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# RAISE THE STAKES

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*What's Happening To*  
**THE WATER WEB?**

Plus reports from • AUSTRALIAN OUTBACK • EUSKADI • TRIPLE DIVIDE, and more

# Coming Out of the Water Closet

by Michael Helm

People of place know that fresh water is one of the most poignant totems of earth's essential interdependence; whether falling from the sky as rain on a prairie, channeling as runoff into an intricate river-valley system, seeping into underground aquifers, melting into mountain lakes, or feeding into a coastal estuary, water is the basis of life. Yet the natural provision of the hydrologic cycle, hitherto freely given us, is now in serious jeopardy as a result of poorly conceived human intervention. The depth of the crisis is already apparent for those who choose to see.

For example, airborne industrial pollution in the Northeast is increasingly contaminating the storms that sweep over the Adirondacks from New York into Canada. Ever more toxic showers of acid rain are the unhappy consequence. The problem threatens to become as acute as it is in Norway, where over 70% of the lakes have turned so acidic they no longer sustain any fish. If it's killing fish, what is it doing to other life forms, humans included?

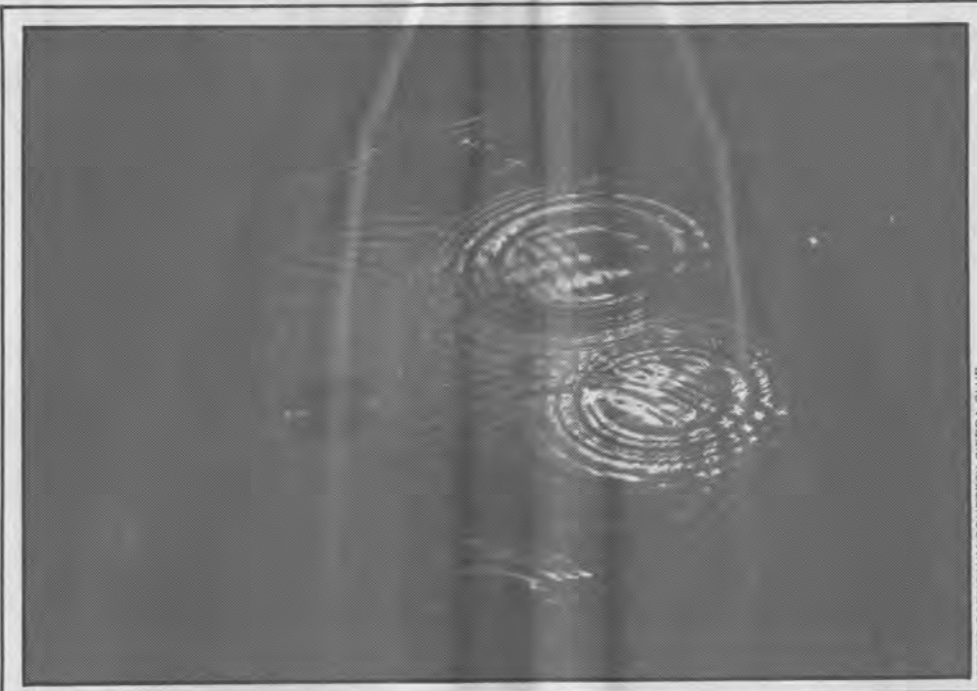
Or consider the Midwest cornbelt. How many people appreciate the fact that its present productivity depends on tapping irrigation water from the Ogallala Aquifer? This aquifer slowly accumulated over eons a vast store of underground water that nourished the roots of rich prairie grasses, which in turn kept the soil from blowing away. The industrial agriculture now practiced in Kansas, Nebraska, and Texas, however, is mining some 14 million acre-feet *more* out of the aquifer than

is annually replenished by rainfall. That is more water than the entire annual flow of the Colorado River past the Lee Ferry measuring station in northeast Arizona. As the Ogallala recedes and the cost of drilling for water increases over the next 10 to 20 years, new dustbowls worse than anything seen in the 1930s could be created.

Other aquifers aren't in much better shape. In California's Central Valley and in Arizona's Tucson-Phoenix area so much groundwater has been pumped out that surrounding land has collapsed as much as 40 feet. The adjacent rivers have also been gobbled up. The San Joaquin River now actually runs backwards a part of the year, and the Colorado has been so "developed" that its flow into the Gulf of California since 1960 has been marginal to nonexistent.

Throughout the entire semiarid West the water table has been sinking nearly three feet each year. At this rate of depletion one-third of all irrigated agriculture will be forced out of production in the next 20 years, according to the U.S. Bureau of Land Management. Additionally, the energy conglomerates are now aggressively competing with agriculture for water. Along both sides of the Rockies power companies have been buying up water rights which they plan to use for projected coal- and shale-mining operations.

Water shortages, droughts, and pollution are increasingly urban problems as well. During the past few years water rationing has been required



BRUCE BARNBAUM/COURTESY SIERRA CLUB

**Drought is something more than the absence of water. It's where some old trouble shows up. Like the problem of waste and its containment. It's not the water, not even the shortage. It's what happens when the water gets low, something in the water, in the people who drink it. Like a shortage is like a poison. Like PCBs in the Valley's deepest wells. Dioxins in the wildest rivers. Collapse of arteries. Disappearance of wetland. Liver damage. Cancer. Frogs one morning in Pharaoh's coffee. The problem everywhere becoming the problem at home. Wherever you are, it leaks through here.**

**There's never enough water to wash it away.**  
Jerry Martien, *Bones of Water*

in New York, New Jersey, and California. Toxic chemical spills and sewage seeping into wells, aquifers, and coastal estuaries are problems that increasingly vex local communities. The Ozarks are a graphic example. In 1978, originating near the city of West Plains along the Arkansas-Missouri border and spreading for literally thousands of square miles, the entire regional underground water supply was contaminated by a concrete-lined sewage lagoon that collapsed through a limestone basin. Thousands of wells were left unpotable.

Another urban example is Chesapeake Bay. From 1966 to 1975 the James River, a major tributary to the bay, became so contaminated with Kepone — a little known roach killer — that it finally had to be closed to all recreational and commercial fishing. It

still has not totally recovered.

These are but a few of the more sensational examples. Every major watershed in America is confronted with a water problem — either of quality or quantity. If one adds the prediction from the Carter administration's Global 2000 report that demand for water will *double* in the next 20 years in order to keep the current industrial, agricultural, and manufacturing system going, then the likelihood of a mammoth water crisis becomes apparent.

Wherever we live, we can be sure that we will be told that more dams and reservoirs will have to be built, more lakes drained, more estuaries destroyed, and more distant rivers diverted. Desperate plans will be

brought out by the water planners to dam and divert the Yukon to save the arid West, to divert the Missouri as a replacement for the Ogallala Aquifer, to sacrifice Northern California's last wild rivers in order to quench agribusiness's thirst in the Central Valley, to tap James Bay's tributaries to protect the Great Lakes and perhaps to replenish the Hudson and the Mississippi.

The cost in ecosystems, in sustainability, even in dollars, will not wash. We have reached the end of the era of unlimited water development. In truth, we have never actually *developed* any water. We have merely, at tremendous cost and for short-term benefit, rearranged its natural flow. The urgent need today is not for more interbasin transfers of water — sacrificing one region for another — but for discovering how we can live with and use our limited supply in a sustainable manner.

