RAISE THE STAKES

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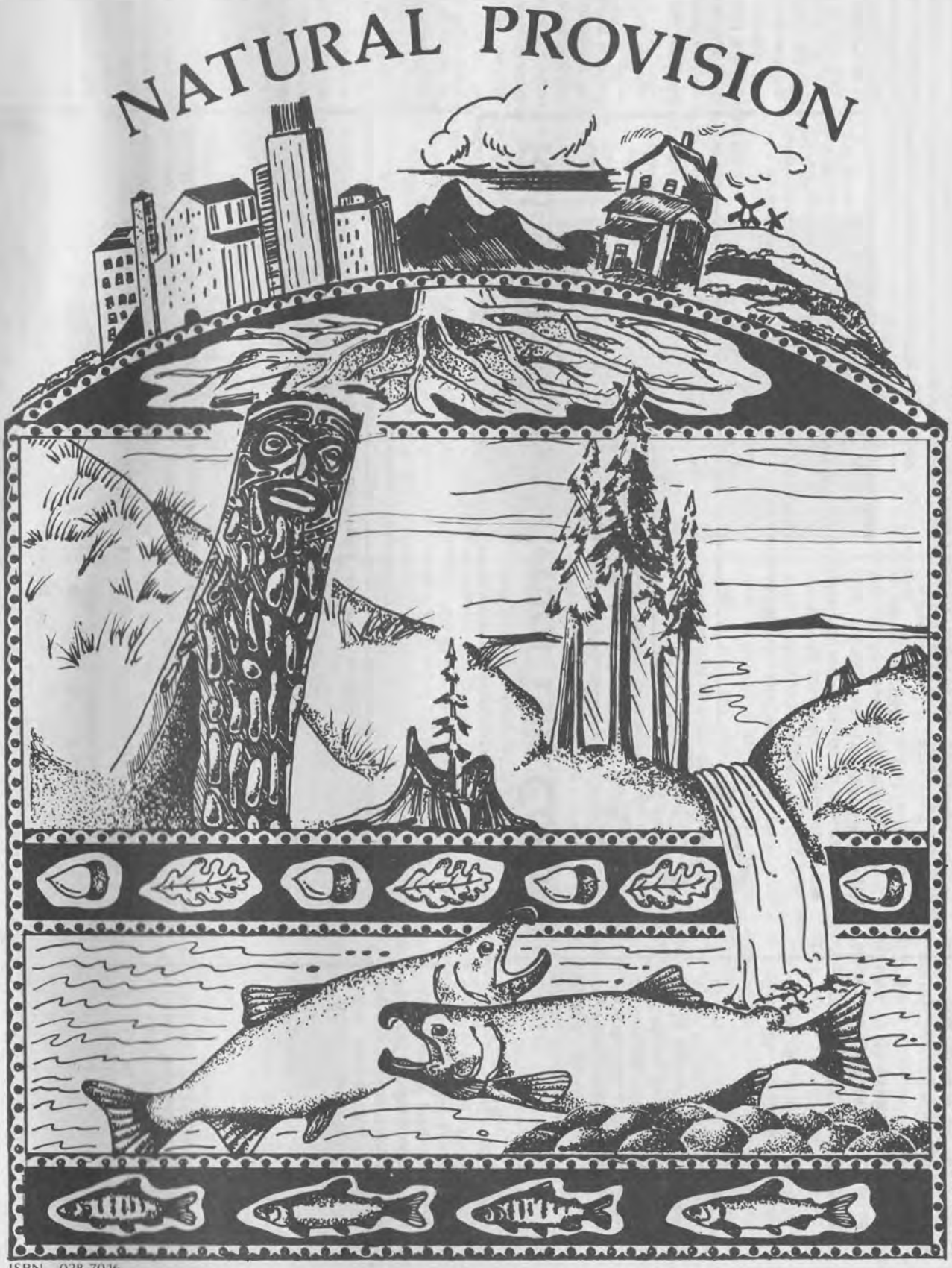

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CIRCLES OF CORRESPONDENCE

REGIONAL COMMENTARY

Circles of Correspondence is an open, planetary forum which explores the connection between regional cultures and the watersheds and bioregions upon which their continued existence depends.

Send us your connections.

MARTHA'S VINEYARD REPORT

by Lawrence George Ross

Five years ago, Martha's Vineyard was big news on coast-to-coast T.V., as it announced it was ready to secede from Massachusetts. What had happened was that Massachusetts was reducing the size of its legislature; result: one representative for all of Cape Cod, Martha's Vineyard Island and Nantucket Island.

Martha's Vineyard is a beautiful tourist trap with an uncontrollable rate of growth. The island swells from 10,000 people to 100,000 in the summer, and the swelling gets larger each year. In fact, "summer" started swelling May 22 this year, for Memorial Day weekend. And if you think that our summer is here, come and look at the bare oak trees that are still being harassed by the cold ocean breezes!

Last fall one developer bulldozed flat a beach dune so his new homes would have a better view of the ocean (and of our next hurricane!).

The towns (there are six of them) are enlarging, and in two of them, the centers are no longer of walking size, which is bringing in the Drive-In Banks and more and more parking lots. Two malls are now being considered simultaneously. The other side of this is:

- sewage pouring into the harbor
- roads being chopped through the forest
- parking lots growing like mildew
- overflowing dumps
- contamination of the water table
- runways (we have three airports)
- no beach access
- more private beaches (the right to the low tide line can be privately owned in Massachusetts)
- ETC.
- ETC.
- ETC!

These problems cannot get but a temporary patch in town meetings or public health department meetings, since most islanders aren't used to the pattern of destructive growth, and respond to the issues from their limited individual experiences or concerns; an islander (born here) may be against a mall in one location (because he shellfishes near it) but not in another, whereas most moveins (usually suburbanites from elsewhere) hope to never see another mall in their life. Businessmen (from both groups) will switch depending on where their store is, or whether they shellfish in the pond next to the new mall site, or . . .

Occasionally, you can outrage all those groups at once and, for example, the above mentioned developer had to rebuild a beach dune in front of his development. Occasionally.

And what about the positive active approach?

Mass transit, my occupation, is a great idea for an island where a 45 minute ferry ride is a necessary expense; as of now, it costs $40 round trip to take a car on the ferry. A limitation on cars, particularly short-term tourist vehicles, would not be too difficult to obtain, once there are enough bus routes on the island, and it would create a much more livable environment.

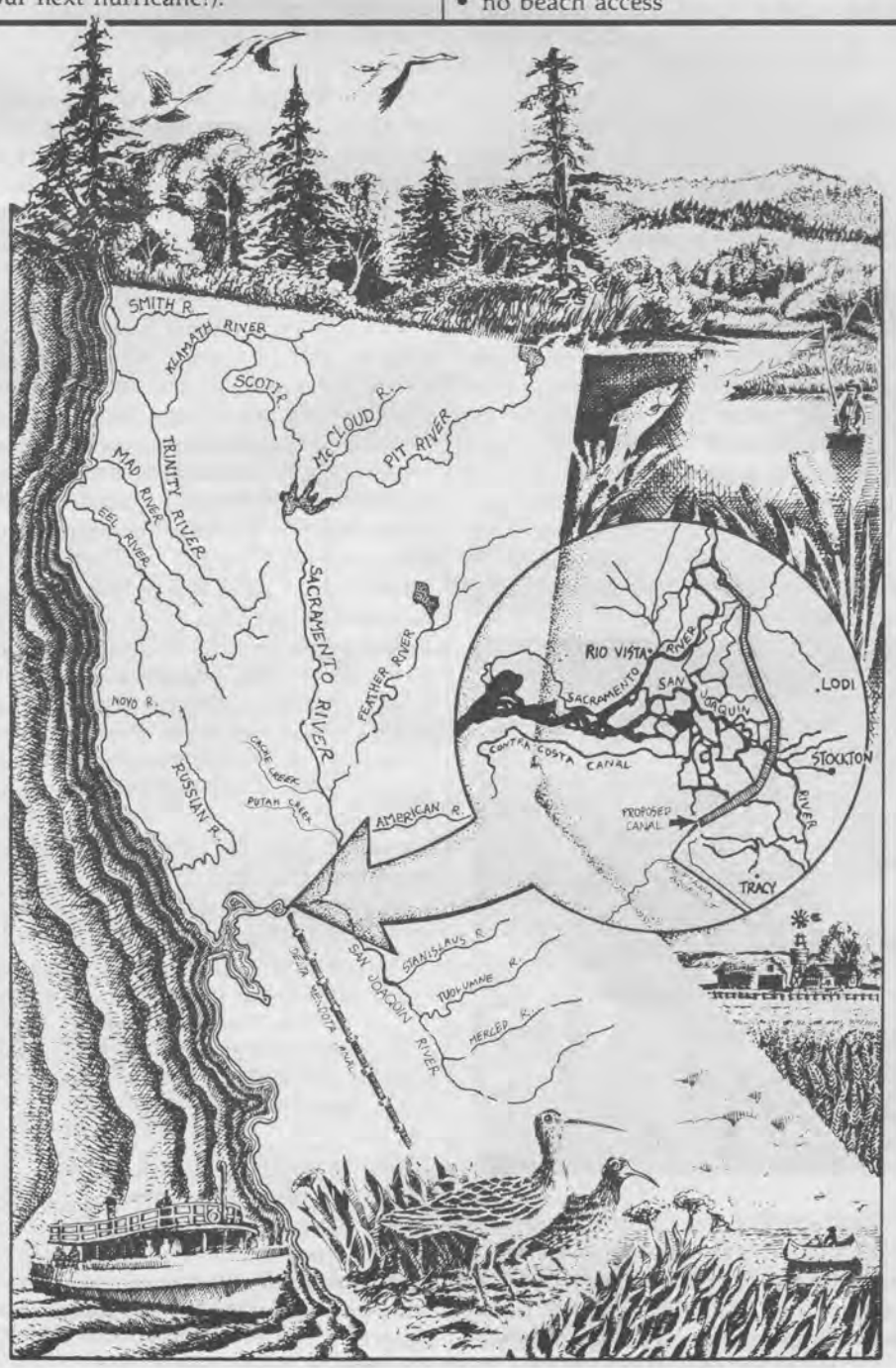
However, the ferry company has a monopoly on the transportation of all vehicles; in addition, they have the power to tax the island 100% in the event they ever lose money. Hence, the propaganda: if we don't bring over enough tourist cars (and guess who decides how much is "enough"), all summer, we can't afford to run all winter. How could we make sure that this statement, which is their convenient rationale for backing up the car invasion during the summer, has any validity whatsoever? Well, the truth hides in the company's books, which, of course, aren't open to the public in any usable form.

In the meantime the ferry company fucks up everything.

Example 1: The food coop—trucks of fresh organic vegetables get on the ferry hours after the trucks from the local chain supermarkets.

Example 2: Glass recycling—in order to sell the glass, it has to go "off-island," but the cost of the truck on the ferry makes the program impossible. To make it even worse, they actually are letting the glass truck off for free, right now, but after informing you that at any time your program can end at their very whim.

Secession?
Join another State?
Leave the U.S.? □



CALIFORNIA UPDATE

The Limits of Hydraulic Society

by Michael Helm

Throughout the West, and particularly in California, water politics have reached the political boiling point. The reason is simple. The supply is limited and yet water diversion projects have been the principal means of determining where population and agricultural growth would occur. Massive interbasin transfer (some would say theft) of water to Southern California, for example, has been the primary factor in allowing that semi-arid region to grow from a population of 100,000 in 1900 to nearly 14 million people in 1982. Water diversion has also facilitated the heavily subsidized growth of an agribusiness empire in the normally parched Imperial and southwest San Joaquin Valleys.

Besides water, what has made this vast hydraulic society possible is cheap energy and imported Mexican labor. Now, the political, economic and environmental costs of these three forms of historic subsidy are coming home to roost. Cheap energy and the "sunny Southern California" Hollywood hype are no longer applicable. Southern California may well have reached the limits of its growth.

In this context the current raging debate over the Peripheral Canal—as part of the proposed $12-23 billion Phase II expansion of the State Water Project (SWP)—takes on crucial significance. The upcoming June referendum on the Canal—which will have the capacity to reroute 70% of the Sacramento River's flow south—will be the most important electoral decision Californians make for the rest of this century.

• • •

From a Northern California perspective, the Peripheral Canal is a bioregional death threat. Past water diversions have already severely reduced the region's historically fecund natural provision. The San Francisco Bay-Sacramento Delta estuary—the largest inland estuary in the United States—has already been drained of half of the fresh water that used to run into it from the Sacramento and San Joaquin Rivers and their tributaries. This has changed the delicate ecology of the estuary to the point where the crab and shrimp fishery are gone and 70% of the salmon and striped bass population has been decimated. Salt water intrusion from the increasingly saline bay now threatens the $350 million farm production in the Delta. Then too, the Trinity River has been reduced to a trickle, its water diverted through a mountain and dumped into the Sacramento River.

If the Peripheral Canal is built—with its stated intention of diverting an additional 2 million acre feet of water each year—most informed Northern Californians believe it will permanently destroy any possibility of restoring the natural provision of the delta and bay. They also fear that, with increased diversions, south San Francisco Bay will no longer be adequately flushed and turn into a noxious-smelling chemical

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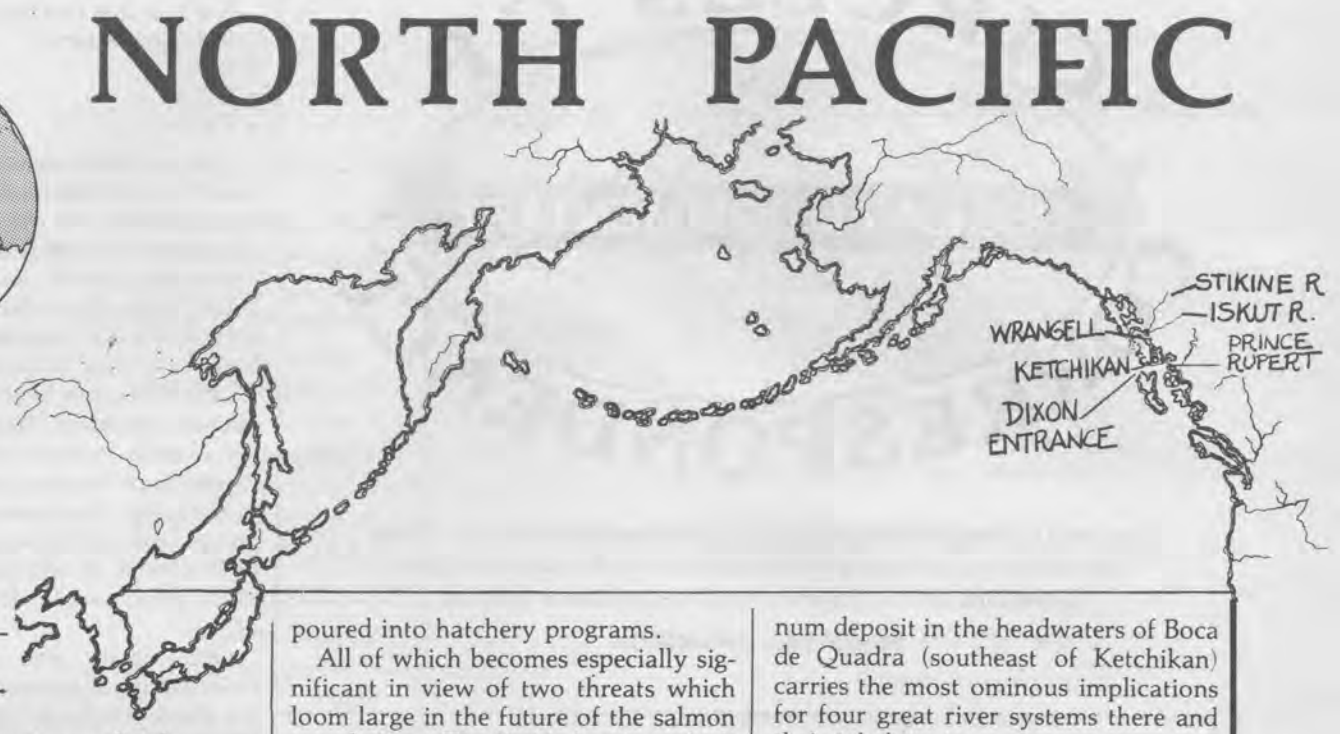


SOUTHEAST ALASKA UPDATE

by Phil McManus

The single definitive image which describes even the most superficial impression of Southeast Alaska is "wilderness." From Dixon Entrance in the south to Icy Straits in the north, "Southeast" is a composite of mountainous, forest-covered islands broken up by the labyrinthine waterways. Thirty years of clearcutting have pockmarked the mountainsides with the scars of the local pulp mill industry. Yet these are dwarfed in the pristine, inscrutable vastness of Alaska, "The Great Land."

Several years ago, a Planet / Drum *bundle† included "Totem Salmon," an article by Linn House. I saw a reprint from* Liberation, *my first contact with* Planet / Drum. *Since I have been fishing seasonally in Southeast since 1973, I read the article with particular interest. And I have shared it with fisher friends here.*

What follows is a more recent perspective on the human link in the Southeastern web-of-life.

"Totem Salmon" began with the recognition that "Salmon is the totem animal of the North Pacific Range. Only salmon, as a species, informs us humans, as a species, of the vastness & unity of the North Pacific Ocean and its rim . . . the human species is also (like the salmon) an indigenous population . . . inextricably married to place. We can only be kept constantly informed of our situation as a species through regard and recognition of brethren species. The life of the wild salmon population is of the essence to the life of the human population."

Linn House explored the names of salmon, the patterns of salmon mind, and the traditional relationship of salmon and native peoples. He went on to critically compare current inefficient fishing methods (big, energy-consumptive boats; lots of them) with the potential for much simpler fish trap methods. ("It is not necessary to pursue them in expensive machines at all; every adult fish returns to the river of its origin.") While his analysis of "salmon energetics" is suggestive, it gives the feeling of telling the story out of context. Fish traps were outlawed when Alaska became a state, despite intense pressure from the powerful canneries, because they threatened the livelihood and the lifestyle of thousands of fisherfolk. Even today, for economic and demographic reasons, it is difficult to imagine the widespread use of fish traps except as the product of a big business effort.

Perhaps the net fishing of the people who live and work close to the sea is a monument to inefficiency. Perhaps someday a reinhabitory culture will preserve that lifestyle and also rectify its excesses. But today, net fishing, for all of its compromises, is an enclave of resistance in the midst of the "super cog-making machine," a thread that continues to tie people and place.

House also described the tragic decline, quite evident at that time, of the great salmon runs and its significance for all of the interdependent species of the Pacific Rim. Seven years later, that story has changed. The great runs in Alaska have, at least for the time being, recovered their strength. At the same time, the threats to these wild populations have continued to grow. House's prognosis that, "One way or another, salmon-based industries are going to be forced to turn to fishfarming and aquaculture" remains a likely, but not an inevitable, outcome.

House's experience was based on fishing the '73 and '74 seasons, two of the most depressed in recent years. In contrast, 1980 saw the biggest salmon catch in Alaska since the boom years of the 1930's.

What has happened in the meantime? It is a matter of some dispute. Partly it was the imposition of the 200-mile limit which curtailed the foreign high-seas fishery. Partly it was a gradual recovery from the effects of abnormally cold winters in the early '70's. But more than these, it was a substantial shift in the management of the fishery. By 1975, the State Department of Fish and Game began to manage the fishery to *insure* "adequate escapement."* This contrasts with previous practice where escapement goals were compromised by inadequate knowledge and industry pressures. It represents a coming-of-age of sorts from the longstanding belief in the salmon runs as "an inexhaustible natural resource." Fisherfolk and management personnel have increasingly replaced their old adversarial relationship with a cooperative one in order to protect the salmon from the encroachments of overfishing and habitat degradation. And the benefits have been apparent. Salmon returns to Southeast have built consistently since 1977, and 1982 projections call for an astonishing return of up to 60 million fish (as opposed to less than 10 million in 1974).

Of course not all of the results of the crisis management of the 70's have been good. Fish and Game has become a growing bureaucracy with all of the attendant hazards. "Adequate escapement" is a somewhat arbitrary determination which has predictably served to enlarge bureaucratic imperative. More ominously, the crisis of the early 70's has given great impetus to a number of artificial propagation programs. The biological hazards of hatchery schemes (weakened stock, greater susceptibility to disease, etc.) are the natural warning signs of the hazards of messing with the wild populations of Totem Salmon. And yet, just as elsewhere, the tentacles of industrial society, with its technocratic hierarchy, have put the squeeze on minds here too. Stream and spawning ground rehabilitation (to compensate for both human and natural destruction) is, next to management of fishing effort, the most critical task for the protection of the runs. But such work has been underfunded while millions of dollars (much of it from an extraordinary self-imposed tax on each individual's catch) are being poured into hatchery programs.

