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THE TIME 1970–2001

PLACES TO LOCATE

China Taiwan Spokane Seattle Tacoma Hanford Nuclear Reservation Yakama Indian Reservation Kalispel Indian Reservation **Okanogan County Chelan County Cape Flattery** Lake Roosevelt Coeur d'Alene River **Spokane River**

WORDS TO UNDERSTAND

adversary breach clear-cut decimate ecology ecosystem formidable groundwater habitat heavy metals leach lucrative mass transit sovereignty tailings vulnerable

N THE PACIFIC NORTHWEST

Taking in

Spaceship Earth, as one man said, is entirely self-sufficient. All the natural resources are all there will ever be. *Photo by NASA*







Environmental Crisis

In the 1800s, pioneers struggled across the Oregon Trail. The journey was exhausting as the travelers crossed immense prairies, climbed snow-capped mountain passes, and forded raging rivers. The travelers thought of nature as a *formidable adversary*.

One century later, people were discovering that nature was not an enemy to be defeated, but a partner that was the source of all life. In the 1960s, astronauts said from outer space, "Earth looks isolated and very *vulnerable.* Life is sustained only by a thin protective atmosphere."

According to writer Arthur Clarke, "Spaceship Earth" travels through the heavens with an unknown destination. One thing, however, is clear. All the supplies available for the voyage are onboard. There will be no opportunity to replenish them. Starting in the 1960s and 1970s, people in Washington and elsewhere became aware of the damage that had been done to the environment.

It is clear that people in Washington and the rest of the world have to face the complex issues of how to both use and save natural resources. They will sometimes have to compromise what they want now for what is best for the future. They will have to cooperate so the earth's resources can be shared by all, both now and into the next century, and the next.

Seattle's Urban Problems

In 1981, Seattle held a nickname contest to replace "Queen City." Promoters hoped to find a name that would lure tourists to the state's largest city. The winner was "Emerald City." It seemed perfect for a city where abundant rain helps green plants grow. The name also evoked images of that tantalizing city in *The Wizard of Oz*.

In 1999, however, satellite photos showed that Seattle's natural tree cover had declined 50 percent in twenty years. When viewed from space, Seattle looked more black than green. Asphalt and concrete had taken over.

Seattle's environmental record since the 1970s is mixed. Lake Washington, which had become polluted with raw human sewage,



A study showed that only 7 percent of rainy Seattle was covered with plants, compared to 10 percent in Phoenix, the desert capital city of Arizona.

Traffic congestion in Seattle continues to frustrate drivers.

was cleaned up. The largest problem, however, is still to be solved. The city continues to suffocate from traffic congestion.

Voters rejected funding for a *mass transit* commuter rail system in the 1970s. There is little room to build more freeways because Seattle is squeezed between Puget Sound and Lake Washington. A commuter ferry system offers some hope to commuters living north or south of the city or on the peninsula. For other drivers, however, there are few options except the current rush hour traffic jam.

Visitors still flock to visit the city's many attractions, but they feel the frustration of getting from place to place on crowded freeways. Traffic woes are the major topic of conversation and a main reason some people move out of town.

Spokane and Expo 74

S pokane—the smallest city to ever host a world's fair—hosted Expo 74. The fair called attention to a wide range of environmental issues.

The entire community worked together

to make Expo a success. Before construction, the site of the fair was an ugly complex of warehouses and railroad tracks along the Spokane River in the heart of the city. The railroad companies were persuaded to donate most of the land. When the fair had run its six-month course, the site was converted to a magnificent downtown park.

Expo's theme, "Progress Without Pollution," was appropriate for Spokane. It encouraged the city to stop using the Spokane River as an open sewer, which it had been doing for years. A modern sewage treatment plant was constructed in time for Expo.

A Spokane resident remembers the river in the 1940s and 1950s:

I lived only a balf mile from the river and my friends and I played and fished along its banks. We caught large suckers from the mouths of sewer discharge pipes. Sometimes we fished an area where a large spring entered and we would catch trout, though they would stink up the kitchen if you tried to cook them.



