Rivers and streams in which the salmon are found or to which they resort shall not be obstructed by dams or otherwise, unless such dams or obstructions are so constructed as to allow salmon to pass freely up and down such rivers and streams.

—Oregon Territorial Constitution, 1848

The public must retain the control of the great waterways. It is essential that any permit to obstruct them for reasons and on conditions that seem good at the moment should be subject to revision when changed conditions demand.

—President Theodore Roosevelt, 1908

He whose braveness lies in daring, slays.
He whose braveness lies in not daring, gives life.
Of these two, either may be profitable or unprofitable.
But 'Nature hates what it hates. . . .
He who grudges expenses pays dearest in the end;
He who has hoarded most will suffer the heaviest loss.
He that works through violence may get his way,
but only the mountains, rivers and heavens endure.

—Lao Tzu, *Tao Te Ching*, circa 400 B.C.

12. A Prayer for the Salmon's Second Coming

Introduction to "A Prayer"

One day in the summer of 1969, an X-Acto blade pierced my left hand and turned me into the fisherman I'd set out to be as a boy. One day in the fall of 1987, a statistic pierced my conscience and changed me back into a

civilian again. In between those two changes, for twenty wonderful years, I fished the salmon and steelhead rivers of Oregon only slightly less fanatically and no less joyously than the fish-crazed hero of my first novel. Focusing on five small streams near my eventual Tillamook County home, fishing the back end of rainstorms as the waters dropped and greened, I landed an average of thirty winter and summer steelhead, five chinook salmon, thirty jack salmon and sea-run cutthroat, and fifteen adult coho salmon each year.

I often fished, accidentally, for a multitude of species. Among the thrills of coast-stream fishing are the many times a one-rod, one-reel search for a particular kind and size of fish puts you over much larger quarry for which you're laughably ill-prepared. A mint-bright, cartwheeling, seven-pound coho hen on a cutthroat fly and a little 4-weight fly rod, for example. Or the bright twenty-eight-pound, thirty-five-pound, and forty-pound chinook I hooked on the 6-weight fly rod and damp fly with which I chased summer steelhead. The forty-pounder—my largest salmon ever—was, frankly, a lolling bore: I'd as soon play a dairy cow on a fly rod. The twenty-eight-pounder, though, took a grease-lined Freight Car at the end of a long cast at dusk, did one quick subsurface thrash, then lit out on a half-mile downstream run that had me gulping my heart down my throat as I chased it for half an hour, believing I'd hooked the steelhead of a lifetime.

During my coastal decades I was a man of estuaries and mountains: I never fished the ocean, never fished the crowded bays, never fished in a crowd, period. Excellent maps, serious backroad exploration, and rough hiking were required to make this solitude possible. Even today, though, I know a few coastal canyons where salmon and steelhead outnumber fishermen by hundreds to one. And I'll share their locations gladly—if you hold a knife to my throat.

It's not for the fishing that I'm secretive. As wild salmon runs, throughout those decades, grew ever more fragile, my killer instinct, then even my catch-and-release instinct, faded, then vanished. I love to eat fish, and for a long time killed ten or so clip-finned hatchery steelhead and jack salmon per season. I also, each November, killed a single, mint-bright wild coho. A late autumn dinner of barbecued coho with, say, huckleberry muffins, local greens, and a chanterelle soufflé, shared with friends, was the true coastal Thanksgiving feast. The indigenous food did not just feed us, it accomplished the impossible: it made beautiful, edible sense out of all that rain.

A hundred twenty inches per annum in the valley where I lived. Half of those inches, it seemed, in November. Rains to put moss on your teeth; rains that set orange witches' butter growing from the seat of my Rambler

American even as I drove it; rains that drove some residents to divorce, some to Southern California, some to hallucinogenic mushrooms, some to Prozac. Thanks to the coho, though, the rains were nothing but beautiful to me. I grew to sense their approach and size by smell and barometric mood. The big fronts would blow in, the birds would be rammed south, the folks with seasonal stress disorder would jet to Arizona—and I'd be out in the downpours, thrashing happily down the middle of some stream too small to be blown out, my grandfather's spiked golf galoshes on over my waders for traction, blissfully chasing my small allowance of ocean-fattened, heaven-summoned coho.

So many beautiful things would happen. I sat waist-deep in a November creek, in Neoprene waders one afternoon, and watched two otters not fifteen feet away share an entire coho's spawned-out body, discussing its complex flavors in urbane otter chitter the entire time. I fished one canyon so misty and wild that a blacktail doe walked up to me out of the gray, scrutinized my face, sniffed the very tip of my fly rod, then strolled leisurely upstream and did the same to my fishing partner. I watched water ouzels stroll the half-rotten backs of still-living, still-spawning chinooks—the ouzels, too, chittering blithely as they danced upon the salmons' very death. I watched coho spawn for days and nights, stand guard over the redd for more days and nights, then weaken, drift, and die; watched their carcasses hang from branches or flutter from the bodies of sunken cars; watched them lie dead in the quietest water, turning black for days, white for a few more, finally sending out pale clouds of ghostly green growth that let me see decomposition as a kind of blossoming. I watched the coho's own alevins nibble these blossoms the way the faithful nibble the body of Christ. I glimpsed, as we all have in rivers, the death, the resurrection, and the life.

The last wild coho I killed was in November 1987. A bright eight-pound hen. And its flesh again worked the magic: my friends and I turned our eyes skyward and sincerely thanked our Maker for the rains. Not long after that last coho rite, though, I was stunned to learn from the local fisheries biologist that there'd been an estimated seven spawning pairs of coho, total, in the river from which I'd taken that hen. Turned out the Department of Fish and Wildlife had been botching their statistics for years. The coho were vanishing from Oregon.

Who doesn't know the story? My favorite form of worship had become species extermination. Our sacramental November feast had become sin. Those blithe, golf-galoshing jogs down wild green currents had become unconscionable. I try to avoid vows amid a life as uncertain as this one, but without even vowing, I realized I'd never kill a wild Ore-

gon salmon again. And the instant I came to this realization, the magic coho rains became plain, cold November rains.

I share this bit of history not in lament, but to introduce the admittedly demanding piece of writing that follows:

The Pacific salmon's biological and migratory needs force them into intimate contact with landscapes dominated by humanity. Because of this, salmonids can continue to exist only if humans enable and encourage them to do so. Most Northwesterners desperately want this. Year in and year out, polled majorities of citizens swear their willingness to make financial sacrifices and lifestyle adjustments for salmon, and fresh waves of schoolchildren love and coax salmon back into a few preposterously unlikely industrial streams.

But a powerful minority disagrees with such love and willingness. This minority sees rivers not as arteries of interwoven life, but as hydraulic engines meant to crank out industrial profits. In defense of their profits, the same minority has diligently emitted a rhetorical smog around the topic of wild salmon. The chief themes of the rhetoric:

1. It is not we who threaten salmon; it is salmon who threaten us.
2. By passing through *our* lands in migration, so-called endangered salmon in fact endanger *our* jobs, *our* crops, *our* electricity, *our* prosperity.
3. *No* sacrifices should be made for these romanticized creatures of the past. If they can't survive while we do as we please, let them die of industrial causes. As a prominent southern-Idaho cattle rancher put it, "We're gonna miss them salmon about as much as we miss them buffalo."

Such rhetoric has not just created a media smog: it has stalemated the decision-making process needed for salmon recovery. Lawmakers seeking honest recovery strategies have also been buried in specious scientific studies of farcical faux-complexity, the most ridiculous of which have been penned by the very agency responsible for salmon recovery under the Endangered Species Act. The news media in turn, assuming such an agency has the salmon's best interest at heart, plays directly into these false stewards' hands by "objectively" reporting their "scientific" balderdash. As a result, honest people who care deeply about salmon have nevertheless come to feel that anadromous fish and contemporary humanity can't coexist.

This is a disastrous misunderstanding, inculcated by ingenious industrial cynics. Pacific salmon are not just "canaries in a coal shaft." They're the signature wild creature of the Northwest—a creature upon which millions of humans, fauna, and megafauna depend for their very existence. A "modern Northwest" that cannot support salmon is unlikely to support "modern Northwesterners" for long. I have therefore tried my utmost to construct a narrative—readable, I hope, in one espresso-fueled sitting—that pierces the cynical rhetoric and depicts the genesis, the true value, the crisis, and the potential salvation of the most crucial population of wild salmon left in the lower forty-eight: those of the Columbia/Snake river system.

"In the beginning" say the very first lines of the Bible, *"God created the heavens and the earth. And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the water."* The best way I know to begin to grasp the seriousness and scope of the Northwest's salmon crisis is to sit down in a quiet place and try to imagine the mysterious movement, across the black waters of pre-creation, of the spirit of God. Imagine a quickening that pierces the Pacific—the entire ocean suddenly invested with *being*, suddenly restless, inhaling and exhaling the moon-coaxed breaths called tides. Limn this vast being with glaciers in the north, volcanic fissures in its depths. Imbue it with the same blue, gray, and green surfaces and glass-smooth-to-mountainous textures as the Pacific; same molten-to-frozen temperature ranges; same unknowable, 36,000-foot depths; same power to produce wonder, terror, beauty, death, and life.