All of which becomes especially significant in view of two threats which loom large in the future of the salmon populations. The first is logging which has for years taken a great toll on the salmon by siltation of spawning grounds, raising of water temperatures, and destruction of the streams up which the salmon return. While management of logging practices by the U.S. Forest Service has improved in recent years, it has also been pathetically inadequate, a fact which reflects the closeness of the government-industry relationship. Recently a new, highly-capitalized force has emerged to add to the pressures on regional forests.

Eight years ago, the Alaska Native Lands Claims Settlement Act provided for the payment of millions of dollars and millions of acres of land to Alaskan native peoples in compensation for past wrongs. Native cultures have been teetering on the brink of extinction, traditional ways steam rolled by the "wonders" of modern technology and the American standard of living or encased at a safe distance in regional museums. The Land Claims Settlement was widely viewed as an important precedent in the establishment of the rights of natives. But it was a political (not a cultural) victory. At this point, its most striking practical consequence is the greater ease with which the "industrial monoculture" (how apt a description) expropriates timber, mineral and other natural resources. In the Southeast, vast tracts of forest lands which were previously part of Tongass National Forest are now privately owned by native corporations, the new "elders" of the tribes. Growing numbers of large logging operations have been undertaken. As private land owners, they operate almost without any regulation and they are exempt from the federal "primary manufacture"** law. Hence, native logging concerns have an advantage over regional competitors. Lagging international demand has temporarily depressed the logging industry but the net effect on the salmon is bad and threatens to get worse. Unfortunately, the native tradition of honoring species interdependence is being lost in the fog of a fading past.

Tlingit Bear Totem

The second major danger facing local wild salmon populations is as yet a paper threat. But the investment to date of more than $20 million by U.S. Borax in the exploration of a major molybdenum deposit in the headwaters of Boca de Quadra (southeast of Ketchikan) carries the most ominous implications for four great river systems there and their inhabitants.

Molybdenum is a key element in steel production and other industrial processes. This country is heavily dependent on imported molybdenum. However, commercially exploitable deposits exist in Southeast Alaska and in the Colorado Rockies (near Crested Butte). The exploitation of both deposits is currently in the developmental stage. Both face substantial local opposition. Both are likely to be mined anyway because of the "overriding national interest" and overwhelming corporate bucks.

Local fishermen here were quick to see through the glossy pamphlets and flowery language of U.S. Borax and recognize the destructive potential to salmon runs. Siltation of spawning areas and chemical pollution of the watersheds are virtually inevitable by-products of such heavy metal mining. But Ketchikan Chamber - of - Commerce types have welcomed with open arms the prospective boom: a 70-year life cycle requiring an $820 million capital investment in a resource valued (at existing market prices) at over $22 billion. Frankly, the multimillion dollar salmon resource is peanuts. And what about the web-of-life? It is an expense, a liability, not an asset.

While corporate propaganda promises the full protection of natural resources, fisheries included, company officials admit privately that the toll will be enormous. Far from being ungrateful, they are quite willing to buy off the fisherfolk. They do not discuss compensation for the salmon. Nor is there any appreciation of the true cost of their loss. Ah, but that's progress.

Expanding a poorly-regulated logging activity, open-pit mining which defies adequate mitigation, and the over-arching propensity for technical fixes are linking together to provide the impetus for expanding hatchery operations which will come of age some years down the line. The existing interdependence of wild salmon and fisherfolk insures that a voice will be heard on the salmon's behalf. But when a hatchery industry has become fully developed, with all of the attendant economic power and bureaucratic inertia, and when it has nurtured the dependence of fisherfolk, which will complete the erosion of their traditional freedom, that voice will falter. The wild fish will somehow survive, albeit in reduced numbers. But our link with Totem Salmon—teacher, provider, friend—and, through the salmon, with the wilderness (from the Old French, meaning "wild beast") will be broken. □

**"Escapement" refers to the fish which survive all obstacles and predators to reach their spawning grounds.*

***The "primary manufacture" law requires that all timber harvested on federally-owned lands be subject to at least primary processing before it is exported; virtually all timber products in Southeast Alaska are produced for export.*

†Planet/Drum Bundle #3, *North Pacific Rim Alive.*

RIM

BRITISH COLUMBIA UPDATE

by Doug Dobyns

This summer I managed a fish plant for a co-op of fisherpersons on the Stikine River. A barge load of supplies was dumped on the bank and we set to work and built a 70 x 20 foot two story steep-pitch roofed work environment with two freezers—a 5 ton blast and a 50 ton hold—in one month, including the wiring, installing the machines, insulation, and plumbing. At the end of the 4th week began landing salmon and took some 150,000 pounds for the summer. It was a good year for sockeye and the fishery count on spawners reaching the lake some 150 miles upriver was well over 50,000—close to a record for the time they have been counting. We took about 17,500 of these sockeye and wish we could have had a few more, as we reckon the American take of the run to be somewhere between 80,000 and 100,000. I think the Native Subsistence take was around 6000, but don't have verification on that. Of our fish, probably close to one third were delivered by Native members, and the salaries in the plant kept to about that ratio. My goal was to have the native income riding at about ½—so we fell short, but did okay. Good feelings there, and I would say that both fishing and working was enjoyable to all.

Since the sockeye made up about two thirds of the catch, the rest was made up of four other Pacific salmon species and a few steelhead. We were delayed for about a month from fishing the river (which was good for us this year since the plant was being built in that time) to allow the run of king salmon to go past. This was a move by the Canadians to appease the Americans (who usually take more fish in their sports derby of 3 days than we get all year). There is a special feeling about kings and it is quite a rush to have a dozen soakers (40 to 70 pounds) dumped on the sorting table. I'm for letting them all spawn—they are so beautiful—but if there is going to be a harvest, then we can't help but want a part in it.

Of course, all this is small squabbling. The big issue is the power development being pushed. There is something like 8 billion dollars budgeted to build dams on the Stikine and the Iskut tributary right now. All this without recognition of the land claims of the Tahltan people who have formally asked for treaty since 1910 and laid claim to the entire Canadian watershed in statements released to the international community. The feeling has been a bit high. This summer a camp was burned to the ground, destroying several buildings, a fuel cache was torched, helicopters and hangars were painted, and some vehicles were shot (one while it was occupied). B.C. Hydro is in tenuous circumstance and is trying to work it all out with sleazy talk and no doubt payola; the fact remains that there are many valley people who feel this is the last stand and are talking fight.

One of the best memories from this summer came by accident. A night on the sand flats at the very end—I had missed the tide, missed the channel, and was settled in for an evening with heavy fog turning to heavy mist about 100 yards from shore. Sitting on my skiff with plastic wrapped around me and crackers and cheese, a box of beer and a bag of home-grown, I listened to a bear splash for salmon in a side channel. Sea lions grunted at the edge of the flats, about two miles away. Cries of gulls, the diesel of a fish packer a long ways off. About two hours went by and I walked toward the side channel and pissed out the beer in a long line on the sand. Just yards away through the mist the bear did the same—in a line on his side of the channel. I went back to the boat and he went back to splashing around. Dawn tide floated me off—woke to the boat bumping around and poled a half hour before I could get the motor down. We left on the afternoon ferry for Rupert—the other workers had gone ahead to Wrangell with a faster boat while I came with the load of gear.

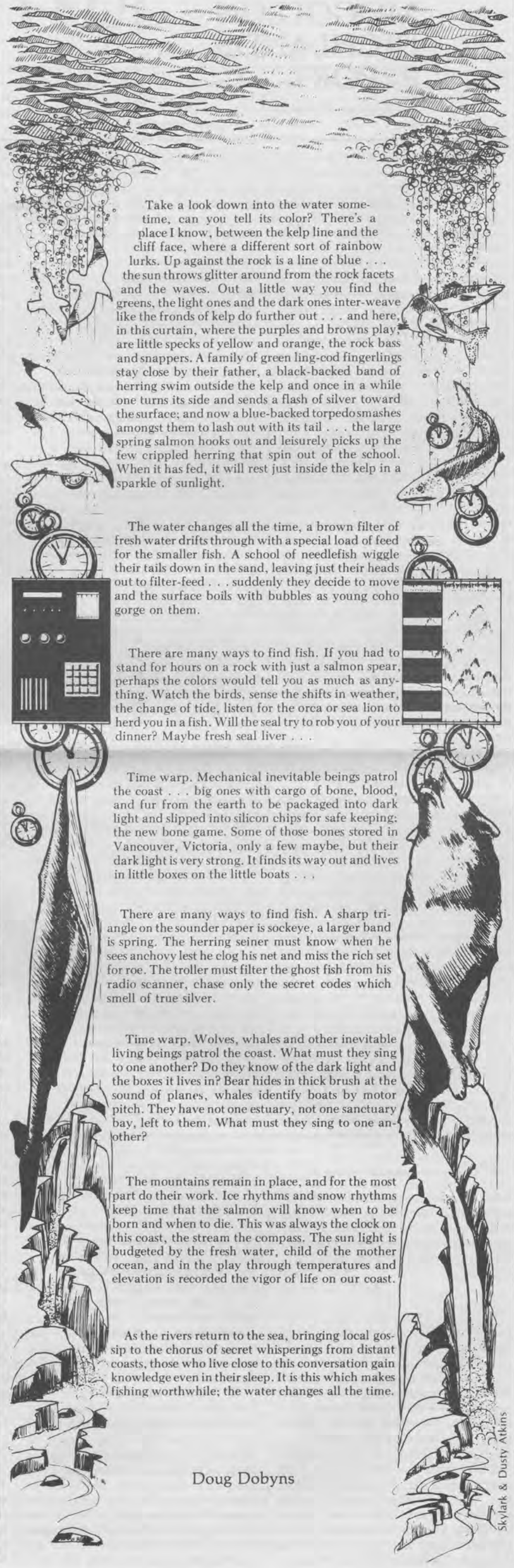
Now we have lots of discussion in Canada about the fishing industry. A commission has just released its interim report and the government asks for comments. The report has gone some ways toward what your *North Pacific Rim* bundle reported, and has made some courageous recommendations.

But what will the biggies do about this conflict between power and fish? What will happen in the war between the Continental Energy Policy and the valley residents? What's going to happen between the Canadian Constitution and the Indian People? Some ribbons get cut as strips and others get chopped to bits. Up here in Canada there are some flags that have already been stripped. In Prince Rupert a bunch of fisherpersons are flying the banana flag—yellow and black. The islanders have declared themselves a banana republic—if they are going to be chopped and eaten on cereal (there is a new grain port being built there) they might as well advertise the fact. We'll have to send a green one to the Science & Technology minister of the B.C. government, Pat McGeer; many B.C. autos have bumper stickers "Stick it in your ear McGeer" so he already has some idea of how we feel. Business technocracy wants to give us, in the Prince Rupert harbor, one or two liquid gas shipping ports, a huge coal port, some petro-chemical plants, a new grain terminal, and possible smelters just up the valley, to add to the already dirty pulp mill, two huge mines flushing garbage of concentrated poisons, and aluminum industry which has dammed off huge areas and wants more.

So now there is a movement to create a watershed authority to be run by the people who actually live on the river. It was presented last month to an all-province meeting by a woman from Vanderhoof named Louise Kaneen. She and I and a couple of others did a half hour radio show that evening, and I plugged a couple of holes in the hydro outflow on the CBC TV news for the Stikine.

There are lots of good reasons to fight: enhance tourism, save the fish, wilderness, save the weather, and so on. My motivation is much more simple and only sees big money as the enemy no matter what it wants to do. Keep the mega bucks off our coast and out of our watersheds or bring in the jets, brother Ronnie—cause that's what you'll need. And that constitutes an act of war on a foreign country, which is what it has always been.

B.C. is shaping up into a very interesting confrontation. A lot of fine words and nice ideas are fine for California progressives. Up here it's going to be wet wool and cordite, diesel and fertilizer, push and shove. □



Take a look down into the water sometime, can you tell its color? There's a place I know, between the kelp line and the cliff face, where a different sort of rainbow lurks. Up against the rock is a line of blue . . . the sun throws glitter around from the rock facets and the waves. Out a little way you find the greens, the light ones and the dark ones inter-weave like the fronds of kelp do further out . . . and here, in this curtain, where the purples and browns play, are little specks of yellow and orange, the rock bass and snappers. A family of green ling-cod fingerlings stay close by their father, a black-backed band of herring swim outside the kelp and once in a while one turns its side and sends a flash of silver toward the surface; and now a blue-backed torpedo smashes amongst them to lash out with its tail . . . the large spring salmon hooks out and leisurely picks up the few crippled herring that spin out of the school. When it has fed, it will rest just inside the kelp in a sparkle of sunlight.

The water changes all the time, a brown filter of fresh water drifts through with a special load of feed for the smaller fish. A school of needlefish wiggle their tails down in the sand, leaving just their heads out to filter-feed . . . suddenly they decide to move and the surface boils with bubbles as young coho gorge on them.

There are many ways to find fish. If you had to stand for hours on a rock with just a salmon spear, perhaps the colors would tell you as much as anything. Watch the birds, sense the shifts in weather, the change of tide, listen for the orca or sea lion to herd you in a fish. Will the seal try to rob you of your dinner? Maybe fresh seal liver . . .

Time warp. Mechanical inevitable beings patrol the coast . . . big ones with cargo of bone, blood, and fur from the earth to be packaged into dark light and slipped into silicon chips for safe keeping; the new bone game. Some of those bones stored in Vancouver, Victoria, only a few maybe, but their dark light is very strong. It finds its way out and lives in little boxes on the little boats . . .

There are many ways to find fish. A sharp triangle on the sounder paper is sockeye, a larger band is spring. The herring seiner must know when he sees anchovy lest he clog his net and miss the rich set for roe. The troller must filter the ghost fish from his radio scanner, chase only the secret codes which smell of true silver.

Time warp. Wolves, whales and other inevitable living beings patrol the coast. What must they sing to one another? Do they know of the dark light and the boxes it lives in? Bear hides in thick brush at the sound of planes, whales identify boats by motor pitch. They have not one estuary, not one sanctuary bay, left to them. What must they sing to one another?

The mountains remain in place, and for the most part do their work. Ice rhythms and snow rhythms keep time that the salmon will know when to be born and when to die. This was always the clock on this coast, the stream the compass. The sun light is budgeted by the fresh water, child of the mother ocean, and in the play through temperatures and elevation is recorded the vigor of life on our coast.

As the rivers return to the sea, bringing local gossip to the chorus of secret whisperings from distant coasts, those who live close to this conversation gain knowledge even in their sleep. It is this which makes fishing worthwhile; the water changes all the time.

Doug Dobyns

Skylark & Dusty Atkins

MOGOLLON HIGHLANDS REPORT

by William Koethke

The Mogollon Rim country stretches from the Black Range, fifty miles west of the Rio Grande in central New Mexico, to central Arizona, fifty miles south of Flagstaff. The Rim is a huge escarpment, a piece of the earth lifted up sometimes thousands of feet above the desert to the south. The Mogollon Rim is the separation line between what is sometimes called the Great Basin country, the semi-arid desert regions of the inland western U.S., and the desert to the south.

On the eastern end of the Rim, in southwest New Mexico there are three adjoining watersheds in which people are beginning to get together to live with the Earth. These watersheds are drained by the Mimbres, Gila and San Francisco rivers. The Mimbres drains into the eastern side of the continental divide and the San Francisco drains into the Gila which meets the Colorado River near Yuma, Arizona.

The upper Mimbres is not now inhabited by people, most of it being national forest. The Gila highlands is uninhabited, being national forest and the Gila and Aldo Leopold Wildernesses, the largest temperate zone wilderness area in the U.S. The San Francisco is inhabited in places up to its headwaters just inside the Arizona border above Alpine, AZ.

In this unique region of the Three Rivers one can travel from the Sonoran desert life zone to the alpine life zone above tree line in less than thirty miles. From the grass area above tree line one descends into the spruce-aspen zone. In the Southwest, life zones are divided by elevation and the amount of rainfall is greatest in the higher elevations. Here in the desert one can go up vertically and meet the same life zones that one could by going north horizontally thousands of miles.

The spruce-aspen zone breaks into the ponderosa pine zone at roughly 8,500 ft. elevation. The ponderosa mixed with firs and scrub oak is generally open country. Each life zone has its characteristic set of plants, birds and small animals that like to live together in that kind of climate. Large animals such as bear, deer, and elk seem to prefer the higher ponderosa and the spruce-aspen zones, while mule deer will also live down as low as the edge of and sometimes in the Sonoran zone. Antelope will live even up to the spruce-aspen zone if they can find country that is open enough for their needs.

The ponderosa zone breaks roughly at 7,000 ft. and then the pinon-juniper zone begins. This zone is even more open in terms of the density of the trees, and grasses and sage grow well. At roughly 5,000 ft. going south off the Rim, starts the Sonoran life zone. One begins to see the century plants, the yucca with the tall spires, and nopal cactus growing much larger than in the pinon-juniper zone. There are also ringtail cats, javelinas and coati mundis that are not generally seen higher.

The Rim is a barrier reef against the southern desert but human society has long traversed it. Human habitation in the area reaches into the distant past, and village culture existed here as recently as seven hundred years ago with a population density much greater than exists in 1982. The village culture was that great era now generally termed Anasazi, and called Mogollon in Southwest New Mexico and Hohokam in central Arizona. This era which ended in the 1200's was a part of the great "Plumed Serpent" culture that spread as far as the Valley of Mejico (Mexico City) to the south and to Mesa Verde in the north. Trade goods came in from both coasts. A major thoroughfare ran from the Valley of Mejico to Casas Grandes, Chihuahua; up the Rio Grande past Santa Fe to the trading center of Taos pueblo. Another ran from Casas Grandes to Alma, NM where it met a route coming in from the Phoenix-Tucson basin and then continued north up the San Francisco, over the Little Colorado River divide to Zuni, then to Hopi and on to Mesa Verde in Southwest Colorado.

This great population was the classic Kiva culture. Beautiful mimbres pottery and the stacked, pueblo style villages were the hallmarks. The diet of corn, beans, green chiles, squash and venison is the same ecological adaption that exists today. Because of their adaption to the natural harmonies, tens of thousands were able to live here in an area where ten might be found today. In Catron County which covers most of the upper San Francisco watershed, it is estimated that in excess of thirty thousand people existed where now less than three thousand people live in the entire county and these only by virtue of the fact that survival supplies are shipped out from the cities by diesel truck. One cannot walk anywhere in the Three Rivers area without kicking over pottery shards and seeing mounds of villages of the once great culture that existed here.

The Apache came in following the village culture and brought a nomadic, hunter-gatherer lifestyle that achieved an almost perfect balance with the natural life. The mountain Apaches, as distinct from the desert Apaches to the south, travelled up and down the life zones spending the winters on the edge of the Sonoran Desert and the summers in the beautiful high mountain meadows.

At the time of the European invasion there were bands on the Three Rivers known variously by the Europeans as Hot Springs, Mimbres and White Mountain Apaches. These groups are known most often by the names of the great leaders among them, Mangas Coloradas, Mangus, Victorio, Geronimo, and the great woman warrior, Lozen, who travelled with Geronimo's last resistance group. This last group to resist the invasion were no more than twenty-five people but it required five years and up to five thousand army troops to vanquish them. They demonstrated the power inherent in their natural adaption by surviving and disappearing up over the Mogollon Rim into the mountains where Europeans riding grain-fed cavalry horses had difficulty following. The headwaters of the Three Rivers, and especially the Gila River headwaters where Geronimo was born, proved a natural fortress against the invaders. The preservation of the natural beauty of the area today can be traced to the Apache resistance. The area was one of the last to be colonized by Europeans and then only sparsely.

Francisco Benavides led the first European entry into the high country in the early 1880's. He settled at the spot where the village of Reserve exists now on the San Francisco. This began the era of Spanish village culture and sheep-herding in the mountains. In the 1890's the Texans began to invade with great herds of cattle which overgrazed the land. This was the period of the open range that closed in 1924 with the final extension of the U.S. government power out into this country—Forest Service, BLM and barbed wire.

In the early 1970's another invasion began; not one of conquest but a trickle of refugees from industrial civilization. Small groups, individual families and individuals live dotted around the Three Rivers. Some own land and some do not. At Mimbres Hot Springs, in the Mimbres valley, a thriving community exists which acts as steward of the springs and farms some surrounding land. In Silver City a healthy alternative community is growing centered around the co-op food store, and on the "Frisco", families and individuals exist up to the headwaters.