Expo 74 drew 5 million visitors. It represented a turning point in Spokane's history. Ugly warehouses and railroad tracks were converted into a beautiful fair site and a magnificent downtown park.



A sign warns of heavy metals pollution on the Coeur d'Alene River. What does it say about pregnant women? About children making mud pies? Where can children play safely?-



Treated waste water is returned to the Spokane River from the city's efficient sewage treatment plant. *Photo by Mike Green*

Industrial Pollution

The *beavy metals* such as lead, zinc, cadmium, and arsenic from mining operations in Idaho's Coeur d'Alene region *leached* into *groundwater*. Then the dissolved metals made their way into Idaho rivers and lakes. They eventually flowed into the Spokane River.

The leaching of mine wastes through groundwater has increased by massive *clear-cuts* in the mountains. The clear-cuts are huge land areas, once covered by forests, that were left with no vegetation to slow water runoff.

In the 1970s, lead poisoning from a smelter in Idaho produced the highest lead levels in human blood ever recorded. Lead poisoning in children produces serious health problems, including mental retardation.

Large amounts of toxic metals leached from Idaho mine *tailings* and abandoned mines during a severe winter flooding in 1996. Efforts are underway to clean up the mining mess, but the task is enormous. Every day the South Fork of the Coeur d'Alene River carries a ton of dissolved heavy metals downstream. The Coeur d'Alene Indians, hoping to force a cleanup of the waterways, have sued eight mining companies, the Union Pacific Railroad, and the State of Idaho for polluting the water.

Pollution at Grand Coulee

At first, no one noticed the growing pollution in Lake Roosevelt, the reservoir behind Grand Coulee Dam. Then a U.S. Fish and Wildlife study showed that fish collected at Grand Coulee had cadmium and lead levels among the highest in the nation.

The sources of the contamination were a British Columbia smelter and a paper mill. Both these companies dumped all their untreated waste directly into the Columbia River. The resulting bad publicity and political pressure led to dramatic improvements by the mid-1990s.

LINKING THE PAST TO THE PRESENT

In 2001, the Washington Department of Health warned that the Spokane River was the most PCB-polluted stream in the state. PCBs are chemicals from industrial sites such as the Kaiser Aluminum Plant. PCBs cause cancer. Fish from the river are a health threat to everyone who eats them, especially pregnant women.



Hanford nuclear waste storage tanks are under construction. Double-wall steel storage tanks have been built to replace some of the leaking ones. Eventually, some of the wastes will be pumped out and contained in safe glass logs at a plant that has yet to be built. To get a sense of size, note the workers in the photo. *Photo courtesy of Columbia River Exhibition*

Hanford's Nuclear Wastes

s bad as the upstream pollution is, there is nothing that compares with the problems found downstream on the Hanford Nuclear Reservation. Decades of producing plutonium for nuclear weapons left Hanford one of the most contaminated places on the face of the earth.

In the mid-1980s, Karen Dorn Steele, a reporter with the *Spokesman-Review*, began publishing articles about Hanford's radioactive releases into the atmosphere. The stories showed that the testing had released high levels of cancer-causing elements into the atmosphere in the 1940s and 1950s. The government had gone to great lengths to hide this from the public.

Finally, in 1989, state and federal agencies agreed to a plan for cleaning up stored radioactive waste. It would be the largest and most expensive public works project in American history, costing more than \$200 billion over seventy years.

How could the mess be cleaned up? The first problem was to find out what had been dumped and where. More than 1,400 sites were identified. Over 440 billion gallons of radioactive and chemical waste had been poured into the soil. Some of the wastes

had reached groundwater supplies and made their way toward the Columbia River. Strontium 90, tritium, and uranium—all known cancer-causing elements—were still seeping into the river in 2001.



Drought, Electricity, and Nuclear Power

In March, 2001, Governor Gary Locke declared a state-wide drought emergency. The lack of winter rain and snowfall produced the lowest summer stream flows in a century. What did this mean for the state?