We have to begin to work *with* the hydrologic cycle's natural disposition, rather than against it. Fighting gravity is a losing proposition. It just takes too much energy. Destroys too much life. It makes more sense to let our rivers carry soil to the floodplains, where we can farm it, than to build trucks to cart fertilizers to marginal "reclaimed" lands that require ever-growing water projects for irrigation and flushing out salts. It makes more sense to let a river flood annually to flush out a polluted bay or estuary — and to relocate houses that might be destroyed — than to build and repair expensive dams in order to save a few homes. Ultimately there are no short cuts for tapping into nature's bounty.

A river is a living system. It is more than so many million acre-feet of water stored behind a chain of gradually silting up dams. It doesn't merely waste out to sea at so many cubic-feet-per-second representing x number of kilowatt hours of power. Our desecration of it cannot be measured by so many "acceptable" particles of pollution per million. We need to use a different language, a different vocabulary to properly describe how water nourishes the entire web of life.

Wherever we live we need perceptions that are seasonal, that wax and wane with the rains, that are in harmony with the water that flows in our veins, that are both specific and universal to place.



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Since 1974 Planet Drum Foundation has been developing and communicating the concept of bioregions — through regional bundles, books, and the triannual review, *Raise the Stakes*. We are now working to foster exchange among bioregional groups and projects — the growing number of people exploring cultural, environmental, and economic forms appropriate to the places where they live.

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# The Flow of Power

by Donald Worster

**T**hroughout history people have been following one river or another, settling here and there along its banks, telling stories about it, revering and fearing its power, and in some places trying to bring it under their rule, making it serve their ambitions. What they did not realize was that the river was themselves. Their lives, their freedom, their instincts were flowing there too. What they did to

trolled from head to mouth in some fashion, it is time to ask what kind of Eden we got. And ask not only in the West, but wherever rivers and other forms of natural water have been intensely managed.

Paradise in the United States has usually meant, among other things, a place where democracy can thrive, where everyone can have an adequate share of



PHOTOS COURTESY SIERRA CLUB

that river they did to themselves. Whenever they conquered it and turned it completely from its course, managing it with elaborate means, they subjugated themselves. Their power over the river turned out in truth to be a power of some people over other people.

One of the latest such efforts has been made in the American West. From the wilderness time in 1804 and 1805 when Lewis and Clark followed the Missouri, the Snake, and the Columbia to the ocean, up to the present, the West has been a Garden-of-Eden dream in many people's eyes. Could we but divert those rivers and turn them to our advantage, men have said again and again, this dry wasteland would flourish and would make us rich. Some of the dreamers have been farmers and agribusinessmen who have demanded irrigation public works and flood protection. Others have been promoters in Phoenix, Los Angeles, or Denver who have pushed through diversion tunnels, aqueducts, and dams to water their cities. Now that almost every western river has been con-

resources, where the common people can make the important decisions. Somehow in its practical working out, the democratic ideal has also come to involve the technical manipulation of nature. And that has been one of our most persistent, serious errors of judgment. Democracy does not come from dominating nature, as we have thought; it never has, never will. On the contrary, the more we have dominated, the less democracy we usually have seen. There was more real democracy in the West before Hoover Dam or the All-American Canal. Ironically those water-management projects were promoted as parts of a larger design to makeover the West to provide an independent existence for ordinary folks. But if democracy means an individual possessing a large measure of autonomy and exercising genuine control over the decisions that affect one's life, as I think it does, then it has been made harder, not easier, to achieve, by conquering the Colorado River and other streams.

The reason for this outcome is

clear: water control requires capital, and Big Water Control requires Big Capital. The grander the dreams, the less capable most people are of participating in them. They get shut out, or have to take whatever dribbles to them at the end of someone else's pipe. Big Capital ends up doing the controlling and enjoying the benefits. The river is made to flow into the pockets of the few.

**E**arly on in the history of the West, about a hundred years ago, a few perspicacious observers understood at least some of this threat to democratic values. One of the most prominent of them was John Wesley Powell, a highly placed government official. Powell had made history by being the first white man to float down the mysterious, awesome Colorado, a feat he carried out seated in a chair lashed to a boat deck, his one good arm clutching tightly, the other arm left behind in a Civil War hospital. He fell in love with the canyon lands, the river, and the West. Later he described the region thus:

*Its mountains gleam in crystal rime, its forests are stately, and its valleys are beautiful; its cañons are made glad with the music of falling waters, its skies are clear, its air is salubrious. . . .*

He wanted to make that beauty accessible to millions of Americans, to see them create homes there and own it. But he understood how easily that hope might fail.

Like almost all his fellow citizens, Powell, having once seen a river, could not leave it alone. He itched to stop it from wasting its current in the sea. No individual, acting alone, had the means to do that. The "redemption" of those beautiful lands (when had they sinned and against whom?) will involve, he wrote in 1878, "extensive and comprehensive plans, for the execution of which aggregated capital or cooperative labor will be necessary. Here, individual farmers, being poor men, cannot undertake the task." To irrigate a hundred million acres would require, say, a billion dollars. The return on such an investment would be enormous, but first there had to be the investment. And "if you ain't got the do-re-mi, boys, better go back to beautiful Texas, Oklahoma, Kansas, Georgia, Tennessee."

**A**lready at the time Powell wrote, corporations were moving in on western rivers, intent on grabbing the water for their own use. Farmers living down river, where there was abundant flat land to irrigate, found their water sucked off upstream in an expensive game of leapfrog. Powell had, he thought, a fairer approach. He would have the government survey entire watersheds and identify a series of irrigation districts within them. Some would be up in the headwater area, others down on the river's trunk. Each would be a natural district, following as much as possible the drainage patterns rather than arbitrary survey lines. Then Powell would turn those districts over, not to corporations, but to groups of small farmers organized into colonies of settlers. The western rivers would be developed communally and democratically by cooperative labor rather than by aggregated capital.

The irrigation district was to be at once an ecological unit and a self-governing community. It would include public mountain forests, which the farmers would locally own and protect for the sake of their water. It would also have pasture lands where cattle could be raised, supplementing the watered row crops and forming a diversified agriculture. Each farmer in the district would own no more than 80 acres of irrigable land. The community would draw up its own rules and regulations, raise money to develop the valley, and divide the water. Neither corporations nor government would be needed by the district; it would govern its affairs as an

autonomous unit. Here then was a blueprint for a small-scale, decentralized plan of settlement that would be shaped by the western rivers' own dynamics.

It was never adopted. Powerful forces in Congress listened to Big Capital and blocked the Powell proposal. In fact the man had the entire matter taken from his hands and assigned to another official — someone safer who could be manipulated by corporate interests. Then when those interests had grabbed all they wanted, or at least had built all the works they could afford, the federal government, through the agency of the Bureau of Reclamation, stepped in, provided the next round of capital, and began to pour concrete. That has been the story throughout the 20th century: federal funds, federal engineering, centralized decision-making, more and more grandiose projects, and entrenched private interests who continue to get most of the benefits. The more we dominate nature, the farther we move away from small-farmer democracy.

Though better than any other ideas of the time, Powell's proposed watershed districts had a few flaws. The worst flaw was that he expected his irrigated communities to be wholeheartedly in the marketplace, buying and selling their produce. The predictable outcome of that involvement would have been precisely what we have now. Sooner or later the districts would have expanded their acquisitive drives beyond their technological means and would have called in bigger money to build bigger works, maybe to divert water from the next valley over, and then the next and the next. Start with the idea of manipulating rivers to make money, and there is no end until complete domination, complete utilization of every drop, complete tyranny is achieved. Powell was a man caught between two irreconcilables: his populist sympathies for the people and his technologist dream of possessing those beautiful landscapes. What he needed was an understanding of how the fate of people and the fate of nature are linked.