The summer of 1981 saw the first annual "barter faire" in the region, held in the Mimbres valley. 1981 also saw the creation of the "Mogollon Highlands Watershed Association." Using the facilities and resources of the small university at Silver City the Association has presented monthly forums on topics such as the natural history of the Three Rivers, the archeology, and a popular forum on water rights. The group promises to be an educational and protective force for the area. In the San Francisco River area, a county newspaper has grown up (Catron County Firestarter, Box 195, Glenwood, NM, 88039, $3 per year) that speaks to the interests of the Spanish, Anglo and "new people".

Silver City is the regional meeting place for many of the "new people" but the friendships and linkages break down into watershed patterns in many respects because of distances. The food buying clubs that are serviced from the Tucson Cooperative Warehouse probably best describe this. The Alpine, AZ-Reserve, NM club serves the San Francisco. On the Gila River there is a club organized by people in the villages of Cliff and Gila. There are several clubs in the small town of Silver City and one in the Mimbres.

Survival, the earth and a common lifestyle are ingredients in the incipient "new culture". The threat of oil and gas leasing in wilderness areas, stealing of water by industrial consumers both in Silver City and the Phoenix-Tucson basin, and the scuffle for marginal employment provide rallying points. We are a long distance from the ecologically intelligent adaption of the Apaches, but the seeds are germinating and the ancient spirits of those who have lived *with* the earth before us are here. □

CANAL (Continued from Page 1)

sump. Having seen what has already happened to the Trinity, North Coast people fear that the wild Eel and Klamath Rivers will be tapped next to quench the ever growing southern thirst.

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While the Peripheral Canal debate can be exclusively portrayed as a north-south water war, the truth is more complex. Not everyone in Southern California benefits from water diversion. Strange as it may seem, Los Angeles residents have for the past 40 years been subsidizing the water used by agricultural and development interests in Orange, San Diego, and Kern counties. The prestigious *California Water Atlas* has estimated that, from 1942-72 alone, Los Angeles received only 8% of the Colorado River water that it was entitled to from the Metropolitan Water District which services all of coastal Southern California. That amounted to a whopping $335 million subsidy to Orange and San Diego counties.

The same has been true for Phase I of the State Water Project. Since 1972, Los Angeles has subsidized Kern county agricultural interests—primarily owned by oil companies like Getty, Union, Shell, Tenneco, etc.—to the tune of $240 million to grow such dietary "staples" as cotton, almonds and pistachios on 250,000 acres of reclaimed desert land. Coincidentally, the Los Angeles Times-Mirror Corporation—the primary media source in Southern California—owns substantial acreage in this area.

The subsidy has worked this way. Ever since Owens Valley days, urban Los Angeles residents have been scared into voting for new water projects on the basis of alleged impending droughts. Once the projects have been built, however, the water never seems to be needed. Always there has been an "unexpected" surplus which has been conveniently siphoned off by development interests at cut-rate prices. To this day Los Angeles people passively pay 23% of the water costs of the Metropolitan Water District but receive only 2% of the water. The difference is literally given to agricultural and development interests outside Los Angeles for simply the cost of delivery. In 1980, for example, one half of the entire yield of the State Water Project went to the Kern County Water Agency. Nearly 80% of that water went to a handful of oil-agribusiness companies with Los Angeles people picking up 37% of the cost.

The proposed Peripheral Canal is calculated to further expand the State Water Project from 2.3 to 4.3 million acre feet, annually. The oil companies and the directors of the Metropolitan Water District—many of whom have financial interests in areas that would get this new SWP water—are strongly behind this expansion. They are spending millions of dollars to convince Southern Californians that they need more water. However, John Burnham, recently retired chief economist for the Metropolitan Water District, has publicly been challenging his former bosses by saying, "There are three reasons for voting against the Canal: 1) We don't need it, 2) We can't afford it, and 3) We won't get the water anyway."

Part of Burnham's opposition stems from the fact that the cheap energy contracts negotiated by the SWP in the 1960s will soon expire. Even without the Peripheral Canal package, SWP energy costs to Southern California will triple by 1985 and increase ninefold by 1990. If the Peripheral Canal is built, $1200 a year water bills for Southern Californians won't be out of the question.

Additionally, the Peripheral Canal package will increase the amount of energy that SWP uses from 6 billion to 11 billion kilowatts, annually. This will be roughly 20% of all the energy consumed in the state. Besides increasing water costs, this energy drain will substantially raise everyone's utility bills in order to pay for the new power plants that will be needed.

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The future of agriculture is also in-

BIG MOUNTAIN REPORT

by William Koethke

Dan Budnick

The silence is broken by one Bilangaana [anglo] word—Relocation. Relocation is a threat contained in Public Law 93-531 passed by the Congress of the United States—very coincidently, after the U.S. Geological Survey had discovered a possible 20 billion tons of high grade coal on Black Mesa and under Big Mountain. The Law sets up a timetable for removal of The People which is designed to end in the summer of 1986 with over 9,000 traditional people gone from the land. As Jerry Mander reported in the fine article in the "Bioregions" issue of CoEvolution Quarterly, *very few have moved but the steady pressure is on.*

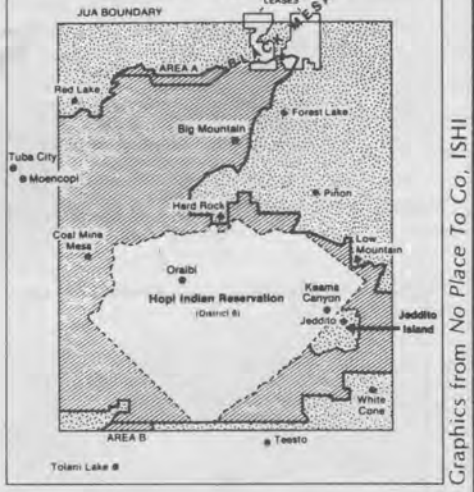
When Kit Carson and the U.S. Army forcibly rounded up Diné to take them to captivity in Fort Sumner, thousands who were not captured remained in the homeland. Some families remained in caves on Big Mountain. They slaughtered the herds to avoid discovery and jerked the meat which they then stored in the caves with them for survival. These families and bands have never treatied with the U.S. Government nor have they surrendered, but today the Independent Diné Nation at Big Mountain is surrounded by government hierarchies and is threatened with extinction.

Peabody Coal Company mine, Black Mesa.

It's difficult to imagine the confusion. There are the traditional Diné and the traditional Hopi. There are the missionary culture Hopi and Diné. There are the hierarchies of Diné and Hopi Tribal Councils. There is the BIA. There is that threat in Washington, in the East, and then there is the legal government that governs the Joint Use Area, the Navajo and Hopi Indian Relocation Commission. This quasi-governmental body is led by three presidentially appointed commissioners who head a body that has created its own administrative laws and has its own police force, judges and courts. But of course no U.S. citizen, Hopi or Navajo, in the JUA has ever voted for this government set up by Congress in PL93-531—because there have never been any elections!

In this nightmare of bureaucracy, the Diné, supported by the traditional Hopi, remain steadfast against relocation. One recent event in the drama was an offer by Senator Barry Goldwater, with concurrence of then Hopi Tribal Council Chairman Abbott Sekaquaptewa, to swap 16 parcels of Diné land (32 sq. mi.) for 21 sq. mi. of Big Mountain. To date no movement has occurred on this swap. Roman Bitsui, native of Big Mountain and Vice-President of the Hardrock Chapter of the Navajo Tribe (the chapter that covers the Dinnebito Wash-Big Mountain area) points out that the 16 parcels are mostly prime areas of land, many with good springs, arable ground and many contain graves of Diné. The 21 sq. mi. of Big Mountain would not contain many of the camps of The People on the lower slopes (including some of the important elders) and would not contain Sweet Water Spring on the southwest side of Big Mountain.

Leon Berger who was the staff executive of the Relocation Commission has now moved over in sympathy with the cause of the relocatees. He is now working as an assistant to the Navajo Tribal Chairman Peter McDonald, as the director of a special task force on the relocation dispute.



Graphics from *No Place To Go*, ISHI

Linda Dietrich

Out on the land the situation continues to deteriorate. Because of PL 93-531, new hogans cannot be built nor can old ones be renovated. The small sheep herds, reduced by PL 93-531, still cannot support families and other sources of survival are very slim. But, The People endure steadfast.

On April 18, 1981, the schedule contained in PL 93-531 gave the Hopi Tribal Council administrative and police control of the portion of the JUA that had been assigned to them and which contained thousands of Diné. At that time the HTC led by Chairman Abbott Sekaquaptewa passed Ordinances 23 and 24 which declared a total stoppage on building shelters in the Hopi portion of the JUA and ordered that further livestock reduction and elimination begin immediately. Beginning on the 19th, livestock roundups of Diné herds proceeded for the next three days until lawyers of the NTC went into court and got it stopped based on the fact that Ordinances 23 and 24 were worded to apply with discrimination to only the JUA portion and not to the whole Hopi reservation. This strategy of the HTC remains suspended but could be reinstituted at any time the HTC chooses to instate new ordinances that would pass the necessary legal tests.

This may not happen. A new chairman has been elected to the Hopi Tribal Council. Ivan Sidney, the new executive, is *not* Mormon and is said to be more open-minded toward traditions. Grandfather David Monongye feels optimistic about Ivan but takes a wait and see attitude.

Roman Bitsui is optimistic also about the new HTC Chairman. Bitsui sees the possibilities of the two tribes cooperating in helpful projects in the JUA, using the Navajo-Hopi Long Range Rehabilitation Act passed in 1950 after Diné were found starving in some areas of the reservation.

Motion continues in the Navajo Tribal government which may change that Council's strategy toward the relocation. The primary election for tribal officers will occur this summer and at least three persons have already entered the race against Peter McDonald. Of these three—Peterson Zah, Wilbert Willie and Jack Jackson—Jackson is speaking radically in favor of traditions and traditionals.

Through it all, the People at Big Mountain continue a timeless pattern of life in the face of the threat of relocation, which to them means death. They do not intend to go anywhere.

Pauline Whitesinger, one of the Big Mountain Elders who lives on a mesa above Sweet Water Spring says, "In our traditional tongue, there is no word for relocation. To relocate means to move away and never be seen again." □

The Grandmother sits on the earth in front of the fire before sunrise preparing the morning meal. The stacked rocks which form the fireplace opens to the east from which, what she refers to as Father Sun, will rise. Leaning against the fireplace is the venerable fire stick which is used to scrape coals under the skillet for cooking. Another slender and aged stick rests nearby which is used to turn the fry bread in the pan. As she ladles out the sheep grease and it sputters in the hot pan, the Piñon Jay voices a morning call and Father Sun begins to look over the mesa far to the east.

Everything is in its place of balance and harmony to the Big Mountain people. The Father Sun shines on the Mother Earth and the Grandmother with the male energy of fire creates food for the young as she teaches them each morning. All around they see grasses, trees, herbs and creatures living peacefully in the morning silence. The sheep in the corral are quiet. In the shade built in the sheep camp stands a square iron frame that had once been part of a bed, and stretched on this loom is the beginning of a beautiful wool blanket. They feel that nothing more is necessary but the timeless harmony of the web of living things in which they live—Diné, the People.

volved in the Peripheral Canal debate. Currently, agriculture uses 85% of the developed water in the state. It does so with no ground water management, no reclamation, no conservation. Agricultural water is so heavily subsidized by urban people, so cheap to the farmer, that there is no incentive to conserve. Additionally, profligate use of water is creating alkalinity problems—where evaporated salts are concentrated on the surface of the soil—that now must be dealt with. This is the age-old problem of irrigated farming on reclaimed desert lands. The agribusiness "solution" to this problem is to take ever more fresh water out of Northern California to flush away the salts as well as fertilizer/pesticide residues that accrue from their type of farming. Along with more water, agribusiness wants something called the San Joaquin Drain. Its function will be to flush the contaminated agricultural water from the San Joaquin Valley into the San Francisco Bay-Delta estuary. This will, of course, kill off the remaining fishery and farm production in the estuary. The agribusiness answer to that problem is to dam and divert the Eel and Klamath Rivers and use that water to flush out the estuary. The hydraulic process, once started, goes on *ad infinitum*. . .

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Sooner or later the expansion of hydraulic society has to stop. Perhaps, for a time, cheap labor—in the garment industry, restaurants and the fields—can compensate for the loss of cheap fossil fuel energy. But at what political and social cost? In the long run Southern California's hydraulic society cannot be sustained. All Californians have to begin—if there is to be a sustainable future—to live within their bioregional means. This involves a different accounting than hydraulic economics can offer. Our real budget is the natural fertility of the places where we live and the June vote on the Peripheral Canal offers all Californians an opportunity to chart a new direction. □

AFRICA

An interview with Alem Mezgebe

Africa has lately been relegated to the back pages of Western newspapers—despite the fact that widespread famine and ecological crisis are daily mounting. Alem Mezgebe, Associate Editor for New African *magazine, recently visited the San Francisco Bay Area and Planet Drum took the opportunity to be his host for a few days. In the process Alem—an Eritrean exile now living in London—shared a wealth of political and cultural news. Particularly interesting is the emerging view that much of the current African tragedy is essentially institutional and of Western origin. In what follows Alem talks about the intolerant neo-colonial elite, the destructive dependence on foreign exchange and the cash crop, export economy, the role of African women, and Africa's rich cultural heritage.*

Michael Helm: What is happening on the African continent today that is particularly significant? You've mentioned hunger, for instance.

Alem Mezgebe: Yes, as I said in the November issue of the *New African*, "Africa is in a mess politically and in a shambles economically. Hunger is but a gnawing reminder of the deepening crisis—the crisis that started in colonialism. The alien political institutions and institutionalized ideologies have no bearing on Africa's past system of values and its people's needs." When independence came, African governments inherited all the institutions left by the colonialists. Like bureaucracies, secret police, the army, Napoleonic and English common law that contradicted the values, the democratic structures, the autonomous way of operating and running one's affairs from the villages that characterized African history. They don't exist anymore. They're not being tolerated by the governments, because they feel they challenge their authority. So they model their governments on the French system, the Portuguese system, the English system—all that has been responsible for the deepening crisis in Africa. The people don't have the weapons with which to solve their problems because the people are on the margin, whereas the governments have control over their minds and the bodies and the movements of the African peoples. The African governments survive through the export of commodities, from the revenues. Its members lead luxurious lives, they equip and train their armies, they build jails. Even the educational system is built in such a way that it is an elitist educational system. There are areas where 95% illiteracy exists.

MH: What about the question of hunger?

AM: There are now nearly 70 million Africans on the bread line. Most of them don't get even one meal a day. There are children dying, there are people dying every day because of hunger while all around them is green pasture. The resources are not being used properly.

MH: Africa is rich and yet there is poverty, hunger and starvation happening—perhaps you could talk to the roots of that.

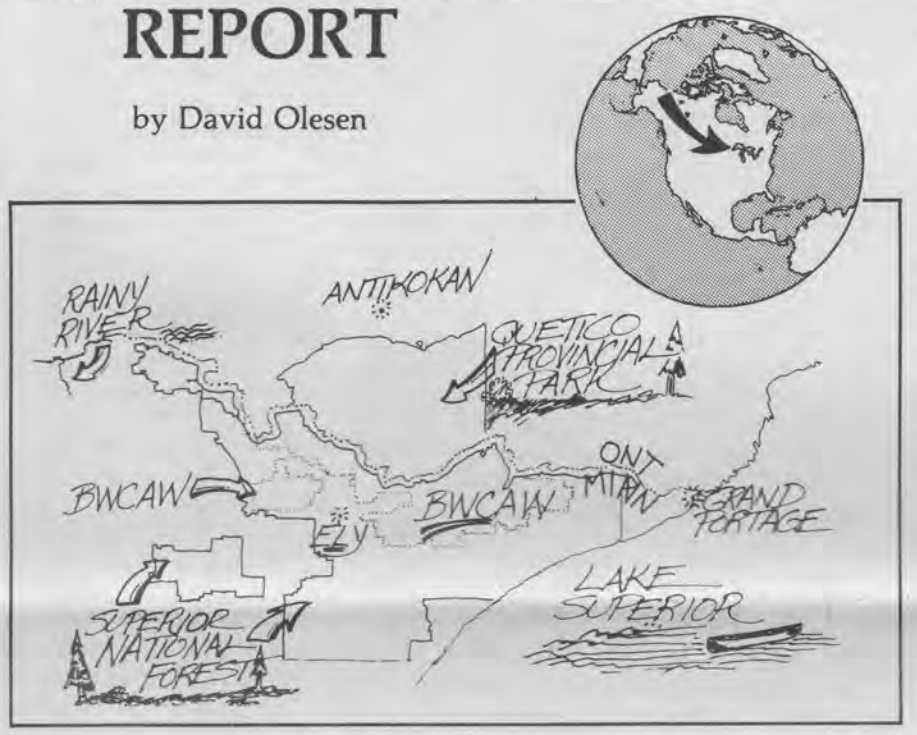
AM: The colonial slave trade was very disastrous to Africa because it caused a massive human hemorrhage. The working adult population was kidnapped and sold. So there were only the women, the elderly and children left behind to work on the farms.

MH: One question that's often raised in terms of the history of slavery is the participation of Africans in it—the playing upon rivalries and hostilities in Africa by Africans cooperating with the colonial structure in terms of exploiting slavery as an institution. Could you speak to that?

AM: I don't agree with that at all. I think it is an argument used to soothe one's conscience. There were soldiers being sent to kidnap people from the villages. They were not getting the cooperation of the people at all. Everywhere there were military raids and

QUETICO-SUPERIOR REPORT

by David Olesen



I live here on the edge of the largest formally-designated "wilderness" area east of the Rockies. A land of lakes, granite ridges and boreal forest stretching from Lake Superior (Grand Portage) on the east to the Rainy River on the west; north to Atikokan ("place of the caribou"—Ojibwe), and bounded on the south by a series of winding local roads and small communities.

Names—a place to start. This is a land familiar to many, especially in the Midwest, as the "Canoe Country," the "Quetico-Superior," and the "Boundary Waters." Canoe Country because it is a virtual maze of lakes and portages, most easily traveled by canoe. Quetico-Superior because Quetico Provincial Park (Ontario) joins with the Superior National Forest here, and Boundary Waters because here the international boundary follows the old fur-trade route west from Grand Portage, over countless lakes and portages.

Boundary Waters is not an inappropriate name for the land, if we look *beyond* the *political* boundary, because this is a place that is a boundary in many more meaningful, less arbitrary ways. The bedrock here is near the southern edge of the huge Precambrian Shield (also called Canadian Shield), the glacier-scoured granites and metamorphosed sediments which are among the oldest exposed surface rock in the world. It is a rugged landscape sculpted by the glaciers, and still rebounding slowly, 10,000 years after the staggering weight of ice was lifted for the (so far) last time.

The waters drain from here in a pattern of lake-filled glacial troughs trending generally northeast to southwest. The waterways gain size rapidly as they move west from the Laurentian divide. This is the Arctic watershed—Hudson Bay via the Rainy-Winnipeg-Nelson system—a fact little known even among those quite familiar with the place. To the south, it is not far to the headwaters of the Mississippi, and a journey 100 miles east puts a traveler in the Lake Superior-St. Lawrence River basin. So we here live in a watershed that lies almost entirely within Canada.

Yet another boundary-line aspect of this region is its climate. Warm Gulf air masses moving up from the south often collide with cooler Canadian systems here, in all seasons, and make local weather quite variable. Generally, though, winters are quite cold (-40 to -50 are common overnight lows in January) with ample snow; summers warm with plenty of thunderstorm activity.

Of course, the living segment of the region's ecosystems reflects these physical forces. The border lakes are near the southern edge of the boreal forest arc, stretching from Alaska to Newfoundland. White, red, and jack pine (the first two becoming scarce now under the combined influence of non-native parasites, turn-of-the-century lumbering, and wildfire suppression), black and white spruce, cedar, fir, aspen, birch, ash, and maple are the major forest species here. The land shows its richness as an ecosystem interface in its diverse animal life. Boreal species like lynx, moose, and lake trout mix to some degree with whitetail deer, bobcat, and bass. Essentially absent for the last 50 years or so have been former natives such as woodland caribou and wolverine. The timber wolf here finds its last area of refuge in the entire 48 coterminous states. Wolves are completely protected by tough federal laws, and populations are at or near capacity throughout the area.

Native cultures inhabiting the region at the time of first contact with whites were the Woodland Sioux and the Ojibwe (or Chippewa). In a series of battles and through fierce trading competition, the Sioux eventually moved west to the plains, leaving the Ojibwe as the dominant native culture. Most local bands have ended up as Canadian citizens, with the Minnesota groups centered on the Grand Portage, Nett Lake, and Vermilion reservations.

