorable weather does not break, through trains will be running early in January."

It is apparent from the account by the reporter for the Yakima Signal who "had recently been over the line" that the company expected to run through trains over the mountains to Puget Sound before the Stampede Tunnel was completed. The completion date under Bennett's contract was May 1888, yet the company anticipated running trains through as early as January 1887 by constructing switchbacks over the summit. This was the method later employed by the Great Northern in operating over Stevens Pass until its first tunnel was completed.

This is the background to a suit filed by the Northern Pacific in Kittitas County District Court in 1886, litigation that ended with a decision by the United States Supreme Court on April 23, 1893, in a case entitled Northern Railroad vs. Whalen. The suit was brought by the railroad to enjoin the named defendant and 44 other saloon-keepers from selling liquor to the railroad employees engaged in constructing the Stampede Tunnel, and to enjoin the Kittitas County commissioners from issuing any more liquor licenses for saloons located, or to be located, near the construction site.

The railroad employed thousands of men for the construction of the railroad in the tunnel and adjoining vicinity. The saloon-keeping defendants had their saloons on government property in a village named Tunnel City.
Hand drilling for blasting was used in the tunnel until a water-powered air compressor was installed.

defendants were selling spirituous and fermented liquors to the railroad employees and had "frequently and continuously caused drunkenness." Many men were unable to perform the labor assigned to them, and many others quit or left the job because rampant drunkenness had increased the risk from explosives and dangerous machinery. The company charged that it would be unable to complete the tunnel and road on time if the drunkenness continued; even if all of the facts stated in the complaint were true, there was no basis for an injunction or other relief. The Territorial Supreme Court had little difficulty sustaining the trial judge's dismissal of the case. The court pointed out that there was no concerted action by the saloon keepers, that each purchase of liquor by an employee was an individual transaction: the company therefore had mistaken its remedy. The court indicated it was not unkindly disposed toward liquor, for its ruling stated: "Selling the whiskey does not necessarily make any man drunk. If the man who buys it performs his duty, it will not make him drunk." And then said, "Now, if one man employs another to work for him, he has the right to require that man to keep fairly safely sober. If he does not, he may be discharged and may be sued for damages. This is all the remedy the law gives for this wrong . . . . Judgement of dismissal affirmed."

This decision of the Territorial Supreme Court was filed on January 30, 1888. In March 1889 the company filed an appeal from this decision to the Supreme Court of the United States, and the case was finally submitted for decision on March 22, 1893. Justice Horace Gray wrote an opinion for a unanimous decision explaining the court's conclusion: "The complaint in this case has no foundation, in common law or statute, in principle or precedent"; the dismissal was affirmed. Nevertheless, the company's decision to proceed with this case over a period of seven years, 1886-93, is puzzling, particularly since the tunnel was completed and trains were operating through the tunnel by May 1888, four months after the Territorial Court's decision.

R. Paul Tjossem is a retired railroad attorney. He served the Burlington Northern and one of its predecessors, the Great Northern Railway, for 30 years.

The "Demon" at Work

The Illustrated History of Klickitat, Yakima and Kittitas Counties (1904) contains a report of two serious accidents that were probably caused by drunkenness. In March 1887 a locomotive ran away down the track above Easton; the fireman and the engineer jumped and were seriously injured. There were four men working on a high trestle in the path of the locomotive. One was killed; one jumped and was seriously injured; one lay flat on the track and the locomotive, since it was on a curve, went over him without causing injury; and the fourth saw the locomotive derail just before it reached him.

In April 1887 a drunken engineer, who delighted in opening the throttle, was operating a train pushing a flat car with 20 men going to a work site near Cle Elum. He drove the flat car into a disabled locomotive—5 men were killed instantly and the other 15 were seriously hurt.
THE DATE WAS AUGUST 21, 1896. C. A. Darmer photographed the Edward Huggins family grouped around the flag pole just as the flag was being raised near the Huggins home at Fort Nisqually (near the present-day community of Du Pont). Edward Huggins served as chief factor at the fort from 1859 to 1867. Following the transfer of the Hudson’s Bay Company post to the United States government in 1869, the Huggins family remained in the Nisqually area and homesteaded 1,000 acres surrounding the fort.

Mr. Huggins, who eventually became a naturalized American citizen, remained active in local politics and historical research. He was often called on to verify facts pertaining to the early Puget Sound-area operations of the Hudson’s Bay Company. He also served as an early officer of the Washington State Historical Society. Edward Huggins continued to live in the chief factor’s house until shortly before his death in 1907. In 1934 the chief factor’s house and the granary were moved to Point Defiance Park in Tacoma. The present house, which is 30 percent of the original 1853 structure, comprises a principal component of the Point Defiance reconstruction of Fort Nisqually.
THE Other EXPLORERS

Alcalá Galiano and Valdés

By Donald C. Cutter

Throughout much of the world the name of Captain James Cook is familiar. In place-name geography that intrepid British navigator has been commemorated in Alaska, Hawaii, New Zealand and Australia. George Vancouver will forever be appropriately remembered for his work as navigator, explorer and diplomatic representative whose name has been given to one of Canada's major cities, a smaller city in Washington, a major mountain and a massive island that is one-fourth the size of his native England. Nobody wants to lessen the honors achieved by those English mariners of yesteryear, and I am certain that their historical positions are safe. In no way, then, can recognition of the merits of rival contemporary mariners who sailed under a different flag compromise the positions of Cook and Vancouver as national and international figures of the age of exploration.

There were two other men who, had circumstances been different, might have had equal recognition by posterity. Both were young commanders when in 1792 they were ordered to make a heroic exploration of present-day Washington and British Columbia in the last Spanish search for the long-sought Northwest Passage. The senior of the two was Dionisio Alcalá Galiano, born in Cabra in Andalusia, a region of southern Spain, on October 8, 1760. By a similar psychological quirk that brings about large enlistments in the United States Navy of residents 500 or more miles from the ocean, Alcalá Galiano came from the parched brown area far distant from the sea. He was from a family of the minor nobility, his father an army officer commanding troops in nearby Ecija, renowned in Spain as "the frying pan of Andalusia." Despite such early orientation, Alcalá Galiano became one of Spain's greatest naval heroes, commemorated in patriotic poetry and known by many educated Spanish youngsters.

An even more convincing case can be made for his companion Cayetano Valdés as the most important early visitor to the Pacific Northwest, though neither his fame nor that of Alcalá Galiano rests principally with their participation in the region's early history. Despite the importance of Captains Cook and Vancouver, and even of the Spaniard Juan Francisco de la Bodega y Quadra, and considering the prominence of the Russian Nicolai Rezanof and the merit of Jean François Galaup de Lapérouse, none of these five worthies came close to Valdés in the matter of a brilliant and noteworthy career. Nor have any of them been such a symbol of patriotic sacrifice as Alcalá Galiano. We have greater knowledge of Cook, Vancouver, Bodega y Quadra, Rezanof and Lapérouse because we have viewed each of them at the height of interesting careers and because certainly our evaluation of their importance is based on their activity in the Pacific Ocean area, to a considerable extent on the Northwest Coast.

All five died very shortly after what we consider the pinnacle of their success had been reached. Cook was killed by the natives of the Big Island of Hawaii at Kealakekua. Lapérouse was shipwrecked and possibly eaten by the natives of Vanikoro Island in the Santa Cruz group of the Western Pacific. Rezanof died en route home across Siberia, the result of falling from a horse, the period's equivalent of an auto accident. Vancouver, who was suffering from a debilitating disease, was dead by 1798. Bodega y Quadra expired in Mexico City on March 26, 1794, the result of overwork, overexposure to the cold of the Pacific Northwest, and despondency motivated by his great
indebtedness—the result of his excessive liberality in diplomatic dealings. He only survived a few months after the period of his greatest prominence as the Spanish Commissioner in the Nootka Sound controversy. None of these men attained a rank higher than captain, the equivalent of the modern four-striper.

The case with our “other explorers” is far different. While on the Pacific Coast both were young officers who had at an early age achieved rank nearly equivalent to the others already mentioned, yet they were only a few years into their careers, being over two decades younger than the five renowned heroes.

Cayetano Valdés was a young lieutenant commander when he first visited the Pacific Northwest in 1791 with the Spanish Naval Scientific Exploring Expedition headed by Alejandro Malaspina. He was 25 years old when he commanded the schooner Mexicana on the circumnavigation of Vancouver Island in the summer of 1792, immediately after which he became a captain, the same rank as Cook, Vancouver and Bodega y Quadra. From the date of his early enlistment until the middle of the 1790s, there is always the moderately strong possibility that rapid advancement for Cayetano was facilitated by the fact that his uncle, Antonio Valdés y Bazán, served during that period as Ministro de Marina (administrative head of the Spanish Royal Navy). However, Uncle Antonio’s ministry ended far too early to have accounted for much of his nephew’s prominence.

Dionísio Alcalá Galiano, second of the “other explorers,” was six years senior to Valdés in age, but in rank they were virtual twins, receiving promotions to lieutenant commander, commander, and captain with identical dates of rank. It has been usually said that Alcalá Galiano was senior officer of the two-vessel task group consisting of the Sutil and Mexicana in the summer of 1792. If this was true, as some documents seem to indicate, it was not naval rank but perhaps age that brought about such distinction. In this regard, it seems probable that their senior commander, Alejandro Malaspina, when put in the position of arranging for a sub-expedition, had to designate one or the other to take the lead. It appears normal that the person of greater experience would receive preference. But among their contemporaries and between the two men themselves, they shared billing as co-commanders, each with his own vessel. Just as the schooners Sutil and Mexicana are linked, so too are the names Alcalá Galiano and Valdés vested with a sort of equality.

There has been a consistent effort by some historians to call the elder of the men by considerably less than his full name—simply Galiano. This seems the equivalent of calling David Lloyd George, one-time British prime minister, simply George. Alcalá Galiano comes by his name about as appropriately as possible, as he was Dionísio Alcalá Galiano y Alcalá Galiano, his parents being related in the fourth degree of consanguinity and doubtless proud of their genealogy, neither one desirous of being called just Galiano or even merely Alcalá.