- Hydroelectric power production would be sharply reduced because less water flowed through dams.
- Residents faced power blackouts.
- The cost of electricity jumped dramatically.
- The use of water was curtailed.
- Salmon and steelhead runs suffered.
- Western farm crops suffered.

The crises even led to talk of finishing one of the four nuclear power plants abandoned by the Washington Public Power Supply System (WPPSS) in 1983.

Timber—a Dwindling Resource

Pacific Northwest companies—Weyerhauser, Potlatch, Boise Cascade, and Plum Creek Timber have rapidly harvested trees across Montana, Idaho, and Washington. Much of the logging was done on massive onemile-square clear-cuts. Many of the raw logs were sold and exported to Japan. Local lumber mills were closing because of a shortage of logs to turn into lumber.

U.S. Interior Secretary Bruce Babbitt noted in 1993:

We have a dwindling supply of logs for mills in the Northwest, and at the same time you can go out to Port Angeles and see logs stacked to the sky, as far as the eye can see, destined for mills and jobs in Japan. Timber companies had been planting new forests for years, but the trees would not be ready for harvest for twenty-five years. Afraid of running out of trees on their own lands, timber companies started cutting logs in the federally-owned national forests. Environmental groups responded with anger.

Labeled "tree huggers," environmentalists tried to preserve the dwindling supply of oldgrowth forests, eliminate clear-cutting, and stop all unnecessary road building on public lands. Tempers flared. Some environmentalists fought by spiking trees. They hammered long metal spikes into trees so saws would be ruined when loggers tried to cut down trees.

The struggle over old-growth forests was a lesson in *ecology*. These forests were more than just stands of trees; they were complex *ecosystems*. They were filtering sponges for clean water and producers of fresh oxygen. No tree farm could match the importance to the environment of a mossy old-growth forest. When it was gone, like an extinct species, it was gone forever.



Logs await export from Longview to Japan and other places in 1991. *Photo by Elizabeth Feryl*

Fighting Back

GGING

Exporting logs, jobs and the future of communities

The Inland Empire Public Lands Council is one of the most important environmental-action groups founded in response to the timber crises. The council publishes a monthly newsletter, *Transitions*, that features political cartoons and articles on environmental issues.



In this 1992 photo, massive clear-cutting of forests leaves bare land in the shadow of Mt. Rainier. *Photo by Trygve Steen*

The Spotted Owl

A strange ally of environmentalists was the northern spotted owl. In 1990, the U.S. Fish and Wildlife Service ruled that the owl was a threatened species. Environmentalists tried to halt logging in forests where the owls lived. Annual timber harvests on the Olympic Peninsula dropped 85 percent.

As a result of protected spotted owl habitats, over

cutting, log exports, and imports of lumber from Canada, 132 sawmills and plywood mills closed in just three years in the early 1990s. Logging was not just an industry in many logging communities—it was the only industry. Closing the mills threw thousands of workers out of work.

Bumper stickers on loggers' pickups said, "If It's Hootin, I'm Shootin" and "I like spotted owls—fried!"

Habitats for owls-or logs and jobs for people? That was a hot question in the Pacific Northwest.





John Osborn, a Spokane physician and environmental activist, founded the Lands Council in the late 1980s. An army of volunteers track timber company actions across the Pacific Northwest. *Photo by Paul Chesley*

Going Fishing

Biologists believe the Columbia River system once supported 16 million salmon and steelhead a year. Today, fewer than 1 million fish return from the ocean to spawn each year. About 90 percent of the fish begin life in hatcheries.

Biologists consider hatch-

eries to be partly to blame for the decline of wild fish. Why?

Hatchery fish cannot find their way to natural spawning grounds. Hatcheries can also introduce diseases into fish stocks. Without fish hatcheries, however, there would be a terrible shortage of fish in our rivers and lakes.