The native people played a leading role in the region's first natural-resource economy—the fur trade. For about 100 years after the mid-1700's, the Canoe Country was literally a highway for explorers, traders, and *voyageurs* bound cross-continent in the service of the Northwest Company, Hudson Bay Company, and other smaller firms. This has been the period of history most romanticized and most often presented to tourists as "Canoe Country history."

The fur-trade era is not the "good old days" looked back on by the current local residents, though. Ely is an iron mining town, as is Atikokan—without the mines their very existence would be tenuous at best. Other local ommunities trace their origins and owe their present survival to commercial lumbering—first (early 1900's) for white and red pine; today for pulp species like aspen and spruce. Mining and lumbering are the region's economic backbone—wilderness tourism, though important, involves a relatively small portion of the work force. For the region's "old-timers" (many of them first generation Finnish and Slavic immigrants) as well as for their counterparts in today's mines and lumbering sites, the intense interest in the "Canoe Country" as a wilderness preserve has been the cause of much bitterness and struggle.

The Boundary Waters Canoe Area Wilderness (BWCAW), as it is now officially labeled, has to be the most argued-over million acres on the continent. For over 50 years, it has been the subject of virtually non-stop political debate—from the Ely area to Minneapolis-St. Paul, to Chicago and Washington, D.C. The debate continues today, and the issues are no doubt familiar to anyone who lives near a similar area.

Almost every outdoor enthusiast in the entire Midwest has at least heard of the area, and many travel to it every summer for a canoe trip. The BWCAW (love dem initials) attracts more visitors than any other designated wilderness in the country. To these people, the Canoe Country is a refuge, the last large intact piece of wild lake-and-forest country left in the U.S. To the local residents, it is the backyard—a pace to be enjoyed on weekends throughout the year, for hunting, fishing, trapping, snowmobiling, boating, and canoeing. These people make their living in the mines, logging operations, and towns along the edges of the wilderness, and have a perspective of the region as a whole very different from that of the summertime canoeist or the winter skier from "the Cities."

Today, the local economy is desperately searching for a boost. The taconite (low-grade iron ore) mines have recently laid off large percentages of their work force, and a new federal law has prohibited motorized access to much of the Boundary Waters, as well as changed the number and location of timber sales. Once-thriving resorts are being sold to "the Feds," who under the new law are guaranteed "right of first refusal." Loggers are clamoring for access to timber along the wilderness periphery. Bumper stickers proclaim, "Better Dead Than Fed"; "Keep the BWCA Open for Everyone"; "To Hell with Public Law 45-495!"

A group of local boosters are attempting to give Ely a renewed economic vigor as "gateway to wilderness recreation." They seem to be succeeding, slowly but surely. Winter tourism is on the increase, making the recreation business a more steady source of income.

Larger questions loom, as we look ahead a few years. Acid rain threatens the region's sensitive (and already naturally acidic) waters. Copper-nickel development is forecast, on the very edge of the wilderness area. Complete shut-down of the taconite mines in the face of low demand and stiff competition may not be far off. The disposal of nuclear waste in the region's ancient and extremely stable granite bedrock is getting frequent mention in the press.

"Reinhabitation" here makes for some strange bedfellows. Land prices for acreage close to the Boundary Waters are high and increasing. Young woods-folk find themselves vying with successful professionals from Minneapolis and Chicago for a place to call home (or second home). The "reinhabitants" have often come to the area from elsewhere (as I did), traveled the wilderness for recreation, worked seasonally for local camps and outfitters, gradually found themselves here year-round. So the view of these new residents toward wilderness and environmental issues is generally tilted toward the aims of organizations like the Friends of the Boundary Waters, in Minneapolis. Yet our neighbors, the people we live and work with, are the durable Finns and other locals whose parents came to work in the mines and lumber camps many years ago. They have a deep commitment to this beautiful land, too. We see eye to eye with them on many issues, and at the same time sympathize with the wilderness advocates who have prevented the filling of the Canoe Country with fly-in fishing lodges, clearcuts, and snowmobiles. There are no simple answers—even as I write. I find myself second-guessing the impressions that certain comments will convey.

But it's good country. Below zero this morning, good ice now on all the lakes and streams. Wolves were singing from the ridge across the lake last night. □

they were using superior firepower in their various nefarious activities. Of course, in every society you find people who cooperate with the enemy. There is no doubt about that. But to say that the Africans contributed to the slave trade is absolutely wrong, it's not historically substantiated at all—because the slave trader doesn't care who's there as long as he gets the muscles that he can exploit to bring him new wealth. So that's absolutely untenable as an argument.

When we come to the colonial times, the slave trade had reached a saturation point. The New World, as they called it, was now working according to a different rhythm. Wealth was being produced and naturally slaves were not in a position to buy commodities that were being manufactured in the industrialized world at that time. So they had to abolish slavery and then turn Africa into a monoculture continent producing raw materials and commodities like peanuts, cocoa, cotton, and minerals like iron, copper, diamonds, and what have you. But there was only a limited scope for African participation. There were millions of people who were outside that economy.

MH: That's still the economy that exists.

AM: That's still the economy that exists and that's connected to the problem of hunger. Because the soil is being abused. In former times you could produce I don't know how many tons of cotton per acre—now because the soil has been overused you have to expand the acreage in order to produce and get what they call foreign exchange for their commodities. I always ask, "Why do we need that foreign exchange?" Our policies have to change—we have to produce enough food to sustain ourselves and then be selective in our development policies.

MH: Foreign exchange is used by the infra-structure that was trained and created by the colonial era. The army, the bureaucracy, etc., become a class essentially that enjoys neo-colonial prerogatives in the context of national liberation. Would you say that's accurate?

AM: Yes, you see, you're right because now the presidents live in palaces. Not in palaces left by the colonial power—they had to build new ones. That means foreign exchange with which to import furniture from Europe, marble from Italy, telephone systems, television—everything that's in the West. None of the people benefit from that except the new class—the elite. The foreign exchange is used to create a new army to protect those privileges. I can give you a whole catalogue of examples. They have prestige projects, huge industrial plants that are working under capacity, and the products are not even exported because no one wants them in the West—they are not high quality. The people cannot buy them because they don't have the cash; they're not in a market economy. But the elite just wants the prestige of big projects. Instead of having health centers throughout the villages they prefer to have one or two prestige hospitals in the urban centers. They open one or two big schools in the capital cities and in the villages there are no schools. They don't have textbooks, they don't have pencils, they don't have exercise books. So all the money that comes in is used to cushion the needs of the ruling elite.

MH: Can you speak to the relationship between hunger and environmental destruction of Africa as it relates to the monoculture?

AM: As I said earlier, the land had been used to produce cash crops for exports upon which the economy of many African countries, if not all of them, depends. The forests have been chopped in order to export pulp and timber and so the desertification process is accelerated. You must have seen pictures in the films of hungry people in the Sahel dying. That's also the product of the diversion of rivers and the overexploitation of the land to produce these cash crops. The people have to abandon their villages and regions to move further south and leave the land behind. And the Sahara Desert is creeping southwest every day of the week. You know, people knew—in the rural areas they still do—how to use the land. They have a bioregion. They don't abuse the water. They don't abuse the soil. They don't abuse anything at all. They know when to plant and when to cease planting, because they used to have surpluses in their harvest. But this is not happening now. There is mass exit to the urban centers, because that's the only place where they can get work or heat or food. So you find millions of beggars in the urban centers. People who were proud before—being farmers, producing food for themselves and their families and their communities. Now, Africa is importing huge amounts of food in order to survive. For instance, agricultural production in Africa was expected in 1980 to be in the region of 20.8 million tons—a drop of 12% from the 1978 average. Some countries like Uganda who used to be rice exporters are now reduced to a peanut republic—they only produce peanuts. The figures also reveal that the African continent's imports of cereals increased by 9% a year—from 2 million tons in 1960 to 12 million tons in 1978. Less food is now being produced in Africa than was grown in 1970. The dependence on imported foods and foreign exchange is also causing havoc to the health of the people, because they don't get what they need. They get mostly wheat. It's not the indigenous crop and people's health is affected. It's a cure that kills. Wheat is not saving people from hunger, it's killing them.

Nancy von Stoutenburg

Alem Mezgebe

MH: What's happening to the population in Africa—is it growing?

AM: It's growing at its normal pace, but the neo-Malthusians are saying there are more people in Africa than there is food to feed them. It's a theory that's being used to promote contraceptives and so forth in Africa, which I disagree with completely.

MH: It's more the economic and social structure that creates "too many" people?

AM: That's right, because the population of the world has been increasing all the time and yet people are able to feed themselves and have something in excess to exchange for other commodities. So people cannot convince me by saying that there are more people than there is food. That's not the problem. The problem is more structural. The institutions that are now in existence in Africa do not represent the needs and the aspirations of the people. Therefore, there is famine and crisis at the present time.

MH: What are the alternatives; what should be done?

AM: The alternative is this. Either we perish—following the pattern we are following now, or we have to look at the problem of Africa differently. We have to question the existence of structures. We have to question the policies of our governments. We have to challenge them to create the necessary atmosphere for a discussion on what Africa should be, what pattern of development it should follow. The groups planning the development programs now are foreigners who have no knowledge of Africa. They sit down and they say, "Oh, you have tremendous hydrological resources—if you divert this water this way or that way, you get electricity, you can irrigate this and that." But the people who are directly concerned, the local population, are not consulted and they know the land better. Of course they need electricity—but not at so high a price that in a few years they'll be completely uprooted from that region, because this new need has been introduced. People have to be able to participate in decision-making from the village up to the central government, which is not happening. There are only the bandits in the capital cities, from the President down to the bureaucracy, saying, "This is the way it's going to be." If you challenge that, then you are an enemy. You are shot or imprisoned.

MH: Which is one of the reasons you're in exile now?

AM: Yes, I'm not the only one. There are thousands of Africans now living in Europe and America and elsewhere because they cannot exercise the democratic right to discuss and make suggestions on how to improve the lot of the people.

MH: Could you speak to the whole notion, that's very prevalent in the West, about democratic institutions, principles, human rights somehow being inherently inappropriate to Third World, undeveloped countries?

AM: Well, I don't agree with that because there is nothing peculiarly Western in democracy. In Africa, for instance, people dialogued—democracy means getting your ideas, your message across by discussing, arguing, debating—and then come to a general consensus and act according to that consensus. Human rights were there. Maybe the phrase didn't exist, but people were not prosecuted for believing what they did, for exercising and professing their faith, worshipping their gods—whatever they wanted to do. It was taken for granted that you were a human being with all the rights and responsibilities that accrued to that particular society.

MH: Are you referring to tribal units throughout all of Africa?

AM: Yes, there is no persecution because you believe in something. There is all this palaver. Before some action is taken, people in the villages sit down with the elders and talk and argue their points. Everybody acted according to that. Because when you elect your elder it's because you know that person is not going to let you down—he has your interest at heart. So they were not antagonistic forces. This is the system on which they lived. Now, there is enough raw material of that tradition to mold new institutions, based on those democratic, human institutions and customs that existed before.

MH: Could you talk a little bit about African family structure, particularly women? I'd be interested in what you might have to say about African women in the context of women's liberation.

AM: I think the woman question in Africa is very, very important. But we don't have to look at the African society from the point of view of the Western woman. That's wrong, because African women, for example, look at the problems of circumcision and infibulation from a different point of view. It's very important to find out how it fits in the cultural pattern of the people, and all these questions can only be answered by the people who practice it.

But, on the whole, African women are oppressed because their role is secondary to that of a man. In the countryside it is a fact that there is a division of labor. The woman is productive—she works on the farm. The man is working on the farm—he's not idling around while she's doing the job. There is a myth that many people now believe—that the woman is hard working and the man is not. What makes her task harder is that after working on the farm all day she has to come home and care for her family, which means cooking and washing and the children and so forth, which is an additional chore. This is how it has to be seen. Since the African male villager has not been trained to share those chores, you cannot go around and make him change his mind or his attitude towards the woman. You cannot even go and agitate for women's liberation to that woman because it is outside her scope and understanding.

MH: But, does that mean change isn't possible or desirable?

AM: In order to change something you have to first understand the mechanics—you cannot just go and use a jet engine on a Volkswagen car.

MH: What about urban African women? How do they differ, if at all, from rural African women?

AM: They overdo it. They become too Westernized in relation to their society. They are too Westernized in the way they dress and the way they talk and the way they behave. It is very counterproductive for what they want—that is equality and liberation. When they go to the village and talk about this thing, the village women don't understand them because they look different. They now have an alien body, although they talk the same language.

MH: What about the urban men? Are the urban men more receptive to a redefinition of roles?

AM: No, African men are extremely chauvinistic. They always believe that the woman must be kept where she is—to be a mother, a cook and nothing else. This is the prevailing attitude. It needs a stiff fight, and only the women can do it.

MH: What about the cultural edge of Pan-Africanism? Could you explain what's happening in terms of the arts, literature in Africa today, that we should be aware of.

AM: Yes, that's my favorite topic. Africa is very, very rich in the arts. It's also very rich in literature. But, what is literature? People think in terms of Shakespeare because he wrote, but there is also another aspect and that's oral literature. It's a pity that the West has lost its storytellers.

MH: Has anybody attempted to capture the African oral tradition in print at all?

AM: Many Africans have tried that and many non-Africans—ethnologists, anthropologists. You find that in African Studies programs in the West. The thing is, until recently and even now, if you don't speak any of the European languages, like English or French, you're not supposed to be civilized. So African people in the urban areas are not interested in what's being done around them—the treasures they have in terms of culture, customs, traditions. They reject them. It's a pity because all our history is oral history—which many people think is not true history. But it is. Instead of writing it, they memorize it and then they pass it from one generation to the other.

MH: Much like the poetic tradition used to be.

AM: That's right. That's why the old folks in Africa are called walking libraries. They know quite a lot about their history. These are now being neglected. There is no conscious effort by the African government to preserve and record these oral traditions. They are dying out as a result. It's the most important thing that could be done and should be done.

MH: In terms of literature, which African writers should we be aware of? Have they been translated?

AM: There are many. They don't even need a translation because most of them write (laughter) in English or French. There are people like Ngugi wa Thiong'o, who's one of the leading writers in Africa at the moment.

MH: Where's he from?

AM: He's from Kenya. He was jailed for a year without trial because he saw that writing in English was not serving his community's interests, because they don't know the language. Therefore, he started to write in Kikuyu, which is one of the major languages spoken in Kenya. What Ngugi did was recapture the Mau Mau uprising. That was a nationalistic movement—it was wrongly called Mau Mau. It was really called the Land and Freedom Army. There are still survivors of that liberation struggle. They are beggars now; they didn't get recognition, whereas the colonial collaborators are in power now in Kenya. So what Ngugi did was he went to the community and talked to the people who participated in the war and established a center for them. He, and other people, started to give them les-

(Continued on Page 14)

NATURAL
SALMON ENH

by Mic

The native king and silver salmon run in Northern California's Mattole Watershed used to be so prolific that unrestrained residents were known to annually "spear them with pitchforks" as they came into the river each fall. No more. In the 1950s and early '60s the Mattole Watershed became so degraded that the native salmon are now in danger of extinction. A number of local residents have—within the past three years—intrepidly decided to try and do something about it. In the dicey process they are creating a potential model for community-watershed work that is simultaneously generating state of the art scientific information.

But, first some background. Mattole, according to local legend, means "clear water," a name derived from the Indian population that used to live here before the onslaught of European migration began in the middle of the 19th century. While the 65-mile long Mattole is currently noted by steelhead fishermen for its shallow, meandering turbidity, old timers—according to local fisheries biologist Gary Peterson—remember when, "It was a cool, clear-running river with a relatively narrow, well-defined channel, deep pools, and an abundance of streamside vegetation."

What happened? Well, a number of things. First off, the Mattole Watershed is one of the wettest in California—annually receiving in its headwaters up to 144 inches of rainfall. Historically, the mixed hardwood and evergreen forest that was here assimilated this downpour without undue soil erosion. However, the advent of sheep and cattle ranching—primarily for wool and hides—in the early part of this century began to change things. Large stands of native tanoaks were cut to strip the bark which was an essential component of the local tanning industry. Other parts of the forest were burned and cleared to increase the amount of available grazing land. This process continued until 1950 when less costly, synthetic chemicals and fibers eliminated the local tanning and wool producing economy. In the meantime, however, soil and slash which had previously been well-rooted began to wash into the Mattole and silt over the fragile spawning habitat salmon require.

Concomitant with the decline of sheep and cattle raising, indigenous Douglas Fir trees became commercially valuable. Beginning in the late 1940s and extending through the '50s, rapid clear-cutting of Douglas Fir—with attendant soil-eroding skid and access logging roads—took place. Disastrous floods in 1955 and 1964 caused severe damage to the already weakened watershed. "Erosion processes initiated during these floods," according to Joe Erwin of the Mattole Center for Science and Education, "have continued into the present." The net result of all this has been that the Mattole Watershed is today physically degraded and economically depressed, and the salmon scarce. The natural provision which has traditionally sustained the area—the forest and the fishery—has been reduced to a minimum.

While time heals most wounds—the second growth forest is coming back and the log-jammed river is slowly scouring itself clean—the exacting native salmon population will, if unaided by positive human intervention, likely be gone 50 years down the line. One of the groups that recognizes the need for prompt action is the Mattole Watershed Salmon Support Group. Planet Drummers Peter Berg, George Tukel and myself paid them a visit this past February to learn more about their salmon enhancement efforts.

Our first evening was spent with Linn House who, along with David Simpson and Gary Peterson, is one of the primary organizers of the Salmon Support Group. Linn's interest in salmon goes back to the days when he was a fisherman in the Pacific Northwest. A philosophic, quiet man, Linn—who is also the author of *Totem Salmon*—described his enhancement efforts in these terms. "I live here. I want to live in as vital a way as possible." A man of wry aesthetic sensibilities, he added, "A future with abundant natural provision would allow us to live a life with grace and slack in it." Linn also likes a worthy challenge. "Frankly," he confided, "I take particular pleasure in trying to do something which people say can't be done." For, up until recently, most local people had pretty much written off any possibility of bringing the native salmon runs back.

Over an exquisite venison stew, Linn explained why an indigenous salmon enhancement program appealed to him and his cohorts. "It makes more sense to maintain a unique stock that has already adapted to the Mattole over thousands of years than to introduce hatchery eggs from some removed source. After all," he affirmed, "salmon know more about salmon then we do. They're fiercely native." Polishing off the final touches of a double liter of Mendocino *blanc ordinaire*—over anecdotes about the pleasures and pitfalls of rural living—George, Peter, and I finally drifted into our sleeping bags about the time the last embers in the wood-burning stove began to wink out.

The next day was Sunday. We awoke to the pull of freshly brewed coffee. Nina, Linn's partner, was playing with Laurel, their melodically cooing baby daughter. Enticed by the promise of a special breakfast treat, we stirred from our cobwebs. Three cups of coffee, a visit to the outhouse later, we were ready for feral pig sausage, flapjacks and a couple of local eggs.

Linn had some pressing business to attend to, so George, Peter and I took the opportunity to bone up on some of the written details of the Salmon Support Group's hatchbox program. From a progress report released to the

general community just that week, we learned that four hatchboxes had been installed, with filters and water supply systems, on local creeks. Two others had been built but not installed due to the short supply of native eggs. Heavy rains, sporadic runs, and high water had made it difficult to catch enough ripe females to stock all the hatchboxes with eggs. During the course of the season, the Salmon Support Group had caught 83 adult fish but of these, curiously, only two had been king salmon females. The Salmon Support Group had concentrated their efforts on king salmon because, unlike silver salmon, they proceed directly to sea within a few weeks of birth. Silver salmon stay within fresh water for a full year before migrating to sea. Given the degraded habitat of the Mattole, the Salmon Group feels that a larger survival rate of returning native king salmon is likely from their hatchbox program than of silver salmon.

From previous conversations with Linn and David Simpson, we knew about the difficulties of the first stage of their enhancement efforts—trapping ripe salmon for their eggs and milt. Two years in a row their trap and weir had washed out near the mouth of the river. This year, for example, nature's awesome unpredictability destroyed their trapping facilities in late October when five inches of rain resulted in the rampaging Mattole rising six feet within a few hours. Not wanting to interfere with spawning salmon further upstream, Fish and Game had initially insisted that the Salmon Support Group trap their fish exclusively at the river's mouth. Knowing when, where, and for how long the salmon will run is, however, very difficult to predict. Additionally, many of the salmon are not ripe when they first enter the river and have to be stored in holding tanks, which generate further potential problems. Since the Mattole is naturally closed to spawning salmon during low water between May and October—by a sandbar—and the river is no longer deeply channeled, guessing *where* it will open up after the first substantial storm has been a real gamble. Last year, in the midst of a 7.1 Richter scale earthquake, the Salmon Group guessed wrong by a quarter mile. The Mattole's opening had moved that far from where it had been the previous year. Then, too, as Linn House has written in *City Country Miners*, "Because the river is high and muddy during most of the king salmon run, nobody can be quite sure how long it lasts. Everybody, however, has opinions. One long-time resident has told us that under the right conditions *all* the salmon can be past in three nights. Another told us that there are *always* kings in the river until Christmas. Biologists shrug their shoulders."