The commanding officer of the Sutil was also an...
Dionisio Alcalá Galiano was a Spanish naval officer selected for the Malaspina expedition. In 1792, at the age of 31, he commanded the Sutil as it circumnavigated the island soon named for Vancouver.

Andalusian by birth, but not by ancestry. He was Cayetano Valdés y Flores Batán y Peón, born on September 24, 1767, in Seville, which had once been a thriving port city despite its distance up the Guadalquivir from the Atlantic, and was still of some importance as a shipping center. Cayetano Valdés was not a true Andalusian despite his place of birth, for his family was from the northern province of Asturias.

Cayetano, at age 14, sought and was granted an appointment as midshipman at the military academy of San Fernando in Cádiz, the professional training center for almost all Spanish naval officers of that period. Training was both theoretical and practical. The midshipman had the opportunity to go to sea quite early, for following his preliminary studies Valdés saw his first of much combat duty against the British while embarked in the fleet of Admiral Luis Córdoba. The British fleet was under Admiral Howe and the action took place in the Strait of Gibraltar, the Gates of Hercules of the ancient world, an area of great strategic importance. Valdés was a mere lad of 15. The Cádiz school’s geographical location placed it near the scene of a great deal of naval activity, and England at that time was usually the enemy.

The early life of Valdés’ close companion Dionisio Alcalá Galiano has some similarities and some contrasts, but there is reason to believe that they were close friends from their early days at the Cádiz school and its associated observatory. The nature of their friendship, whether personal or professional, is not absolutely certain, but there is no doubt that they acted as a unit in their participation in various aspects of the Malaspina expedition, even to the point, as previously mentioned, of being promoted on the same day on three occasions.

Besides the two years that both served under the command of Malaspina with the Scientific Exploring Expedition and its offshoot, the well-known circumnavigation of Vancouver Island, the early lives of Alcalá Galiano and Valdés found them on similar though not identical tracks. Alcalá Galiano became a midshipman at the Naval Academy at an early age, not quite 15; a year later he had his first sea duty aboard the frigate Jupiter. His first extended cruise was in a convoy carrying General Pedro Ceballos to his new post as Viceroy at Buenos Aires. The squadron, consisting of 116 vessels, left Cádiz on November 13, 1777, commanded by the Marqués de Casa Tilly.

While in South America Alcalá Galiano participated in the capture of Colonia de Sacramento, which was kept under the terms of the Treaty of San Ildefonso; he spent two years in the Malvinas (Falkland Islands), and took part in a corsair raid that netted an English merchant frigate.

Upon return to Cádiz, Alcalá Galiano took special courses in astronomy, which in part resulted in his later contributions to geodetic studies: Memoria sobre el cálculo de la latitud del lugar por dos alturas del sol (1795), and Memoria sobre las observaciones de latitud y longitud en el mar (1796). If, as has been suggested by some and...
disproved by no one, he was the author of the *Voyage of Sutil and Mexicana*, he was the most published of his contemporaries.

Like many fellow officers, Alcalá Galiano participated in Spain's great mapping project under Admiral Vicente Topíno, resulting in the *Atlas Marítimo*. He made a cruise to the Strait of Magellan as a lieutenant (j.g.) under Captain Antonio de Córdoba on the frigate Santa María de la Cabeza. This was followed by a second tour in the mapping of Spain under Topíno, this time with Alcalá Galiano assuming command of the Natalia. In this period of his life he found time to marry María de la Consolación Villavicencio of Medina Sidonia, by whom he had a daughter and three sons. One of these sons has left for posterity a somewhat unflattering assessment of his father. From this and other sources the picture emerges of a studious, hardworking person. He was short of stature with a rough and robust constitution, light in complexion, with blue eyes. He had a disagreeable look, like an inattentive person. He was of irascible temperament, rigid in the observance of discipline, exceedingly active, excessively generous, easily offended, even over trifles, and somewhat vain concerning his talents. His education was no greater than average. Even in the sciences, his understanding was excellent, but his general knowledge was limited. He had a moderate command of Latin, translated and spoke French well, and knew some English. Of this he bragged a great deal and was very proud because in his time the English language was little known in Spain. He was also much loved by his subordinates.

In his plans for the scientific exploring expedition, Malaspina considered Alcalá Galiano to be irreplaceable. He admired the younger man's talents and diligence in work. Like the others, Alcalá Galiano expressed his willingness to go voluntarily, provided that he was not occupied as commanding officer of a proposed plan for mapping North America—a plan that never materialized. Inclusion of both Alcalá Galiano and Valdés on the initial roster of officers for the great Malaspina expedition is in itself an assurance of their favored status as junior officers in the Spanish Navy.

The two men sailed on different vessels of the expedition, with Alcalá Galiano on the Atrevida and Valdés on the Descubierta. Their participation was of full satisfaction to their seniors. Alcalá Galiano did not go on the visit of the two corvettes to the Pacific Northwest in 1791, but was sent to the Viceroyal capital in Mexico City to carry out archival research, gaining information for expedition requirements. Valdés did make that visit and carried out several special assignments in which he proved his worth. After the Northwest Coast phase was completed, it was decided to send a sub-expedition to the Nootka area, and from there to carry out the circumnavigation of Vancouver Island. As Malaspina put it in his instructions to the young officers, "a new field of glory" was opening to them in their 1792 expedition, which separated them physically from the main expedition for the remainder of its lengthy cruise.

The details of that cruise are presented in the recent publication of the authoritative edition of *Voyage of Sutil and Mexicana*, 1792, researched and transcribed by John Kendrick and published by the Arthur H. Clark Company of Spokane. Nor is it the aim of this article to detail the mariners' return to Spain after a brief stopover in Mexico City. During the succeeding years both officers held increasingly responsible assignments, some of which bear on their importance as historical figures.

Alcalá Galiano had various commands and became somewhat of a financial hero when, during war with England, he made a daring voyage from Veracruz via Cuba to Spain, eluding the British and bringing much-needed silver bullion from the New World, funds greatly required in the war effort. He succeeded by using an unusual sailing route and by taking his vessel into the little-used harbor of Santoña, Santander. An encore was stymied by unfavorable winds and by the Peace of Amiens.

Alcalá Galiano's next duty was in the Mediterranean, where in 1802 his vessel was part of a convoy ordered to Naples to pick up a local princess who was bound for Spain to marry the 18-year-old crown prince.
A chart that resulted from the Alcalá Galiano and Valdés survey in the summer of 1792. It combines the findings of Alcalá Galiano and of George Vancouver.

prince, later Fernando VII. Given the assignment of dealing with royalty, Alcalá Galiano was in his glory, being a man "very given to ostentation and liberality," so much so that when he died he left behind almost no estate and considerable debt.

Almost a year later, in the Battle of Trafalgar, Alcalá Galiano's Bahama was overpowered by first two and then three British warships. Commanding his men despite a wound in the face from flying debris, he was at last victim of a shot that killed him, nearly tearing his head off. His last words were, "No Galiano ever surrenders." Alcalá Galiano was buried at sea, and shortly thereafter his vessel sank into the Atlantic. He was at that time a 45-year-old commodore, and predeceased Valdés by 30 years.

From Trafalgar, Valdés emerged a live hero, not a martyr. During the period of the Napoleonic invasion of Spain, Valdés was forced, either willingly or reluctantly, into a political role, being classed a liberal and therefore an automatic opponent of King Fernando VII. As a lieutenant general he was governor, captain general and political chief of Cádiz, the most important stronghold of the liberals who opposed the absolutist stance of the king. When absolute rule was reestablished in 1814, Valdés was sent to confinement in the Castillo de Santa Bárbara in Alicante. He was assured a pardon if he begged royal indulgence, which he refused to do since it would be an admission of guilt.

Incarceration was not such a burden. He received full pay, could go to the nearby beaches, ride horseback, and maintain a room in town. He even had time to carry out successful courtship of a local widow whom he married in Santa María Church.

When France invaded Spain, Valdés joined a regency to transport the king from Seville to Cádiz, and became one of the petitioners to the Cortes (Spanish parliament) asking that the king be deposed. For three days Valdés was part of the three-man regency governing Spain, which renounced its powers when Fernando VII was installed in Cádiz as a reluctant constitutional monarch.

When the royal family later was turned over to the French invaders, Valdés commanded the boat that carried His Highness across the bay to Puerto de Santa María. En route, the king seemed to forgive Valdés their differences. However, that same night he signed a decree ordering the apprehension and execution of Valdés and other liberals. Valdés escaped, first to Gibraltar and then to England, where he was treated well for the next ten years.

With the death of Fernando VII an amnesty decree was issued that brought Cayetano Valdés back to Spain. He was immediately made captain general of the navy and head of the naval department of Cádiz. Named a grandee of the kingdom, he served until his death of natural causes on February 6, 1835. After some delay his remains were transported to their last resting place in the Pantheon of Illustrious Mariners, where a fitting tribute reads: "Here Lies the Most Excellent Lord Don Cayetano Valdés y Flores, former Captain General of the National Navy, Knight of the Great Cross of the Military Orders of San Fernando, San Hermenegildo and that of San Juan de Jerusalem."

In summary, what then is the claim for Alcalá Galiano and Valdés to be ranked higher in history than they have been thus far? In part it stems from their activity on the Pacific Northwest Coast, where in a single summer the two men coaxed two tiny, poorly-constructed vessels in a grand circumnavigation of Vancouver Island, leaving behind maps and drawings illustrative of their activity and providing us with some of the earliest record of the area's history. The vessels, built in San Blas, Mexico, were poor sailors, their top speed being seven miles per hour. Alcalá Galiano's greatest claim lies in the merit of...
heroic martyrdom. He was, unfortunately, the sacrifice in a losing cause in what was perhaps a needless battle, but one which has been viewed historically as an epic conflict, the Battle of Trafalgar. For the victorious British, the battle vaulted Admiral Horatio Nelson into eternal memory as a national martyr and hero. Nelson had the clear advantage of dying in a winning cause. His death was no more or less heroic than that of Alcalá Galiano or other noted heroes of the last and bloodiest battle of the Age of Sail.