**W**e are in a better position today to think bolder, more radical thoughts. More people now realize the dark consequences of all dreams to subdue and master the earth — the dream humans took with them out of Eden. More are able to see their own reflection in the river than a century ago; they understand that we cannot create vast structures of power without ourselves being caught in them. We are more ready, consequently, for a fresh approach to society and politics, one based on a just distribution of welfare, on a more decentralized authority, and on benign technology that settles harmoniously into nature.

The obstacles to a new relationship with water remain formidable of course. We will have on our hands for a good while yet the old structures of power. Hoover Dam and its companions have many years left before they decay and fall down, liberating the river and opening new possibilities of social organization. That will happen someday — make no mistake about it. None of the monumental river works built in ancient times — on the Euphrates, the Nile, and the like — lasted forever. Nature has a way of eventually reasserting itself even in the face of such seemingly solid barriers. The Taoists of China understood that way: they knew there is nothing more powerful or more irresistible in the long run than running water. If it carved the Grand Canyon, it can wear down a few BuRec dams. But the long run can seem very, very long if you want another America tomorrow. We are going to have to wait some. While waiting, we can get our ideas together and voice them persistently. We can help the river do its work by offering our sympathy and encouragement to it. And we can be patient.

Donald Worster teaches at the University of Hawaii and is working on a book about water and political power in the West.

# Columbia River Watch

by John Badgley

Not many years away, the year 2000. Stable elements in our current condition define trends over the next two decades, so let's be brave and view that near future as some reasonable extension of today.

In 1983 the big dams are all in place now. The Ben Franklin will not be built above Hanford where the Columbia has its last free run in the States. Our electricity-rush days are over and no new city or aluminum plant will be built along the river banks. The half-century era drew to a close as we figured the true costs of energy during the crisis '70s and discovered our least expensive source to be conservation.

Many riverbank towns and cities in the Columbia River basin will grow at a faster pace than the national norm, for they are desirable places to live: Portland, Wenatchee, Moses Lake, Spokane, Missoula, Kalispell, Pocatello, Boise, Coeur d'Alene. These communities will increase by half, and that means half again as much water for municipal and industrial uses, over a hundred gallons per person. Figure another 50% growth in agricultural use to match population growth. Agriculture will intensify with specialty crops like vineyards and vegetables, while the expansive central-pivot irrigation farms start a slow decline because of exploding power rates.

Smaller towns will grow where people like to live on retirement incomes because prices are lower and streets seem safer. Some 12 million people will depend on our watershed (including the Puget Sound and Vancouver, B.C. regions) for power and consumption uses, compared to 8 million today.

Recreation also draws new residents. Among our wooded mountains, backpacking, fishing, and river-floating are magnets that make an ever-greater demand for reliable in-stream flows. The salmon decline has bottomed out and we are already seeing larger runs as people pay higher taxes and power bills to make it happen.

We can expect a titanic struggle to develop over interbasin water transfer for Sunbelt residents. Engineers created the model 30 years ago, and politicians' careers will rise and fall on this issue. Futurists predict 50 million residents in the Southwest, outvoting the projected 12 million Columbia watershed folks, so Congress is already tooling up a giant public works program for the 1990s. But it won't happen.

The biggest obstacle is economic. The cost of a huge interbasin transfer will make the dam-building era seem penny ante.

Then there is the legal issue of Indian and Canadian treaties. The Winters doctrine has prevailed in most court cases, so tribal rights are well-defined and a large portion of the basin's water originates on or flows through some Indian reservation. Most Indians will protect their water rights with everything in their power. And why should Canada close its future options just to make a one-time sale of their Columbia rights to parched Arizona?

These are the stable, predictable elements in our situation. The dynamics are in our shifting priorities. Of our six distinct uses — energy, transport, municipal, industrial, agricultural, and fisheries/recreation — we must continually choose one use over another. While uses do not necessarily conflict, they often do conflict as social values shift.

"Eelectricity" was what Woody Guthrie eulogized in the thirties.

Flood-control, barge transport, and irrigation further justified the big dams in the 1940s and 1950s. Essentially dams have accomplished what we expected of them, but now the environmental movement has heightened our awareness of their cost, such as lost benefits like the salmon run and the beauty of free-flowing rivers. How deep will the current of this movement run?

Economic transformation from industrial to electronic society affects the Northwest as deeply as any other region or nation. Dozens of high-tech

firms have moved into the Northwest over the past decade. Thousands of jobs now hinge on this economy that depends on high-quality water that is free of industrial pollution. By the year 2000 we can expect most urban employment to be directly tied to some form of this new economy, combined with information processing (what an awkward concept). Does that mean more, or less, demand per capita for industrial use of water? Probably it means less consumptive use, but more nonconsumptive applications through secondary and tertiary treatment plants.

Such an economy permits greater free time for recreation, if people choose not to moonlight to enhance



COLUMBIA RIVER BASIN

their earnings. Assuming that recreation time increases along with population growth, we can expect greater pressure for recreational water use; concurrently we may experience relative decline in demand for new industrial and transport uses.

Since the energy crisis a decade ago, demands for hydro power have grown in the range of 1% to 2% annually, rather than the 7% predicted by the Bonneville Power Administration and Corps of Engineers. Conservation became our least expensive source of "new" power, but no one can be certain how long we can continue to squeeze the wasted juice out of the system to power new industries and create more jobs for the region's immigrants. The utility companies say the average cost of each kilowatt saved is 5.5 cents, but the cost of nuclear or thermal plants is already 20 times the hydropower cost.

While BPA and the region's utilities still tend to resist purchasing electrical power from small-scale sources like high-head turbines on smaller streams or windmills, this inertia will be overcome during the next two decades and we can expect a substantial new arena of technological change. It will permit smaller capital sources, even local banks, to finance small dams on the Columbia's tributaries, as well as the new solar and wind applications on the way. While only 2-3% of the region's power will be coming from these more appropriate sources within two decades, the trend will be established and financial awards will be put in place for innovative technicians and financiers. The Northwest Power Planning Council's conservation and alternative energy policy already indicates this direction.

More people means more pollution of aquifers. Portland and Spokane are already in marginal situations since they have single sources under great pressure from developers and industries. Increasingly restrictive state laws and building codes more costly to enforce will be our reaction to this pressure, especially if federal regulations continue to be reduced in the interest of local and state control. Our watershed still enjoys the reputation of having the highest quality water of any major river system in the world, a reputation that will be severely tested in the interval under consideration. Will we be willing to pay for the costs of control: the tertiary treatment plants, the limits on locating recreation homes, the preservation of forest cover on key watersheds?

Citizen awareness of trade-offs in water policy has never been higher, but it must improve even more if we are to control the special interests that have dominated water use in the past half-century. Our solution is to foster citizen river watch associations on every tributary.

John Badgley is president of the Institute of the Rockies, and lives in Missoula, Montana, on the Clark Fork of the Columbia. He has been active in launching the Columbia River Watch, an association of citizen committees fostering an awareness of watershed ecology.

## WATER IS LIFE

### An Open Letter to the People

by John Trudell

*John Trudell is an exponent of and notable diplomat-poet for Native American rights and cultural identity. In response to his initiatory move to widen the basis for sharing objectives among Native Americans, bioregionalists, and others, we have devoted this issue of Raise the Stakes to "What's Happening to the Water Web." Trudell's appeal to involve ourselves with the reality of water for survival follows, as the foundation piece of this issue, and, hopefully, the bonding of a new alliance of spirit.* —Peter Berg

The Mother Earth gives us all life. Governments and economic systems manipulate and distribute the resources of life, but Mother Earth provides all things in the beginning. In order to protect the wellbeing of the children seven generations from now, we must examine our relationship to Mother Earth.