Spring chinook salmon are counted as they pass a viewing booth at McNary Dam, 2001. *Photo by Mike Green*



McNary Dam, like others on the lower Columbia and Snake Rivers, have fish ladders to help fish get back to their spawning grounds. *Photos by Mike Green*



Locks at McNary Dam aid ships in moving up and down the sharp elevations of the rivers. If dams were breached, there would not always be enough water behind the dam to fill the locks and ships might not be able to pass.

Salmon or Electricity?

he Pacific Northwest salmon crisis is even more complex than timber management. Fish runs have declined dramatically because fish habitats have been severely damaged by pollution, careless logging and grazing, and dams.

In 1980, Congress passed the Northwest Power Act. It required that:

Fish and wildlife of the Columbia River Basin . . . be treated on a par with power needs and other purposes for which the . . . dams of the region were built.

This means that there must be a balance between needs of fish and human needs for fish, water travel, and hydropower. What can be done to maintain a balance?

Fish ladders have been built on the sides of dams. They aid fish in going upstream to spawn. Water is spilled over the ladders to help salmon and steelhead make their way downstream. Some people, however, want to remove the dams altogether. Because dams slow down the natural water flow, they are responsible for higher water temperatures and higher nitrogen levels that kill fish. Dam turbines used to produce electricity kill thousands of fish swimming to the ocean.

Other people suggest that a good compromise is **breaching** of the four dams on the lower Snake River. Breaching would remove the earth-filled "wings" of the dams so water could flow past the center of the dam and fish migration could partly return to a natural state. Breaching would leave the expensive and important locks, spillways, and power plants intact. Later, the wings could be replaced.

How do dams affect commerce? Before dams were built, rivers were too shallow and fast for barge traffic. Dams, however, hold river water in long reservoirs. The amount of water leaving the dams is controlled. This puts people, instead of nature, in charge of river flow. Locks raise and lower ships as river elevation changes.

Today, barges going up and down the rivers are very important. They carry wheat and other agricultural products from eastern farms to western shipping ports.

LINKING THE PAST TO THE PRESENT

During the electric power crisis of 2000–2001, power shortages in California and throughout the West sent electricity rates soaring. With power blackouts a reality, fewer people supported dam breaching because it would reduce the amount of electricity dams could produce.

Native American Fishing Rights

One of the most important court decisions in Washington's history was handed down in Tacoma by federal judge George Boldt in 1974. *U.S. vs. Washington,* or the Boldt Decision, has had an enormous impact on Native American rights, salmon management, and state politics. Citing the treaties signed in the mid-1800s, Judge Boldt ruled that "The Indians of Puget Sound are entitled to 50 percent of all salmon and steelhead that pass through the Indians' 'usual and accustomed' fishing sites."

Boldt's ruling restored off-reservation fishing sites to Native Americans. It gave them the right to harvest steelhead, as well as salmon, for food.



Movie stars such as Marlon Brando (second in from the left) joined "fishins" in support of the Puget Sound tribes. At a fish-in, named after civil rights protest sit-ins, Native Americans and supporters fished illegally all day long. The fish-ins stopped when the Boldt Decision gave fishing rights back to Native Americans.

Before the Boldt Decision, Indians had been forced from their fishing sites off the reservations. This preserved the *lucrative* commercial fishing places for non-Indians. The state also had declared steelhead to be game fish (not food fish). This saved steelhead for sports fishermen.

Non-Indian fishermen were outraged by the decision. Bumper stickers appeared with "CAN JUDGE BOLDT – NOT SALMON!"

All the parties involved now work to restore larger fish populations. Nearly a third of the scientists working on salmon issues are Native Americans. Even the smallest tribes have their own scientists and lawyers, and many of them are Native Americans. It is common for half of a tribe's employees to work in natural resources.

WHAT DO YOU THINK?

- What are the arguments for and against honoring Indian treaties signed in the 1800s?
- What are the moral and legal issues involved?

The Toughest Indian

The following words were written and published by Sherman Alexie, a Spokane Indian:

The Indians [I picked up bitchbiking] wore bope like a bright shirt. My father never taught me about bope. Instead, he continually told me that our salmon—our bope—would never come back.