But for the luck of battle, Valdés might well have joined in death his old comrade Dionisio in that same engagement, for his vessel Neptuno was demasted, captured, recovered and brought into Cádiz harbor, where Valdés scuttled the 80-gun, 800-man vessel on the coast near Puerto de Santa María. Gravely wounded in the battle, he emerged a hero, one soon promoted to Jefe de Escuadra (squadron commander).

Valdés lived a long and interesting life, though to date no historian has taken the trouble to detail the many facets of his varied activities. He was not only the youngest of the officers recruited by Malaspina for the round-the-world exploring expedition, he was one who lived long past the colonial period. He died at 68, having risen to the highest rank possible in the Spanish Navy. He also held high government positions, was known, though not appreciated, by Spanish royalty, and endured long periods of imprisonment and exile.

As for their vocation in life, Alcalá Galiano and Valdés achieved extremely successful careers as naval officers. They both commanded capital ships of their day, war vessels rather than what were essentially naval support vessels. Their military commands found them participants in major military engagements, and, though the outcome for their nation was unsuccessful, they were recipients of high honors. Both attained higher rank than Cook, Vancouver, Bodega y Quadra, Rezanof or Lapérouse. These two "other explorers" are, at the very least, worthy of being included in a listing of important personages who contributed to the history of the Pacific Northwest.

Donald C. Cutter is Emeritus Professor of Spanish Colonial History of Texas and the Southwest at St. Mary's University in New Mexico. He has written and edited numerous works on the Spanish presence in the Americas, including the forthcoming Malaspina and Galiano: Spanish Voyages to the Northwest Coast, 1791 & 1792.


Malaspina was a naval officer and Enlightenment man who asked his sovereign, Carlos III of Spain, to send a major scientific expedition to the Pacific, a request that led to a five-year adventure—and a personal tragedy.

The Malaspina expedition collected plant and animal specimens, conducted scientific experiments, sketched the people and places visited, and charted the waters they traveled between 1789 and 1794. Returning to Spain, Malaspina first received honors, then was imprisoned when he began questioning colonial arrangements in the New World and became involved in court politics. The expedition’s findings went largely unpublished and the collections were scattered. Malaspina was eventually exiled from Spain and died in his native Parma in 1810.

“Enlightened Voyages” helps end the relative neglect suffered by Malaspina, in many ways an attractive figure. Taking advantage of decades of work by scholars, the exhibit should contribute to elevating Alejandro Malaspina to a position until now reserved for James Cook and George Vancouver.

The exhibit can be viewed Monday through Saturday from 10 to 5 and Sunday from noon to 5 between May 4 and July 7. A small admission fee is charged, except Monday, which is a free day. Members are admitted free of charge every day.

“Enlightened Voyages” is produced by the Vancouver Maritime Museum in British Columbia and curated by Robin Inglis.

This exhibit is part of the 1992 International Maritime Bicentennial, a commemoration of the era of exploration of the Pacific Northwest and encounters with its first peoples. The Bicentennial is being coordinated with like efforts in Oregon and British Columbia.

For more information call Garry Schalliol at 206-597-4226.
Logs mark the location of the 1833 fort palisades, pinpointed as part of Weyerhaeuser's half-million-dollar archaeology investigation. Previously, historical markers on Du Pont land identified only the general sites of the two Hudson's Bay Company forts, a Methodist mission, and a temporary navy observatory.

If a trivia quiz were to pose the question, “What single Puget Sound location outshines the historical significance of all others?” the best answer might well be Fort Nisqually, situated midway between Tacoma and Olympia. From a corporate beginning as a Hudson's Bay Company trading post and agricultural export business (1832-69), the land next was bought at auction by various American settlers, then used as the site of an E. I. du Pont de Nemours powderworks (1906-1970). Now it is owned by a third corporation. The Weyerhaeuser Real Estate Company is developing “Northwest Landing” there, a 3,000-acre planned community with residences, businesses and industry, an undertaking that is proceeding with far more attention to safeguarding the past than is legally required.

Among its public heritage superlatives, Fort Nisqually was, in 1832, the first white settlement on Puget Sound. The first road in the region was the fort's ox trail leading up
the bluff from the beach, completed in 1834. The first steamboat on the Northwest Coast—the side-wheeler Beaver, which arrived in 1836—regularly anchored offshore at Nisqually to load and unload supplies.

In 1840 Methodist missionaries arrived, the first Americans to take up residence north of the Columbia River in what was then tacitly British domain (although technically open jointly to British and American occupation). The following year the American naval expedition led by Lieutenant Charles Wilkes accepted fort hospitality while surveying Puget Sound, an investigation that influenced recognition of the sound’s strategic value and ultimate determination to keep it on the United States’ side of the line when the boundary issue was settled. That agreement was reached in 1846. To forestall problems with American settlers and protect Hudson’s Bay Company rights during the political upheaval, the ship HMS Fisguard anchored for five months off Fort Nisqually with a 315-man crew, many of whom used the recently abandoned 1833 fort as a barracks.

Such significant events have gone largely unrecognized by the public because the hazards of producing nitroglycerine and black powder long ago necessitated closing access to the land. Remarkably, despite industrial use, the grading of railroad rights-of-way and out-and-out vandalism, archaeologists funded by Weyerhaeuser Real Estate found stubs of the actual fort palisades built by the Hudson’s Bay Company in 1833. They also found hints of frontier amenities such as gracious tableware and fine wine.

This evidence came from the bottom of a privy—a convenient trash dump—where excavations directed by Jeanne Welch and Richard D. Daugherty yielded pieces of what probably were prized personal possessions, such as a pressed glass plate with a pattern of hearts and lyres, and a cut-glass decanter. In addition, there were broken plates, cups and wash basins marked on the bottom with the respected name Spode. Many of these items were probably company-issue, for the Hudson’s Bay Company supplied its far-flung posts with ceramics produced by Copeland and Garrett, successor to the pottery works begun by Josiah Spode. Bottles lying in the privy included one with the crest of Chateau Margaux, a French winery still in production and, long before Fort Nisqually’s time, rated highly by none other than Thomas Jefferson. Its wine, a Bordeaux, now sells for $150 per bottle.

The location of a second fort, built in 1843 to be closer to a small creek, was also pinpointed archaeologically, and houses clustered outside its stockade were excavated. The earth beneath their earthen plank floors held shards trampled to much smaller pieces than those in the 1833 fort’s privy. Even so, something of the life within the houses can be gauged from showy items such as hundreds of trade beads, a pair of coral earrings edged and tied with gold thread, broken clay tobacco pipes, a crucifix, and an 1846 coin from Chile, perhaps picked up when a Hudson’s Bay Company ship stopped along the coast of South America en route to or from London.

More mundane evidence includes the presence of animal bones from scrappy cuts of meat, suggesting that the people in these houses—probably company laborers and herdsmen—dined on stews rather than roasts. Bits of broken window glass and thousands of iron nails show by their distribution where the walls of structures once stood. Some of the nails are hand wrought, probably made at the fort by hammering points onto square stock brought from England. Such nails had a flexibility that made them stronger than their machine-cut counterparts, also present in the excavations along with remnant footings from at least four structures. Wrought nails were preferred for attaching flooring to stringers even after cut nails became available on the frontier in the mid 1840s.

Fort Nisqually’s origin is largely rooted in an 1829 pro-
posal made by John McLoughlin, chief factor at Fort Vancouver. McLoughlin suggested adding an agricultural post to the fur trade he directed as head of the Hudson’s Bay Company’s vast Columbia District, which stretched beyond the Columbia River drainage to posts as distant as Spanish California and Hawaii. About that same time, McLoughlin’s superior, George Simpson, approached the Russian-American Company at Sitka offering to supply farm products and trade goods. Both men had in mind thwarting American competition, but the London committee responsible for Hudson’s Bay Company affairs did not immediately agree with their plans.

Regardless, in 1833 McLoughlin told Chief Trader Archibald MacDonald to find a Puget Sound location suitable for shipping. MacDonald was en route back to Fort Langley (near today’s Vancouver, British Columbia), where he was in charge. McLoughlin stipulated that he should watch for a site offering more than a maritime port. “Your first objective is to observe if the Soil is suitable for cultivation and the raising of cattle; the next, the convenience the situation affords for Shipping.” The Nisqually area fit these requirements.

At the time, a considerable international ferment focused on the Northwest Coast. Nearly a century earlier Russian traders had found sea otters along the Alaska coast and developed a lucrative trade with China. In 1812 they established Fort Ross as a farm and new otter hunting base about 100 miles north of San Francisco; four years earlier they had sent out a scouting expedition intended to lead to Russian colonization at the mouth of the Columbia River. However, one of this party’s ships wrecked on the Olympic Peninsula near today’s LaPush, and Quileute and Makah chiefs enslaved its survivors. Eventually they were released to a Russian-American Company trading vessel, but the incident lessened interest in this part of the coast and sent the company leapfrogging to California.

Land there was formally held by Spain, which had withdrawn from earlier claims to the Northwest. Spanish approval of the Russian move worried the United States lest it presage a combining of forces that might block westward expansion, already considered a national imperative.

On the Northwest Coast, England and America continued to vie for control. Yankee sea captains had outshone the British during the earlier trade in sea otter pelts. Americans had the advantage of being free of royal charters. The Hudson’s Bay Company monopolized trade on the North American continent, the South Seas Company held “rights” to the waters where sea otters swam, and the East India Company reigned over trade with China. These companies had no flexibility. Conversely, when the otter supply ran out, Yankee vessels readily switched to whaling and trans-Pacific commerce. This heightened American interest in all Pacific ports, including Puget Sound, where territorial questions were yet to be resolved.

The War of 1812 had established Canada as British, with the 49th parallel as the boundary westward from the Great Lakes, but nothing specified how far west. Britain assumed this particular dividing line stopped at the Rockies; the still-young United States preferred to assume it ran to the Pacific. To back that assumption, the United States House of Representatives in 1824 authorized a military post and civil government in the Oregon Country, but the Senate failed to concur. George Simpson took note and decided on the north bank of the Columbia for the Hudson’s Bay Company’s
headquarters in Oregon. This post became Fort Vancouver. Land south of the Columbia might be doomed to become American, but the Honourable Company would strive to hold everything north and west of it for the British crown.