Imagine this being is your biological mother—because, in a very real sense, she is. Imagine the Sun is your biological father—because, in equally real, life-giving ways, he is. Imagine that after the spirit of God touched them, your distant but brilliant father and 70-million-square-mile mother not only fell in love, but began making love: imagine Ocean and Sun in coitus for eternity—because they are. Imagine your ocean mother's wombs are countless, that her fecundity is infinitely varied, and that her endless slow lovemaking with Sun brings about countless gestations and births and an infinity of beings: great blue whales and great white sharks; endless living castles of coral; vast phalanxes of fishes; incalculable flocks of birds; gigantic typhoons; weather patterns the size of continents—because it does.

Now turn your imagination inland toward North America. Follow the cloud banks into the mountains and up against them. See how every raindrop and snowflake, every skyborne molecule of H_2O that falls upon the Rockies, Sierras, Sawtooths, Cascades, Bitterroots,

Salmon Rivers, Clearwaters, Blues, is also a child of Ocean and Sun: a literal offspring of their endless coition. See how, when Sun and Ocean's liquid offspring congeal, obey gravity, and start back down the slopes toward their mother, the result is every life-giving trickle, creek, and river in the land. See how those streams and rivers, as Aldo Leopold pointed out, are "round," running past our feet and out to sea, then rising up in great tapestries of gravity-defying vapor to blow and flow back over us in oceans of cloud, fall once more upon the slopes as rain and snow, then congeal and start seaward, forming the perpetual prayer wheels we call watersheds.

Picture the Columbia/Snake Prayer Wheel: two joined wings of a single Y-shaped flow, really; each wing a thousand miles in length; the swiftest river of its size on earth. Picture the Prayer Wheel entire: cloud formations as big as Alaska easing one after another in off the Pacific, shedding rains and snows on range upon range of mountains, forming the countless snowbanks, marshes, seeps, and rills that start downward in obedience to gravity, forming a filigree of tributaries more intricate than our own veins and arteries, converging, gaining power, converging again, more power, becoming the hundreds of rivers that form the Columbia/Snake and carry the collective flow, industrial effluent, and riverine reproductive power of two Canadian provinces and six American states—260,000 square miles of continent, all told—back to the sea.

It's hard to imagine anything as mighty as the Columbia/Snake Prayer Wheel in trouble because of the antics of anything as ephemeral as human beings—yet it is. It's even harder to see how anything as fecund as the reproductive power of Ocean and Sun could possess limitations—yet it does. For all the diversity of life they've given us, Sun and Ocean have managed to bequeath us just one—count them: *one*—family of creature capable of journeying back and forth between the high-altitude valleys of our continent's interior and the green ocean swells a thousand miles away. That family is the anadromous fish, the most celebrated of which, for a hundred poetic and pragmatic reasons, is the wild salmon. And in just twenty-five years, four Snake River dams have destroyed 90 percent of these beings, extirpating scores of distinct runs for all time.

The corporate and federal beneficiaries of the inland Northwest's hydroelectric system—with their huge taxpayer subsidies and gargantuan appetite for the rivers' life-giving currents—claim that salmon are "just a fish of diminishing value." The Columbia/Snake system has changed, they say. Salmon haven't, and that's too bad for salmon. But

in "today's world," river industrialists argue, in terms of "practicality" and "profitability," there is nothing so necessary about salmon that we should sacrifice anything at all to preserve them. *"Remnant species,"* Senator Slade Gorton (R-Wash.) calls the survivors.

I never cease to marvel at such pathologically self-involved minds: completely oblivious of the natural forces that daily sustain their own 78-percent-H_2O, solar-engined, wind-breathing, protein-needing bodies; completely forgetful of the fact that we can't *eat* electricity; completely embarrassed by the fact that for the majority of Northwest citizens, for our native tribes, for our Catholic leaders, for an emerging socially responsible, Earth-awake corporate culture led by Yvon Chouinnard and hundreds like him, and for a few long-memoried Celts like me, salmon are not just a vanishing species: they are a holiness, a divine gift.

Perhaps the separation of church and state means the state *must* define salmon as "just a fish." Let's assume it does. Let's temporarily refuse—like a congressperson with a lobbyist's brass ring in his nose—to see our wild salmon as anything but protein units. We run into problems even so. Because even insofar as salmon *are* "just a fish," so is Earth just a warm, wet, finite ship sailing a sea of cold and uninhabitable space. And in irrevocably annihilating one of Earth's invaluable food species, we rip irreplaceable planks from the hull of our ship for all time.

This in itself is reason enough to save them. But I would begin at the very beginning—*Bible,* page one—and remind our lawmakers that four federal dams are unmaking a holiness, that four dams are performing a hysterectomy upon the Columbia/Snake Prayer Wheel, that four Snake River dams are uncreating the primordial waters' response to the touch of the spirit of God.

Migration + 16 Dams

The inland West's wild salmon awaken, at birth, to the pebbles and clear flow of a high mountain stream. The tiny fish thus bond not to a parent fish, but to the parenting stones and flow of their birth-stream. For a full year, in some cases two, fingerlings cling to this unlikely madonna, imbibing her unique chemistry, memorizing all they can about her. Then, at the nautically unpromising length of five inches, they obey their blood and the parent stream's incessant downward urging and set out on a journey that rivals, in terms of wonders, horrors, steadfastness, and distances, that of Odysseus himself.

Juvenile coho, sockeye, steelhead, and the three surviving strains of chinook all make the marathon swim from the inland West's mountains to the Pacific, but it's the way spring and summer chinook do it that really gets me: fasting like holy pilgrims, five-inch bodies quivering like flames, these two-year-old naifs travel the entire distance—eight hundred miles or more—*backwards.* As the current sweeps them seaward tail-first, they gaze steadfastly back upriver toward the mountains, like kindergarteners backing ruefully away from home toward a first day at school. They've got plenty to be rueful about: 99.7 percent of them won't live to see their birth-stream again.

Because they fast all the way, the smolts' migration must be swift or they starve. There is also a limited window during which they can make the metabolic transformation from fresh to salt water. In the pre-dam era, the Columbia/Snake's mighty spring runoff carried smolts up to nine hundred miles in two weeks or less. Now, with eight dams and slackwaters in place, the same journey takes six weeks or more.

Gale Ater—of Gouge Eye, Idaho—is one of four intrepid souls who swam the upper half of the astounding sockeye smolt migration route from Redfish Lake, 7,000 feet up in the Sawtooth Mountains, down to the first of the four notorious dams. In the unfettered Salmon River, Gale said, the swimmers were carried an effortless thirty miles a day by "just stayin' afloat and watchin' for rocks." Then they hit the forty-mile slackwater behind Lower Granite Dam. "You hear the word 'impoundment' different forever," Gale told me, "once you've approached one by swimmin' four hundred miles of free-flowin' river. Soon as we hit slackwater, a ten-day emotional high became the Bataan Death Swim. Headwinds, three-foot whitecaps, the same boring chunk of basalt in the distance though you've swum for hours. Our interpersonal dynamics went to shit. Five miles a day was torture. We almost gave up."

Still far from the dam, the swimmers saw a fleet of boats approaching. It was the Nez Perce—the same tribe that kept the Lewis and Clark Expedition from unraveling two hundred years before—come to honor the group's gesture on behalf of salmon. The swimmers found fresh strength, made it to the dam, were made honorary members of the tribe and given a feast. "How cool is that!" says Gale.

Very. But at the point the humans faltered, the fasting smolts still have seven slackwaters, eight dams, and four hundred miles left to traverse. And in each slackwater the salmon encounter an array of predacious fish (bass; walleye; the smolt-devouring artists formerly known as squawfish) whose populations have exploded thanks to elevated water temperatures. Lack of current brings migration to a near standstill. The fasting juveniles waste energy seeking elusive river flow. The John Day slackwater alone is eighty miles long. The desert country in summer is a furnace. The same temperatures that give voracity to warm-water predators are, by July, deadly to smolts. Schools of salmonids sometimes circle slackwaters for weeks, unable to sense the way to the sea. When their metabolic-transition clocks run out of time, they become baitfish. Sport fishermen aren't fools. The bass lure of choice in all eight impoundments is a four-inch Rapalla the green-backed color of a bewildered chinook smolt. And of the smolts that somehow survive and return as adults, 40 percent will be killed, before they can spawn, by the same dams.