All of us, Indian and white, are baunted by salmon. When I was a boy, I leaned over the edge of one dam or another—perhaps Little Falls or the great gray dragon known as the Grand Coulee—and watched the ghosts of the salmon rise from the water to the sky and become constellations.

--from *The Toughest Indian in the World*, Atlantic Monthly Press, 2000

What mental image do you get from Alexie's writing? Can you identify with the feelings of hope and longing?

The New Indian

he Makah people hunted whales until the 1920s, when commercial whaling *decimated* the whale population. Pacific gray whales were added to the endangered species list. They were removed from The following event happened in May 2000. It shows the high emotion of fishing rights issues.

The Makab whale bunters paddled furiously, quickly closing the gap that separated them from the gray whale swimming slowly just beneath the surface. In the bow of the bandcrafted cedar canoe, the barpooner raised bis lance for the strike. Standing next to the barpooner was a Makab man armed with a powerful .50 caliber rifle. His intention was to kill the whale after it was caught.

Circling the Indian canoe, a young activist from Greenpeace, an environmental protection group, tried to position ber jet ski to interrupt the whalers. At the last minute, the whale dove out of sight. A U.S. Coast Guard boat, trying to keep the protesters away from the bunt, accidentally crashed into the jet ski and knocked its rider into the sea. Hovering above, a helicopter camera sent live footage of this bizarre scene to television stations.

the list in 1994. Today, the gray whale population has recovered to the point that its present population estimated at 27,000 is about as many as the ocean ecosystem can support.





Two Makah Indian whalers stand triumphantly atop the carcass of a dead gray whale moments after helping tow it close to shore at Neah Bay, 1999. Makah treaty rights to hunt whales were negotiated over a century ago. *Photo courtesy AP/Wide World Photos*

Rights and Sovereignty

The issue of Indian *sovereignty* freedom from outside control-is particularly important in Washington, where there are thirty tribes. In Oregon, by comparison, there are only nine tribes.

Congress gave additional powers to Indian tribes when it passed the Indian Self-Determination and Education Assistance Act. In 2000, the Yakama Reservation adopted a ban on alcohol that threatened to shut down taverns and liquor stores inside the reservation.

The Yakamas consider alcohol abuse a serious problem for the tribe. The 80 percent rate of alcohol-related traffic deaths on the reservation is twice the statewide average. Infants born with fetal-alcohol syndrome-a disease that affects the mental and physical development of babies-is five times the national average.

WHAT DO YOU THINK?

Some non-Indian residents are fighting the alcohol ban on the Yakama Reservation. More than 20,000 of the 25,000 people living on the reservation do not belong to the tribe. They want to be able to drink alcohol there. Taverns and restaurants want to sell alcohol to customers. What do you think about this use of tribal sovereignty?

The New Buffalo

Since Indian sovereignty means tribes on a reservation can make many of their own laws, some tribes run gambling casinos. This is against the law in other parts of the state.

The "new buffalo" is the term used for tribal gambling operations. Long ago, buffalo supplied the needs of Native Americans. Today, casinos are helping modern Native Americans by creating thousands of jobs.





Indian casinos advertise widely via television, newspapers, and billboards. They are jammed with customers seven days a week. Photos by Mike Green

Casinos, however, have provoked sharp criticism. Non-Indians point out that they do not have the same right to open casinos.

Some Native Americans worry about the influence gambling will have on tribal youth.

So far, however, tribes believe the results of casinos are mostly good. Both the Spokane and Coeur d'Alene tribes have reduced unemployment and funded social programs. The Tulalips tribe has opened a casino just west of ment. Most tribal members believe the



have used casino profits to build retirement homes for their elders. The small Kalispel Spokane. The Kalispels have suffered generations of extreme poverty and unemploy-"new buffalo" has arrived.

The Battle in Seattle

hen the World Trade Organization (WTO) decided to meet in Seattle in 1999, city officials were pleased. The WTO is an international body that rules on trade disputes. This important meeting would generate revenue for businesses and publicity for Seattle. Seattle boasted of its export industries and its Pacific Rim connections.