McLoughlin's instructions to MacDonald fit this strategy. As chief factor, McLoughlin felt the need for a new coastal depot that would spare ships the risk of crossing the Columbia River bar, where company vessels already had wrecked in 1829 and 1830. MacDonald and his men "applied 12 days of our time to erecting a [small] store" at the mouth of a creek that dropped from an oak prairie north of the Nisqually River delta. There he left three men "in charge of a few blankets, a couple kegs of potatoes and a small amount of garden seeds."

Chief trader Francis Heron soon arrived to take charge and supervise building a full-fledged post with palisaded walls about 150 feet on a side, protected by corner bastions. Within eight months the new post had gathered 1,800 beaver and river otter skins, "not a bad beginning," Heron wrote in a letter.

One of the broken Spode wash basins found in the fort privy may tie to Heron. The words "Cork Convent" appear on the bottom and the pattern features Christian crosses in a landscape setting complete with human wayfarers. Heron had come from Ireland, which would make a Cork pattern appropriate. Interestingly, Robert Copeland, present owner of the Spode factory, answered correspondence from archaeologist Jeanne Welch, noting that the basin "is of special interest" and "comes as a great surprise." The pattern belongs to a series of scenes depicting the life and landscape of Lord Byron. But, despite extensive archives, the company has neither record nor example of Cork Convent.

Trade exchange rates at the new post included 16 buttons for 4 raccoon pelts, 3 buttons for 7 trout, 2 hoes for 1 bear skin, and 6 spans of brass wire for 11 baskets. Such attractions at their doorstep irrevocably changed the lives of Native Americans in the area. Local villagers had to entertain trade delegations from distant tribes, so many in number that they could scarcely get in winter supplies of fish, berries and roots. Instead, men took jobs clearing land, burning brush, building fences, digging potatoes, and herding and clipping sheep. Livelihood came to them individually rather than involving hereditary chiefs, an unheard-of system. Furthermore, women married Hudson's Bay Company officers and employees, and men worked with the cosmopolitan mix that characterized company operations—a milieu of ethnic customs, languages and physiognomies that at Fort Nisqually included Hawaiians (then called Kanakas, a derogatory term in common usage), a black man, French Canadians, Scots, Irish, English, metis (a mix of French and Native American blood), and occasional Iroquois, hired mostly as boatmen and trappers and therefore seldom resident at the fort.

In 1839 England and Russia finally agreed on a pact likely to weaken American success along the Northwest Coast. Russia would lease its Alaskan panhandle to the Hudson's Bay Company for ten years, in exchange for specified shipments of furs plus "160 cwt flour, 130 dried peas, 130 gits and pot barley, 300 cwt salt beef, 160 salt butter, and 30 cwt pork hams." Anticipating such a commitment, the London committee in 1838 had authorized formation of the Puget's Sound Agricultural Company. Following general lines suggested earlier by McLoughlin, this company was to be legally separate from the Hudson's Bay Company, a precaution taken to avoid possible complications from engaging in com-
commercial agriculture while chartered for trade. Shareholders of the parent company were offered stock in the new company, but few were willing to commit their purses to this new venture. Consequently, the committee pressured officers and clerks at North American trading posts to buy stock, and most did so. The committee also increased McLaughlin's salary by 50 percent to compensate for adding the agricultural program to his other duties.

At Nisqually men penned sheep and cattle first on one plot, then another, to fertilize the porous, glacial soil that was forested only in patches. They raised wheat, peas and potatoes, but concentrated their main agricultural effort on livestock and dairying. Nisqually's grassy prairies were ideal for grazing. Native Americans had maintained the openness by burning, a practice that assured continuation of natural root crops like camas and bracken fern, and also provided pasturage for horses, a Nisqually acquisition unique among tribes west of the Cascades. The Puget's Sound Agricultural Company brought sheep by sea from Mexican ranchos and Hudson's Bay Company posts in California: 160 out of 800 died en route. Later they brought rams from England to improve the bloodline. They also drove longhorn cattle overland from California—and suffered losses comparable to those of the sheep, mostly while crossing rivers and ravines. Eventually about 13,000 sheep, 8,000 cattle and 300 horses grazed Puget's Sound Agricultural Company land at Fort Nisqually.

As an additional effort at halting American expansion, the company offered leases at Nisqually to farmers at their Red River colony south of today's Winnipeg. These colonists were former crofters brought from the Scottish Hebrides to Canada by the Hudson's Bay Company and encouraged to marry Chippewa and Sioux women. Few who made the arduous journey from Red River stayed at Nisqually for long, nor did their counterparts settle more than briefly at the company's farmlands along the Cowlitz River near today's Toledo. Better land was available in the Willamette Valley south of the Columbia River. Moving displeased company officials, but what were international politics compared with personal prospects for successful crops? The families had been promised houses, barns, fenced land, implements, seeds and livestock, yet when they arrived at Fort Vancouver in the fall of 1841 they were told the promise could not be kept.
John Flett, the only one of the group to eventually make his home in the Nisqually area, later reminisced that he had to make his own plow that first year, a task that required a special trip to Fort Vancouver to beg for iron.

A call also went out to retired Hudson’s Bay Company employees and to English farmers. Among the few who attempted the life at Nisqually was Joseph Heath, a poignant figure from England who took over a farm that had been abandoned by a Red River family. He even was put in charge of Fort Nisqually during a brief period of personnel changes. Eldest son of a country squire, he had gambled away the family fortune. His brother, an officer on a Hudson’s Bay Company ship, reported opportunities at Nisqually and, in the summer of 1844, Heath leased 640 acres near the present-day town of Steilacoom. For five years he made a lonely try at redeeming himself. At first he wrote that he was developing his farm “in splendid isolation and [with] repentant dedication.” But later he penned bleak comments about being “anything but happy.” Within five years he was dead.

None of the efforts to develop a colony of loyal yeomen at Nisqually proved promising, but the Puget’s Sound Agricultural Company expanded its own operation enough that a new fort was needed. At Nisqually a site half a mile from the 1833 fort was selected for a new post, and in 1843 Dr. William Tolmie, a physician, botanist and relatively knowledgeable farmer, came to carry out plans for the move and take charge of both trade and agriculture. He had been at Nisqually briefly during the building of the original fort, then had traveled to Bella Bella (on today’s northern British Columbia coast) to open Fort McLoughlin, as strategic a location north of Fort Langley as Nisqually was to the south.

The same year that Tolmie arrived, James Douglas embarked from Fort Nisqually on the company steamer Beaver to found Fort Victoria as the future Pacific headquarters for both the Hudson’s Bay and Puget’s Sound Agricultural companies. By then it was becoming clear that England would not back its claims to the Oregon country with military force, fearing that nothing less than force could stem the American tide. Three years later a treaty formally established the international boundary at the 49th parallel.

British trade and agriculture continued within the newly American territory until courts could decide fitting payment for their rights. This was not achieved until 1869. The following year land at Nisqually was auctioned to American settlers. Three decades later it was purchased by the E. I. du Pont de Nemours Company. The two buildings remaining at the old forts—a log granary and the house originally built for Tolmie—were moved to Point Defiance Park in Tacoma, and most of the public became confused over where Fort Nisqually really had stood.

That gap in awareness will be rectified in due course. Weyerhaeuser Real Estate already has spent a half million dollars on archaeology—not a legal requirement since the property is privately owned. The company is also preparing for the curation and display of artifacts by sponsoring consultation between the village of Du Pont’s museum board and Yorke Edwards, recently retired director of the Royal British Columbia Museum in Victoria, an expert widely recognized for experience in developing on-site interpretive displays and helping small museums grow into new roles. The old fort locations themselves will be protected, probably through a trust established to manage them in perpetuity.

Ruth Kirk has written extensively on Northwest cultural and natural history, and was a nominee for the National Book Award. Her most recent book is Exploring Washington’s Past, written with Carmela Alexander and published by the University of Washington Press.

The use of color in this issue of Columbia was made possible by a grant from the Weyerhaeuser Real Estate Company.
A Diverse Economy
The Columbia Department of the Hudson's Bay Company, 1821-1846

By James R. Gibson

The Hudson's Bay Company, contrary to popular perception and perhaps to academic perception as well, was not a monolithic firm narrowly pre-occupied with a single source of profit, namely beaver fur for fashionable hats. This misconception is perhaps nowhere more inappropriate than in the Oregon Country, where the company, which dominated the region's economy until the middle 1840s, was affected by American and Russian competition and the proximity of growing markets. Here, beaver was neither the sole nor even the main fur in the company's outfits.

From 1826 through 1846 beaver constituted more than half of the company's fur returns in only two years (1826 and 1830), and thereafter it usually constituted from one-third to one-quarter or less. Admittedly, in terms of value, beaver's share was undoubtedly greater; nevertheless, these figures do not include returns of beaver coating, castoreum, marten robes, sea otter tails, swan skins, deer hides, isinglass, tortoise shell, pearl shell, and gold dust, the inclusion of which would depreciate beaver's share somewhat. Moreover, these figures also do not include the output of farming, fishing and lumbering, which loomed ever larger after the 1820s.

By 1845 the company's agricultural property was considerable, amounting to 3,000 acres of plowland and nearly 17,000 head of livestock. In the same year at Fort Vancouver, the department's headquarters and largest post, the farmland fronted the Columbia River for 25 miles and stretched inland for 10; up to a third of the fort's servants were employed in farm work; in addition to two dairies and two grist mills, there were two saw mills, one of which in 1841 employed as many servants as the farm and produced 2,500 feet of lumber daily. Farming likewise loomed large at Forts Colville, Langley and Victoria, and only 2 of the company's 23 establishments (Chilcotin and Flathead posts) lacked both plowland and livestock.

The company owned the Puget's Sound Agricultural Company, a subsidiary firm exclusively devoted to crop growing and stock rearing, with sizable farms at Cowlitz and Nisqually. Fishing was more important than farming at one post at least—Fort Langley—where 200-300 barrels of salted salmon were packed annually during the 1830s, and more than 1,500 in 1846; the 400 barrels of salmon output in 1841 were worth almost a third as much as the fur catch. Columbia Department economics, then, were anything but simple.