When they reach the dams, the young salmon that travel deep are torn apart by sheer pressures and crushing currents, 5 to 15 percent at each dam; eight dams in all; end of story. The smolts that travel shallow, though, are blasted over spillways, which kill just 2 percent per dam—but only if river current is sent over spillways rather than through turbines. To the region's hydroelectric profiteers, this means that "their" generators are being "robbed" of kilowatt dollars by juvenile salmon. Hence the long, bitter fight for the very flow of this river—and the shocking hatred, among industrial river users, of five-inch travelers, fasting as they drift, gazing back toward long-lost, mothering mountains. Only because of the Endangered Species Act have these embattled innocents begun to encounter spillways and fish bypass systems instead of turbines.

The lucky, starving smolts that reach saltwater encounter fresh trials, such as a sterile shipping channel where a food-rich estuary should be, and a man-made island of dredge spoils now harboring the world's largest colony of smolt-eating Caspian terns. But the fish that reach the Pacific, even today, put on silvery muscle fast, and, for the next two to three years, travel distances that put every inlander but circumpolar birds and long-haul truckers to shame. Some Idaho chinook swim ten thousand miles at sea. They've been caught off the coast of Japan, the Kamchatka Peninsula, the Aleutian Islands. Diving so deep at times as to be untraceable, swimming too far, too fast to be followed, oceangoing salmon maintain the ability—so troubling to those who would control them completely—to elude the radar of human knowing.

Yet no matter how far they rove or how big and strong they grow, there comes a day when they hear in their blood the song that leads them to abandon the sea and seek again their high-mountain place of

birth. The journey is always fatal. Every salmon undertakes it even so. And if and when they again conquer the eight-dam gauntlet, parse the currents, rediscover the mothering stretch of pebbles and snowmelt, they begin—despite all they've endured—to make love.

But not to a mate. On the eastern edge of Idaho last fall, seven hundred miles from the sea, I watched a single female chinook, with great, crimson-gilled gasps of effort, turn her ocean-built body into a shovel and dig, in the unforgiving bone of the continent, a home for offspring she would not live long enough to see. I watched her lay eggs so tender the touch of a child's fingertip would crush them, eggs exactly the color of setting suns. I watched the darker, fierce-kyped male ease in front of those suns without once touching the female, and send milt melting down into her nest of stones. I watched the paired chinook circle their pebbled redd, tending it, guarding it—I want to say "loving it," if the State will allow. Yet only incidentally, as if by accident, did they touch each other. Because they weren't making love to each other. They were making love to the very land and water, to broken bits of mountain and melting snows.

I left them to die, as salmon do, their clutch of eggs orphaned in a frigid gravel womb. As I write these words, winter has snapped down hard in the Rockies. Snow is mounting high. But in that ice-covered streambed nest, which the female covered with protective pebbles with her last few strokes of life, tiny eyes are even now appearing in her sun-colored eggs.

There is a fire in water. There is an invisible flame, hidden in water, that creates not heat but life. And in this bewildering age, no matter how dark or glib some humans work to make it, wild salmon still climb rivers and mountain ranges in absolute earnest, solely to make contact with that flame. Words can't reach deep or high enough to embody this wonder. Only wild salmon can embody it. Each migration, each annual return from the sea, these incomparable creatures climb our inland mountains and sacrifice their lives, that tiny silver offspring may be born of an impossible watery flame.

These are the beings, the "remnant species," that we are eradicating from the American West and the Pacific for all time.

Irreplaceable Genetic Treasure

The three most crucial refugia of Pacific salmon on Earth—three giant evolutionary nexus in which salmon species are created and served to the world, thriving and whole—are the Sacramento, Yukon, and Columbia/Snake river systems.

The Columbia/Snake's hundreds of streams required millennia to evolve their hardy indigenous salmon stocks. The entire population of the upper Columbia portion of that system—the salmon of eastern British Columbia, a third of Washington State, and northern Idaho—were destroyed in a day, by the Grand Coulee Dam, half a century ago. This is too easy to say: it is crucial to imagine it. Hundreds of crucial salmon strains, ancient as gods, doomed to annihilation in a day. Tens of thousands of people thrown out of sustainable outdoor work and forced to rote factory jobs. Scores of indigenous tribes impoverished if they were lucky, destroyed and dispersed if they weren't.

The surviving anadromous fish of the Columbia/Snake now depend utterly upon the Snake River migratory corridor to reach Idaho, eastern Oregon, and the southeast corner of Washington. And though not many realize it, these last wild strains are the genetic engine that continues to give us all Pacific salmon—even those raised in net-pens and hatcheries. Dolly the Sheep notwithstanding, human beings do not know how to create and maintain a viable race of salmon. All "man-made" stocks are ephemeral because all are, essentially, big batches of identical first cousins rapidly inbreeding themselves into genetic inferiority and nonexistence. "Homeless seagoing Spam," salmon bard Tom Jay calls hatchery fish. It is our resilient, diverse wild stocks alone that give artificial stocks a fleeting viability before they are destroyed by technological incest.

The wild fish of Idaho—the ones the Snake River dams are extirpating as I write—are adaptive geniuses, utter standouts among salmon. Every winter, for example, anchor ice forms in their high-elevation birth-streams, freezing the streams almost solid in places. Idaho salmon smaller than my little finger know to move out from under this ice and winter over in deep pools. Coastal salmon stocks, introduced to the same inland waters, stay put in the seemingly benign runs as the ice forms, then freeze to death en masse. Idaho's wild genius fingerlings also know, as they migrate during July heat, to gather in "summering holes" cooled by depth, shade, and in-stream springs. Introduced coastal smolts grow stressed and oxygen-deprived in the heated shallows, and become easy prey.

This kind of indigenous genius is a primary reason why the countless attempts to "repair" or "replace" the inland West's dam-annihilated salmon with hatchery fish have a forty-year history of failure. Musically

speaking, we are trying to replace Bach, Mozart, and Beethoven with Yanni, Yanni, and Yanni. Sorry to pick on Yanni. He *looks* like a composer—just as hatchery fish look something like wild salmon. But cloning someone who merely looks like a composer, then stuffing concert halls full of him, does not resurrect Bach, Beethoven, or Mozart. Borrowing fertilized eggs from a techno-alien species, dumping them in a high-mountain Idaho tributary, and expecting these newcomers to magically acquire survival instincts and migrational genius acquired over thousands of years is like putting a gun to the head of poor Yanni and ordering him to perform Bach's Goldberg Variations or die.

For Pacific salmon, the hatchery programs are a failed industrial dream. The insurmountable problem: God and Nature are infinitely smarter and more nuanced than Industrial Man. The longer the migration, the more dismal the hatchery failures. The vanishing sockeye of Idaho's Redfish Lake, to cite one of countless such failures, were replaced with 3 million Canadian sockeye eggs three years in a row. Millions of healthy smolts were duly released for the Pacific. The number of sockeye that adapted to the river, the slackwaters, the dams, the sea, and returned to Idaho as spawning adults: zero.

Wild Snake River salmon are the irreplaceable genetic treasure that safeguards *all* Pacific salmon, "farmed" or wild, inbred or free.

Cold War Relics

A dam is not a biological treasure, and it is not a holiness. A dam is an inanimate, river-altering tool, created by humans to serve humans. Most of our 75,000 dams were built before negative biological, economic, or cultural impacts were a consideration, hence many have done more harm than good. Learning from our mistakes, we've created laws that weigh some of the long-term damages of dams against their benefits. When a river-altering tool is shown to be more injurious than helpful to a majority of humans and to the health and wholeness of the land, we now occasionally recognize our obligation to retire that tool before it injures further.

Americans have, historically, not been fast to retire dangerous tools, because tool retirements come with a price tag. We're getting faster, though. Only by paying the price to retire tools fiercely defended by profitmakers has America ceased to be the land of thalidomide infants, asbestos-ceilinged schoolrooms, DDT trucks dousing residential streets, Dalkon Shield IUDs, and explosion-prone cars. The Snake River dams have earned an early retirement alongside those other once-loved products in the American Museum of Fabulously Treacherous Tools.

The eight federal dams that bar the inland West salmon's journey are not created equal. The four on the Columbia have brought both benefits and disasters. Among the disasters: mass salmon extinctions; the impoverishment of hundreds of fishing communities and salmon-dependent Indian tribes; and the 1956 inundation (behind the Dalles Dam) of the lower Columbia's Celilo Falls—for ten millennia the greatest tribal gathering place west of the Mississippi, drawing salmon celebrants and Neolithic traders from as far away as Central America. Celilo's inundation was an act of cultural annihilation that did to American Indians what it would do to New Yorkers if the Army Corps simultaneously flooded Yankee Stadium, Madison Square Garden, Fifth Avenue, and the New York Stock Exchange. To those not victimized by this act, however, the four lower Columbia dams have brought hydropower, navigation, flood control, and, thanks to abundant electricity, the aluminum that became the aircraft that helped win World War II. The four Columbia dams have also been retrofitted to accommodate safer salmon passage and now assist, albeit awkwardly, in flushing migratory smolts to sea. With changes in operations policy (particularly at John Day) and an unbiased look at the no-longer-strategic aluminum industry's deadly waste of hydropower, these four dams could keep salmon mortality at a viably low rate until sustainable energy alternatives come on line, making giant, river-killing hydroelectric projects a rarity.