Seattle also had a history of labor problems and environmental unrest. Activists from the United States and around the world planned to bring their concerns to Seattle. Local protesters joined them. The result was a huge demonstration. The angry words and the tactics of the protesters seemed a throwback to the days of the Seattle General Strike and the Wobbly Free Speech fights, and in some ways it was.

The protesters considered the WTO to be an organization of capitalist greed. Protesters said that the 135 member nations of the WTO are really promoting a corporate version of world trade that overlooks environmental concerns, labor issues, and human rights. And, they said, its secret meetings undermine democratic principles. They said rich nations are getting wealthier at the expense of poor nations.

About 40,000 protesters marched through the downtown region, completely disrupting the opening session of the meeting. Seattle police, aided by the National Guard, finally cleared the area. They used armored cars, officers on horses, tear gas, pepper spray, and rubber bullets. There were over 600 arrests and several million dollars in property damage and lost business.

Seattle mayor Paul Schell had been a civil rights and anti-war protester in the 1960s and 1970s. "I remember the sixties. I remember the protest marches," he said. "It hurts me deeply to be the mayor that called out the National Guard, but I had to protect my citizens."

The "Battle in Seattle" was front-page news around the world. For better or worse, Seattle would serve as a symbol of the promise and the peril of global trade for years to come.

A protester stands among flaming trash bins during protests in downtown Seattle. Demonstrators blocked streets and forced a delay in the opening ceremonies of the largest trade event ever staged in the United States. *Photo by Peter Dejong, AP/World Wide Photos*



TAKING

Who Are We?

People, as well as goods, move around the globe. There is a wide diversity of people in the cities and on the farms today. Immigration, especially from Latin America and Asia, continues to grow.

Hispanics are still the state's largest minority, up 75 percent in ten years. Asian and Pacific Islanders were up 60 percent since the last census. The number of Native Americans increased 20 percent.

It is important to remember that cultural diversity has many faces, and that people cannot be grouped by a census report alone. In today's world, many people have a mixed racial heritage.

Here are some statements from Washington's minorities:

"When I was younger, it was annoying when people would just assume I was Mexican," said Efrain Olivares. "I am from Venezuela. Young people are very concerned with such things, but I don't mind so much anymore. I have a lot of Mexican friends, so I just let it go. My wife is from Guatemala. Our neighbors are from Puerto Rico. On the census, we are all Hispanic."

Moon Ji said, "People make similar assumptions about Asians, the majority of which are Chinese. But there are Japanese, Vietnamese, Koreans, Filipinos, Asian Indians, and others. I wish people would be more culturally sensitive.

We are not all alike. We like to explain our culture to people, if they would ask."

It's important to remember people all over the world are more alike than they are different. Everyone needs friendship, education, and work, along with food and shelter.



CHAPTER 11 REVIEW

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- 1. What did Arthur Clark mean by the term "Spaceship Earth"?
- 2. What makes Seattle an example of environmental problems?
- 3. What was the main focus of Expo 74 in Spokane?
- 4. Where does pollution from heavy metals in the Spokane River come from?
- 5. What are the pollution problems on the Hanford Nuclear Reservation, and what is being done about them?
- 6. What are people for and against when it comes to protecting old-growth forests?
- 7. What are people trying to do to increase the supply of salmon? Why are some people against these methods?
- 8. Which Indian group is continuing to hunt whales, despite opposition from environmental groups?
- 9. What was the Boldt Decision, and why was it so controversial?
- 10. How has the concept of Indian sovereignty been strengthened since the 1970s?
- 11. Why has the "new buffalo" (Indian gambling casinos) been important to people on Indian reservations?
- 12. What was the Battle in Seattle?
- 13. According to the Unites States Census in 2000, which groups make up Washington's ethnic population?
- 14. Which group is the state's largest ethnic minority?



Total population: 5,894,000 Source: 2000 U.S. Census Report

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5.5

7.5