The water is Mother Earth's milk of life for all of the natural world. Life came from the water. Life is not possible without water. We must be aware of how important water is.

The current political-economic conditions are affecting our vision of the real world. The corporate greed and political manipulations of today are creating chaos economically and racially. The end result of this chaos is usually corporate expansion and harder economic conditions for the people. This sometimes makes the people forget the sacred things in life.

In this generation nuclear corporate expansion is dependent on corporate-federal control and domination of the water. The nuclear industry can not exist without tremendous amounts of water. The chemical industry uses water for dumping grounds. This poisonous attack against the water is murder. We must not murder the water. We must not forget water is sacred. We need water more than profit. We are all affected: men, women, children, elders — all of the natural creation.

We must carefully consider our use of the water. We must seriously consider the impact of unchecked nuclear growth and the increasing shortage of usable consumptive water for the people. Less than 3% of the earth water supply is fresh water. For most of our history this 3% supply of fresh water has been a renewable resource. This is no longer true. Man and business have created new forms of pollutants that affect the water and environment in ways never before experienced by human society. Nuclear and chemical poisons contaminate the entire water supply cycles. Acid rain, radioactivity, and toxic chemical wastes spread their poisons to all water and food chains.

The people are now competing with the technology for use of the water. The water is necessary for our survival and we cannot afford to allow the nuclear chemical industries to pollute it at will. After these industries use the water, we cannot. The technology will not share the water with us. The new pollutants make it unsafe for our use in the real long term. We must truly consider the lives of our children and their children's children, for they too need water for life. We are avoiding our responsibilities if we do not consider the long term effects of this radioactive chemical attack on our water. What is needed is rational, sensible considerations for the water and life itself. We understand we are using up nonrenewable resources but we must understand water is the main resource we are using up. We have turned water from a renewable to a nonrenewable resource in this century. The rate of this abuse must be stopped. It is suicidal for our society to act in this manner.

We are concerned about life. Life is the beauty of this world. We want life, we are for life. Of all the abuses of the environment currently taking place, we feel that by protecting this most sacred and most necessary element of life we can begin to put some stop to the accelerating rate of destruction of earth resources.

Before this can happen, we must remember the water; we must raise the consciousness about water for life. The misuse of our environment is directly connected to our abuse of the water. From all phases of nuclear spread to chemical creations water is a main ingredient. In the food and thirst cycles of our lives water is the main ingredient. We must realize the new technological methods will not share this water with us.

We have many varying political social perspectives which at times keep us divided, perpetuating this cycle of destruction. It is our feeling all of our needs can be met if we will remember the water and will protect water for life. We seek your aid in helping to raise this awareness. Water for life is not a political thought, nor is it an organization. Water for life is survival.

# TERMINAL LAKES?



**T**erminal lakes are naturally produced, significant geographic features on the earth's surface and account for some of the largest and more important bodies of water. Thirteen of the 40 largest lakes in the world are terminal lakes. The Caspian Sea in the U.S.S.R. is the largest terminal lake as well as being the largest lake in the world.

Great Salt Lake, Mono, and Pyramid lakes are among the largest natural bodies of water in the West. These and other saline and brackish lakes exist in the arid intermountain region known as the Great Basin. They are now severely threatened because of monocultural human attitudes. The lakes reside in an area uniquely defined and circumscribed on the basis that its drainage has no outlet to the sea.

Lying between the Sierra and Rockies the Great Basin covers some 220,000 square miles and overlaps portions of six states. Because of climate and topography, the Great Basin is actually a corrugated assemblage of over 100 separate enclosed mini-basins whose outflow is naturally restricted to evaporation and evapotranspiration.

As closed hydrologic systems the watersheds and lakes of this region are highly sensitive to alteration of the natural surface and groundwater flow. They require the seasonal inflow of fresh water to maintain the integrity of their ecosystems. Typically, the Great Basin consists of dry mountain ranges and even more arid valleys. On the western and eastern margins, however, the mountains trap sufficient winter snows and release enough runoff to maintain large desertic lakes. Because the lakes are the termini of all the surface and groundwater flow in their respective watersheds, they are called terminal lakes. Other descriptions of them have included closed lakes, enclosed basin lakes, salt lakes, inland saline lakes, and bitter lakes.

Besides Mono, Pyramid, and Great Salt Lake, a number of other terminal lakes are important. These include Sevier Lake in Utah; Malheur, Harney, Abert, and Sumner lakes in Oregon; Goose and Honey lakes in California; and Walker Lake in Nevada. The Salton Sea is also a desertic terminal lake within the Great Basin. It was created in 1905 by the accidental rerouting of the Colorado River into the Salton Sink and has subsequently been maintained by agricultural drainage water from the Imperial and Coachella valleys.

What distinguishes all of these lakes is the lack of surface outflow. Under natural conditions they rise and fall with changes in climate, expanding over much

larger areas during glacial periods. Typically, these lakes concentrate mineral salts brought in by their tributaries through evaporation. This process makes their water unsuitable for human consumption, though a boon to fish and wildlife. Pyramid and Walker lakes contain anadromous freshwater fish. The Great Salt Lake and Mono Lake are too saline for fish but contain prodigious amounts of brine shrimp. The lakes are waterfowl havens in the arid West. They provide essential habitat for nesting birds and abundant food for migratory birds, both of which are inextricably connected to the amount of water in the lakes.

Because of human intervention these lakes no longer fluctuate merely in response to climatic and hydrologic factors. For the past 50 to 100 years they have been shrinking as their tributary waters have been diverted for urban and agricultural use.

California's Mono Lake, which is nearly a million years old, provides a



particularly graphic example of the diversions' impact. Situated 300 miles north of Los Angeles and 190 miles east of San Francisco, Mono Lake lies amidst a landscape of remarkable contrast — from sagebrush steppe to active glaciers to fresh volcanoes. Millions of nesting and migratory waterfowl have, up until recently, been nourished by the brine shrimp and flies that thrive in its mineral-rich water. Since 1941, however, the lake's two largest tributaries have been diverted for urban use by the Los Angeles Department of Water and Power. Because of reduced inflow, the level of Mono Lake has declined 43 feet, its volume shrunk by 50%, and its area

reduced by 33%. This rapid reduction in the lake's dimensions has also resulted in a doubling of the lake salinity, the formation of a landbridge to an island gull rookery which was subsequently abandoned, and the exposure of some 18,000 acres of alkali-encrusted lake bottom, with hazardous consequences for all breathing creatures in the area. Mono Lake will continue to die unless further unrestricted diversions are stopped. Besides protecting the beauty and wildlife in the lake, reducing current diversions will help restore air quality in the area and keep open promising possibilities for a productive aquaculture.

Pyramid and Walker lakes in Nevada are also declining because their tributaries have been diverted, primari-

ly for alfalfa irrigation. The endemic fisheries in both lakes, including cut-throat trout, are threatened with extinction if water levels continue to decline and salinities further increase. Owens and Winnemucca lakes, which have already completely disappeared because of past diversions, are poignant reminders of the ultimate consequences of uncontrolled diversions.

It is increasingly clear that we need to transcend the "utilitarian" perception of the hydrologic cycle that water developers have adopted with their claims that fresh water is "wasted" by evaporation in terminal lakes and that it should be exclusively "salvaged" for human use. Unless we expand our vision all terminal lakes will soon be sacrificed, their only legacy dust in the wind.

Peter Vorster studies hydrology and terminal lakes at the University of California. He is active with the Mono Lake Committee.