The four dams on the Snake are an agonizingly different story. Conceived at the height of the Cold War, they are deadly relics of that brutal era. It's a mistake to forget or to underestimate this. The four Snake River dams are a conception of the same vintage of federal pathology that gave us the House Un-American Activities Committee's Hollywood blacklist, J. Edgar Hoover's hatred of Martin Luther King, the Nevada nuclear test sites, Rocky Flats, the Hanford nuclear leak site, anthrax, 3.5 trillion lethal doses of nerve agent released by the Pentagon into Mormon- and Navajo-populated deserts, thousands of army troops ordered to lie in fresh atomic fallout, millions of civilians unwittingly exposed to the same fallout, encephalitis-carrying mosquitoes released by Defense Department scientists upon destitute civilian volunteers, 45,000 American radioactive sites, 1,140 carcinogenic uranium mining sites in Utah alone, and a present-day epidemic

of cancers that we will never be able to tie to its Defense Department sources.

The four dams on the Snake are the Cold War's killing progeny. And even in the political climate of the 1950s the dams were bitterly opposed for the damage they were sure to inflict on the salmon-dependent Northwest. Among their opponents were President Dwight D. Eisenhower; the Corps of Engineers, which later built them; the Oregon and Washington departments of fish and game; the region's thirteen native tribes; the West Coast's multibillion-dollar fishing industry; and the majority of the region's salmon-loving populace. But the 1955 Congress, craving a four-dam hydropower "saber" to rattle at the Soviets at any cost, liked the proposed dams' meaningless proximity to that other monument of Big Stick diplomacy—the Hanford Nuclear Reservation—and so approved them. The four dams came on line. The river route to and from wild Idaho was quadruply blockaded. And wild salmon runs and related economies crashed as predicted.

Something few people know: the four Snake River dams are of a type known as "run of the river"—which offer no flood-control storage. The Northwest's far right foretells catastrophic floods with the dams gone. It's a lie. The reservoirs of these dams must be kept within three feet of the top to run navigational locks for barges. Two more absurdities: for months at a time these desert dams turn just one or two turbines (the Columbia dams, on average, turn ten or more); nor do the Snake River dams provide storage for irrigation: thirteen agribusinesses use just one reservoir, Ice Harbor, for irrigation, and with the dam and reservoir gone they can simply run intake pipes to the river—a fraction of a week's work for an irrigation crew. The truth is, the four dams, beyond their limited hydroelectric function, were a pork-barrel present to the inland town of Lewiston, Idaho, whose D.C. insiders had a nature-whuppin' hankerin' to be a "seaport"—450 miles inland from the sea.

This so-called "port," the salmon's bane, is living proof that subsidies can be as dangerous as drugs in causing harm to neighbors. The Lewiston "port" is primarily a trucking depot. Its "marine" portion receives no oceangoing vessels and would be insolvent without federal and county subsidies. Most ludicrous of all: its barges plow alongside railways and highways that until 1975 carried the region's cargo at no cost to salmon, or to U.S. citizens—who have so far pumped billions into dam and port construction and operation, and $3 billion more into failed efforts to redress the deadly effects of the dams.

The usual media term for the species being eradicated—"Snake River salmon"—is a tragic understatement: Lewiston's "port" places a hangman's noose round an entire crucial Pacific salmon refugium, including Oregon's Imnaha, Grande Ronde, Wenaha, Lostine, Minam, Wallowa, and Powder rivers; Idaho's South and Main Clearwater, North, South, and Middle Salmon, Selway, Rapid, and Lochsa rivers; and many more, strangling the economies of towns throughout the region, along the Columbia, up and down the Pacific Coast. In 1993 the sport fishery for just one Snake River species—the summer steelhead—generated $90 million and created 2,700 jobs, even with the run in semi-ruins. That same year, the Lewiston "port" directly employed twenty-two people. The four dams' removal, even according to the Corps of Engineers, will create between 13,400 and 27,700 jobs immediately. Independent economic studies say that dam removal plus an even modest recovery of Snake River–dependent salmon stocks would generate as much as $2.6 billion of new regional income, annually. But the dams of the Snake have not just impounded life-giving current: they've created a quasi-culture of slackwater politicians whose hysterical rhetoric has instilled vague yet paralyzing fear in the hearts of federal lawmakers.

What is the substance of these fears? Who are the regional "leaders" trying to convince us to ignore biological reality and spiritual integrity in favor of a "self-interest" that permanently destroys the web of life? Helen Chenoweth-Hage (R-Idaho) asks how Idaho's salmon could possibly be in trouble when she sees canned salmon stacked in her local supermarket—ignoring the fact that it's *Alaska* salmon. Slade Gorton sees in the removal of Snake River dams a new "domino theory" that will bring down all dams, everywhere, and leave us in a "Mad Max"–style postindustrial wasteland ravaged by biblical floods (caused, no less, by the removal of four dams that offer no flood control). Gordon Smith (R-Ore.) responds to rigorous Corps of Engineers analyses linking salmon with jobs and prosperity by accusing the Corps of being stoned. The ruling Republicans of Idaho, meanwhile, have quietly gained control of all state fish-management decisions and fisheries science. As a result, Idaho is now exploring the possibility of building a 400-mile-long water-filled pipe down which to flush endangered juvenile salmon from the state's pristine interior to the lower Columbia, like turds. On the day a slackwater politician comes up with a single cogent, altruistic reason to sacrifice the inland West's salmon to their agendas, I'll eat my trout flies. All five boxes.

Ian Gill is chair of Ecotrust, an organization regionally famous for developing intelligent, sustainable economic opportunities for small communities like Lewiston. I asked Mr. Gill (a Canadian) for a nonpartisan take on the Lewiston port. Fresh back from a trip to that very town, Gill declared the port "fatuous beyond any rational understanding! Lewiston's barges are so misplaced they remind me of the Werner Herzog film—*Fitzcarraldo,* wasn't it?—whose crazed hero stopped at nothing to drag a sternwheeled riverboat over a mountain in Brazil. We need to be cognizant of the era in which things are conceived. There was a Conquistador mentality afoot during the Cold War. Here in Canada they talked of building a canal from Winnipeg to Hudson Bay, of reversing the flow of a major river, of building thirty-mile bridges from the mainland to Vancouver Island when the ferries already served. The fifties mentality explains the Lewiston 'port,' but doesn't excuse it. Do we live with fifties acts of idiocy, or do we set to work to undo them?"

So far, we live—and salmon die—with the idiocies. The Ice Harbor, Lower Monumental, Little Goose, and Lower Granite dams came on line in 1962, 1969, 1970, and 1975, respectively. Their legacy so far:

- *1986: all Idaho, Oregon, and Washington coho dependent on the Snake River migratory corridor, extinct*
- *1990 through 1999: 20 sockeye, total, returned to the same vast system*
- *1997: all surviving Snake system salmon and steelhead threatened or endangered*
- *1998: 306 fall chinook returned to the system (down from 100,000 or more per run)*
- *1999: Idaho spring/summer chinook, once the largest run of its kind in the world, down to 2,400 returning adults, leaving many key streams with no spawning for the first time in history*
- *2017: system-wide extinction predicted*

The Snake River dams' proximity to the defunct Hanford nuclear weapons works is painfully revealing as Cold War metaphor: once a tool in our lethal duel with the Soviets, and *the decisive factor in the '55 Congress's approval of the dams,* Hanford is now so full of irreparable subterranean radioactive leaks that it has become, according to the U.S. Department of Energy, "the single largest environmental and health risk in the nation," hence an incomparably greater threat to American well-being than modern Russia or China. "This world in arms," President Eisenhower said of the Cold War, "is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. This is not a way of life at all in any true sense. Under the cloud of threatening war, it is humanity hanging from an iron cross."

The Soviet Union is dissolved; the Cold War over. Yet salmon and their people remain on an iron cross. The two hundred dams of the Columbia/Snake make it the most overindustrialized river system on Earth, mirroring the grandiose, and famously fatal, engineering schemes of the USSR under Stalin. To give up 3.5 percent of the region's hydropower frightens some, because no one's done anything like this before. *But no nation on Earth has erected 75,000 dams before.* Looked at in human and biological terms, it is the *unwillingness* to give up a mere four deadly dams that terrifies me—because no person, no family, no country, and no civilization in history has remained viable for long without engaging in corrective acts of self-criticism, self-sacrifice, and restoration.

Three-point-five percent of a region's hydropower is not strategic. Its biological and spiritual web of life is. Lewiston, Idaho, can ignore its railways and highways and enjoy a piddling barging operation—or the interior West can have wild Pacific salmon and the vast web of wildlife that salmon support. We can't have both.