This year, the Salmon Group again implemented a contingency trapping plan. With the approval and assistance of Fish and Game, gillnets were used during November to pursue seed salmon. Two males and one eleven pound female king were caught in the lower river and transferred to a holding tank. Unfortunately, the Salmon Support Group reported, "After seven weeks in the holding tank, the female and two males died of fungus infestation. This probably signifies some sort of natural limit to the amount of time that a spawning fish can be held."

As a third contingency plan, a rough double weir of fenceposts, chicken wire, and sandbags—with Fish and Game's exceptional approval—was installed *upstream* near Whitethorn. This trap worked well. However, by mid-December the large part of the king salmon run had already passed, so that only one female and two males were caught. From this catch some 4000 eggs were taken, fertilized and transferred to the primary "eyeing" incubation box near Petrolia. They remained there for nearly a month before being transferred back upstream to a hatchbox on Thompson Creek.

Interested in the community dynamics of the salmon project, we learn that the Salmon Support Group works closely with Coastal Headwaters Association, headed up by Richard Gienger in Whitethorn. Coastal Headwaters is primarily concerned with conducting stream surveys and fish population studies as these relate to habitat improvement work and the determination of appropriate hatchbox sites. Both of these groups are working in close conjunction with Fish and Game—which is legally responsible for all hatchery operations in the state. Fish and Game is providing both technical assistance and financial support for the salmon enhancement work that is being done. This past year DFG, at the behest of Assemblyman Doug Bosco and Resources Secretary Huey Johnson, allocated a combined total of $75,000 to the Salmon Support Group and Coastal Headwaters. In addition, local landowners have generously provided access rights for stream surveys and hatchbox sites, and local timber companies have contributed significant discounts and donations of building materials. The president of the Salmon Support Group is a local rancher, Russell Chambers. The fact that new settlers, DFG staff, ranchers, commercial fishermen, farmers and lumber companies are all beginning to work together is itself an exciting watershed development.

Our heads buzzing with information, George, Peter and I—along with Omar, David Simpson's son, and one of his friends—decided to do some primitive ocean shore fishing. Because a winter storm had washed part of Lighthouse Road away, we cut across a dense alder thicket and walked some three miles to a rock formation that jutted out from the beach. Using alder branches, hook and line, old spark plugs for sinkers, and mussels for bait, we managed to catch six perch and greenling between us. While at it, we harvested thirty pounds of mussels as well. Later, over mussel chowder, steamed fish, and other goodies, we marveled at the gourmet quality of the Mattole's natural provision. Venison, feral pig, mussel soup, beat the spit out of our usual dietary fare!

Monday morning our first stop was at Rex Rathbun's place which abuts the Mattole's eroded banks, near the tributary Mill Creek hatchbox site. Rex is a rakish-looking man in his sixties who staunchly supports the salmon project. He, and his wife Ruth, have generously allowed the Salmon Support Group to use their ample kitchen area as a meeting place and message center. Additionally, the eyeing facility—which is where the fertilized eggs are carefully nurtured for about a month until you can see a dark eye develop within the yolk—is also on the Rathbun's property.

Rex, a somewhat fatigued Gary Peterson, and I walked over to the eyeing tray. Gary had just returned from a benefit for Mattole salmon enhancement put on by the Grateful

Photos compliments of the Mattole Watershed Salmon Support Group

PROVISION
IANCEMENT

el Helm

Dead in San Francisco. Rex explained that the empty tray before us had been used to eye some 3700 king salmon eggs that were now incubating in the Thompson Creek hatchbox. I also learned that 30,000 silver salmon eggs from the nearby Noyo River—which had already been eyed there—had been placed in the Mill Creek hatchbox some 600 yards upstream from where we stood. This decision—to use Noyo eggs, provided by Fish and Game, on Mill Creek—was not without its controversy. Especially since the Salmon Support Group is primarily committed to restoring native salmon to the Mattole. Nevertheless, Gary explained, the group had decided to use "foreign" eggs because native silver spawning on Mill Creek had become extinct due to a poorly planned county culvert. Then too, a desire to test the hatchbox system and the shortage of native eggs this year had also figured into their calculations. The Salmon Support Group had concluded that introducing Noyo silvers offered minimal risk of fungus infestation, because both the Noyo and Mattole have similar habitat conditions—even extending to sandbars which close both rivers during low water between May and October. Using Noyo silvers will allow the Salmon Support Group to establish a new silver run on Mill Creek—which is near the Mattole's mouth—without interfering with native silvers that still spawn further upstream.

We returned to Rex's front yard and were shortly joined by Linn House and David Simpson, as well as a contingent of interested fisheries people from outside the watershed. An information sharing meeting had been previously arranged with David Miller—a biologist down from Simpson Lumber Company in Korbel—and Bill Hill and Chris Toole of the Humboldt Fish Action Council. David Miller is the designer of the "downwelling" hatchbox which the Salmon Support Group is using. It is designed to simulate the stream conditions—water purity, temperature, aeration, and protective gravel—required by naturally hatching eggs. The hatchbox—a variant of one that has been used successfully in Alaska and British Columbia—is capable of increasing egg to fry survival five to ten times over natural spawning, using a relatively small number of spawners. Since the Mattole salmon population is so diminished, hatchboxes are a relatively low cost interim way of maintaining the run until the natural habitat can be restored and the salmon, once again, propagate on their own.

In tandem we walked up to Mill Creek, stopping at the culvert site which had hampered the native silver run. Rex explained to everyone what had happened. Essentially, the county culvert—which ran under Lighthouse Road—had channeled the fast moving Mill Creek winter runoff in such a way that it had dug a ten foot hole at the culvert's base which returning silvers had been unable to jump. The county, feeling responsible, had subsequently bridged the gap with several tiers of large boulders which we could now see frothing in front of us. Rex indicated that plans were afoot to baffle the culvert this coming summer so that future returning fish could rest periodically while passing inside through its swiftly flowing water.

Arriving at the hatchbox site, David Miller expressed satisfaction with its construction. The hatchboxes were built by local carpenters, Andrea Cohen and Rhodes Hileman. Rhodes had also contributed his welding skills, learned in San Francisco shipyards. Linn and Gary asked David Miller—since he had designed the hatchbox—about a water flow problem they were having. While not critical, the water flow had been substantially reduced as a result of a flushing operation geared to remove some siltation from the bottom of the hatchbox. There was also concern that a dozen or so alevin—a tadpole-like stage that salmon assume between the eyed and fry stage—had been prematurely flushed out into the holding tray. What had that done to the 30,000 alevin still maturing within the graveled layers of the hatchbox? Miller explained that if the alevin had been damaged the Salmon Support Group would by now be aware of it due to the severe stench the damaged eggs would give off. Since there wasn't any stench, he reassured everyone that the alevin were probably alright. Linn, Gary and David Simpson all looked noticeably relieved. Regarding the water flow problem, Miller asked if the upstream intake source could possibly be clogged or whether some air had perhaps been pocketed within the plastic water lines? Since both of these possibilities had been checked, everyone stood around scratching their heads.

While Linn checked the water temperature within the hatchbox to make sure it remained within the critical 42-58 degrees that the alevin required, I briefly explored the steeply-sloped, Mill Creek terrain. John Vargo, another Salmon Support Group enthusiast, had generated on his own, self-taught hook, a detailed study of Mill Creek's suitability for a hatchbox site. I confirmed with my senses the substance of Vargo's study. The water was cool enough and relatively silt free. The creek bed contained abundant gravel of the 2-4 inch size that spawning salmon and steelhead require. In addition, I could see that the dense riparian canopy which hovers over the creek—consisting of alders, tanoak, and Douglas Fir, as well as an abundance of ferns— would provide sufficient shade to keep juvenile salmonids adequately cooled during the summer.

The discussion moved to the Mill Creek holding pond. It was scheduled to be built later that week and would contain the silver fry which normally hatch out approximately 50 days after fertilization. The fry will be reared in the artificial pond for their first year. One of the reasons that a holding pond will be necessary for the juvenile silvers is that—due to absence of deep pools and riparian shade—the Mattole's summer water temperatures sometimes reach a killing 82° F. The pond will be built in the shade, fed with Mill Creek water, and covered with wire mesh to keep predators—especially raccoons—from feasting on the juveniles. When smolted the silvers will be released for their short 2.8 miles run to the open sea.

David Miller asked Linn and Gary about the Thompson Creek king salmon hatchbox. They explained that some 3700 eyed king eggs were incubating there, though not without some anxious hours. The one female they had managed to trap had died in the holding tank in the middle of the night. Luckily she was "ripe" for spawning. Even though she had been dead for up to 8 hours, the eggs had been successfully removed and fertilized with the milt from the two males. Miller expressed astonishment and urged Linn and Gary "to write that up". Apparently, the conventional wisdom was that once a female died, the eggs were incapable of fertilization. The fact that the Salmon Support Group had been successful after 8 hours would be of great interest to fisheries biologists and hatchbox operators! Linn and Gary sheepishly smiled at each other as if to suggest that being on the frontier of any discipline created conditions where one learned as much from one's mistakes as by following the rules.

David Miller, Bill Hill, and Chris Toole wanted to visit the Thompson Creek site. We decided to break for lunch, before the trio departed, and take in the slide show which Gary had put together for the Grateful Dead concert. Rex volunteered Ruth's kitchen as the projection room. For the next half hour we listened as Gary documented various aspects of the watershed as they related to the salmon enhancement effort. Bill Hill was particularly excited by the graphic presentation and invited Gary to, "come show your slides anytime to the Fish Council. We'll put you right on!"

Standing out in Rex's front yard, before breaking up, we discussed the relative merits and dangers of large-scale hatchery programs. Bill Hill defended them, arguing that they had

been relatively successful, at least in the short run, in providing salmon stock for the commercial fishery to harvest. Bill suggested that the hatchbox program was at best an interesting adjunct to larger hatchery operations. Still, some of us felt that there were significant problems with this approach. One is that hatcheries are essentially managed from pessimistic assumptions about the economic viability of restoring the natural habitats that would allow salmon to reproduce on their own. Logically, they lead to salmon ranching at sea where habitat is essentially dispensed with, except for the use of the ocean as a kind of pasture. With this approach, a monocultural crop of genetically developed salmon are hatched out in close proximity to the sea, fed in holding ponds, then released as smolt. Two to four years later, after fattening in the ocean, they return to their holding ponds and are harvested—all without making any real use of fresh water river systems. Besides undermining efforts to restore the health of watersheds, nobody knows what sea ranching will do to the carrying capacity of the ocean for other species. The wild genetic diversity of the salmon population will also be reduced, by increased competition for food at sea, to the point where native salmon stocks, in conjunction with disdain for their spawning habitat, will very likely become extinct. Then the ultimate biologic danger will have to be confronted. Should a disease infest the few remaining salmon stocks, the whole salmon fishery will risk extinction. The problem with sea ranching, and to a lesser extent large hatcheries in general, is that an abundant short-term harvest could turn into a long-term total loss. Enhancing native salmon runs and restoring their habitat is the only policy capable of *guaranteeing* a sustainable salmon population.

The next day on our way out of the Mattole Watershed we stopped off at the Mattole Center for Science and Education in Honeydew. The center, run by Joe and Nancy Erwin, serves as a combination community meeting place and data collecting agency. Joe, who was born in the watershed, sees their efforts as part of the developing art of watershed restoration. They put out a monthly journal, *Pacific Watershed Enhancement*, which reports on interesting developments, from Northern California to Alaska, related to reforestation and salmon enhancement. Joe, a self-described "intellectual midwife" and moderate, sees the Center and his journal as a forum where naturalists, professional fishery and forest employees, scientists, and interested watershed inhabitants can exchange information and views. He sees the possibility that the Mattole Watershed could serve as an ideal natural laboratory where pioneer information can be generated. Regarding the salmon program, he confided, "My deepest personal interest is that Nancy and I just like to catch healthy native salmon."

Heading back Highway 101 towards San Francisco, George, Peter and I reflected on our experience. What had started as an idea in a few minds several years ago was now generating into a watershed-wide cultural force. Over a hundred people, directly and indirectly, are now involved in the salmon enhancement effort. Given that the population of the Mattole Watershed is estimated to be around 1800, that means that around 5% of the people who live there are participating. Though funding continues to be a problem, and many unknown variables could limit the success of the effort, something new and exciting is definitely stirring in one weathervane watershed in Northern California. As David Simpson mused to us one evening, "It would greatly sadden me if I were to get up one morning and look out over the Mattole and know that the salmon were gone. Somehow, the salmon and the health of the watershed are indivisibly involved in why I want to live here."

Update. A phone call to Petrolia in mid-March brought good news. Gary Peterson reported that the Salmon Support Group was exultant. Some 27,000 silver fry in Mill Creek and 3700 king fry in Thompson Creek had hatched out! With luck, they would all be migrating to sea within the next year. □

For further information or contributions contact:

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NATURAL PROVISION REFORESTATION

An interview with Victoria Stockley

Photos by Paul Brigmann

In July of 1980 a pioneer reforestation program, geared to simultaneously help the small rural landowner and replenish the forests for future generations, was started up in California. Since then, this labor-intensive program—financed out of sales of public timber—has funded the preparation of management plans for 86,642 acres, reforested 9,337 acres, thinned timber stands on 4,991 acres, improved fisheries and wildlife habitat on 54 projects and implemented land conservation on 65 projects. Reforester Victoria Stockley has lived in Western Sonoma County for the past 10 years on an up-to-recently operating sheep ranch. What follows is a detailed discussion of how local people are cooperatively committing themselves to both learning from and caring for the land in the Cazadero area.

Michael Helm: Vicky, how did you get involved in starting up a tree planting co-op?

Victoria Stockley: A number of us actually got together and started the co-op. I had been living in the area for nearly ten years and had become interested in resources use and what that meant for this area. The older uses, logging and ranching, were failing. Then in 1978 there was a 12,000 acre forest fire here. That served as a strong catalyst for people to get together and think about what needed to be done to improve the resources we had. At that point we developed a grant that was funded for 18 months through CETA, which enabled us to replant about 100 acres with 40,000 seedlings within the fire area. The grant was structured to provide training and education for 16 people to do restoration work, including erosion control, reforestation, and revegetation in the fire area. The initial grant continued thru two planting seasons.

MH: What kinds of trees did you plant?

VS: Indigenous trees. We replanted Douglas Fir and Redwood, which were the native conifers destroyed by fire. In the the process we learned a great deal about what it takes to reforest land in this area. It's one thing to take productive timberland and cut it and replant it—you still have the soil, nutrients and soil organisms that are necessary to grow trees. In an area like ours, which has been cut and converted to grazing land, those components of the soil necessary for regrowth are severely diminished. That presented a whole set of problems for us in our reforestation efforts that we weren't even aware of when we started. We didn't know that we couldn't just go out and plant trees and then watch them grow. It became evident that there were techniques we needed to learn, that there was a whole set of variables that we needed to take into account.

MH: Could you describe some of those?

VS: The loss of forest soil structure is probably the most crucial—a loss that came about through a combination of erosion, which takes off the topsoil, and the fact that you no longer have a high degree of humus building up in the soil; litter, needle fall, leaves, that sort of thing. Grasslands that have been grazed do not produce a tremendous amount of organic material.

MH: What about climate in terms of erosion?

VS: Well, this is an extension of that maritime climate, the Northwest Pacific climate. We tend to have most of our rain during the winter months. In the Cazadero area we have a very high annual rainfall, but it comes within generally about a three-month period. It averages 80 inches of rain, which is a tremendous amount of rain, but it does not extend late into the spring and it does not begin early in the fall. So during summer months we have that very classic drought kind of climate, very hot, very dry.

According to the oldtimers in this area, there has been a fairly dramatic change in the patterns of summer fog, which in most of the coastal region provides a significant amount of precipitation. Fog drip, within a Redwood plant community or a Douglas Fir / Hemlock plant community, is very important. It provides summer moisture and helps control fire. They're beginning to suspect that the clearing of large acreages of land effectively prohibits fog from moving inland, that it's the low pressure area that is maintained beneath the forest canopy that essentially draws fog in off the coast. If you eliminate the forest, you create a land form that reflects a tremendous amount of heat—even through the evening—which repels that fog from moving onto the land. So there you have a microclimate change that also affects the possibilities of reforesting.

The absence of humus also leads to compaction of the soil. The soil is no longer loose and friable. The trees can't get their roots down where it's been cleared for long periods of time. In a lot of areas we've also tended to lose mycorrhizal associations and other soil microbial activities that allow trees to take up nutrients effectively. We've also lost nutrients. So there's a whole range of problems involved in trying to restore lands that have been converted to grazing for over 30-40 years that we, in the beginning, weren't aware of.

MH: So you applied for this grant, got it, and formed a cooperative?

VS: When the CETA grant ran out, we had a core of people that were very well-trained, were aware of the problems and of possible solutions, and had a strong interest in continuing that work. Everybody who was involved in that grant program has land or lives on land in this area. We are planning to stay and are looking at our future in this area, and at what the needs of the place are. So there was a strong interest in continuing. Some of us also had been involved with people from other forestry cooperatives in Northern California and Oregon and had an idea what might be done as far as developing reforestation work in the private sphere, without grants, or without direct subsidy.

The State of California that very same year developed a program that was somewhat modeled on an existing federal program, the Forest Improvement Program. California developed a similarly structured program that was far more comprehensive It reimburses landowners 90% of the cost of reforesting their land, of doing timber stand improvement practices, and in addition includes two major components that had been ignored by the federal program, which were wildlife and fisheries habitats improvement, and soil conservation. All of which—if you are concerned about long term resource improvement—have to be taken into account. This was the first program that had really dealt with improvement in any comprehensive kind of way.

MH: What is the specific name of this program in California?

VS: The California Forest Improvement Program (CFIP), which was developed by Huey Johnson, the Secretary of Resources, and David Pesonen, who is the Director of the Department of Forestry. The program is administered through the California Department of Forestry in cooperation with the Department of Fish and Game and other agencies. Essentially, 10% of the total amount of available revenues for the program are mandated to go for fisheries improvement, which includes stream clearance and revegetation of riparian species, or wildlife practices which can include improving the diversity of vegetation for food for wildlife—nesting areas, that sort of thing. Also soil conservation, which is essentially to fund erosion control practices, keeping the soil on the slopes, keeping it out of the streams, things that degrade fisheries values. So it was, I felt, a stunning program for something administered on a state level.

Another interesting thing about the program is that it derives its revenues directly from the sale of timber in our state forests. It's not a tax-supported program, doesn't come out of tax revenues. It comes directly out of the profits of the state's timber sales. So it's taking the resource that belongs to the people of California, taking part of the profits from that, and diverting it directly into resource improvement on California lands. CFIP was developed primarily because they looked at timber projections for the next 100 years in this state and realized they were going to run out—have a severe timber shortfall. They looked at available lands and realized that somewhere between 40-50% of the timber lands in the state were under non-industry, non-public ownership, i.e., small private landowners. This was generally land that had been harvested, that had not been reforested, had not been taken care of in a way that would provide timber for the future. Reforestation is such a long term thing that most small landowners simply can't justify that kind of economic investment. So, because of that, the state developed this cost-share program in order to make the notion of reforesting one's land so attractive that landowners would be hard put to turn it down. The program in this area has been well received.

MH: What are the requirements to be eligible?

VS: There is a 20-acre minimum lot size. The landowner has to have at least 20 acres of land and it has to be capable of growing timber. That's the reforestation part of it. There is no acreage limit on the soil conservation practices or on fisheries practices. There is a maximum acreage of 5,000 acres. Acreage is about the only hard and fast requirement. The only other significant requirement is that you have to agree that you will not use that land in a way that will be detrimental to the timber that you have reforested for a period of ten years. In other words, if you reforested your land and then decided that rather than have trees, you would rather have a vineyard there, then you would have to

repay the state, with interest, for the original cost of reforesting the land. That's a reasonable requirement, I think.

MH: So, when the CFIP program came into being you decided to form a co-op?