What were the reasons for this economic diversity? For one thing, some auxiliary activities were necessary in order to support the fur trade, which still remained the company's raison d'être. It did not, of course, exist in a vacuum, and it was cheaper to produce some ancillary essentials—such as food, lumber and leather—than to import them. George Simpson in particular was sensitive to the economies of import substitution, and it is no accident that the economic perestroika of the Oregon Country dates from the time of his gubernatorial appointment in 1821, the same year that saw the ab-

In 1821 James A. Grant made this after-dinner sketch of Sir George Simpson, who reconstructed corporate operations in the Hudson's Bay Company's Columbia Department and was often referred to as the "Little Emperor of the Fur Trade."
sorption of the North West Company by the Hudson's Bay Company.

In 1824-25 Simpson toured the Columbia Department and concluded that it had been neglected and mismanaged but was nevertheless potentially very profitable, provided the “extravagance” was eliminated. And this, he decided, could best be accomplished by encouraging the posts to produce as much of their own food—grain, beef, venison, fish—as possible for the company’s servants, who were paid an annual salary and a daily ration. In Simpson’s own words, “it has been said that Farming is no branch of the Fur Trade but I consider that every pursuit tending to lighten the Expense of the Trade is a branch thereof.” Overland supply from York Factory on Hudson’s Bay and overseas supply from London were both lengthy and costly; the “London ship,” for example, took at least half a year to reach the mouth of the Columbia, where it faced the treacherous breakers on the bar, and up to another month to make Fort Vancouver, whence the supplies were boated and horsed over the risky, long Columbia-Fraser brigade system to New Caledonia. In addition, local farming would lessen dependence upon the Indians for fish and game.

Another reason for economic diversification was the desire to make more efficient use of manpower. Simpson hated waste, including the waste of labor. When servants were not trading, they could be farming or fishing or doing whatever else was profitable. Although most of the auxiliary activities, like trading, were carried out in the warm season, not every hour of the day was taken up by these activities. And in winter, when the Indians were trapping, the Bay men had a lot of free time on their hands.

A third reason for diversification was the desire to spread the company’s commercial risk by developing other sources of profit. The local market was

The Fort Nisqually Granary, built in 1843, is the oldest remaining wooden structure in the state. Fort Nisqually was the chief livestock operation of the Puget’s Sound Agricultural Company. The granary is now located at Point Defiance Park in Tacoma as part of a reconstruction of Fort Nisqually.
small, the “Willamette Settlement” not burgeoning until the middle 1840s. So Simpson hoped to open foreign markets to Columbia “country produce,” particularly grain, beef, butter, fish and wood. Indeed, his policy of diversification was predicated on the exploitation of foreign as well as domestic markets.

Especially promising were Russian America, the Hawaiian Islands and California. Hawaii was the most distant, but its population was considerable and increasing; California was the closest, but its modest population had not yet been swollen by the gold rush. Nevertheless, company agents were stationed in both Honolulu and Yerba Buena. The best prospect was Russian Alaska, with its chronic shortage of consumer goods, including foodstuffs. Moreover, if the Hudson’s Bay Company could replace the American fur trading vessels as the suppliers of New Archangel (Sitka), then what Simpson called the Yankee “birds of passage” would be driven from the coast, leaving its trade to the British and the Russians.
Beginning in the late 1820s, Simpson tried to do just that, and within a decade he had succeeded. His cause was aided by the withdrawal of Sitka’s American suppliers when the coast trade declined, and by the collapse of the California missions, another group of suppliers, in the wake of secularization. When the Honourable Company signed the “Russian contract” with the Russian-American Company in 1839, it gained virtual control of the coast trade in exchange for annual deliveries of Columbian provisions and English manufactures to Sitka.

The same agreement enabled the Russians to dispose of Russian California (sold to the soon-to-be famous John Sutter) and the Hudson’s Bay Company to abandon Forts McLoughlin and Taku. It also prompted the Hudson’s Bay Company to establish the Puget’s Sound Agricultural Company to fulfill the alimentary clauses of the contract. (In fact, Fort Vancouver and the Willamette settlers were to provide most of the grain and Fort Langley most of the butter, with the “sheep concern” at Cowlitz and Nisqually farms catering largely to the English wool market.) This situation remained unchanged until the division of the Oregon Country in 1846 and the California gold rush in 1849.

The final motive behind diversification was the desire to develop alternative sources of profit to the fur trade. Just as the maritime fur traders of the coast increasingly diversified their traffic in the face of the overhunting of sea otter, so too did the continental fur traders of the interior with the overtrapping of beaver. The company had entered the Oregon Country in order to compensate for the falling returns of Rupert’s Land (in northern Canada). On the Pacific slope its policy had been to “trap clean” the lower Columbia and Snake River lands, forming a buffer against American mountain men for the protection of what one Bay man called “the great beaver nursery” of New Caledonia.

This policy was so successful that beaver returns did not decrease substantially until after 1841, while the returns of all furs remained fairly stable. In other words, beaver pelts were increasingly replaced by non-beaver pelts, just as in the coast trade non-sea otter skins increasingly supplanted sea otter.

What one servant described as “the exterminating system of hunting” was the chief but not the only reason for the demise of the beaver trade. Capricious fashion was changing: the felt hat was becoming old hat, giving way to the new silk topper. The result was what James Douglas characterized as “the decline and wreck of fur trade affairs,” with the company’s profits falling steadily after the mid 1830s.

The old order of the Indian Country fur trade was changing, and Simpson, with his sharp business sense, had realized this early. His response—diversification—succeeded in prolonging the company’s profitable years and, by ousting the American coasters, helped to keep the central part of the Northwest Coast in British hands. Indeed, it is arguable that his policy could well have kept all of the right bank of the Columbia River British, too, since it was the lack of resolve in London, not the lack of British or the presence of American settlers on the northern side of the Columbia-Snake-Clearwater axis, that resulted in the Oregon Country being divided internationally along the 49th parallel. Much later another kind of diversification, this time into real estate and general merchandising, was to change the company into a modern corporation and help it survive to the present day.

James R. Gibson is Professor of Geography at York University in Toronto, Ontario, and author of several works on Russian colonial expansion, plus the forthcoming Otter Skins, Boston Ships, and China Goods.
Diary of a Sea Captain’s Wife

THE SOCIETY’S SPECIAL COLLECTIONS DIVISION recently received three volumes of diaries kept by Ida Plum between 1885 and 1888. Mrs. Plum, who married Captain John A. Plum in 1885, sailed with her husband on the bark J. H. Bowers from New York to Port Townsend, Washington Territory via Batavia (Java), Hong Kong, Honolulu and Callao (Peru). They reached Port Townsend in December 1887, and Ida Plum gave birth to a child in January 1888, after which she, her husband and their newborn sailed for Sydney, Australia. Upon returning to the United States in September they settled in Port Townsend.

Ida Plum was a diligent diarist, making daily entries that included descriptions of on-board activities and ports of call, as well as her thoughts about and reactions to life at sea.

The diaries are a significant addition to the Society’s collections as there are very few diaries kept at sea by wives of sea captains in any public collections. The diaries will be of interest to maritime historians and those doing research in women’s history. The following is a typical entry:
At Port Townsend, December 21st, Wednesday, 1887.

RECEIVED a letter this A.M. from dear little Katie. Sent a letter home, today, to sister Hennie. Our “stores” are coming on board, and the carpenters are cutting Four bow posts in ship so that we may carry lumber. Our first officer is not feeling well—says he will have to leave us. Captain sent off a box of white grapes last evening and I have eaten so many I am feeling really uncomfortable. I am a great big pig. Mrs. Pettygrove spent this afternoon with me. She is a darling girl. My nurse came on board this afternoon—Mrs. Smith—we hope we shall like her. “Amah” [a Chinese maid] went on shore this afternoon. This evening she has asked Captain if he will pay her off as she wants to leave. She is jealous of our new nurse. I am sorry to have her leave, still, if she is going to be ugly and dissatisfied, she can go. Captain told her to pack her trunks and go in the morning.
In the latter half of the 19th century, immediately following treaty signing and the territorial war, some western Washington Indians persisted in living off-reservation, reluctant to resettle on a reservation outside of their own territory. The Indian Office in Washington, D.C., had made it clear to Governor Stevens that reservations should not be placed in proximity to American population centers such as Olympia, Steilacoom, Seattle and Port Townsend.

The leaders of the Indian villages neighboring white settlements were highly visible to the white citizens because they headed hunting and gathering parties, engaged in trade with them, and possessed the demeanor befitting people of their position. One of the few couples for whom there remains both a photographic and oral history record is the head of the Shilshole village of the Duwamish tribe, Salmon Bay Charlie (aka Indian Charlie, Siwash Charlie or Hwehlchtid) and his wife Madelline (or Chilohleet’sa).

When the whites first arrived, the large communal houses of the Shilshole village were located on the north shore of Salmon Bay near the locks of modern-day Ballard. It is not known whether the houses were burned in an effort to drive this village of Duwamish Indians onto the Port Madison Reservation or if they were burned by eager settlers after the Indians had departed. In either case, some Indians, having found it difficult to survive in Suquamish tribal territory, returned to their village site.

In the late 19th and early 20th centuries Indian shacks were numerous on Salmon Bay. The main cluster of 30 or so Shilshole Indians was on the north side at the site of

ABOVE: Salmon Bay Charlie’s house and canoe, looking east toward where the Ballard locks are now located. Even when he was getting on in years, Charlie was still able to handle the family-sized Nootka-style canoe alone.

OPPOSITE: Salmon Bay Charlie with a basket of clams and another basket containing either fish or crabs.
the present-day locks. Others were located near the mouth of the north shore. From there it was possible at low tide to walk across the narrows to the spit inhabited by the Charlies. Charlie and Madelline lived beneath two tall firs on the south shore of Salmon Bay (down the hill from what is now Discovery Park).

The Indians lived in single family shacks made of lumber that was salvaged or secured in trade from the nearby white residents. The shacks were transitional between the traditional longhouse and the turn-of-the-century American house. The Charlies' house was said to be typical of the period. If one report is accurate, it was constructed about 1864, some nine years after the treaty and seven years after the territorial war.