Iago

A century ago our government defined salmon as a "commercial species," thus bequeathing the problems of salmon not to fish people, but to money people, namely the U.S. Department of Commerce's National Marine Fisheries Service, aka "NMFS" (pronounced "nymphs"). Shakespeare wrote a play concerning a general, Othello, whose life is destroyed by a brilliantly false adviser, Iago. NMFS is the salmon's Iago.

NMFS is, so to speak, "the mind" and the Army Corps "the muscle" of salmon recovery under the Endangered Species Act. In three decades of NMFS/Corps "stewardship"—the primary feature of which has been a disastrous juvenile-salmon barging program that I'll examine in a moment—salmon runs have done nothing but collapse, while even the most murderous, cost-ineffective dams under their jurisdiction have remained standing. But NMFS's performance is *far* more treacherous than this. In 1993, deep into the dam-inflicted extinctions in Oregon, Idaho, and Washington, NMFS scientists brazenly announced that they had studied the Columbia/Snake hydro system thoroughly, and concluded that the system "poses no jeopardy"

to the recovery of Snake River salmon! This from the salmon's scientific "champion" under the ESA!

"I am not what I am," whispers Iago.

Outraged salmon lovers were forced to take the agency to court, where Judge Malcolm Marsh, in a landmark decision, found NMFS's science "arbitrary and capricious" and ordered it to rewrite its biological opinion, this time incorporating the expertise of state and tribal fisheries biologists. Seeming chastened, the NMFS/Corps team instigated the most comprehensive analysis of a fish species and watershed ever conducted on this planet. The renowned effort, known as the PATH study, included a carefully defined procedure, a review process, a 1999 deadline to honor the fact that salmon would be going extinct as research proceeded, and a federal vow that PATH science, being the best that humanity has, would determine the course of wild-salmon recovery action.

After five years of arduous effort, the comprehensive study concluded that existing strategies of river use will lead to certain extirpation of inland salmon; that barging smolts around dams cannot restore viable runs; but that if the Snake River dams are removed, our endangered salmon have an 80 to 100 percent likelihood not just of surviving but of flourishing.

Salmon lovers were ecstatic. After thirty years of federal indecision, it was time to act. What happened instead? The PATH conclusions began to be squelched, falsified, and politically spun not just by the far right (whose hysteria was expected) but by the salmon's Endangered Species Act champion. Suddenly, NMFS began to raise "other threats" known to salmon lovers all along—ocean conditions, overfishing, habitat degradation—as *arguments against dam removal.* This is like refusing to remove a terminal tumor from a man with a broken arm because his arm is broken. It's also a sickeningly familiar tactic. Here is a 1965 medical expert hired by the tobacco industry: "Research . . . indicates many possible causes of lung cancer. . . . There is no agreement among the authorities regarding what the cause is. . . . More study is needed." And here are NMFS "salmon experts," cited and paraphrased in the October '99 *New York Times:* "The salmon involves our whole way of doing things. There is no simple, easily defined enemy." "[Salmon] could be rescued by some means short of breaching dams." "One option would be to wait."

"This may help to thicken other proofs that do demonstrate thinly," whispers Iago.

Dangerous and superfluous dams are being removed all over

America—465 of them as of January 2000, with many more scheduled to go. And when dams go, anadromous fish return. On Butte Creek, a Sacramento River tributary, dam removal has helped turn a 1987 chinook run of fourteen fish into a 1998 run of 20,000. The pre-dam Snake system produced great salmon and steelhead runs in the 1960s despite the Columbia dams. The wild salmon of the Hanford Reach of the Columbia are thriving today, though they traverse the same four Columbia dams as the vanishing salmon of Idaho: the sole, quantifiable difference between prolific life and annihilation: the four Snake River dams. Yet NMFS is using R.J. Reynolds–style public-relations gimmicks to subvert their own best science and defend the dams. It's as if the Marsh Decision and the PATH study never took place. Wild salmon have no Endangered Species Act champion; they have an Iago.

"My lord," wheedles Iago. *"I would I might entreat your honour to scan this thing no further. Leave it to time."*

Iago is a subtle betrayer. Consider the famous "juvenile salmon transport" barging and trucking programs. At mind-boggling taxpayer expense—$3.5 billion as of fall, 2000—the NMFS/Corps team ostentatiously "saves" migrating smolts from turbines and slackwater—by removing the fish from their river completely, ceding the river to its industrial abusers, trapping fragile smolts at every Snake River dam in multimillion-dollar Inspector Gadget gizmos, handling and tagging them (often fatally) in the name of research, shooting them through whirligig "bypass systems" that disorient like Disney rides, sluicing them into overcrowded trucks and barges, shipping them like coal or plywood for three hundred miles, and dumping them—with no notion of what planet they're now on—below Bonneville Dam, where a crowd of slackwater industry officials and media stand cheering on the bank while, down in the river, an unphotographable horde of predators awaits a disoriented-smolt feast. NMFS then solemnly counts the dead 2 percent left floating in its state-of-the-art, taxpayer-duping barges, defies the science of every salmon-loving state, Indian, and nongovernment biologist by refusing to factor in the 40 to 60 percent of barged smolts that later "mysteriously disappear," calls their barged and dumped fish "saved fish," and proclaims their transport program "a 98 percent success." (*"There's millions now alive that nightly lie in those improper beds which they dare swear peculiar,"* says Iago. *"Patience!, or I shall say you're all in a spleen. . . ."*)

NMFS's "scientific" defense of its barging program is salmon-betraying drivel. NMFS's spokespersons continue to claim that

because of their $3.5 billion transport program they have "fixed the dam problem," yet it has been proven repeatedly, by every "non-NMFS" Columbia/Snake fish-passage study we have, that barging *does not come close to matching the success of migrating smolts that are simply left in the river to deal with the eight killing dams and slackwaters unassisted.* Even Commerce Department biologists know that the only meaningful measure of recovery is the number of adult salmon that return from the ocean to spawn in home streams. By this measure, juvenile transport is an unmitigated disaster. The smolt-to-adult return range needed for salmon recovery is 2 to 6 percent. *The average adult return under NMFS is a dismal 0.25 percent.* In the real world, employees with this kind of "success" rate are fired. In the federal world, the ESA's Iago just spins the statistics of failure, says "let's study it further"—and Congress and the White House continue to fund this anti-scientific, money-wasting balderdash.

In spring 1999, the NMFS/Corps team released yet another "new" environmental-impact analysis of the Snake River dams. This report was literally *three feet thick*: thousands of pages of charts, graphs, and brain-scrambling pseudoscientific and engineering jargon as thick as the wall of a dam. We the people spent $22 million on it. Yet by deliberate NMFS/Corps decision, this study did not examine the fact that the four dams *destroy 40 percent of returning adult salmon.* It only examined juvenile salmon. Twenty-two million dollars for a "scientific" study that assumes salmon migration is one way, not a round-trip! The study also makes no mention of the estimated annual $2.6-billion net economic benefit of breaching the dams; it mentions only an estimated $300-million-per-annum net loss—and even this loss has been proven specious. (See "Dam Breaching Myths" by economist Ed Whitelaw, *Oregon Quarterly,* Autumn 2000.) The Corps' study calculates long-range economic loss by predicting that every person who becomes unemployed due to breaching *will never find a new job,* and *will remain unemployed for the next one hundred years!* The Corps also neglects to mention that the number of people so affected amount to just one of every five hundred workers in the few counties in which dam-influenced jobs exist. Yet, under NMFS's "endangered salmon stewardship," this three-foot-thick, calculatedly incomplete, dam-worshiping, specious techno-propaganda is now the chief body of "scientific" and "economic" literature upon which the recent federal decision to delay breaching is based.

At a March 2000 Corps "salmon hearing" in Seattle, Rob Masonis of American Rivers rolled in a hand truck stacked five feet high with previous NMFS/Corps Columbia/Snake salmon studies and demanded that federal officials stop "studying" and *act.* I couldn't agree more. *"Nature hates what it hates."* To create more salmon, we must return some of the stolen rivers in which they evolve, return the clearcut forest slopes that purify those streams, return the worse-than-clearcut seas that once sheltered and fed them—solutions so obvious that American industrialists and their political and scientific minions loathe it. So they rustle up "salmon task forces," kick it around a few more decades, kick its brains out, and bury it deep with the advance-degreed, politically spawned and spun, Phillip Morris–style NMFS/Corps propaganda that now passes as federal *science.*

The babble of "salmon management" rhetoric has taken a river of prayerful human yearning, diverted it into a thousand word-filled ditches, and run it out over alkali. When migratory creatures are prevented from migrating, they are no longer migratory creatures: they're kidnap victims. The name of the living vessel in which wild salmon evolved and still thrive is not "fish bypass system," "smolt-deflecting diversionary strobe light," or "barge." It is River. And this is the last thing the NMFS/Corps team is willing to give to the endangered salmon whose fate they now control.