## Some Things I've Seen

by Johnny Ball

*When I first met Johnny Ball I was putting out a neighborhood newsletter in Eugene, Oregon. We were both in a slow spot in our lives, he with a stroke that put him in a wheelchair, I between college teaching and starting my second career as a landfill recycler. We spent many hours on the telephone, or talking in his trailer home as the rains came down.*

*Johnny Ball spent most of his life as a river guide, teaching wealthy clients what he knew about catching fish in the upper McKenzie River in the Oregon Cascades. He wrote half a dozen books, all punctuated with stories illustrating the bad effects of chemicals, landfills, and dams on fish life. He was a keen observer and a passionate defender of the natural world, and he warned that attempts to manufacture a substitute should not and could not succeed.*

—Dan Knapp

(Dan Knapp was introduced at length in the interview in the last issue of *Raise the Stakes*, "Harvesting the Trash." The two pieces here by Johnny Ball are reprinted from *One Man's Overalls*, a self-published collection.)

The first was a project to spray DDT on portions of the McKenzie watershed to control spruce budworm. I was on the lower McKenzie on the day the spray project began. The heavily loaded planes were flying upstream directly over the river — understandable, for the airport was only a mile away. But on the return trip they still flew low, with outlet valves still open, dumping occasional blobs of liquid into the river, directly upstream from the Eugene city water intake pump.

We cut our trip short, got to a phone, and called the airport, on the premise the people doing the spraying didn't know what they were doing. We couldn't have been further wrong.

The voice we got explained that the job was a contract, that they would fly low over the river because it was cheaper, that the valves were open to get rid of sediment that might plug the spray on the next run, that DDT was completely harmless to anything but budworm, so the city water supply wouldn't be bothered, and so if we would keep our noses out of his business, he wouldn't bother ours.

Unknown to us he already had bothered ours, for stone flies, caddis flies, and mayflies didn't return to that segment of the McKenzie for a full five years.

The second incident occurred more recently. It involved the headwaters of a small, clean stream that



PACIFIC WATERSHED ENHANCEMENT

flowed through a newly logged unit of a big timber company. Sadly, the stream furnished the total source of water for all the ponds and troughs of one of Oregon's best salmon hatcheries. This time it was herbicides — 2-4-D or 2-4-5-T — that did the butchery, and it didn't make much, if any, news.

I heard about it a year later from a hatchery employee when I asked why the Willamette had been planted with Chinook imported from Wind River hatchery in Washington state.

The third example involves what I call a Mother Pond, which furnished largemouth bass, bullfrogs, pollywogs, and a variety of pond-side plants for many other ponds. Mother Pond is a gravel pit, so the surface level of the water coincides with the water table. The level of both remains fairly stable because the Coast Fork of the Willamette River is near enough to maintain the level, yet far enough away that the pond was spared when the Army Corps of Engineers soaked revetments on both river banks with herbicides every summer to "control" blackberry growth, sometimes when the berries were ripening.

Despite heavy fishing pressure, the pond remained productive for over 20 years. Then with the pressure of real estate interests, and with taxes increased on ranches by many diameters to force subdivision and sales, the owner leased the pasture land around the pond. A huge bean yard was planted.

Beans require irrigation, and the irrigation demands on the pond soon began to reduce the level of the pond beyond what the water table could replenish. And of course beans "must" be repeatedly sprayed or dusted with pesticide. This meant that any irrigation water draining or seeping back into the pond, perhaps including the winter rains, would be poisoned.

I first became aware of trouble when I was unable to find any bullfrogs or interest any bass. Then I noticed a dead honey bee in the center of a dandelion, a floral piece that decorates every pond funeral.

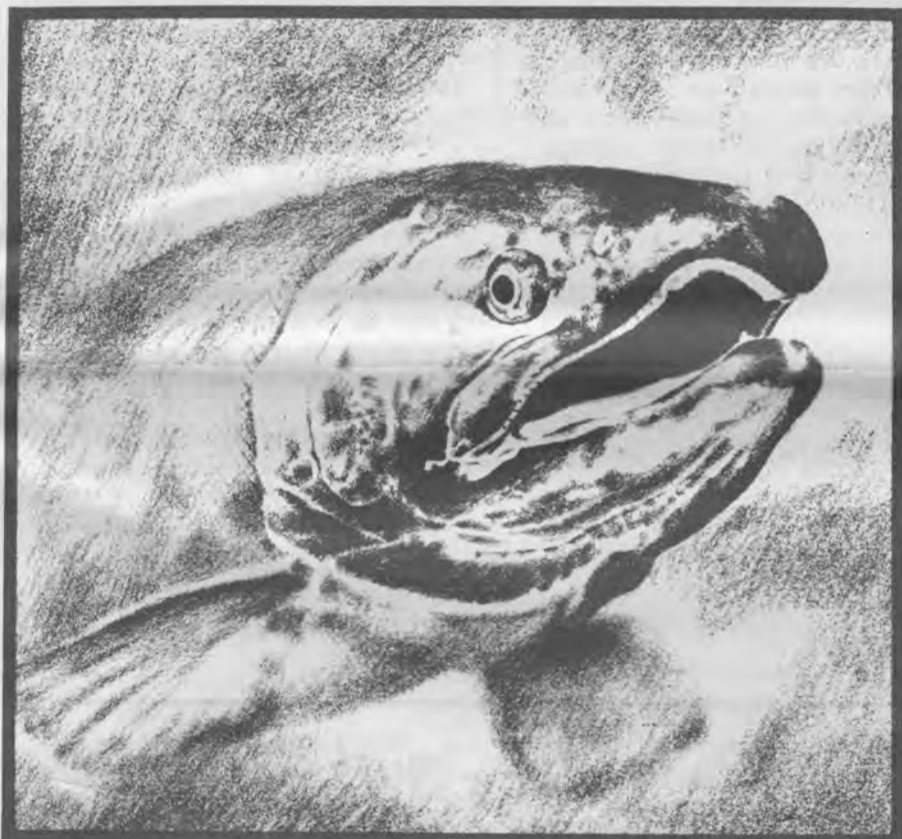
A lot of the effects on aquatic life are subtle and play themselves out over long periods of time. But sometimes the relationships are brutally clear.

## Clean Water Scarce, Getting Scarcer

In the United States, 12 million individuals still do not have access to clean drinking water. . . . Overseas approximately 60 percent of the population of developing countries do not have clean water either. Every year in the world 15 million children under five die, 29 out of 30 of them die in the developing world, most because of contaminated drinking water. In addition, approximately half of all the hospital beds in the world are occupied by people with water-related diseases. The problems in the developing world are further compounded by the fact that, as industry builds up, the same problems of toxic contamination which we are facing in the developed nations are becoming also a problem for the developing countries. The lack of clean water, either due to bacterial or toxic contamination in developing countries, is also seriously compounded by two other factors: first, the enormous increase in population, that in countries like Bangladesh will continue at a very significant level beyond the turn of the century; second, the massive migration of people in the developing countries to the urban centers. It is estimated, for instance, that Mexico City will have a population of 32 million at the end of the century — a population level for which it is virtually impossible to provide water.

Peter G. Bourne  
President, Global Water  
Washington, DC  
in correspondence to Planet Drum

## When One Becomes Three Times Three



CALIFORNIA'S SALMON RESOURCE

by Johnny Ball

There used to be two kinds of fish in our rivers: natives and planters. Now there are three that must be divided for reference: natives, planters, and transplants.

Our rivers, too, must be categorized: dead, dying, and live. Defined, rivers are:

**Dead:** A waterway where aquatic insect and fish life are unable to reproduce or survive to maturity.

**Dying:** A waterway in the process of becoming dead, but still having some portions and tributaries tenable.

**Live:** A waterway capable of supporting complete cycles of both fish and fish food forms. In the clear water there will be visible spawning beds.