The couple lived a life somewhere between a traditional existence and the life of the white residents of the area. They continued with subsistence gathering, but sold some of their salmon, clams and berries to their white neighbors. With this income they bought other items from the whites or spent it on traditional ceremonies. Although Ballard residents found it acceptable to buy food from the Shilshole Indians, some drew the line at their offspring interacting with the Indian children.

In precontact times the headman of the Shilshole village was also the leader of the band of Duwamish known as the Lake People. Charlie (whose father was Shilshole and mother Samish) was heir to that position and boastfully lamented that, had it not been for the Point Elliott treaty, he would have owned all the property from Shilshole to Snoqualmie Falls, the homeland of the Lake People, as well as the adjacent land leading to the gathering grounds of the neighboring Snoqualmie tribe. Charlie was an influential and well-to-do man among his people by virtue of
his food supply business. Around 1900, it is said, Charlie hosted one of the last potlatches in the area.

Charlie, Madelline and their house were often the subjects of photographs and postcards. In fact, Charlie became Seattle's most popular and most photographed Indian after the 1896 death of Chief Sealth's daughter, Princess Angeline. He was also a favorite among the children of Ballard and Magnolia, devoting much time to talking with them. He delighted in telling them tales and showing them his scars from the "Indian wars." He took time to make a bow and arrow set for at least one white child.

By the 1890s the Charlies' house was a Seattle landmark. A 15-foot ramp led up to their house from the beach. Their one-room cabin had
Charlie . . . boastfully lamented that, had it not been for the Point Elliott treaty, he would have owned all the property from Shilshole to Snoqualmie Falls, the homeland of the Lake People . . . .

no front door. There was a fire pit in the center of the room, providing light and heat for comfort, cooking, and drying salmon. The smoke exited through a two-foot square hole in the ceiling. The vent was a transitional type between the traditional smoke hole and the chimney. The “funnel” was shaped like a truncated pyramid, constructed from boards, and served to draw smoke from the room. A ladder was positioned on the house for repairing leaks and arranging salmon to dry on planks set over a sloping roofline on the northwest side.

One day Charlie paddled to Ballard in his large canoe to do some shopping. While he was gone, two white neighbor boys came by his home and looked in the doorway. Inside they saw Madelline sitting cross-legged in front of the fire. All at once she fell over sideways and died.

Madelline’s death came in 1914 or 1915, while the locks were under construction. Three months later Charlie was taken away to a reservation by the Office of Indian Affairs. Billy Phillips, who was probably a relative of either Charlie or Madeline, had built his house next to the Charlies’ place. A couple of months after Charlie was moved, Phillips set about clearing off the property. He came one day and burned down both houses, following tribal tradition. The Indians of Puget Sound believed that the only way to sever the connection between a house and an owner who died within it was to burn the house. This was the end of Salmon Bay Charlie’s shack, which was at the time the most historic building in the area.

The dredging of the narrows and construction of the ship canal displaced the remaining Shilshole Indians who were living on the Salmon Bay waterfront in 1915. It also obliterated the entire spit where the Charlies lived.

Nile Thompson has a Ph.D. in linguistics. He has done research on the Indians of the Pacific Northwest for 18 years, and has authored books and articles on the subject.
It came to Smohalla in a vision: White men will come to claim the land and river and to force their ways upon his people. He must impart to his people not to give up the ways of their ancestors but to await the day when the white man’s tide would turn. They will once again be free to roam this land and take the salmon.
Smohalla, known as the Dreamer, was the spiritual leader of the Wanapums in the years after 1855, and he was famed for his gift of prophecy. His vision of white men coming to claim the lands where his people had roamed came true in 1943. The government built the Hanford Engineering Works, a prosaic name for the world's first plutonium factory. The plant manufactured the nuclear ingredient for the first atomic device, which was tested in New Mexico, and for the weapon that destroyed the city of Nagasaki. Smohalla, who had spoken of many personal journeys to the spirit world, might have smiled if he had known plutonium was named for the planet Pluto, which had been named for the Greek god of the underworld—"the lord of the dead."

For nine centuries, perhaps as long as nine millennia, a thriving native population had called this region of the Columbia home. Their lives were inextricably linked with the river, as evidenced by the tribe's traditional name—Wanapum, meaning river people. The area of south-central Washington that was home to the tribe encompasses the route of the Columbia from where it forms the border between present-day Kittitas and Grant counties down to the mouth of the Yakima River. A seasonally nomadic people, the Wanapums would live most of the year alongside the Columbia in an area distinguished by sagebrush barrenness and basaltic rock blemishes.

In recent years the Wanapum band has dwindled to two full-blooded members. One of them was Frank Buck, 16 years old when the Army came to build the works at Hanford, the son of old Chief Johnny Buck. He spoke slowly, in faltering sentence fragments:

"In March, 1943, when I was about 22, we received a letter from the government that we would have to move [out] in 30 days."

Plutonium, as an explosive for an atomic weapon, was something of a late starter in the race for "the bomb." Most attention was focused on U-235, the fissionable isotope of uranium. A man-made element, plutonium was not identified until late 1940, and until mid-1941 no one had given much thought to plutonium during the bomb-building discussions. However, scientists knew plutonium likely would be a product of the fission of uranium atoms inside a nuclear reactor. One problem was that a self-sustained nuclear reaction had not yet occurred. Another was separating plutonium from uranium, although this process might not be any more difficult than the methods that would be used at Oak Ridge, Tennessee, to isolate U-235. Plutonium and uranium were separate elements; therefore it was theoretically possible to separate them chemically. Telescoping history considerably, a nuclear reaction did occur at Chicago on December 2, 1942, and chemists developed an efficient method of separating plutonium from uranium, although this latter development did not occur until Hanford was under construction.

In early 1943 the Army Corps of Engineers, which administered the atomic bomb program, also known as the Manhattan Project, chose an area north of the village of Richland as its plutonium production site. Factors in the decision included remoteness, a fairly mild climate, and plentiful electricity from Grand Coulee and Bonneville dams. Later, after it was decided to build water-cooled reactors, the designers had a lucky break because of the Columbia's exceptionally clean and cold water.

Hanford may have been the ideal choice for the secret plant, but the cost was high for the orchardists, ranchers and villagers who lived along the bend of the Columbia in Priest Rapids Valley. One of them was Annette Heriford, who grew up near the tiny town of Hanford.

In March 1943, when I was about 22, we received a letter from the government that we would have to move [out] in 30 days. It was a terrible shock. I can't describe it. It was unbelievable. The only thing that made it credible to us was the war. And our town was chosen for the war effort. I think because of that, and I have stated so many times, we were so patriotic. Although we could go along with that idea, it was still a terrible blow. Even to think about it now, I can't even describe it. In spite of our patriotism, I remember one man stood there with a shotgun and said they would have to move him. Being in a state
of shock you didn’t think normally. When this happened, instead of us being able to band together in time to say what are we going to do about this, we were so busy, knowing we had less than 30 days. They appraised my father’s place at $1,700. That was the 30 acres and 40 acres at Gable Mountain. They offered 25 cents an acre for the 40 acres, $10. That was outrageous . . . . The pump alone cost $895. It cost $1,900 just to put the well in, we had overhead spray pipe, underground concrete pipe, plus the land. It was ridiculous. Ridiculous! In 1944 I returned to the ranch and that was a mistake. The grass was high and beginning to dry and I sat and wept like a baby . . . . I’ve told so many people that, when I was going to college at the University of Washington, I would say I was from Hanford and they would say, “Where’s that? It isn’t even on the map, is it?” I got so tired of hearing it that I said “Don’t you worry, one day Hanford will be so famous the whole world will know about Hanford.”

Another casualty of the 1943 Army invasion was White Bluffs, considered one of the prettiest little towns on the Columbia, located a few miles upriver from Hanford. As a young girl, Kathleen Hitchcock moved there in 1910 with her parents, Tom and Jane O’Larey, who worked ten acres of apples. Later, her parents ran the local newspaper, The White Bluffs Spokesman. “We really pioneered . . . our first house was just kind of a tent,” Mrs. Hitchcock said.

My dad did the paper a while; then, of course, the war started. By that time he had sold the paper and got a job. Everyone thought we would be evacuated, a lot were. My mother took it very hard, they had always expected to live there the rest of their lives. And it was pretty hard when the Army engineers came in and told them to, you know, get out. Gave them maybe a week to get out, maybe they had their farm animals and no money. No cash! Nobody had cash in those days. They went to places like Grandview and Yakima. My dad decided the best thing to do was to get a job with Du Pont and stay there as long as he could, in our house. He felt like that was their home, he didn’t know what else to do. He stayed there and did that until they left and moved to Grandview. It was a pretty hard thing. Lots of them just had to leave, and some of them ended up at Medical Lake [state mental hospital], you know, couldn’t quite face it. My mother never really adjusted to it. The fact that the government could come in and
take your home away. We were in the war and they felt like they were donating as many young men as any other place to the war effort. It was really sad. They didn’t know what for, they only knew it was for the war effort.

Hanford Camp mess hall. The food was good at Hanford, and plentiful. The eight mess halls had a capacity for almost 20,000 persons. The total number of meals served from April 1943 until January 1945 added up to almost 21 million, and that doesn’t include more than three million box lunches.

The War Department took control of more than 670 square miles. Richland, population 208, became a federal city. White Bluffs and Hanford, perhaps 300 people altogether, disappeared, along with some 1,000 persons who had farmed and ranched there. Next came construction. Some said the world hadn’t seen anything like it since the building of the pyramids.

Peak construction payroll was 45,096 in June 1944, and by then 51,000 persons—counting workers and family members—were living in Hanford Camp, the housing area built at the Hanford townsite 35 miles north of Richland. For two years the camp was one of the largest cities in the state, and in 1944 the War Department said Hanford was “the most urgent construction project being carried out for the war effort.” Richland was transformed into a city of 17,000 permanent residents. Du Pont, the project’s prime contractor, built three nuclear reactor complexes, three colossal structures for the chemical separation process, a facility to manufacture uranium fuel elements, even a railroad. The scale was amazing, but even more so was the knowledge that this work represented brand new theory with very little history for guidance. Construction was completed and all three reactors were producing plutonium by early 1945.