Salmon Theology 1: Biblical Mandate

In 1999 the salmon's defenders were powerfully joined by the Northwest bishops of the Catholic Church, who, in an unprecedented document, *The Columbia River Watershed: Realities and Possibilities,* defined the Columbia and Snake Rivers as "a sacred commons," "created by God," to be shared and lovingly cared for by all. In this document the bishops argue against "arbitrary policies and practices based primarily on the greed and politics of power." They call for holistic, watershed-wide solutions that take into account "the needs of native peoples of the watershed, the economic benefits of jobs and property taxes for communities provided by all commercial fishers, [and] respect for salmon and trout who are God's creatures and share the commons with us."

A crucial value the bishops bring to the table, in corroboration of the tribes: it is impossible for individuals or governments to comprehend, effectively analyze, or defend a living holiness from a purely quantitative point of view. Federal government has lost all sight of this.

Politicians with two- and four-year dispensations of plenary powers are making decisions that annihilate God-given gifts and biological processes that required millions of years to establish themselves upon Earth. Any analysis that places a 260,000-square-mile watershed's permanent loss of a fundamental biological component—or the tribes' loss of a ten-millennium spiritual tradition—on a par with the annoyance salmon are causing wheat bargers and beer-can manufacturers, is no analysis at all. It's a reasoning so reductive it vivisects. Yet it is federal reasoning.

Wild salmon are not economic units. They are transrational beings whose living bodies bring far-reaching blessings to a watershed. Their self-sacrifice in migration is a literal and symbolic magnificence. Their flesh is one of Earth's perfect foods. Their existence puts us in touch with ultimate questions. Their hounding from existence puts us in touch with ultimate consequences. They are, first and foremost, a spiritual gift, so their loss is first and foremost a spiritual loss. In the face of such a loss, the federal failure to consider religious and moral roots is more than remiss. Indians aren't the only people with ancient stories that establish the sacredness of this species. It's time non-Indians recalled their own. On the very first page of the Bible, for instance, the sublime Creativity that has given us wild salmon is celebrated in these words:

> *And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind: and God saw that it was good. And God blessed them, saying, Be fruitful, and multiply, and fill the waters in the seas.*

Who can read this and not see that, for believers at least, the preservation of salmon is not just American law; *it is biblical mandate.* The annihilation of creatures whom God created, blessed, and ordered to fill the sea is the repudiation of a divine gift and spiritual impoverishment of a people. The bounty of Creation is daily evidence of a living, giving Creator. In the Northwest there is no more moving evidence of such giving than a huge, healthy run of salmon. Speaking from lifelong experience, I can say that the sight of these massive ocean travelers in a clear flow before me, hundreds of miles inland, thousands of feet above the sea, is a literal answer to unspoken prayer. Words aren't needed in the presence of such an answer. There it swims in the water before me: Genesis blessing, *the moving creature that hath life.*

What we are stealing from our children and their children, via the glib operation of four unneeded Cold War dams, is this literal answer to prayer. What we are removing from every future generation's intuitive reach is the awe, faith, and gratitude that such gifts inspire. What politicians are treating as a two-party rhetorical bauble is a holiness promised to all people by Moses' beloved God.

Salmon Theology II: Cattle, Fishes, and Dominion

On the same page of the Bible I keep quoting sits every dam-defender's, anti-salmon industrialist's, and bigot's favorite verse: *"And God said, Let us make man in our image . . . to have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth. . . ."* What clear-eyed reader of American history hasn't seen the way generations of self-styled Christian lords of the land have used this passage, with its totalitarian-sounding D-word, as an excuse for everything from the morally exultant enslavement of Africans to the murder and robbery of Indians to the mass eradication of buffalo to today's status-quo slaughter of salmon? This passage, many honestly believe, is biblical justification for the annihilation of salmon, and of Indian culture along with them. Yet no interpretation of the ominous D-word could be further from biblical truth:

The Hebrew word translated as "dominion" is *radah,* which simply means "rule"—and the nature of this rule is fine-tuned by hundreds of Bible passages. In Genesis, men and women are made in the image of the God who just created and *blessed* all creatures and their *ability to multiply,* and Adam is placed in Eden merely "to dress it and keep it." In Exodus, the Sabbath rest is given to animals as well as humans. In Leviticus, humans are told by God to tend the land carefully and not treat it as a possession, because "the land is mine, and you are but aliens who have become my tenants." In Deuteronomy, when the harvest of wild stocks such as salmon is discussed, we're told we may take eggs from a nest we find in the wild, but must leave both birds and nest intact, that they might replenish their kind. In Ezekiel, God gives to his people, as a permanent component of the Promised Land, a desert river flowing out to the sea, healing all it touches, *"and there shall be a very great multitude of fish, because these waters shall come*

hither . . . and every thing shall live whither the river cometh. And it shall come to pass, that the fishers shall stand upon it . . . to spread forth nets; their fish shall be according to their kinds, as the fish of the great sea, exceeding many. . . . And ye shall inherit it, one as well as another. . . . This land shall fall unto you." Then in the Gospels we meet, in Jesus, a lifelong friend to fisherfolk and a leader who defines "dominion" as *"Thy will be done, on earth as it is in heaven"*: a leader who lives a life of "kingship" culminating in a salmonlike act of self-sacrifice, and characterized throughout by supreme sensitivity toward the meek, the weak, birds, field lilies, the voiceless, the disinherited, the prostituted, the poor, and all other forms of life. There is, in short, no such biblical thing as a "dominion" that allows the status-quo obliteration of an invaluable species. It seems ridiculous to have to say it, but *there is no way to rule a subject that you have driven into nonexistence.*

Something far more interesting to me, in that same abused "dominion" passage, is the mention of "fishes" and "cattle" as equally "blessed" by God. I would ask ranchers to consider this. I'm a lifelong fisherman—same as any rancher is a cattleman. When the God of Genesis blesses "fishes" in the same breath as "cattle," I take that blessing as deeply to heart as cattlemen do. Consider the two species. Transpose them. How many ranchers aspire to a "dominion" that would drive *all* of their livestock into irrevocable extinction? How many would tolerate a federal "dominion" that allowed outsiders to come in and exterminate their prize bulls, brood cows, entire herds, for any reason under the sun? What cattleman would say yes to an offer of "unneeded hydropower at the cost of all your cattle for all time," or "a subsidized barging scam for Lewiston at the cost of all your cattle for all time"?

These questions are insane. The sustainable health of diverse livestock is the life's blood of the entire ranching enterprise. *So why is the same inalienable right to exist* not *being extended to the diverse wild salmon stocks that are the life's blood of our fishing enterprises and tribal cultures?*

I trust any rational soul on Earth to see that the permanent destruction of the lower forty-eight's last great genetic cache of wild inland salmon is just as unconscionable as would be the permanent destruction of all of the same vast region's cows—and if that rationality excludes our federal government, it is a dark day indeed. If there is any point upon which even theologians agree (I phoned two Baptists, two Catholics, and a Methodist to quintuple-check this), it is that the Genesis account of Creation was set down to guide humanity for all time, that it contains, so to speak, both our ultimate set of fishing regulations and our ultimate manual of viable dam operation, and that its eternal instruction to humankind is to help salmon *be fruitful, multiply, and fill the waters in the seas.* And yes, our *radah* mandates and celebrates grateful harvest, and other uses of the waters including dams. But *not at the cost of a species' ability to multiply. Not at the cost of extinction.* I can think of few acts more anti-biblical, more Luciferian in grandeur, than the permanent, man-made negation of God's Genesis blessings to Earth and man.

Another Forgotten Treasure

In the summer of 1965, a Washington State geologist named Roald Fryxell visited the banks of the free-flowing Snake, shortly before its inundation by Lower Monumental Dam. Knowing slackwater was on the way, Fryxell was committing the archaeologically indelicate but expedient investigation method of walking along the riparian behind a bulldozer driven by one Roland Marmes, the property's owner. Beneath a basaltic overhang, Fryxell looked down in the bulldozed rubble and discovered, several feet below the ash line created by Mount Mazama's eruption 6,700 years ago, a group of ancient bones.

The bones were human—and turned out to be between 9,000 and 11,000 years old. The discovery stunned the archaeological world. Not only were these the oldest human remains ever found in North America, they overlay remains of evidence, resting layer upon layer, of consecutive human use of the basalt overhang for ten millennia. In one small area—condensed and well preserved—Roald Fryxell and Roland Marmes had unearthed one of the great archaeological finds on any continent, ever: extensive remnants of *a hundred consecutive centuries* of human history.

The "Marmes Rockshelter," as it was dubbed, was world-renowned within months. A Fryxell-led crew soon discovered hundreds of fabulous artifacts: animal bones from as far away as the Arctic; tools, including handmade blades sharper than modern surgeon's scalpels; a treasury of ancient weapons; a perfectly preserved sewing needle, perhaps the oldest ever found; more human remains. Scientists began piecing together unprecedented information about how these river people hunted and lived, what they ate, how ten millennia of climate changes affected regional flora, fauna, and human culture. For two years the team dug and sifted, removing 5,000 cubic yards of dirt, much of it with hand trowels, tiny brushes, dental picks. A wealth of priceless arti-

facts continued to be unearthed. The archaeologists needed time. And like the salmon, they didn't have it. The Corps of Engineers' inundation of the riparian behind Lower Monumental Dam remained on schedule—ironically, to "protect" migrating salmon.