Defined, fish are:

**Native:** A fish that hatches, matures, and completes a normal, successful spawning cycle in the same waterway.

**Planter:** A fish incubated and reared in a hatchery and planted in the same river from which the eggs were obtained.

**Transplant:** A planter deposited

in a dead stream with the knowledge that, on any year the transplant ceases, the following cycle year will be totally null and void.

Native fish can't be distinguished by an identifying mark of any kind other than their presence in some local area adaptable to spawning and a tendency to make their run at some time other than the period of maximum fishing of the previous cycle year. Fish caught three years before won't be represented by progeny.

Planters and transplants are identical at the hatchery; both are necessary in rivers where natives have become extinct. They have been fed and fattened on pellets, which helps them reach the ocean through the dead lower portions of the river where natives might starve, or obviously have already starved.

Planters and transplants returning from the ocean will be larger for their age than natives and will appear at predictable seasons and places. Planters rarely travel above their point of origin — wherever the truck dumped them. Some will have markings, such as clipped fins.

## GAUGING RAIN

by Jim Dodge



KEN KAYTIME-LIFE'S WATER

Given nearly everyone's interest in weather, there is a pitiful lack of officially sanctioned weather stations in northern California. What few there are seem to be located mainly at airports, a case made yet stranger when one considers that airports are most judiciously situated to avoid extreme weather. Therefore, to determine the places receiving the highest annual rainfall in northern California one must turn to unofficial records — that is, unsanctioned measurements made by inhabitants of a locale.

Based on unofficial records and general accord, the three wettest places in northern California are Branscomb, Honeydew, and Cazadero. While Branscomb and Honeydew have their claims, I think Cazadero, located along Austin Creek in western Sonoma County, is probably the wettest spot in California (there isn't any serious competition to the south). I live in the coastal hills roughly 10 miles northwest of Cazadero, and here it's even wetter than the town itself, by as much as 10%.

The reason for the extreme rainfall here is not readily apparent from statistics. We have a relatively short rainy season, with nearly all our precipitation falling between late October and early April, and often within this period there are two- to three-week breaks of clear weather. This year, for example, it didn't rain a drop between December 22 and January 17. So it's not a constant torrent by any means. In fact, many northern California locales have *far more* rainy days than we do, especially the coastal areas of Humboldt and Del Norte counties. It's not that it rains any harder here than other places, or not in the usual terms of drops-per-second (DPS), yet it is only here that full wet suits, like those used for scuba diving, are considered standard raingear, and during the bigger storms hard hats are well advised. No, the reason for our inordinate rainfall is based on a simple physical fact: The raindrops here are extraordinarily large. This phenomenon is obvious through direct observation (locally known as "standing in the rain") but for the scientifically bent, here are some wet data.

Usually rainfall is measured in inches, and we do have a number of standard rain gauges situated around the ranch. The problem, however, given the size of the drops, is that they often splash or slop out of the gauge upon impact, and are therefore wholly or partially lost to measurement. Moreover, the upward splash, given the reactive mass, often deflects or shatters the next drop falling in. In addition to this obvious drawback to accuracy, the rain gauges, with capacities of 5 to 10 inches, still catch enough water to rapidly overflow, often within an hour, thus necessitating almost constant monitoring.

Rather than use something as inelegant as a 55-gallon drum (not to mention the tedium of calibration), we have devised a simpler and singularly more appropriate measure, ounces-per-minute (OPM). Using gallon jars, their empty weights marked on the bottom, we go out in the rain (making sure we're clear of driplines), uncover the jar for exactly one minute, return to the house, and, after drying off the *outside* of the jar (we're extremely precise), we weigh the jar, subtracting its empty weight from the total weight to obtain the weight of the rainwater. We take between seven and nine measurements in the course of a storm, average the weights (in ounces), then multiply that average by the time (in minutes) it rained.

Our average storm here yields 4.33 oz. (123 grams) per minute, though on a few occasions during storm peaks we have surpassed a pound per minute (hence the common phrase "a pounding rain" means something quite different to us). The highest measurement obtained in the last 10 years was on January 22, 1973 — a sopping 19.06 oz. (541 grams) in one minute, or roughly 1.2 lbs. The lowest reading was taken on April 1, 1979, and measured a mere .22 oz./minute, which, by local standards, is considered a light fog and not really rain.

We've also recently taken to measuring individual raindrops by using pint containers with spring-loaded lids. Last February I captured a single raindrop that weighed 28.781 grams, or just over an ounce. Two days later, in the same storm, Vicky caught one that weighed 28.844, our current record. Lynn picked a hailstone off the wracked timbers of the back porch that weighed, when melted, 39.643 grams, but was disallowed as a record since it wasn't a true raindrop. Leonard allegedly caught a single raindrop that tipped the scales at 44.173 grams, but was disqualified when the Rules Committee examined the place of capture and determined it was too near the dripline of the woodshed roof.

As of this writing (February 18, 1983) our total rainfall since last July is 7,907,328 lbs., which is just slightly below the seasonal average. I wonder how that compares to Branscomb and Honeydew?

*Jim Dodge, a resident of Root Hog Ranch, Sonoma County, CA. For those who like his humor and style, City Miner Books will publish this spring his multispecies novel, Fup.*

A spooky part of the plantings is that when runs suddenly disappear, you don't know whether something happened to the little guys three or four years before, or it happened to the big guys on their way up this year. In either event, the disappearance of a run indicates a mistake has been made, and it may signal that your dying river has died. If the river has died, transplants can make it look good for awhile, but if adults are disappearing on their upstream trip it will be a losing fight unless we can find and *cure* the cause.

One awesome aspect is that, in a dead river, every adult fish might as well be harvested. With salmon on the decline, the Wildlife Commission recently increased the limit to three fish per day. Are they trying to tell us something?

Any time before August, keep an eye open for salmon or steelhead carcasses, which always sink, and try to find out why they died. But, regardless of what you find, you can't stop there.





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## EUSKADI ECOLOGY

### Basque Meetings and Menus



In October 1982 there took place in the valley of the Baldorba (Navarra) the first ecologist conference of debate and interchange of experience among most of the groups, committees, and collectives which are working in Euskadi.

Far away from the tumult, in the middle of the countryside, the different groups were gathered together in a rambling house in a little village: Grupo Ecologista de Tafalla; ADMAR de Tudela; los Comites Antinucleares y Ecologistas de Iruna; Mendiko Lagunak de Amurrio; GLT de Gasteiz; Grupo de Defensa del Gorbea; Taller de Ecologia de Romo; members of the antinuclear committees of Bilbao, Eibar, and Donostia; Kattagorri Taldea, and the Colectivo Txustarra de Donostia. Also attending were members of the organisation campaigning for the cleanup of the river Bidasoa and various ecologists not connected to any organised group.

Our object was to initiate contact among the Basque ecology groups, for which reason we had not marked out beforehand the topics to be discussed. This meant that — given the diversity of the groups present and their different activities — there were conflicting ideas on what subjects should be discussed. At bottom, the underlying difference was between the environmentalists and the groups from the towns.

The discussion became disordered and deteriorated into questions like "What is ecology?"; "Who is an ecologist?"; "What is the relationship of ecology to other popular movements?" . . . intermixed with little analyses of the situation of the ecology movement today in the Basque country. Members of the antinuclear committees noted the lack of work on themes other than their own opposition to nuclear power.

Faced with such a range of topics, little by little we came to see the need to analyse the principle ecological problems that we have in Euskadi, for which purpose we listed the themes which later would be grouped into two great blocks: natural resources and urban ecology.

The heated discussion ran on into the night and finished with an exquisite communal meal based on mushrooms gathered nearby.