Workers came to Hanford by the thousands. Few knew why they were there, only that they were doing “something to win the war.” Recruiting pamphlets warned that “life was a little on the rugged side,” with semi-desert conditions and wind storms, and described the job only as “heavy industrial plant construction.” General Leslie Groves, who ran the Manhattan Project, visited Hanford and told a friend that the big idea may have come from the scientists, but “it was the Okies and Arkies who built this job.”
when he remembered an outhouse scrawl he saw in 1944: “Come on you Okies/Let’s take Japan/We took California and never lost a man.”

One Oklahoman was steamfitter Leon Overstreet. Overstreet grinned when he remembered an outhouse scrawl he saw in 1944: “Come on you Okies/Let’s take Japan/We took California and never lost a man.”

I was the ninth fitter hired on the Du Pont construction job and my brother Paul was the tenth. We came in together. In my case I was working at the Sunflower Ordnance Works in Kansas, near Kansas City. That was a Hercules powder company. I was a steamfitter there. On a day in May 1943, I happened to be in the can and I heard two laborers talking. They said, “Boy, there’s a big job out at Walla Walla, Washington, and they’re recruiting guys to go out there.” Before the day was over I heard someone else say that. We fitters hadn’t been recruited, no one talked to us, I don’t think they wanted us to leave. I called after work that day, to the union business manager at Walla Walla, Washington, and he happened to be a barber. He said, “Yeah, come on out and bring all of them who are willing to work in plumbing until the steamfitter starts. We’ll be glad to put you out there, they are wanting all they can get.” He said he heard it was the largest construction job in the world. I got my brother and a welder I was working with interested and we got all our coupons for gasoline and tires and came on out . . . .

We went out to 100-B (the first reactor) in May 1944; we were among the first steamfitters on the job. I was, I guess, amazed. I couldn’t figure it out. I looked at that thing we were working on, this reactor. It had all kinds of tubes and pipes running through it, and graphite blocks that the other crafts were laying around the pipes. Nobody could understand what kind of a contraption it was. They had never seen anything like it. You can usually understand what you’re doing. But boy that one floored us . . . . When I first saw B, it was just coming out of the ground. They had the base of the thing already down.

Other crafts had done that. A lot of the preliminary work had been done, but we came in on the piping end of it. It grew out of the ground. And boy they were really ganging that thing. You could hardly take a step without running over somebody. We swarmed over that thing, like ants. And boy they were really ganging that thing. You could hardly take a step without running over somebody. We swarmed over that thing, like flies . . . .

We worked overtime nearly all the time . . . . Most of the time we worked six days, they were in a hurry. Sometimes we worked on Sunday. I was making $1.65 an hour, but that was high wages then.

I remember Colonel Matthias [Army officer in charge at Hanford] called a mass meeting, outside at White Bluffs, the spring of 1944. Thousands came. He wanted to get it across to everybody how important it was. Some people didn’t seem as dedicated as they could have been. He made a pretty good speech. It gave us all a shot in the arm. When we left there we were ready to build a plant. He did say that it was impossible to tell us what we were doing because the enemy would like to know. We were not allowed, he said, to discuss it with each other . . . . Matthias said I can tell you this much, that it’s important and the enemy, Germany, is attempting to do the same thing we are, to build a plant like this. And whoever gets there first will win the war. And that was enough said. We didn’t ask any further questions . . . .

When we heard about the bombs, it was a great feeling. I felt that my effort had been worthwhile. Everybody I worked with was glad to be able to talk about it, and we were all pretty glad we had been a part of it. That ended the war, and saved a lot of lives.

SOME 5,000 women were employed at Hanford during construction, and several thousand more lived with their husbands in the camp’s trailer park. Women, for the most part, worked in the mess halls or were clerks and secretaries. In the barracks the women lived behind barbed wire—to keep the men out. A few were in the Women’s Army Corps, and one of them, Hope Sloan Amacker, a secretary in Army intelligence from Middle­town, Ohio, won a couple of beauty queen contests, including the title of “Sweetheart of the Hanford Engineer Works.”

I was on a train on New Year’s Eve 1943 coming to Hanford, traveling with another gal, a WAC. We had stopped in Oak Ridge for a little indoctrination, and then the other gal and I came out here. Mr. Carpenter, the president of Du Pont, was on the same train, on his way to Hanford. He knew we were on the train, and he asked if we could come into his compartment and have a New Year’s Eve drink. I guess the train was somewhere in Montana . . . . We left his compartment door open and the military police kind of hung around, and we had a drink with him. He was a real gentleman. He was lonely, and he had pictures of his family and we told about our families. That was kind of a highlight of my Army career . . . .

Life in the barracks was weird. There was not much to do until they built the rec hall, and later they got some big name bands. We worked nine hours a day, and that was pretty much it. Weekends, if we got a pass, we went to Yakima or Seattle or Portland. Usually four or five of us would get together and drive. After we moved to Richland it was better because the married couples had houses and they entertained a lot. And we had parties in our dorms.

I remember when I won the beauty contest. I don’t remember how I was chosen, but there were 40 or more girls in it. I got $100 and an engraved loving cup. The cup fell apart . . . . Well, in 1944 everyone was young here, and it was heavenly. The experience was once in a lifetime. You knew you were doing something important, but you didn’t know what.
Jane Hutchins and her sister were footloose. The pay was good at Hanford and eastern Washington was a long way from Kansas.

Sis and I got on a bus in Coffeyville, Kansas, in August of '43 and we landed in Pasco. The bus depot was right in the center of this teeny-weeny little town and these weird-looking men were sitting around. She was 17 and I was 22, and how we had the guts to go any farther I don't know. We weren't recruited, we heard about these fabulous salaries they were paying out here. They said secretaries were making $60 a week. In Coffeyville, I was making $20. Sis was just out of high school and doing nothing. We started off, two dumb kids that were tired of living in Kansas.

We caught a bus from Pasco out to Hanford and went through employment and both got jobs immediately. I went to work in the training relations department which handled the Sage Sentinel, which was the company newspaper, and also the library, the entertainment. Sis went to work for Rob Johnson—he was the chief Du Pont photographer. I was a secretary for the manager of training relations, and head cashier at the entertainment hall . . . . Those nights out there were wild and woolly for a 22-year-old kid who had lived in Kansas all her life. They were an eye-opener. Liquor was rationed, but they always seemed to have it. The guys would pick up a can of Coke and go out to their car for a bottle. You drank it straight, and washed it down with Coke . . . .

The women's barracks had a house mother. A lot of men were family men, and they weren't interested in what you would call dating. And if you did have a date there was no place to go except Yakima for dinner and that was 70 miles away. At the women's barracks, a guy would have to go in the gate, say who it was he wanted to see and the woman would be escorted down. At midnight or 1 o'clock, whenever the curfew was, they would scratch off names of men leaving the barracks, and if some names weren't scratched off, they would come looking for them. I look back now and realize this was a free country, but we were living behind barbed wire at Hanford—all to protect womanhood. I know that where women were concerned, Hanford could either make you or break you. Gals who had never had male attention before were, you know, popular. You could either become a slut, I suppose, if you wanted to, or...
you could become very strong and be able to say “no.”

The rooms were nice. Two beds, two dressers and four walls. The food was pretty good. No one starved. You ate all you wanted. When the bowl was empty, you held it up and it was refilled. Once, I did that in a Yakima restaurant and I was so embarrassed.

Our first Christmas, in ’43, was rough, being away from home. I remember we planned a great big office party, but there were no such things as Christmas trees, so some of us went out into the desert and got a big hunk of sagebrush.

We all got along pretty good. Maybe it was a different attitude. No inkling what we were doing, and I had no reason to be curious. I was busy with my job. I came from a little town. Believe it or not I had an inferiority complex, and at Hanford I knew the only way I could make friends was to be a friend myself. I really came out of my shell.

When they dropped the bombs, that was an exciting time. I had never heard of such a thing as atomic power. Right after that the war ended. Well, I fought the war at Hanford.

By early February 1945 the first plutonium was on its way from Hanford to Los Alamos, New Mexico. Hanford’s “product,” syrupy plutonium nitrate, was transformed into plutonium metal at Los Alamos. A 13.5 pound sphere of this metal, about the size of a large orange, became the explosive core of the first atomic bomb. Scientists called it “the plutonium gadget,” and exploded the egg-shaped device at Trinity Site, north of Alamogordo in the high desert of southern New Mexico, on July 16, 1945. Marvin Wilkening, a young physicist who had made a grand tour of the Manhattan Project—Chicago, Oak Ridge, Hanford, Los Alamos—was there that day.

We used welder’s glass in front of our eyes, and covered all our skin. The countdown ended and we felt, well, it was like being close to an old-fashioned photo flash bulb. If you were close enough you could feel warmth because of the intense light, and the light from the explosion scattering from the mountains and the clouds was enough to feel it. My feet were toward Mockingbird Gap, Point Zero was to my left. Immediately we turned around and looked toward the blast, and the cloud was a white spot through the welder’s glass. Terrific as it was, the blast was an anti-climax compared to the feel of the flash of light which traveled so much faster than the sound wave . . .

We followed the fireball as it rose, white, then light orange. What was fantastic to me was the development of what, under other circumstances, would have been a beautiful purple color that was the result of the intense radiation from this fall of fire—radiation interacting with air molecules.

I

n 1871, at the age of 51, Susan Brownell Anthony made the first of three trips from the east coast to the Pacific Northwest to promote the enfranchisement of women. *Sowing Good Seeds* is not only an account of these trips, but a portrait of a warm individual with a capability for leadership and an overwhelming tenacity to a cause. Anthony came to a virgin territory that was still seeking its identity; consequently, it is interesting to read her descriptions of the geography and the accounts of her travels and modes of transportation, as well as her opinions about the issues. She returned in 1896 to lend strength to the still-struggling movement, and again her travels and problems are aptly described. In 1905, she made her final trip, this time in ill health. By now her cause was popular, as was she—a fact which Dr. Edwards makes clear through his adept use of quotations.