Because the Marmes Rockshelter was by then famous, President Lyndon Johnson approved federal funding enabling the Corps to build a levy around the site. In February 1968, they began to fill the reservoir. The levy sprang leaks. Water burst into the Rockshelter at 45,000 gallons a minute. Giant pumps were put in place, but failed to expel the flood. The reservoir was temporarily lowered. Fryxell's crew was allowed to cover the Marmes site with sheets of plastic, and to anchor the plastic with dump-truck loads of dirt. The Corps then ordered the area evacuated, and archaeologists watched forty feet of water bury what remains one of the great prehistoric sites in North America. And Marmes was not the only such Snake River site—only the most studied. Strawberry Island, Alpowa, Davis Bar, Windust Caves, Thorn Thicket, Wawawai, Squirt Cave, Granite Point, Three Springs Bar, and other sites await the tribes when the dams go.

A distressing study in contrast: In 1995 the Corps of Engineers discovered the skeleton of a man on the banks of the Columbia near Kennewick, Washington—a man who apparently lived in the Northwest some 9,000 years before Europeans were supposed to have arrived, yet who seemed to possess Caucasian facial structure. "Kennewick Man," he was dubbed. And the sensation he caused brings to mind the thirty-year-old Sinatra. An indigenous North American white guy! What a mind-bending contradiction! Scientists and journalists descended on the bones like fleas and flies. Magazines as varied as *The New Yorker, National Geographic,* and *Hustler* weighed in. A confederacy of bigots, thrilled by K-Man's honkizoidal cranium, began chanting "We were here first!" at Indian tribes. Specious books, harebrained doctoral theses, and prehistoric fantasy films starring the likes of Brendan Frazier began to brew. And when the tribes begged to differ, invoking federal antiquities laws guaranteeing their right to rebury all such bones, they were ordered to leave the disturbed remains to (white) scientists.

Is there a discernible direction here? Unneeded dams standing, salmon species extirpated, railroads abandoned, smolts kidnapped in barges, the fishing sites, homes, burial grounds, art, and evidence of an elegant Indian culture drowned from Celilo Falls to the Rockshelter, while we break our own laws to exaggerate the bones of the lone possible prehistoric White Boy? The bias here is so concerted, it reminds me of the Taliban's recent destruction of the pre-Islamic art of Afghanistan. And, valuable as the Snake River archaeological troves are, they're a mere aside to this grim story. Placing ancient artifacts aside and racial, biological, economic, and religious issues front and center: the ongoing operation of the Snake River dams is one of the most overtly racist projects funded by our own, or any, modern government.

Kamiakan's Lip and the Coming Lawsuit

Four dams created by Cold War paranoia and sustained by a subsidy-addicted few are wiping out the sacramental fish, sustainable economy, and ancient religion and culture of the Northwest's sovereign tribes for the sake of no industrial good, service, or commodity that can't be replaced by profitable and sustainable equivalents. To add insult to injury, the tribes are now so hated in right-wing circles for standing faithfully by salmon that they are being publicly accused—by the PR flacks of slackwater industry—of bringing about salmon demise by simply exercising their treaty-guaranteed right to fish.

Northwest Indians catch and eat salmon for two reasons. The first is the reason that cattleman eat cattle: it's who they are, what they do, and what they have. The second is the reason that Catholic celebrants eat bread and wine at Mass: Northwest Indians are the humans for whom the grateful catching and eating of salmon was a sacrament centuries before the birth of Christ. The Columbia and Snake rivers are the Indians' place of worship, their "church." Salmon-killing government and industry are simultaneously destroying the tribes' place of worship and vilifing the tribes for still worshiping.

Under the Marsh decision, the Umatilla, Warm Springs, Yakama, and Nez Perce people, represented by the Columbia River Intertribal Fish Commission (CRITFC), became fully empowered participants in the scientific and managerial struggle to save endangered salmon. But NMFS has given CRITFC's calm, clear voices no more weight than the calm, clear voices of blacks were given in the courts of Alabama in the 1950s—and for the same reason: the four dams on the Snake are like four whites-only drinking fountains. Their life-giving, job-generating flow is being illegally stolen from Indians and salmon and converted into dollars reserved for Anglo industrialists. If this is

not federally defended racism, I don't know what is. Columbia/Snake River economic and cultural apartheid is carefully enriching one race of people while deliberately impoverishing another.

What should it mean to be "co-managing" the river and its salmon with the Yakama, Umatilla, Warm Springs, and Nez Perce people? Shouldn't it mean that we listen with respect when tribal leaders speak, and give their worldview legal weight even when that view feels a little foreign? The tribes' openly expressed appreciation of salmon as fellow beings, for instance, feels a little odd to those who prefer to consume less-than-fellow creatures—until we remember the wine and blood of the Mass. Isn't it racist, in management venues, to write off the tribes' regard for salmon as sister and brother beings as "Neolithic" and "irrelevant"? We lament a crisis in American leadership and express near-ubiquitous lack of faith in our politics. The tribes, meanwhile, are often decisively led by men and women whose common sense and open spirituality move us. Yet we consider it credulous to incorporate such spirituality into our politics. So back we go to special-interest-serving, negative-campaigning, mealy-mouthed "leaders." Where can we turn for a rejuvenation of ideals if not to genuine idealists?

Last summer a scholarly Warm Springs Indian friend, the poet Elizabeth Woody, learned that I was writing of the inland West salmon's plight and surrounding thicket of politics. Her response was a wonderful non sequitur. She mailed me a John Corsiglia/Gloria Snively monograph on universal values drawn from the traditional sciences of the world's long-resident indigenous peoples. Here are four of those ancient values:

1. Humans and nature are inseparably linked in a universe pervaded by consciousness; spiritual essence suffuses all forms; all life forms are thus intrinsically valuable and interdependent; we are all relations.

2. Animal souls survive and are reborn; animals are social beings, with thoughts and feelings, and must be treated with respect; respecting an animal means honoring its spirit, using every part of its body, and allowing it to reproduce in sustainable numbers; all creatures can be our teachers; though we may readily affect other life-forms, we needn't see ourselves as superior.

3. All natural and supernatural objects have power to harm or help humans; it is not only wrong but spiritually dangerous to wantonly destroy or take more than one's share of other life forms; justice is unavoidable; wrongs are not so much 'punished' as brought before the inescapable light of justice.

4. Spiritual essence persists while forms change; all humans return to face their mistakes, in this life or the next; the truth of situations always becomes known; there are no secrets; death is less to be feared than shameful actions.

After years of listening, I haven't heard a public word from a Columbia River Intertribal Fish Commision salmon spokesperson that was not in keeping with these values. I'd wager that thousands of Americans still remember the words of CRITFC's Ted Strong, to President Clinton, at the 1992 Timber Summit: "American Indians, natives to this land, hope and pray that the pen you wield will be guided by the sacred beings who created and authored the perfect laws of nature by which all mankind has existed since the beginning of time."

When I compare such guiding principles to the Iagoan ploys of NMFS, or to an Idaho far right that mandates extinction because of the "threat" salmon pose to subsidy arrangements, or to the BPA's need to slaughter smolts in order to service a $7-billion debt caused by the Reagan-era failed-nuclear-plant debacle we Northwesterners call "WHOOPS," or to the barging scam of a railroad-refusing Idaho town that is bringing extinction to a hundred rivers and economic harm to hundreds of towns, my heart feels like a smolt barged and dumped into God knows what caustic flux and moral vacuum.

It's time Americans listened to the tribes, for two reasons. The first: we have, in the Columbia/Snake region, a clear and dire choice to make between what is sacred (the health and wholeness of life) and what is profane (the worship of wealth at all cost), not just according to Indians, but according to *all* the world's major religious traditions. (See the Appendix to this book.)

The second reason to listen: dire financial repurcussions, besides all those to which I've already refered. A powerful legal document known as the *treaty* grants sovereign rights to native peoples for all time. Among those rights are hunting and fishing privileges in "usual and accustomed places" throughout the Northwest. Those privileges are not something "given" to Indians, like welfare. They are a table-scrap tossed to the tribes by an inadequately shamed U.S. government as Indian lands, languages, and lifeways were being ripped away. This is why, when I hear highly paid, posturing corporate flacks inciting the

meat-and-potatoes public by saying the cause of salmon decline is Indian fishing, I open Dante to enjoy his descriptions of the particularly heinous circle of hell reserved for malicious slanderers. The tribes were given hunting and fishing "privileges" over the dead bodies of men, women, and children and against their will. When Kamiakan, chief of the Yakama, signed the 1855 treaty that ceded his tribe's lands in perpetuity in exchange for fishing and hunting "privileges," his lip dripped blood from biting it in the effort to contain his helpless rage. And as CRITFC's Chuck Hudson told me in October 1999, with an admirable restraint I couldn't share, "From 1855 till now, there has not been one good day to be an 1855 treaty Indian."