Sunday morning was quite

tranquil. After awakening at a time that could not exactly be called early (except for those few who went to pick mushrooms) the two groups gathered in the open air to look at various facets of the two themes.

The plan worked out by the natural-resources group was the following:

- Forestry, plants;
- Spaces to protect, coastal protection;
- Soil and subsoil, quarries and mines;
- Zoology, hunting;
- Nature walks as a method of education;
- Zones of historical/artistic interest;
- Water resources;
- Air pollution;
- Resources of the sea.

The urban ecology group emphasised the importance of nuclear energy and the nuclear centre at Lemoniz. We decided to put together the discussions of the two working groups. Faced with such a multitude of themes we decided to go into them

in greater detail at subsequent conferences. But a debate once again emerged as to whether militarisation and the censorship of the media were themes for ecology. The differences were augmented partly by our attempts to define the areas within which ecologists should fight (radically or through institutions) and partly by the different political viewpoints and activities of the groups participating.

We dedicated Monday to planning a more stable coordination of the ecology groups of Euskadi and to planning the next conference. All the groups elected a coordinator for each province:

- GLT, Libreria Adurtza, calle Adurtza, 39 Gasteiz;
- ADMAR, Plaza San Jaime (Tazon), 1 Tudela;
- Taller Ecologia de Romo, calle Iparraguirre, 50-8 centro Leioa;
- Txustarra, Apartado 465 de Donostia.

The main theme of the next conference will be Industry, Paid Work, and Ecology.

We ended the conference with roast lamb, grapes, apples, and a good range of wines from Navarra. We think that the first objective has been accomplished: we established contact and began to know each other, to discuss and swap experiences. Who could have hoped for more? Probably everyone, but we have made a start and we have plenty of time.

—Colectivo Txustarra

Excerpted from the daily Basque language newspaper Egin, 1982 Azaroak 5. Sent by Mark Kinzley, Essex, UK.



### Die Grunen:

## THE GREEN ONES

The West German Green Party won 23 seats in the federal Bundestag after the March 6 national elections, polling 5.6% of the total vote, significantly up from 1.8% in 1980.

The Greens, who had previously gained 48 seats in six of West Germany's eleven state parliaments, espouse principles that are ecological,

socially egalitarian, grassroots democratic, and decentralist. The factions that make up their constituency can be roughly divided into three main groups: 1. concerned ecologists including a large number of scientists and trained technicians; 2. young renegades from existing parties, particularly those disgusted with the powerless-

ness of antigrowth critics of the Social Democrats and Free Democrats; and 3. fringe radicals including Spontis (spontaneous), Staelt-Indianer (city Indians), and extreme left Marxists (K-Gruppen). Their immediate objective is to prevent the placement of Pershing II nuclear missiles on German soil.

Hopefully, the German Greens' success will increase in North America.

The International Green Party supports both the

Vandenberg Air Base action and demonstrations against missiles planned for the first week of April in Germany. A strong connection has developed between Petra Kelly of the Greens in Germany and the International Green Party in the US. Kelly spent nearly a third of her life in America attending high school in Georgia and college in Washington, DC. She sums up the nonaligned foreign policy of the ecologism movement, "The American and

Soviet embassies constantly want to talk to me. They are driving me crazy. In the morning the Americans call me. In the afternoon it's the Russians. I don't want anything to do with either of them. And when one side tells me we are being manipulated by the other side, then I know we are on the right track."

—Randy Toler

CONTACT: International Green Party, 113 29th Street, Newport Beach, CA 92663. 714-673-3611.



## North American Bioregional Congress Update

The Coordinating Council and cosponsors invite you to participate in the first major convening of the continental bioregionalist movement: The North American Bioregional Congress — NABC.

**Date:** Spring 1984 (tentatively early May)

**Place:** The Ozarks Bioregion (in the northern part of the Missouri Ozarks, between Kansas City and St. Louis)

The NABC Coordinating Council is in the process of inviting representatives of all identifiable groups, agencies, organizations, tribes, and native organizations relating to bioregionalism. The Coun-

cil asks for full participation of each representative through the entire session (limit of 400 participants). The Congress will follow the general pattern of previous Ozark Area Community Congresses by including reports from the bioregions in caucus and in plenary sessions, workshops, presentations, song, poetry, and music (all from within the group), with ample time for scheduled and nonscheduled caucusing, networking, socializing, and being with the Ozarks.

*Cost to Attend and Accommodations.* Present estimates suggest

a no-frills, preregistered, per/adult cost of less than \$50, which includes simple, basic food and lodging in cabins on site, with camping also available. (Other accommodations available nearby, but not covered in the registration fee.) The Congress will be 4-5 days long.

### Joining the NABC Organizing Process

NABC needs more cosponsoring organizations who are willing to be listed on subsequent NABC announcements, and to contribute a cosponsorship donation to the NABC organizing effort — \$50, or more or less,

depending upon ability to pay. Gratefully accepted as well are donations of other organizational resources, such as distribution of NABC announcements through newsletters or mailing lists, or serving as a regional organizer or contact point.

*Funds sought for travel fund, general expenses.* Donations are tax-deductible if you so specify. You may ask that all or part of your donation be set aside in a Travel Fund, to help bring participants needing travel subsidies to the conference. Any checks should be made out to Ozark Bioregional Pro-

ject — NABC. Send to NABC, Box 129, Drury, MO 65638. (Please specify if donations are to be considered tax deductible.)

A major NABC Coordinating Council meeting (a small-scale preliminary congress) will be held as part of the Ozark Area Community Congress IV — OACC IV — September 30 to October 3, 1983 in the Missouri Ozarks.

For further information on NABC see "Starting Over: The First North American Bioregional Congress," in *Raise the Stakes No. 6*. Contact the NABC at the address above or call 417-261-2553.

# REINHABITATION IN THE BIG SCRUB

**W**ollumbin — Mount Warning, Compassion Mountain. It is the first place in Australia touched by the rays of the morning sun. The plug of an ancient volcano, Wollumbin is encircled by the remains of its crater walls, about 15 miles from one side to the other, eroded over 20 million years into the characteristic hills of the Rainbow Region, just south of the Queensland border of New South Wales.

In 1973 the Aquarius Festival around the tiny township of Nimbin introduced thousands of young people to the area. Nimbin and the surrounding dairy farms were dying; festival talk of collectively buying the cheap land soon turned into the reality of Co-ordination Co-operative moving onto its first 1,000 acres at the head of Tuntable Valley, a few miles from town.

There are now about 300 people living at Tuntable Falls, often in hamlets. (No two hamlets are identical, but many consist of shared kitchen, bathroom, workshops, gardens, orchards, etc., with individual or family sleeping units a short distance away.) Thousands have moved into the area in a variety of land-sharing arrangements. Unfortunately, the subtropical climate soon brought competition from macadamia and avocado monoculturalists, and the price of land went up ten- to a hundredfold in a decade.

The 500 shares in Co-ordination Co-operative cost \$200/adult and entitle one to build a house, plant gardens and orchards, pasture animals, and vote at the monthly tribal meetings. There are no restrictions on membership and very few rules or regulations other than "Don't shit in the creek." Terania Shire Council, the local governing body at the time, encouraged this development by creating experimental hamlet zoning which accepted far greater density of development than previously permitted on rural land.

Soon an amalgamation of local government areas took place and Terania Shire disappeared into the Lismore City Council, a much more sober and prosperous body not driven by hard times to flirt with social innovation. For some years, however, the city turned a blind eye to the flood of illegal developments taking place to its north. They were usually hidden among the hills on land that was marginal to traditional agriculture.