VS: Right. We looked at the possibilities in that program and realized that it was probably the only way that we were going to be able to continue reforestation and restoration work within this area. There are no public lands here that you could contract that kind of work on. It's almost all small ownerships with a few larger sheep ranches. So we got together and looked at the possibility of doing work under that program. It seemed feasible to put our efforts into contacting and encouraging landowners to participate in the CFIP program.

MH: About how many people are there in the cooperative?

VS: It varies. Last year there were as many as 25 people who were working with us. This year, it's hovering around 20; not all of us work at one time. Right now we have a crew of about 16 people.

MH: Typically, how do you get the jobs? How does that work?

VS: Some of the landowners are referred to us by the Department of Forestry. We work very closely with the local service forester for this area. The Department has a forester who is assigned to this area, who works with the landowners, and he works with us in developing the projects. The way that it typically happens is that he refers a landowner to us; the landowner contacts us and lets us know he wants to participate in the program. One of the requirements for participation in the CFIP program is that the landowners have a resource management plan prepared for their land, which details the kind of soils on the land, the kind of timber that exists there, what needs to be done in terms of improving existing timber stands or regeneration, erosion control problems, and so on. The management plans are intended by the program to be a tool for the landowners. Something which the landowner can have and say "Okay, this is what the best use of this particular area of my land would be in the opinion of the forester who prepared it."

MH: So you don't prepare the management plan?

VS: We work with a private registered professional forester, generally, to prepare management plans for the local landowners. If there's timber on the land itself, the forester is responsible for assessing the growth of that stand, stand improvement, that sort of thing. We generally do a great deal of the work on erosion control and fisheries and wildlife habitat improvement. In several cases, we actually put the plan together with input from the local foresters on the timber. So we help prepare the management plan and at the same time develop a project for a single landowner. It is then submitted to our local service forester who looks at it, comes out and looks at the land, and talks about whether maybe we should have a little more pine and a little less fir. The service forester has generally been really good to work with. He's here, very accessible, and realizes that there are specific problems in this area for reforestation. He's been more than willing to try new methods for insuring survival. One of our concerns, initially, was that the specifications would be too rigid and from a centralized point of view. To a certain extent they are; for instance the project costs allowed are the same throughout the Coast Range, whereas obviously the costs of actual planting are not the same throughout the Coast Range. But as far as actual planting specifications are concerned, the regional offices have enough autonomy to respond to a site's specific conditions. If they approve the project at that level, they send it on to Sacramento for final approval. At that point we can start planning for a specific planting season. In some cases, the landowners do their own work. But in most cases we do the work and the landowner contributes 10% of the project costs through planting. This program allows for that 10% landowner cost to be covered in materials or services. This means the land owners can plant a certain number of trees to satisfy their portion of the planting cost and see what is being done. It's an excellent option, in that respect. It really encourages participation on the part of the landowner.

MH: How long have you been doing this now? About how many acres have you planted?

VS: Under CFIP, we planted almost 200 acres last year. It will probably be about the same, maybe 250, this year, which is about 12 projects. They average 10 acres, but a few are bigger.

MH: What is a typical replanting day like, once you are actually on a site?

VS: It varies according to the topography. We generally start wherever we can get access to the site. Most of our projects are on lands that range from 40-60 acres, and access onto these sites is generally pretty good. We usually can get close to the area that we are going to be reforesting. What it means is having the trees there, the materials there, everybody arrives at 8 am. The day before, one of the crew and I will flag the area that's going to be planted so that everybody will have an idea of the perimeter of the project. Then we'll go over what species are going in. Then it's just a matter of breaking down into smaller crews of six or eight and delineating the area to work in. For those of us who have been planting for a couple of years it's a matter that we have straight line organization, where you line up six or eight people across a slope and then start putting in trees. The trees going in on an even 10-foot kind of spacing. It's a matter of going back and forth across the slope or going up and down from the tops to the bottoms of slopes, depending on where you're starting from and how steep the terrain is. What is interesting, and what we're starting to do a little bit more of this year, is developing ways to cut down the amount of time that we spend retracing ground; trying to visualize how to go across a slope and cover the area without wasting a lot of time walking over it without planting trees. In talking to other crews who have been working, doing this kind of work in Northern California and Oregon for a number of years—some of them close to 10 years—you realize that there's a tremendously sophisticated kind of crew organization for tree planting that absolutely cuts that wasted time to a minimum. Talking to people in Forks of Salmon, we've learned they have developed these movements for making turns on slopes which are extremely well thought out. They can move a whole line of people without anybody having to stop, without you being so far ahead that you lose your ability to space your trees, and that sort of thing. That's something you develop working with a group of people over a long period of time. We're just beginning to explore those rhythms and movements.

MH: Typically, on a site, do you have to do some clearing before you do the planting?

VS: Well, we have a lot of grassland, a lot of timber land that has been converted to grass. Grass is the predominant cover, and that means that we have essentially two choices, either we use herbicides—which most landowners find both socially and biologically unacceptable, or we hand scalp it—which means taking out a McLeod or hoe of some kind, and physically scraping the grass down to mineral soil in an area of about 16 square feet—which is a lot of grass. On a lot of our sites it means sending a crew ahead to scalp and then having a second crew come along and plant the trees and put in the browse protectors to keep the deer off, and that in itself probably more than doubles our planting costs. If you're planting in an area that's recently been cut which has no herbaceous cover or grass on it, you simply eliminate that step and it's strictly a planting operation.

In other cases, like what we have in the fire area, there's a tremendous amount of sprouting hardwood. Where those areas are dense, where they become thickets or tan oak and madrone they have to be pruned back. This is one of the things that we have compromised on with the Department of Forestry. We have found that our best survival occurred when we interplanted in that dense tan oak which provides a lot of shade during the summer. More moisture is picked up from fog drip by the sprouts if the tan oak is left there for the first year or so. Our procedure now is to partially prune, plant and then go back in once the seedlings are established and prune back the tan oaks so they don't shade out the conifers, rather than clearing out all that brush first and then planting.

MH: What about mortality; how many trees would you plant on a 10-acre plot and what would you expect in terms of actual survival?

VS: About 4,000 trees, and the survival would depend entirely on the site. The site conditions so determine survival in this area that you can have whole sets of expectations for different areas. Where we were interplanting with tan oak on a site which is north-facing, isn't exposed to the harsher sun, we are getting up to 90% survival. On south-facing slopes which have been converted to grassland and are exposed, where there is clayier soil, we're lucky to get 20%. In some cases, we aren't getting any survival. Generally, that depends on the species, too. The low survival rates are generally with Douglas Fir.

MH: What other trees do you plant besides Douglas Fir?

VS: We're planting redwoods and, in the last few years, a substantial amount of Ponderosa and Sugar Pines. Simply because those converted grazing sites are not capable of growing fir at this point. What we've done is to start planting pine in those open areas as a nurse crop. The pine is a hardier tree; it can survive the more droughty summers and hotter weather. Those trees will be allowed to grow to a height where they can start producing a humus layer and some shade. Our hope is that on these sites the Douglas Fir will be able to make it under the protection of the pines. Ideally, on these open, exposed sites, we would be planting oak, which is the primary indigenous tree upon which succession is built. The whole climax forest that was here originally was based upon the biomass and soil nutrients provided by the oaks. Black oak has a fungus which is very beneficial to Douglas Fir. Maybe one of the things we should be doing along that line now is planting Ceanothus as a first step, because it is a nitrogen fixer, to prepare the soil. Then go to a hardwood and finally to Douglas Fir. Right now we can't afford to go through these kinds of successive steps. Planting pine is a shortcut. And I'm not convinced that it's a real wise shortcut. What we're doing is introducing a dominant species into an area where it hasn't previously existed. We don't know what the consequences might be.

MH: What are the best things about doing this kind of work?

VS: The best thing about the work is that you get done at the end of the day and realize that you've put in 250 trees that might be here 250 years from now. It's real work. It's something that you do that is going to have a beneficial effect. That's satisfying! It's satisfying to clear a logjam from a creek when you know that it will open 2 miles of spawning ground that wouldn't have been there otherwise. It means that maybe next year two steelhead that haven't been there for 50 years, will help to start a whole new cycle.

There's also a social aspect that is satisfying in the work. It's an opportunity for people living in this community to get together and work, doing someting that will be beneficial to all of us and our children, hopefully. It's also work that takes place outside. It's physically difficult, but that has its positive side and is made less onerous because there is a group of you doing it. The dangers are (laughter) falling down a lot. My biggest problem is I fall down a lot. I've talked to planters in other, less steep areas, and they think we're sort of crazy—because we are working on marginal land under conditions that none of them would consider working under. If we were into this work just for the bucks, we would never plant the kinds of trees sites that we plant. I mean, they are difficult, steep, and currently inhospitable enough to insure you aren't going to make money off of it. We're lucky to average $5-6 / hr doing this work. We are buying, because we live here, very expensive seedlings, in the hope that the higher quality of the stock will reduce the mortality. We're also paying for browse protection covering for every sxeedling for the same reason. But this added expense means we don't take home as much money. Still, if we manage to get our seedlings through the summer we don't want to lose them in the fall to some deer browsing on them.

MH: Is the main mortality in the first year?

VS: Yes. There's two stages of mortality. One is within a couple of months of planting—where a seedling fails because of poor genetic stock or because the roots can't get past some buried rock formation. The second stage is usually in August or September when the soil moisture is real low. We plant during the winter when it is wet and hope that the roots will get deep enough by summer to keep moist. But in some places the roots can't keep up with the dropping level of soil moisture and the seedling dies.

MH: You mentioned the strength of genetic stock as an aspect of seedling mortality. Where do you get your seedlings from? If they don't come from indigenous sources is that a problem?

VS: We buy seedlings from a number of different sources. In fact, this year we're trying to further diversify the sources so we can eliminate large scale mortality that could be traced to one nursery or another, which has happened in the past. Some of our nurseries are industry sources like Louisiana Pacific; the state has its own nursery. Ideally, that's not the best way—to buy from outside sources. Last year we collected Redwood seeds from this area and gave them to our sources to grow seedlings for us. The idea is that seeds that come from trees that have successfully adapted to this area will have a much higher survival rate when replanted as seedlings here. Coincidentally or not, we have had very good success replanting with local Redwood seedlings. The ideal long-term solution would be to set up a local nursery here. We're looking at that possibility—to do our own seed collection, grow them here with some amount of local soils incorporated into the planting mix. That would be the best way to go about it. However, nurseries are notorious money losers. So that means we would, as a co-op or community, have to be in a position to subsidize a nursery for 5-6 years. Nurseries are capital intensive and very time-consuming, meticulous operations, If you grow seedlings the traditional way—with shade houses, peat vermiculite soil mixes and fertilizers—there is a trade-off. Because the seedlings then have been essentially coddled, and when you throw them out on an exposed, scorched hillside they croak. They say "Oh, Mama what you doin' to me!" That's one of the major problems we have with Douglas Fir seedlings—they're not a resilient tree like a Redwood which can sprout, dieback and resprout. Douglas Firs only have one shot in this world. They either make it that first year or they are gone. So transplanting Douglas Fir out of nurseries where they have been coddled that first year is real difficult for them. In fact, this year we asked the nursery to remove the shade from some of the Douglas Fir to toughen them up a little before we transplant them. It will be interesting to see if that helps their survival. This kind of experimentation is something that we talk about continually while working in a crew. We're all very interested in improving the survival rate.

MH: So part of the work really includes researching new techniques and approaches?

VS: Continually. The main thing we've learned is that you have to approach each site on a completely individual basis. There is no way to effectively standardize procedures over a large diverse area. The Forestry Department now understands that. That's because the local forester works with us and is exposed to site specific problems, crucial details, that someone who has only gone through a forestry program at a university often hasn't sufficiently appreciated. Once the foresters get out in the field they quickly see that you have to make decisions on a site specific basis. The Department of Forestry has been, I feel, very good about allowing us to try different things on different sites—even if they don't know for sure what will happen. It's a continuous process of educating ourselves about the way things work.

MH: Let's get a little more philosophical. How do you see the restoration work you're doing in terms of what a piece of land is?

VS: The first thing that emerges is a sense of what is appropriate to a piece of land. Obviously, we're having problems reforesting this land because it was converted to a use that wasn't appropriate to the land's capabilities. I'm talking about large scale conversions of timberland to grass for livestock grazing. In the short-term it was economically necessary. We can recognize that in the Depression of the 1930's there was no market for timber. The timber market was absolutely gone. When World War II broke out there suddenly was a big demand for meat products. At that point, many landowners here girdled their timber—it wasn't worth taking to the mill—and converted it to grazing land. In the short-term that was probably the necessary thing to do. It was difficult to see at that point what the long-term consequences of conversion might be. They didn't know that timber land like ours isn't capable of sustaining a grass cover that is heavily grazed for more than a few years. The depletion of soil and nutrients quickly leads to loss of your better grasses, so what you're left with is a lot of first-succession species like thistles and dove mullein.

MH: Another example of that is what is happening in the Amazon right now, where they are trying to convert jungle forest into large-scale agriculture.

VS: In Brazil it's very dramatic because of the heavy rainfall and the structure of the soils. The Amazon absolutely requires tremendous amounts of biomass being incorporated into the soils every year because they are so well drained that nutrient leeching is almost immediate if you don't have the forest-produced covering, the continuous addition of organic material into the soil. It's the same principle as is happening here. But it's more dangerous there because it will be much harder to reverse the destructive process in Brazil. That's going to be a real disaster.

But getting back to a more general philosophy of land use, besides appropriateness, is the economic question. Obviously, that has a large bearing on land use. What we're looking at is *retaining* the potential for economic use of the land. Whether for grazing or timber or something else. One approach to this question might be to diversify the kinds of things one grows on the land by making better use of the more marginal resources, and by making sure that what you do doesn't eliminate the possibility of future use of a resource. A small landowner who has 10 acres of grassland, 10 acres of oak woodland, and some land that is capable of growing commercial timber might manage these in such a way that he could have a few sheep, sell some timber down the line, cut some hardwood for personal and commercial firewood. There are a whole lot of things that you could do on your land that would both generate some income and maintain the land's biological integrity.

(Continued on Page 12)

AIM SUMMIT MEETING

by Siena Riffia

AIM is the only liberation and militant organization to survive the 70's intact, with the same philosophy and with continued unity and respect among the leaders. AIM has endured and weathered the storms of oppression by the CIA, the BIA, the FBI, assassination attempts, imprisonment of hundreds of leaders and infiltration. AIM is working and progressing rapidly on the national level as well as from the family of nations—using the 1868 Fort Laramie Treaty as a basic document.

AIM met in San Francisco during January 1982. The major concerns addressed were AIM's participation in the non-aligned movement, the question of participation in the anti-nuclear movement, and to develop tactics to force the United States to live up to its own laws.

The purpose of the meeting was to bring together national and international leaders of AIM to discuss federal and state policies and how they relate to the land, and to formulate the direction AIM should take over the next 20 years, with a commitment to heritage, culture and protection of the land base.

In order to understand the workings of AIM it is important to recognize several unique principles that apply to Native American people.

First of all, Indian people are not a minority. Their relationship to the U.S. Government was created by internationally recognized treaty agreements, and in the legal sense they are indeed sovereign nations whose rights to self-determination must be respected if the Constitution and laws of the U.S. are to be given credibility. The fact that the U.S. Government has ignored the lawful contracts which they made with the various Indian nations in no way discredits their validity.

Secondly, Indian people of the Americas have been threatened by a continual policy of genocide by the U.S. Government which has been designed to remove Indian people from their lands and destroy their tribal and national identity. It is important to note that genocide, overt murder of a race of people, takes place in many ways. The physical murder used by the 7th Cavalry has been replaced in modern times with more subtle methods. Christianity, education, unilateral acts by Congress and the Supreme Court have all played their part in trying to destroy the cultural and traditional ways of American Indian people, striving to assimilate, denigrate and force them to become part of the faceless mass of U.S. society.

Self-defense, a right guaranteed by international law, has been denied Indian, or indigenous, people. Military force used against indigenous people has become so acceptable that, when media portrays scenes from Wounded Knee as violent Indians armed against the whole U.S., the citizens of the U.S. believe that the U.S. is under attack by a handful of light arms. Most U.S. people never stop to question what it means or to wonder what the real issue is from the side of the original inhabitants of this country.

AIM was born to protect native people from the encroaching death perpetrated by American society. The men and women of AIM are not suicidal, yet they are willing to die in defense of Indian Elders, youth, the unborn, and for the health and well-being of our Grandmother, Mother Earth.

The base of AIM is not violence. Violence is a forced reaction to overt oppression. The base of AIM is spiritual, with respect for the Great Spirit and the Sacred Pipe, and for the instructions of the Creator which are taught by the Elders and through Spiritual Leaders.

There is so much to say about the American Indian Movement and the work it does for the struggle of Indian people. But there is not much room here, so I just want to mention a few benefits that have been developed over the last 10 years under the care and guidance of the Indian leaders: 1) Survival Schools, which provide alternative educational programs for Indian children, support traditional teachings such as language, culture, prayers and respect, in addition to the "3 R's"; 2) the International Indian Treaty Council, which has opened the doors of the United Nations to the issues of genocide and other threats against the survival of Indian people and which has also provided an umbrella of unity for Indian Nations of North, Central and South America; 3) the sense of responsibility that has been developed towards indigenous people around the world, all speak to the motives of AIM and the concern it generates in support of the relationship between man, life, the Great Spirit and harmony with Mother Earth.

During the January meeting the leaders met often in closed session, behind doors, protected by security. The sessions took place under the guidance of three Elders, Elsie Gibbons, Agnes La Monte and Nellie Red Owl, Lakota women from Pine Ridge, Oglalla and Yellow Thunder Camp in the Sacred Black Hills. All final decisions and guidance came from these three Elders, and their approval was integral to the policies formulated during these sessions. This is important because respect for Elders is a unique aspect of Indian philosophy, and their wisdom and knowledge is considered essential to the direction AIM is taking.

Gold, uranium, coal and petroleum are parts of the Earth essential to the continuance of technology and the prosperity of greed. Corporations, supported by governments, have no regard for life, and their voracious appetite for natural resources at the expense of the future ability of man to continue his existence on Earth is becoming recognized by many people.

It is on Indian land that these resources are most abundant, and as a result the governments of the world, and particularly the U.S., have stepped up their attempts to gain control of these lands. These resources are so crucial to the continuance of extra-modern progress that it is no longer possible to give credence to any act taken by the U.S. Government in regard to Indian people.

The AIM Summit Meeting brought home certain concepts to those who were fortunate enough to attend. Among them was the reminder that our Mother Earth cannot be sold, that she is our universal mother without whom none of us could exist and that no one can claim to own her, or any part of her. In fact, the basic premise of the issue concerning Yellow Thunder Camp in the Sacred Black Hills is that the *Black Hills are not for sale.* They belong to Indian people, and AIM was asked to defend them for the Elders and the children.

It is time for people to listen with their hearts as well as their minds to the words of Indian people. It is time to question the images created by those who would gain by rape of natural resources at the expense of all life.

If you would like to know more about the American Indian Movement, or the International Indian Treaty Council, please write to the following address:

International Indian Treaty Council
330 Ellis Street, Suite 418
San Francisco, California 94102
USA □

Michelle Vignes

AIM Leaders and Elders

FREEDOM

An interview with Russell Means

Increasingly, people are beginning to understand that cultural and ecological questions are inseparable. During a break in the recent AIM Summit Meeting, Peter Berg talked with Russell Means about the possibility for a land-based union between Native and reinhabitory peoples, as well as the coming confrontation at Yellow Thunder in South Dakota. What follows is a spirited discussion that cuts to the quick of late industrial age politics.

Peter Berg: I thought your speech at the Black Hills Alliance opened the door for a new kind of coalition with environmentalists, conservationists, and other groups that have feelings about the environment, a coalition that would allow them to join what up to that point had been perhaps a closed situation, an exclusively Indian situation. Have you had any response of that kind?

Russell Means: Not *per se*, just that in our relationships with the Black Hills Alliance out of Rapid City, South Dakota, we have come into contact with many of the movement people, whether they be environmentalists, ecologists or anti-nukers. They're all concerned with our Mother, the Earth, and the unborn generations. So, in my travels and lectures that I give at universities, especially among the young white people, I find this new consciousness, this searching for respect. And I do know now, at least among young white Europeans, that everything's come full circle and we're beginning to share the same philosophy—a philosophy that's based on respect and not selfishness. But, other than that, I haven't had any *per se* contacts with those environmentalists or ecologists.

PB: In London last summer Winona La Duke, Thomas Banyaca, Jr. and I put a resolution in front of the Fourth World Assembly that the interests of indigenous people, devolutionary people, meaning ethnic groups in Europe that wanted to get power for their own nations, and what I call reinhabitants, meaning the ecologically oriented people in America, were the same, and it was accepted. What do you feel about that; is there a chance for a planet-wide coalition between these groups?