For a century and a half, 1855 treaty rights have been dishonored and negated. Many "usual and accustomed places" are on private land, with legal access illegally denied. When access isn't denied, there's often nothing to fish for. When there *are* fish, Indians have to fight for their "guaranteed" right to catch them (witness the fisherman David SoHappy's courageous legal battle and its famous result: the Boldt Decision). Many "usual and accustomed" fishing sites are now buried under slackwater. Thousands more have been sterilized of their salmon by dams. A court in Idaho recently ruled that though the Nez Perce have a right to fish in usual and accustomed rivers, they have no right to ask white irrigators to leave water in those rivers. And now the federal government threatens to outlaw even the last Columbia/Snake tribal ceremonial fishery "to protect the salmon"—while the same government murders smolts by the millions in its dams and barges in violation of its own Clean Water Act, its own Endangered Species Act, its own taxpayer-funded science, and its own binding treaties.

In the fight to preserve the salmon, the tribes have been heroically patient. They seek the return of their sacred fish, not court battles. But when sovereign rights and viable recovery strategies are ignored again and again, Indians are left no choice but to litigate. And in treaty-inspired legal wars, they haven't lost a major battle yet. Treaty rights are potent and damn well should be. Indian treaties, as even the conservative senator John McCain puts it, "were written in exchange for a significant portion of America." The right to fish for ghosts of salmon is hardly just recompense for "a significant portion of America." The extinction of salmon is not nature's doing; it is being *inflicted* on Indians by state and federal "river management" racism. If NMFS continues to make a mockery of the ESA by allowing a coterie of industrialists to drive salmon into extinction, we the people will be sued for treaty violation, and the settlement will

be huge: $10 to $20 billion, even according to NMFS estimates—and I've heard methods of analysis that double that figure.

We're well on our way to paying it. The dwindling fish counts at Snake River dams should be posted daily—in the nation's financial pages.

A Prayer for the Salmon's Second Coming

Every dam on Earth has a life span, and sustainable forms of energy are rapidly on the way. The removal of the four Snake River dams is inevitable—later if we heed slackwater rhetoricians, subsidy beneficiaries, and NMFS; sooner if we heed the tribes, the Northwest bishops, salmon-loving scientists, and the spiritual foundations of our own culture. So let's envision, for a moment, the restoration process that so horrifies the far right:

Once federal approval is given, removing the earthen portion of the four dams—according to the men who built them—will be an engineering piece of cake. The revegetation of the drained reservoirs, removal of silt, and rebuilding of riparian communities and recreation sites will be hard work, but will create thousands of jobs. As for the feared changes: breaching the four dams will not touch 96.5 percent of the region's hydropower, will not cause a single home or business to go without electricity for even a minute, and will soon strengthen the financially troubled Bonneville Power Administration by relieving them of their multibillion-dollar Endangered Species Act burden. Breaching will cost us *no irrigation, no flood control, no needed energy,* no "national security," and no industry save an immediately replaceable, scandalously monomanical barging operation. Breaching will not harm a single cattle rancher, southern Idaho potato grower, or farmer. Indeed, it will help the thousands of farmers, ranchers, and reservoir recreationists and merchants throughout the region, who, under the Endangered Species Act, must now squander massive amounts of stored irrigation and recreational waters, right before the hot season, in order to flush endangered smolts through the four Snake River slackwaters.

The regional grain growers now dependent on Snake River barging almost all farm to the north and west of Lewiston—nowhere near the Snake River. Those growers, sans dams, will simply begin moving their grain south to barges at Pasco, Washington, by truck and train, instead of to barges southeast at Lewiston. A glance at a map reveals

both the shockingly small distance that has wiped out the region's salmon, and the lightly traveled new four-lane freeway (U.S. 395) that will support increased grain-truck traffic. It's also worth noting that the towns that once served the grain growers were economically harmed by the Snake River dams when barging forced the abandonment of their rail lines, grain elevators, and the commerce stimulated by both. Breaching would restore to those towns the vitality they possessed before the dams.

There *will* be some employment changes: over the agonized bellows of Lewiston, Idaho's worst minds, breaching will protect the rest of America from this multibillion-dollar boondoggle of a "seaport" and transform a failed Portland-wannabe into the revamped, world-class outdoor recreation and sportfishing destination it should have been all along. Over more agonized bellows, Snake River breaching will put hundreds of bureacrats, "salmon managers," political propagandists, and Iagoan scientists out of work, creating tens of thousands of *real* jobs instead.

Best and most crucial of all, Snake River breaching will protect the long-term genetic health of *all* Pacific salmon by protecting Idaho's paragon wild genius salmon; it will honor treaties and racial diversity and preserve our continent's oldest sacred culture; it will create a half-billion-dollar-a-year commercial fishing industry, will put tens of thousands of sportfishing men, women, and children back on the free-flowing waters of Idaho, Oregon, and Washington, and will enliven every riverside town and coastal fishing port in the process; it will attract tourists, fly-rodders, kayakers, birders, botanists, Lewis and Clark buffs, and rubberneckers from all over the globe to ogle the mothballed dam remnants, study the returning plants, birds, and wildlife, marvel at some of the world's most ancient tribal treasures, ride the seventy new whitewater rapids, hunt the newly revealed side canyons, fish the newly revealed steelhead riffles, and watch the spawning of fall chinook; it will bring, in the form of an abundance of salmon, a flood of health, income, marine nitrogen, and energy to hundreds of Northwest biological and human communities, and a source of hope, happiness, and gratitude to every riverine creature from insects to kids to angels, preserving not just our way but our very web of life.

The poet Jane Hirshfield writes: "As water, given sugar, sweetens / given salt, grows salty / we become our choices." The Columbia/Snake, given current, creates salmon, biological richness, and reverent cultures; given Snake River dams, creates electricity, polarized rhetoric, extinction, and heartbreak. We become our choices. I pray there are leaders in Washington who will weigh this choice before we become it: 96.5 percent of our electricity intact and the interior West's salmon thriving; 96.5 percent of our electricity intact, *102 major Columbia/Snake hydroelectric dams still intact, 217 major (100 feet or taller) Columbia/Snake dams intact,* but four Cold War dams gone, that our tribal and fishing cultures may thrive and our rivers again burgeon with their living symbol of generational sacrifice.

Who are we, with our seventy-year life spans and 225-year-old nation, to pretend we know better than humanity's most ancient and sacred laws? If the lives that God and His instruments, Sun and Ocean, have placed in our rivers and oceans are not holy, what is? If the first page of the Bible doesn't convey truth, what does? If the heroic migration and dying sacrifice of salmon are not exemplary, what is? If Genesis is meant to be believed, God blessed the chinook, coho, steelhead, and sockeye the waters brought forth, pronounced them good, and as they took their part in the panoply of creation, He upgraded that to "very good." To honor the Creator's gift to all generations, to embody a true *ṛadah,* to restore to our fellow blessed creatures their indispensable path to and from mountain birth-houses, we have four dams to unbuild in a hurry.

To that end, a prayer: from my friend Sherman Alexie—registered member of one of the Columbia/Snake's many salmon tribes now stripped, by Cold War anachronisms and economic apartheid, of every last one of the creatures that so recently and beautifully defined them:

I release these salmon
I release

I release my father and mother
I release

I release my sister and brother
I release

I release these salmon
into their personal rivers

the river of bitter root
the river of broken bone

the river of stone
the river of sweet smoke

the river of blood and salt
the river of semen and sap

the river diverted
the river dammed

I release these salmon
I release

I release these salmon
I release

o, salmon, I release you
o, salmon, I pray

o, father and mother
o, sister and brother

return to me
return to me

13. River Soldiers

In the beginning, on the volcanic cone back in Southeast Portland, there was nothing much going on. Dehydrated industrial Martians seemed to dominate the terrain completely. So I fastened the family hose to an azalea bush at the summit of a flower bed, turned on the faucet, created a little liturgical river (*arka*). And as a three-inch-tall blue plastic U.S. Cavalry dropout stood in that river, the stock of his upraised rifle converted into a fly rod, I lay on my belly, cheek to the ground, listening to the tiny current curling round his thighs, watching his line work, eyeing the bend in the tip of the rifle-rod, till on the best days the rod dipped and we actually hooked, in sunlit riffles, tiny sunglint fish.

Four decades later I live amid a web of sunlit, life-giving streams in Montana. And I relish my time on those streams. Yet I couldn't help but notice, while reflecting on existence one recent summer's day, that I was in fact glued to my writing desk in a Venetian-blinded study, ignoring streams and sunlight in order to fight for the who-knows-how-manyth time for the life of some river, creek, or salmonid