This is a straightforward, definitive account of the suffragist movement in the Pacific Northwest, the difficulties faced by the organizers, the in-house bickering, and the attitudes of the people in different communities. Maps are provided and pictures of the prominent players are included. The author presents a good history of the growth of Washington Territory into statehood, with vivid descriptions of personalities and attitudes, and a real understanding of the emerging political and economic factions. Throughout the book the author introduces other suffragists and identifies their roles, giving a clear picture of the movement and its ramifications. This reviewer finds an all too familiar parallel to the current arguments against the passage of the Equal Rights Amendment.

A good portion of the book is devoted to the activities of Abigail Scott Duniway, an associate of Anthony, who was an Oregon newspaper editor and an important and outspoken advocate of women’s suffrage. Her strained relationships with colleagues and the eventual coolness that developed between her and Anthony are placed in context with her devotion to the movement and its struggles.

Susan B. Anthony did not live to see the results for which she fought so hard, for she died of pneumonia on March 14, 1906. Professor Edwards of Whitman College clearly shows that she did indeed sow “good seeds.” Women were given voting rights in Washington in 1910, and in Oregon in 1912.

Joan E. Bryson lives in Edmonds and is a member of North by Northwest Writers. She is a reader by desire, a writer by avocation, and a microbiologist by vocation.

**Sowing Good Seeds:**
The Northwest Suffrage Campaigns of Susan B. Anthony.
Reviewed by Joan E. Bryson.

This ethnography is the result of an “apprenticeship” of a professional anthropologist to a Native American family. It is a detailed and valuable resource, full of ethnographic fact and endearing human interest.

The book centers around the Native American peoples of the Columbia River between Celilo Falls and Priest Rapids and a discussion of the complex interplay of Indian and Euro-American cultures on the Columbia Plateau. Hunn and Selam illustrate that the environment and ecology of the region are still intertwined with the culture of these Native Americans.

The study documents the lifeways of the Mid-Columbia Indians since the contact period of the early 1800s. It illustrates the impact that historical events have had upon the Mid-Columbia Indians, and points out the peoples’ imaginative cultural responses. Discussion addresses such topics as language (Sahaptin), plant and animal resources, ecology, society, religion, and such contemporary issues as fishing rights and life on the reservation. The authors assert that the impacts of the Mid-Columbia culture have been mistakenly overlooked by anthropologists and historians, and they suggest the “waass” religion begun by Smohalla is an illustration of the culture’s far-reaching influence.

Hunn bases his research upon an assortment of written records, but much of his material is also gathered from the oral tradition of the Mid-Columbia people themselves. The cooperation provided by Selam and his family and friends helps make this study uniquely valuable. Hunn does a masterful job of melding the separate, sometimes differing values of professional anthropologists and Native Americans into an important resource. He accomplishes this with sensitivity and feeling. He is candid in his assessments, but not dogmatic in his presentation of arguments.

If the book has a weakness, it is inconsistency of organization. Chapters are complex in format, and conclusions are sporadically distributed throughout the book. Still, this seems a minor fault when weighed against the work’s merits. Hunn deserves praise for this work, as do James Selam and the many other Sahaptin Indians who shared their knowledge and cultural values. Hunn’s sensitivity and Selam’s helpfulness have borne fruit with this study, which should benefit both Indian and Euro-American peoples.

Keith R. Williams is the director of the North Central Washington Museum in Wenatchee.

**Nch’i-Wána, “The Big River”:** Mid-Columbia Indians and Their Land.
Reviewed by Keith R. Williams.
The editors of this book specifically deny any sweeping claims about western women's settlement experiences. Indeed, differences of time, place, personality, circumstance, class, and ethnicity render generalities pointless and misleading. Instead, this compilation of narratives by 19 women illustrates the diversity and complexity of women's frontier experiences.

It is perhaps unfortunate that this book is similar in so many respects to Lillian Schlissel's excellent *Women's Diaries of the Westward Journey* (1982). Since both books deal with 19th-century western women and both depend primarily on diaries and letters, it seemed that this book on women's roles in settlement would be the much-appreciated sequel to Schlissel's investigation of the westward journey. Instead, *So Much to be Done* is a disappointment. Where Schlissel skilfully weaves a lively, informative narrative around her well-selected quotations, Moynihan, Armitage and Dichamp provide only a brief introduction to each selection, putting aside their lack of commentary and analysis with the claim, "The perceptive reader must always do some snooping between the lines."

The documents were selected, according to the editors, for readability, authenticity, and representative significance. The selections certainly demonstrate the diversity of women on the frontier and address the important influences of physical, environmental and social status. Their readability, however, is debatable. Several go on for many pages without the benefit of any punctuation whatsoever. Others, while punctuated, beg for cutting. Most accounts, while fascinating, could have benefitted greatly from editorial notes.

The editors repeatedly assert that most of these women were in the West of their own volition and that they responded with imagination, pleasure, courage, humor, and pride. What emerges "between the lines" is more than equal measure to these lofty qualities are dependence, loneliness, drudgery, fear, and depression. These darker qualities must not be glossed over or minimized if the true complexity of frontier women is to be fully appreciated.

This book is not without value. Some of the accounts are engrossing and do much to convey the day-to-day experiences of women on the frontier and something of their larger significance as well. However, in the wake of Lillian Schlissel's *Women's Diaries of the Westward Journey*, which so superbly puts source material into a meaningful context, *So Much to be Done* leaves much to be desired.

So Much to be Done: 
Women Settlers on the Mining and Ranching Frontier.
Reviewed by Nancy C. Unger.

Winds of Change:
Women in Northwest Commercial Fishing.
Reviewed by Mary C. Wright.

Extravective industries—fishing, forestry and farming—dominate the Pacific Northwest economy. Each projects a "rugged individual" mythology and each faces a crisis as the region moves from exploitative to conservationist strategies. "Winds of Change provides a unique view of both the limitations of the mythology and the depth of the crisis in the fishing industry through ten life histories of fisheries women.

Starting with the assumption that they would find women in all aspects of the industry, the unsurprised author team makes a significant contribution to women's history. Even in such a "lone man against the sea" industry, women participate at every level. That their roles tend to be more flexible and transitory than men's, and sometimes their work is obscured by their husband's names, may explain the assumption that women do not fish.

Here the reader will find life histories of three Native women and seven Euro-American women participating in five occupational categories. The first line is that of fishing wives—the "customary" role—but there are also independent women in the non-customary roles of processors, distributors, service providers, and management. Fisheries women in such direct action roles show clearly the conflicts and difficulties experienced by autonomous women, especially those in positions of authority.

Although the life histories alone can be enjoyed as an interesting read, the authors (a committee of three who unfortunately write as such) establish a framework for understanding them further. An introduction explains their methodology, gives a brief history of Northwest fishing and provides a useful summary of the so-called Boldt decision. Fishing technology and the management bureaucracy are also defined. A glossary and time line assist the reader.

*Winds of Change* simply, while engaging and instructive, will increase with time. The deep changes of the past several decades and the escalating crisis of diminished harvests will bring future analysts of the fishing industry to these watershed years. *Winds of Change* will be there to offer anthropologically important, self-generated personal histories. Those interested in regional politics and economics, Native American life, women's concerns or the fishing industry itself will enjoy this book. These true lives tell stories better than fiction.

Mary C. Wright is a Seattle-based freelance writer who serves as editor of the *Pacific Northwest Historians' Guild* newsletter. She is completing a doctoral program at Rutgers University.

Nancy C. Unger, a Seattle native, earned a doctorate at the University of Southern California, and currently teaches women's history at San Francisco State University.

COLUMBIA Reviews

COLUMBIA 47 SUMMER 1991
CORRESPONDENCE

Good Work

Thank you for my first issue of Columbia! You do a terrific job with that publication . . . . Keep up the good work.

Gregory C. Nail, M.D.
Spokane

Filling a Space

I want you to know that Columbia Magazine is wonderful, filling a space long wanting—a good publication by the Washington State Historical Society. The Spring 1991 issue is filled with news of historical interest and a good cross section of subject matter. Thanks to you, your vision and choice of a team and contributors, we finally have a first class publication.

Mary Randlett
Bainbridge Island

Additional Reading

Interested in learning more about the topics covered in this issue? The volumes listed here will get you started.

The World Fire Created


The Other Explorers


A Diverse Economy

The Letters of John McLoughlin from Fort Vancouver to the Governor and Committee, ed. by E. E. Rich. Toronto: Champlain Society, 1941-44 (three volumes).

Fort Nisqually


Manhattan on the Columbia


Salmon Bay Charlie


NP vs. John Barleycorn

A NEW AND VALUABLE WORK IN PACIFIC NORTHWEST HISTORY

The Voyage of
Sutil and Mexicana
1792

The last Spanish exploration
of the Northwest Coast of America

translated, with an introduction by John Kendrick

A handsome work of 260 pages, octavo in size, bound in blue linen cloth with a printed dust jacket. Printed on archival book paper. Illustrated with original drawings, and including two appendices, bibliography and index. Detailed maps of the expedition are included.

Called “the definitive account” of the voyage, this translation is based on the original manuscript account of the voyage. It is supplemented by an extensive introduction, fascinating explanatory notes, and biographies of the principal characters. Encounters with George Vancouver, stops at Nootka, and a close study of the coastline and native populations, make this account valuable to all students of the history of the Pacific Northwest and Spanish voyages.

Published by:
THE ARTHUR H. CLARK COMPANY, Publishers and Booksellers
P.O. Box 14707, Spokane, WA (800) 842-9286 (509) 928-9540

Also available at the Washington State Historical Society bookstore, or order through your local book dealer.
Free catalogs of books on the west available by mail.
CLEVELAND ROCKWELL (1837 - 1907)

Lily Glacier
w/c 19¾ x 13¾

Mt. Hood from Mouth of Willamette
o/c 12 x 20

Coffin Rock
w/c 12 x 19

Cliffs near Cathlamet
o/c 34 x 27

Braarud Fine Art
P.O. BOX 717 LACONNER, WASHINGTON 98257 (206) 466-4416
BUYING • SELLING • APPRAISING
FINE OLD AMERICAN PAINTINGS
BY APPOINTMENT