RM: Of course I believe in that. I have to, through the teachings of my ancestors. It's been prophesied that all the sacred colors would come together. There isn't any doubt in my mind that it will continue to grow. In fact, that is one of my missions, to hopefully bring the sacred colors together on behalf of our Mother Earth and all her children.

PB: At this time in North America, a number of people that feel that the bioregion, the place itself where they live, is important and that they should be part of it. These bioregional people are in San Antonio, Texas; New England; the Slocan Valley in British Columbia; and many other places. Do you think there could be a land-based union of peoples who are interested in preserving and restoring the places where they live, whether they're Indians or not?

RM: I hesitate, only because I'm pessimistic when it comes to Europeans. The vast majority of Europeans haven't any staying power, largely because they don't have any culture. I do not believe, because of that lack of culture, that Europeans alone can establish anything towards self-sufficiency that would be sustaining. I do believe that Indians and non-Indians of any color, or of every color, can establish a land-base of independence and respect because I'm experiencing it now at Yellow Thunder Camp where we have white people living with us, and who are committed with us.

PB: Do you feel that the white people there are lacking somehow?

RM: Oh, definitely they're lacking something. They're lacking that tie to the land—that spiritual bond. But they'll get it. I'm not worried about that.

PB: There's a difference between the Yellow Thunder Camp and Big Mountain in that Big Mountain has a group of people who are already on their place, who are being relocated, and Yellow Thunder is actually the enunciation of a new nation. You're aware of this. Is there a competition between the two? What's the exact difference between Yellow Thunder and Big Mountain?

RM: There isn't any difference. Both are love of our land—our holy land. The only difference is superficial, just as you've outlined. We have moved *back* and reclaimed our holy land. The Diné want to *remain* and stay on their holy land. The struggle is the same.

PB: It seems to me that when the Yellow Thunder Camp is established it will actually be a declaration of a new land-based nation in North America.

RM: I believe that the United States is also aware of that. You have to deal with reality. We're right in the middle, at Yellow Thunder Camp, of the richest one hundred square miles that the geologists have claimed.

PB: Uranium?

RM: There are over eighty million tons of uranium in our holy land. There is over ninety million tons of taconite iron ore in the holy land. On the peripheral

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REFORESTATION
(Continued from Page 11)

Another thing I think important to keep in mind is that the processes of degradation are not just something that other people did in the past. They are going on right now. Those of us who have moved out here more recently have contributed our share. Just building the roads to get access to our homes has contributed significant erosion. It isn't just the logging and over-grazing. We have to learn how to live here in a way that doesn't make things worse. A lot of us don't know how to build roads that won't end up creating slides that will block streams and destroy fish habitat. Roads are a major problem. They are responsible for most of the heavy erosion and destruction of habitat that occurs. We have to learn not only the appropriate way to build roads but also how to maintain them. What we're engaged in here is not only learning the best way to plant trees but also how to live here. We want to restore land that has been used hard, while simultaneously making sure that we don't make the situation worse by how we live here. We're still learning how to do that.

Our co-op has workshops where we discuss how we can deal with roads, stream crossings, and revegetation on our own land. We realize that we don't need a *program* to do this. In the long-run one of the problems with a program like CFIP is that you can get lulled into a feeling of security that someone from the outside is going to continue to pay for this work. That's dangerous, because we might not always have that outside support. Nobody knows what the future of CFIP is. It probably is good for a few more years, but government programs are notoriously unstable. So that means we have to seriously consider how we are going to do this work when we won't have any cost-sharing. The obvious answer is that we, in the community, are going to be responsible for it. In the long-run it's going to be either individual landowners cooperating to do the critical work or some kind of community tithe in labor or a tax. We have to accept the fact that part of any land use is maintaining it. We have larger restorative and maintenance costs now because in the past the real costs were not picked up. That idea is what CFIP is about—that part of the state's income from the sale of resources should be reinvested in guaranteeing the future productivity of the land. In the future, part of the proceeds from any resource use will have to be reinvested in the land. While it can be done on a state, regional, or local level, probably the local level—where people actually live—is the best place. Our co-op operates from that level in that we essentially tax ourselves 30% of our income to pay for more effectiveness in our restoration work. That gives us the bucks buy better tree stock, to buy things like individual browse guards. Ideally you try to balance resource extraction with resource maintenance. However, here in the Cazadero area, the bias was so strongly in the direction of extraction in the past that we have had to be willing to tax ourselves more in the present to pay for proper and effective maintenance and improvement. Eventually, we hope to achieve a sustainable balance between the two. □

TO BE RESPECTFUL

edges of it there is coal, gas and oil. There's timber. Most important of all, there's underground water. Not only geothermal water, but other water in different strata of the earth that are termed aquifers. It is because of all this so-called natural resource wealth—and the interests, therefore, of the multi-national corporations in collusion with the federal government—that it is highly improbable that we'll be allowed to remain in the holy land.

PB: There are groups in North America who are not Indian people, that have come to North American of whatever generation —fifth, fourth, third, second, first—who are attempting to learn where they are and what it's about. Do you feel that these people and what they're doing can be part of an alliance or a coalition? Is it possible that there could be a union of land-based people in North America, regardless of their own ethnic background?

RM: Yes, I do. But it can't be done alone by any specific group. It would have to be done with the direction of the landlords, and that's the Red Indians of the Western Hemisphere.

PB: Jack Forbes is a Native American historian who has proposed that there should be a new redistricting of political units in North America. One of the things that he and I agree upon is that Northern California should be a separate state or a separate nation. That's on the basis that it's a different place on the planet—we're talking about geology, climate, soil, cultural traditions, etc. How do you feel about that? That there could be autonomous regions, even if there aren't native peoples who proclaim those regions as their own?

RM: I believe that's living in a fantasy world.

PB: Isn't Yellow Thunder Camp a fantasy world—it's eight hundred acres.

RM: Term it what you like. It's a reality.

PB: Do you think it's a fantasy that regions of North America could become autonomous or independent?

RM: Yes, I believe that's a fantasy. I'm saying it's a fantasy. because you're saying, "even if there aren't any native people there", as you term the Red Indians.

PB: I'm talking about places like the Ozarks—Indian people in the Ozarks are nearly absent. The people in the Ozarks who want the Ozarks to be an independent political entity aren't Indian people, but they're biospherically involved people.

RM: You asked me what I thought. I told you. I believe it to be a fantasy.

PB: It's a fantasy because the real political potential is among Native Americans for land-based politics?

RM: It's a fantasy because you're talking about politics. If you want to talk about culture, well, that's a different ball game. Culture is what enables people to survive. Politics enable people to kill. All I know is that the European mentality is so removed from culture—it never talks about culture, and therefore hasn't any understanding of other peoples.

PB: The European mentality in North America?

RM: That's exactly what I'm talking about. I didn't know there was any other mentality.

PB: Well, there are the Bretons and the Basques and the Cornish and the Welsh in Europe which have their own cultures.

RM: It's European philosophy. Europeans rid themselves of their culture in order to establish the Holy Roman Empire. Now, I'm not going into a whole history lesson with you. I'm just telling you that Europeans, wherever they have transplanted themselves, have continued and they have also converted many people of color to this same European philosophy and death culture. It is a death culture because it only believes in exploiting and manipulating. It believes in exploiting and manipulating because it, by necessity, has become interdependent economically speaking. The reason for all this death culture and all its manifestations that are prevalent in the world today is because the European allowed himself to commit genocide against himself.

PB: You're talking about Late Industrial culture?

RM: Yes, I'm talking about the industrial culture. That is the European philosophy, a philosophy that I do not subscribe to. There are Indian people; there are African people; there are mestizos—mixed blood people; Asian people; there are Polynesian people; there are indigenous people around the world who have bought the European philosophy. European, when I mention European philosophy, does not specifically denote white people. What it denotes is those people that believe in economic interdependence and the industrial society.

PB: Russell, why is this sounding like the political philosophy of the Third World? What's different about this and what's usually called the Third World?

RM: First of all, the First World, the Second World, and the Third World have been called that by design of the Europeans. They're the ones who defined First World. They're the ones who defined the Second. They're the ones who defined the Third World. Many people of conscience do not subscribe to those measurements. If what I say sounds like what you have just termed the Third World, fine—I won't argue that. All I know is indigenous philosophy, a philosophy that I have learned from my Elders.

PB: When you said before that it wasn't possible for Europeans in North America, by themselves, to develop a culture of place anything like what Indian nations currently support or celebrate, I had a sinking feeling. Perhaps three-quarters of the people in North America now are European descendents. Don't you think it's possible that these people might somehow be able to develop a feeling for ecosystems, climate, soil, native plants and animals that would make them "native" in the sense that they were carried by the place.

Russell Means and Dennis Banks

Michelle Vignes

RM: Only if they subscribe to common sense. Common sense is recognition that all living things are superior, in all ways, to the human condition and that the human being must, and has to, in order to survive, take direction and learn from all the superior forms of life that surround him. Be they our green relatives of the earth or our relatives who crawl and swim, be they the wingeds or the four-leggeds. They must take direction from those relatives of ours, the human being I'm talking about, in order to gain common sense, and therefore respect, for everything that's holy and sacred.

PB: You mean that unless they learn from nature and learn from natural systems that they're lost? As long as they remain merely ideological or idealistic they can't do it.

RM: Exactly. In all industrial society the problem is that its members believe that the human being is superior to life. Whether they believe it consciously or unconsciously, is not important.

PB: What do you mean? That human beings are lucky to be alive and that nature persists outside of us?

RM: I'm saying that the arrogance of the human being knows no bounds. For example, they use terms loosely such as "I'm going to destroy the world." The human being cannot destroy the world. Our Mother Earth has millions of years to heal herself and she gives birth to all of life. So life will continue with or without the human being. So, you see, just that small little statement tells you the general path that the industrialized human being has chosen. They're afraid that they're going to destroy the world. They might destroy the human being and take a few other life-forms with them, but our Mother will prevail.

PB: How do you deal with your own arrogance? Someone could describe you as an arrogant person. What do you make of that? When you think about your own arrogance, what do you put it against?

RM: How do I deal with my own arrogance? I live with my own people. They continually remind me of my proper role in life.

PB: You used the word "Elders" before. What do Elders mean when you use that word—the older people?

RM: When I mention Elders, I'm talking about the Elders who are very old and are going to be leaving us very soon. I'm talking about those Elders who had a touch with our reality, whose parents and / or grandparents were born free and therefore come from a world that I only touched during Wounded Knee in 1973, and in which I now live at Yellow Thunder Camp, and that's freedom, freedom to be respectful.

PB: When you say they were born free, does that mean they weren't defeated, they weren't oppressed, they weren't discriminated against?

RM: No, when I say born free, I mean they grew up with parents and grandparents who were born free. Therefore, they come from the oldest philosophy, the oldest world view. That's how they grew up, these Elders, by being exposed to that world view and learning from it. Now those Elders are passing that world view on to the people that will listen and for the oldest world view to prevail and to continue, to survive, you have to have freedom. Otherwise, everyone loses.

PB: I believe that there are non-Indians in North America who have similar feelings born out of either hope or desperation, and who are trying to restore native plant species, restore salmon runs in Northern California rivers, restore topsoil in Vermont. Don't you think that there's a basis for an alliance among these people?

RM: We're repeating ourselves. I think this is the third time I'm going to agree with that during the course of this interview. Definitely. I mentioned the sacred colors and I argue with no one's path, and if they happen to be whatever color and are on the path towards respect, respect for topsoil, respect for salmon runs, respect for life—beautiful! And again, I'll repeat myself. I have met with many, many white people. I LIVE with white people—who have that view and want to learn the oldest world view.

PB: Let me get off my special topic for a minute then and ask what you're up to here. What's going on? Why are we having this conference in San Francisco? Why is the AIM leadership deciding to meet together right now?

RM: The American Indian Movement leadership has decided to meet at the beginning of 1982 in San Francisco because we have not met together in almost seven years and because it is spiritually right and politically right. And because Dennis Banks cannot leave California.

PB: Why is it spiritually right?

RM: That would require a very lengthy, and to some, it would be a complicated answer.

PB: Politically?

RM: It's politically right because of the condition of the world and the condition of the United States of America.

PB: Do you mean the Reagan administration?

RM: Yes, definitely.

PB, You know, I recall that when we were with the Paiutes in Nevada fifteen years ago, the people said that a lot of their new problems had to do with the Eisenhower administration, that it was the first administration that had put steel chains around reservation boundaries, and did it while no one was looking. What is Reagan doing while nobody is looking?

RM: He's doing no different than Eisenhower did. He's doing no different than George Washington did, or Lincoln did, Andrew Jackson did, or Roosevelt did, or Kennedy did. You see, the President of the United States of America is charged with the responsibility of making sure that the economic well-being of the United States of America continues. That economic well-being is based upon an industrial society. An industrial society is based upon exploiting and manipulating our Sacred Mother, the earth, the land. If you exploit and manipulate the land, you necessarily have to exploit and manipulate every living thing on it, which includes the human being. That is why, in this day and age, people of all colors are beginning to realize the folly of industrialized society and that world view. The peoples who retained the oldest world view are the indigenous peoples of the world, be they Aborigines, Samis, Red Indians, Hawaiians, etc.

PB: Where are we going? Where is AIM going from here, and I don't mean as an organization. What do you think is going to be happening in the next five, ten, fifteen years?

RM: Well, I'm no prophet. However, the American Indian Movement will continue to grow, will continue to have an impact in all areas of this Earth's life. To what degree it will have impact, I hope and pray, will become larger and larger in collusion with all our allies. That's the best I can do.

PB: Yellow Thunder Camp, even at only eight hundred acres, if it achieves what you want to achieve for it, will be the equivalent of a new political entity, territorial nation, in North America. I think you're aware of this, and the political implications. It would mean that, for example, movements in Northern California to form a separate state would be encouraged. It also means that all federal power would be against you. I know that you've just been going straight ahead on this. Yellow Thunder Camp, the minute they move against it, is going to defend itself. What do you think is going to happen?

RM: This will probably be misunderstood, but I am not worried about it, because I am confident in our own spirituality there at Yellow Thunder Camp. Powers that be, that are within and without our holy land, are aiding us. This spiritual power, that the industrialized mind cannot conceive of. All I know is that I'm going to die at Yellow Thunder. If I die of old age, or if I die defending my land, my freedom, so be it.

For Information regarding Yellow Thunder: Write AIM AIRLIFT, 543 Ellington, San Francisco, CA, 94112 USA or *Call:* (415) 337-0575

Africa (from Page 7)

sons in carpentry and other things so they could be free to work and not feel always rejected like they were for many years. Ngugi wrote a play in Kikuyu and he actually used the people who fought in the liberation struggle to play their own roles. The government found this extremely dangerous, so one morning on New Year's Eve in 1978, policemen came and ransacked his house and took him away. Nobody knew where he was. Many African intellectuals, and everybody concerned, mounted a campaign in order to get him released—but he was jailed and detained for a year

MH: Are there any published works of his available in English?

AM: Yes, he wrote a book very recently called *Detention*. He wrote *Petals of Blood*, *Cry Not, Child*, and many more. He also wrote plays like *The Trial of Dedan Kimahi*—about one of the leaders of the Mau Mau movement who was hanged by the British. Ngugi was baptized by the missionaries and his name was James Ngugi. After writing several books, he decided that he should go back to his roots, so he's now called Ngugi wa Thiong'o. Then there are writers like Chimua Achebe. He's Nigerian and he wrote a very good book called *Things Fall Apart*. It's about the arrival of missionaries and how they tried to convert the population—how they went about denigrating the traditional gods and so forth. There is also Wone Coyinka, another Nigerian writer, who wrote *The Lion and the Jewel*. And then there is a very good poet, who really describes the attitude towards women, a Kenyan, who lived in Uganda, named Okot 'pBitek. He wrote two books and a collection of poems, one poem called *Songs of* Lawino about a traditional African woman lamenting about her husband who's a Western educated one—how he treats her, how he sees things and so on. Another one is *Songs of Ocol*, which is the man's attitude towards his African woman—the traditional woman.

MH: What about African sculpture?

AM: The bronze sculptures of Benin (Nigeria) are world famous. The Makonde of Tanzania and Mozambique are also famous for their sculptures. These inspired Picasso and the expressionist school. But, unfortunately, the people who get inspired from African arts never give credit to African art. They call it "primitive art", which is not true at all. It's very sophisticated to be primitive.

There are very few traditional paintings in Africa. They have tie dye, which are patterns dressed on deer cloth. Using the brush and the canvas is generally not an African tradition, except in the theatre. The Ethiopian churchmen were into painting—using paint as an art. Ethiopian paintings are very famous. It is generally believed that comic strips as an art were developed in Ethiopia. Because they tell the story of the Queen of Sheba from the beginning to end in different frames—this was being done about 700, 800 years ago and are luckily still preserved. Jewelry and hairdos are also something that has been Africa's pride. Even utensils that are used in the home have to be artistically made. The utilitarian function isn't enough. You have to make them aesthetic—you have to draw pleasure from looking at them when you use them—like cooking pots, plates. Each object has its own personality. No two things could be the same. So art is an integral part of African culture. It's not like the 6th art or whatever it's called in the West. As a specialty, it does not exist. Art is a part of everyday life. Now, the danger is the tourist arts—which endanger authentic African art. Because tourists go into places like Kenya and Tanzania and have to bring back artistic trophies of their visit to Africa. Because of that, there is mass production of very bad commercial art.

MH: It's like Native American art here—same problems.

AM: That's right, and this is endangering African art.

MH: What areas of Africa right now do you think are the most progressive and inspirational in terms of the kinds of changes that we've been talking about.

AM: Unfortunately, there is none. Because the so-called socialist countries in Africa are just trying to model the country in the Russian style or method, and the capitalist countries of Africa are emulating the West. So there is nobody who is really trying to rediscover Africa's past, study Africa's traditional institutions, and to make them meet the needs of the present. That's why it's very difficult to say that this is progressive or that's progressive. I'll call one progressive when that person goes to his roots—looks at the things that are there—the treasures—and then builds a new lifestyle on that heritage. □

LETTERS

SEED ALLIES

Raise the Stakes recently published two pieces from Australia on plant patenting and diversifying regional agriculture. They brought to mind convergent evolution, since a number of us in the Sonoran Desert are working on parallel concerns. I guess that many arid-landers have had such an intense focus on *adapted* seeds because hybrids developed for "worldwide" introduction the last two decades have done poorest in truly arid areas. The difference between regionally adapted seedstocks and those that don't yield in marginal environments is one that is hitting people in the gut as well as in the wallet. Let's take a longer look at this issue.

For roughly ten millenia, various peoples around the world have been saving and selecting seed, and growing it out the next year. This simple process has led to the domestication of a couple thousand species of food plants. But it also has led to the flowering of numerous local and regional gene pools of cultivated plants, as people swapped seed with their neighbors and fine-tuned selections to their specific environments. What evolved was hundreds of locally-adapted cultivars or ecotypes. In the Sonoran Desert, for instance, we had dozens of kinds of corn, some of which could mature within a short (55-65 day) growing season before drought set in; we had beans tolerant of saline soils, root knot, nematodes, blight, etc. *Most* regions with a diversity of environments and cultures had this kind of crop diversity up through the Industrial Revolution.

Within this century, seeds have become deregionalized. By hybridizing two stocks from different regions, with different attributes, plant breeders developed some interesting, useful varieties, and should be given that credit. But there also came a false confidence that they were "creating" new diversity, when in many cases, one new super variety came to replace dozens of finely-tuned ones. Farmers recognized the weaknesses of some of these super varieties (poorer taste, texture, storability, lower nutritive value) only after it was too late: their traditional seeds had lost their viability, or were already consumed. A ten-millenia tradition of saving seeds has now been disrupted in most parts of the planet within the last three decades. If diversity does have anything to do with ecological stability, the results could be disastrous.

There are a number of folks around the world—Forest Roth Shomer of Abundant Life in the Pacific North Rim, Lawrence Hills in the British Isles, Kent Whealy in the Mississippi watershed, Cary Fowler in the Southest, Javier Caballero and Christina Mapes in Mesoamerica, John Withee and Samuel Kaymen in the Northeast, Mahina Drees and I in the Sonoran Desert—who are working to re-regionalize seeds. Where there are native varieties still extant, we are conserving them, increasing them, and reintroducing them to those people in the region who have lost them. Once reintroduced, they usually stick—it's like recovering part of your heritage. (It *is*.) I should add that traditional peoples and these seeds have symbiotic relationships—they reinforce one another, particularly if the plant has symbolic or ceremonial significance. The Papago, the Hopi and Taos Pueblo have all gotten involved in their own seed revivals recently.

Last autumn, over 100 seed-savers researchers, gardeners and homesteaders from the U.S. and Mexico gathered in Tucson for a Seed Banks Serving People workshop sponsored by Meals for Millions/Southwest and the National Sharecropper's Fund. Folks outlined strategies for wild and cultivated plant conservation, not merely by sticking seeds in a seed bank for posterity, but by encouraging their reestablishment in the regions to which they are native. The 75 page proceedings is now available for a $3.50 charge to cover printing and mailing costs. Write Seeds Workshop, Meals for Millions/Southwest, P.O. Box 42 622 Tucson Arizona 85733.

Gary Nabhan

WHERE YOU AT?

I wanted to answer that excellent questionnaire on the 1st page of COEV. That was great. I just thought it might be interesting for you to hear our answers for Silverton, Co. because they are really odd.

1. The water we drink comes from Boulder Gulch, the gulch tops out at 13,000 ft. and that's only 2½ miles from here. At the bottom of the gulch it goes right through the middle of the Standard Metal Mill tailing ponds and then into the Animas. The Animas continues under the new tailing ponds. A few years back (about 3) the old tailings ponds spilled over into the Animas River and they got permission to build new tailings ponds which turned out to be even closer to the River. But our drinking water comes out of the creek in Boulder Gulch just before the tailings ponds. Even though our water is treated, many people get sick in late June when they move the sheep to the high country.

3. What soil series? Silverton is built on the only flat place in the San Juan Country. It was deposited here by the 3 streams coming in which meet here and go out as the Animas River—(Rio de las Animas Perdidas) River of Lost Souls. Under the deposit it is old volcanic—deformed by glacier.

6. What were the primary subsistence techniques of the culture that lived in your area before you? There was no culture here. The Utes came in the summer in small hunting bands but moved on when they got enough game. The first white men near here were trappers out of Taos who went on over to the Great Salt Lake Basin and happened to meet up with Hudson Bay trappers in the vicinity of present day Ogden, Utah.

7. Five edible plants. The most prolific is nettles (left over from early gardens around the turn of the century). Dandelion leaves are also here—of course not native. The Utes ate the inner bark of aspen in starvation times—50 to 100 miles from here. We also have edible plants but no one should eat them—too few—all high altitude like American bistort, mountain sorrel, elk thistle, cattails (but rare).

8. Our winter storms come right out of the SW—If it rains in Los Angeles we get snow four days later.

9. Our garbage goes one mile out of town, right next to Standard Metals tailing ponds.

10. Our growing season is 13 days—yes, days.

13. Five grasses: cattails, beargrass, arrowhead, foxtail barley, burrea.

14. Five resident birds: In the winter we don't have that many—only crows and eagles. In the summer mountain bluebird, brown capped rosy finch, cliff swallow and robin.

15. Land use history. Beaver trapping, mining, and now tourists. We have the Silverton Railroad—narrow gauge—runs in the summer.

16. Glaciers right around here. You can't miss it—hanging valleys, moraines.

17. Grizzlies were considered extinct—but someone shot one two summers ago, illegally. It was around the garbage dump of a new mining outfit.

20. What spring wildflower is consistently among the first to bloom? The dandelion, although it isn't native. The whole town of Silverton is golden with them. And they are a real boon here—everyone is so glad to see some color in this waste land. The town has been bulldozed, tipped up, and scraped off since 1870 when it first began. Hardly a tree or plant left.

Actually the townsite, being on a flood plain of 3 streams, should have an intermittent covering of Rocky Mountain iris, aspen, etc. But these are only found in rare overlooked corners now.

Dolores LaChapelle

Editor's Note: Dolores tells us that her two books on philosophy, rituals and ceremonies, *Earth Wisdom* and *Earth Rituals*, are now available directly from her at P.O. Box 542, Silverton, CO 91433.

REVIEWS

We've lost more than we've gained through "civilization," or as Stanley Diamond sees its political manifestation, the creation of States. Who are human beings in the biosphere, and how many natural roles are they capable of playing? More than you'll ever see in movies or on TV, or than the Public or Police will allow. Listen to the depth of connections Diamond makes about culture before our ideas about ourselves were narrowed:

> "... ritual expression of the primary needs of the person in nature and society. Meanings are questioned and resolved and a literal 'being born again with others' or co-naissance or 'the free abandon of communion' occurs . . . emphasis on existence rather than essence . . . the responsibility of the individual to self and to society . . . lack of concern with analytic modes of thought.
>
> . . . the organic community . . . the apprehension of consciousness throughout society and nature."

The feeling and thinking world of primitive people, not "simple" primitive, but primary people. As rich as a blossom when compared to a parking meter. Potentially us. We've been jammed through a strainer of abstract mental models that actualy *diminish* rather than expand our contact with ourselves, society and the natural world that contains us.

This book must be read if you want to know the personal and political dimensions of a transition out of Late Industrial monoculture-think. "Civilization and Progress," the introductory chapter that will eventually stand alone as a great essay, is a concentrated and tough analysis of how primitive society's richness is lost: "Civilization originates in conquest abroad and repression at home." Go along with Diamond through the politics of anthropological field work and cold questions on the role of anthropology in industrial society to the remarkable chapter, "The Search for the Primitive," where you'll find as much about our fascination with primitive people and the possibilities for human cultural consciousness as has ever been written in as short a space. Reflections on ancient and modern political philosophy, law and history follow, almost as commentaries on the two fundamental pieces, and they're worth reading for the pure free play of spirit, the intellectual liberation, that Diamond performs. Anarcho-Marxist saxophone solos.

Out of print for a number of years since its original publication in 1974 (I first read it in a lovingly copied version), it is available now in a new edition for the social transformation minded who will hopefully use it like a hand axe. **Peter Berg**

IN SEARCH OF THE PRIMITIVE (A Critique of Civilization) by Stanley Diamond • Transaction Books • New Brunswick, New Jersey • Second Printing 1981.

In **THE DESERT SMELLS LIKE RAIN,** Gary Nabhan's association with Papago culture and agricultural tradition has achieved for ethnobiology the skillful equivalent of Ry Cooder's classic musical partnership with norteno accordian flamer, Flaco Jiminez. Endangered talents are preserved with a sharp, knowing eye and a coyote sense of humor. Nabhan shows how the Papago have existed in the Sonoran Desert Bioregion for centuries with a highly developed, finely tuned sense of "what to do when it rains" (which can be anywhere from 5-15 inches annually)—how their knowledge translates an unpredictable rainfall into a successful, nourishing, run-off agriculture.

Amid the backdrop of desert, rain, local food production, and the many facets of the Indians "who distrust the taste of well water," Gary Nabhan also renders beautiful seasonal pictures of contemporary Papago life. We're guided on journies to I'itoi Ki (the Papago tribal mountain shrine), a Saguaro harvest and "drinking for the rain" feast, descriptions of the Changos del Dieserto (depicting the sometime mischievous nature of Papago children), and a lively October fourth feast day of St. Francis complete with a chicken scratch polka soundtrack.

Like a border radio station, *The Desert Smells Like Rain* is steeped in a tradition that airs over monocultural, political and historical boundaries and emerges as a music tuned to all segments of the biogeographical spectrum. **Robert C. Watts**

THE DESERT SMELLS LIKE RAIN • by Gary Nabhan • North Point Press • 850 Talbot • Berkeley, CA 94706 • $12.50

TREE TALK is likely to become the irreverent bible for those interested

in the dynamics of creating a sustainable forest culture. Avoiding extremes, Ray Raphael argues for the necessity of both living with and using our forest bounty. His running narrative is anecdotally supplemented by a host of oral histories drawn from the likes of lumberjacks, timber operators, foresters, naturalists, ranchers, and reforestation workers. Of particular interest is the concluding section, based on Swiss example, which suggests the structure and benefits of a landed forestry. **Michael Helm**

TREE TALK by Ray Raphael
Island Press • Star Route 1, Box 38, Covelo, CA 95428 • $12.00

KNOWING HOME

For those unfamiliar with the work of the Rain staff this book is a fine introduction. **KNOWING HOME** serves as an issue specific articulation of the creation of a sustainable city. The scope of issues discussed (from energy and housing to food and economics) remain united by reference to and focus upon the life and politics of place. **Knowing Home**'s blend of stories, conceptual articles, graphics and a local and national self-help resource guide is weighted and laid out in such a graceful manner that those involved in self-reliant community work elsewhere would do well to send for a copy.
Sheila Purcell

KNOWING HOME: Studies for a Possible Portland • Edited by the Staff of Rain • RAIN • 2270 NW Irving • Portland, OR 97210 • $5

NETWORKING AND DISTRIBUTION

by Sheila Rose Purcell

The ongoing exchange of place-related ideas and activities, to my mind, seems suited not only to the published and written word but also to the spoken word and to personal contacting — face-to-face networking. Since existing and emergent bioregional groups and projects consist of diverse individuals I try to write personal letters in response to questions or requests for information. Try me. Meeting with individual visitors from other areas, such as the Ozark Area Community Congress (OACC) people, the folks from the Kansas Area Watershed (KAW), and visitors from the San Antonio Bioregional Project, has given us a chance to discuss issues, exchange stories, and grow in awareness and effectiveness.

By the time this reaches you we will have made a trip into the Northwest as part of an effort at this kind of networking. Rain (a community self-reliance and appropriate technology networking and support group) will be our hosts in Portland. We hope to meet with the Cascade Regional Library people in Eugene, the Illinois Valley Self-Reliance Project and the Takilma People's Clinic in the southern Oregon / Cave Junction area, as well as attend the Humboldt's Herbicide Task Force strategy weekend.

Bioregional workshops are another area of networking that we would like to refine and expand. Eric Bear and others are facilitating the workshops and encouraging the growth of study or action oriented seed groups. Contact Eric if you'd like to explore a workshop for your bioregion.

Since Raise the Stakes (RTS) remains one of our most effective outreach voices, I'd like to draw your attention to our new, self-proclaimed distribution outreach person, Diane Nettles. Diane says "I'm here to help Planet Drum get RTS more widely distributed. If you would like to sell RTS in your area, to your friends and associates or at regional fairs or conferences, write me a letter with your ideas. Or, for those of you who are less ambitious, send me names and addresses of the places in your community where you would hope to see RTS for sale. Let's network beyond those already converted."

PLANET DRUM FOUNDATION

Since 1974 Planet Drum Foundation has served a diverse circle of members and correspondents interested in developing, analyzing and communicating the concept of a bioregion through its regional bundles, books, and tri-annual review, RAISE THE STAKES. There are a growing number of individuals and groups that are exploring cultural, environmental, and economic forms appropriate to the places they live in. **Planet Drum Foundation** is now developing network and support functions for existing bioregional groups and projects as well as for those that will evolve in the future. We invite you to join the **Planet Drum** circle in furthering the ongoing exchange of place-related ideas and activities.

WHAT YOU CAN DO

1 Become a member of **Planet Drum Foundation.** Membership includes three issues of RAISE THE STAKES, at least one surprise publication, a 25% discount on all Planet/Drum books and bundles, and access to our networking and workshop facilities.

2 Help build a bioregional group in your area. We can help by sending you a list of Planet/Drum members in your area. You can send us the names and addresses of interested people who will in turn receive a complimentary issue of RAISE THE STAKES.

3 Send us a list of your cultural and cooperative outlets: bookstores, food co-ops, community and environmental centers.

4 Arrange a bioregional workshop in your area. For transportation, room and board, **Planet Drum** will come to help you.

5 Send RAISE THE STAKES a report from your region.

*** NEW FROM PLANET DRUM ***

Figures of Regulation: Guides for Re-balancing Society with the Biosphere, Peter Berg

The ways we live in places must acknowledge the features of local natural systems. *Figures of regulation* can help create this bond and provide an ethical basis for community activities based on "new customs" rather than laws.

Toward a Bioregional Model: Clearing Ground for Watershed Planning, George Tukel

Developing a *bioregional model* will allow the design of communities and means of provision (food, energy, housing) to resonate with solar income, local watersheds, and the goals of a reinhabitory society.

Reinhabiting Cities and Towns: Designing for Sustainability, John Todd with George Tukel

The information we need to have about alternative technology and renewable energy already exists. How can it be integrated into a design process that is connected to the biology of a specific place? "Reinhabiting Cities and Towns" presents a design method to accomplish this and gives practical applications which result from it.

$9.00 + $1.00 postage for all three of these booklets.
NEW AND CURRENTLY PAID-UP PLANET DRUM MEMBERS WILL RECEIVE THIS SET FREE

RAISE THE STAKES

. . . is published tri-annually by **Planet Drum Foundation.** We encourage readers to share vital information, both urban and rural, about what is going on in their native regions. Send us your bioregional reports, letters, interviews, poems, stories, and art. Inquiries, manuscripts, and tax-deductible contributions should be sent to **Planet Drum Foundation, P.O. Box 31251, San Francisco, CA 94131 USA. Telephone (415) 285-6556.**

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Editor—Michael Helm. *Assistant Editors & Mapmakers*—Judy Goldhaft and Robert C. Watts. *Networking*—Sheila Purcell and Eric Bear. *Distribution*—Diane Nettles. *Graphic Design and Production*—Nancy von Stoutenburg. *Typesetting*—Ampersand Typography, Berkeley. *Printing*—Warren's Waller Press, San Francisco. *Working Angels*—Eileen Minard and Richard Grow.

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☐ I am enclosing the names and addresses of friends who would like to receive a sample copy of RAISE THE STAKES #5. I enclose $1 for each.

☐ Find enclosed the names and addresses of _____ friends to whom I would like to send gift memberships in PLANET DRUM FOUNDATION. I'm sending $15 for each gift.

☐ I would like to trade (you name it) _____ and/or a report from my region for a year's membership in Planet Drum Foundation.

☐ I enclose the names and addresses of 10 friends whom I think would like to know about Planet Drum. Please send me a copy of *Reinhabiting a Separate Country* for my labor.

☐ Here's $15 for a year's subscription to **Raise The Stakes** plus 25% discount on other Planet Drum publications . . .

☐ Here's a tax deductible contribution of _____ . . .

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BUNDLES, POSTERS & BOOKS

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• *Reinhabiting a Separate Country: A Bioregional Anthology of Northern California,* edited by Peter Berg. 220 pages. Essays, natural history, biographies, poems and stories revealing Northern California as a distinct area of the planetary biosphere. $7.00.**
"The book serves as both pioneer and genre model . . . representing a vital and widespread new ethos."
—NEW AGE MAGAZINE

• *Renewable Energy and Bioregions: A New Context for Public Policy* by Peter Berg and George Tukel. 26 pages. A concept of renewable energy to restore and maintain bioregions. $.75
"The rationale for a division of the nation based on natural resources to lay the framework for development of a steady-state, regionally based society."
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". . . a strange and fascinating little guidebook to a movement that is 'redesigning the map of Europe.'" —RAIN MAGAZINE

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• *Backbone — The Rockies.* A six-part Bundle of essays, poems, journals, calendars and proposals about the fragile Rocky Mountains. $3.50.*

• *Watershed Guide & Living Here.* A four-color poster with pamphlet evoking the natural amenities of the San Francisco Bay Area watershed. New members receive a copy free upon joining. Additional copies are $2.50.*

• *Raise The Stakes: The Planet Drum Review, No. 2.* Contains regional reports from Quebec, Northwest Nation, The Black Hills, Brittany, Northumbria, Scotland, Samiland, and northern California. Feature articles include: Reconstituting California by Jack Forbes, Eco-Development by Raymond Dasmann, The Suicide & Rebirth of Agriculture by Richard Merrill and the Limits of Population Control by Stephanie Mills. $2.00.

• *Raise The Stakes: Planet Drum Review, No. 3* contains regional updates from the Black Hills and Samiland as well as in-depth reports from Aboriginal Australia, the Rockies, the North Atlantic Rim, and the Klamath/Trinity, Passaic, and Sonoran Watersheds. Other features include Bioregional Comics by Leonard Rifas, Aesthetics by Michael McClure, Renewable Energy To Renew Society by Peter Berg, Cities: Salvaging the Parts by Gary Snyder, Ernest Callenbach, Murray Bookchin and Morris Berman, Decentralism by Jacques Ellul, No Guarantees by Tom Birch, and poetry by Peter Blue Cloud. $2.00.

• *Raise The Stakes: Planet Drum Review, No. 4* is SOLD OUT.

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Old Woman Nature

naturally has a bag of bones
tucked away somewhere
a whole roomfull of bones!
a scattering of hair and cartilage
bits in the woods.
A fox scat with hair and a tooth
in it.
a shellmound
a bone flake in a streambank.

A purring cat, crunching
the mouse head first
eating on down toward the tail—
the sweet old woman
calmly gathering firewood
in the moon—
Don't be shocked,
She's heating you some soup!

Gary Snyder

on seeing Kurozuka at the Tokyo Kabuki-za VII:81

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SPRING, 1982

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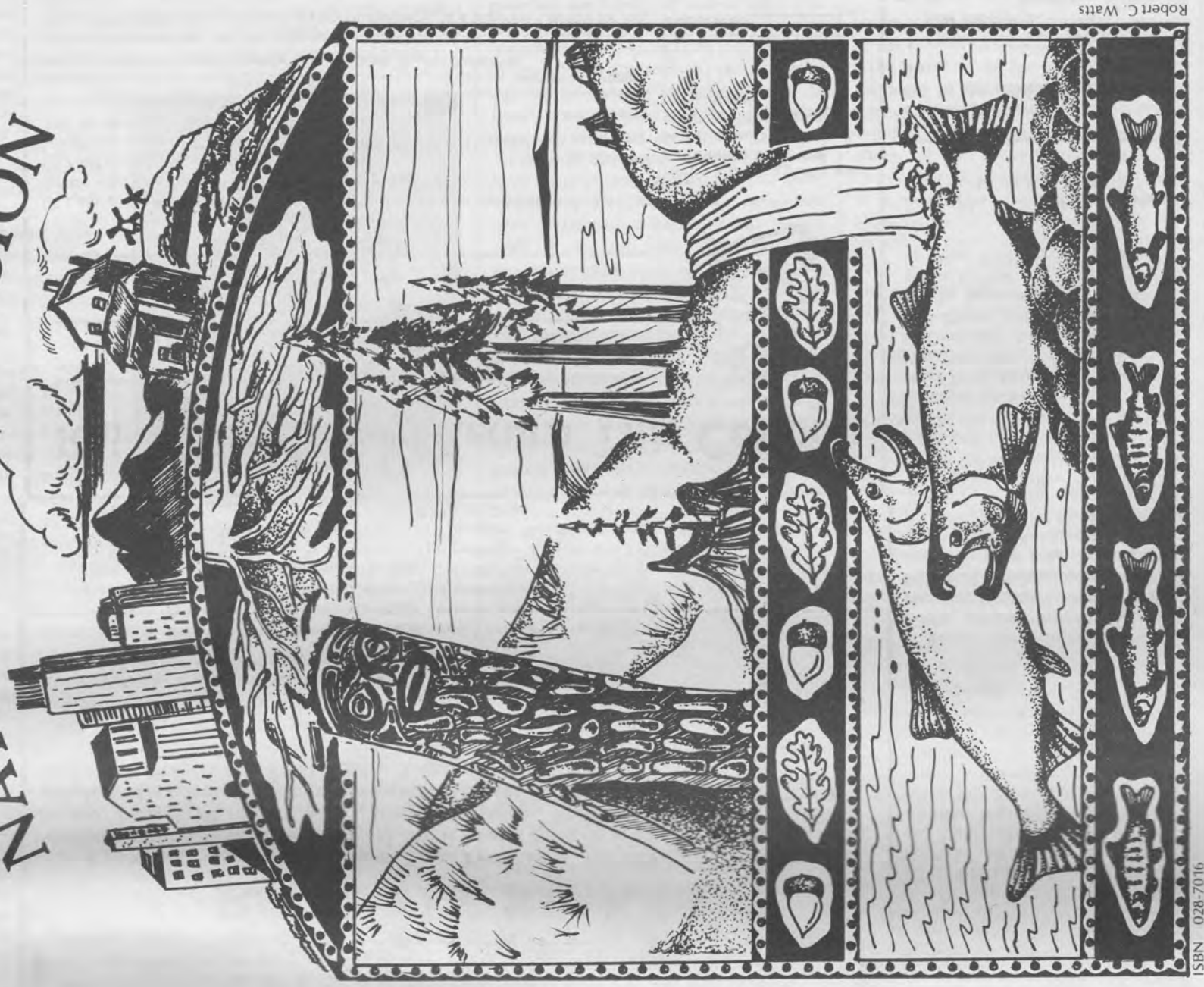

Robert C. Watts

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