**T**he new settlers slowly discovered that these hills encircled the remains of a once-mighty forest, the fabled Big Scrub. A few thousand hectares of unlogged forest remained, mainly on the steepest land, and in the hands of the state Forestry Commis-



NIGHTCAP ACTION GROUP

sion. It consisted of wondrous associations of rainforest types in the moist gullies, shading off to sclerophyll forest buffers on the drier ridges.

These rainforests are the tiny remaining fragments of the primeval forest that covered the continent as it slowly drifted away from the rest of Gondwanaland 100 million years ago. As climatic change pushed the rainforest east and north, from its vast pool of genetic material were woven the flora and fauna that now cover all the land.

Against this backdrop we built our shelters from all manner of recy-

weed-infested gullies. Some thousands of newcomers had settled the area when, in 1979, the state of New South Wales was rocked by a dispute over the logging of 1,000 hectares of Terania Creek, one valley east of Tuntable. Following five years of negotiations, meetings, petitions, and submissions, about 300 young people camped on private property adjoining the state forest, peacefully and forcefully obstructing the logging operations. Roads were blocked, bulldozers impeded. People climbed into marked trees and tied themselves to one another with cable. Others camped



clad materials. We planted the foothills with gardens, and the north slope with orchards of mangoes, avocados, native macadamia and Bunya nuts, custard apples, lychees, bananas, guava, and feijoa, as well as scores of less familiar southeast Asian fruits.

The first reforestation associations in the country were formed within the watersheds of our two northern rivers, the Richmond and the Tweed. Plantations of eucalypts and pines began on the eroding south slopes, rainforest pioneer species in the

high among the branches. Over 100 police were there every day, and the logging proceeded at a snail's pace. A first, then a second party of parliamentarians flew up from Sydney 600 miles to the south to inspect the matter. Finally, after a month, the logging was suspended while an inquiry took place.

In 1982 the ponderous Terania Creek Inquiry, which had cost over \$1 million, delivered its verdict: 6% of Terania Creek could be logged without various new environmental safeguards.

The conservation groups had become sceptical of the inquiry once it became clear that the old judge had no conception of the ecological issues involved (6% of a Rembrandt?); this was not the Environmental Impact Assessment they had been promised. The judge's interpretation of his terms of reference was so narrow as to exclude much of our testimony. We finally abandoned the inquiry when he refused to consider a recommendation by the National Parks Association that Terania Creek be included with the rest of the Nightcap Range in a 4,500-hectare national park.

**B**y the time he delivered his findings an intense campaign was well underway to preserve all of New South Wales rainforests. An opinion poll had shown that 70% of the people were by now in favor of protecting the rainforests. The Nightcap National Park proposal was being vigorously pursued. In August a new protest camp was set up on Mount Nardi where logging was taking place a mile from Terania Creek. The camp lasted for nearly three months. In October, 130 arrests later, an injunction was granted to the Nightcap Action Group by the Land and Environment Court, and the logging stopped. The court ordered the Forestry Commission to prepare an environmental impact statement and ordered them to pay the Nightcap Action Group's legal costs.

Three days after the injunction, the government ordered a rapid phasing out of rainforest logging in New South Wales and immediately reserved in national parks 100,000 hectares of the most valuable areas. These included Nightcap National Park, containing both Terania Creek and Mount Nardi.

By now many hundreds of people here have received an accelerated ecological education and a change to a new consciousness as a result of participation in the defense of nature. It has become clear that the consumption of the earth is proceeding much too fast. For every forest saved, 100 are lost. Though essential, this form of protest is clearly not sufficient. Some more far-reaching and fundamental change is called for: a new way of seeing ourselves and nature.

Promising work towards a new philosophical/spiritual basis for a sustainable Earth is taking place worldwide. It is variously termed new philosophy of nature, eco-philosophy, or deep ecology. A conference on deep ecology is being held here in August 1983.

*CONTACT:* For conference information and literature on the Terania and Mount Nardi actions, send a few dollars to cover postage to the Rainforest Information Centre, PO Box 368, Lismore, NSW, 2480 Australia.

A documentary tape, Nightcap Rainforest — Thinking Globally, Acting Locally, is available for \$10 postpaid, from the same address. It consists of about 30 minutes of great local music and about 30 minutes of dramatic material from the protests, plus other information about the plight of the world's rainforests.

—John Seed





# SONGS OF THE OUTBACK

A NOTEBOOK Text and photos by Warwick Nieass

*Singing the Kumbabarna tree's story,  
Larry Looft Dji barula carves the lowandja dishes.*



*To find her,  
the  
Mandjalpa  
Bush*

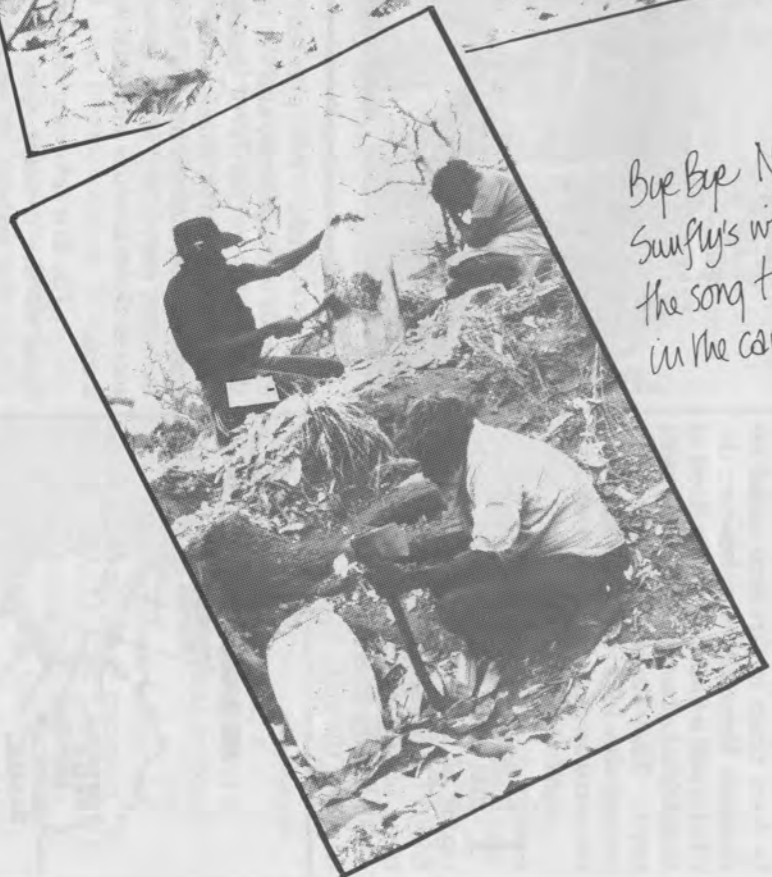


*The song of mundjalpa is already singing.*



*Threshing, winnowing: the knowing is in the song.*

*Bup Bop Nyabangardi,  
Suufluy's wife, recalls  
the song to assist  
in the carving.*



*Mundja's heart beat rhythms - threshing*



Around the mission they never have the opportunity to express their delight with the environment, the animals, the plant life, which they readily do in song and dance once back out bush. When they got out of the truck they wanted to leave it as far behind as possible, and the older they were the farther they wanted to go. Their entire physical presence became a performance. Boodja-Boodja would begin following animal tracks immediately, transforming herself into a goanna (large lizard) and performing its movements with her face and body. We'd soon be gathered around a fire, usually in a spot that I would later discover was a traditional place for a "sit-down," with a bush turkey cooking underneath, some goannas on top, and some kandi yams along the side.

We think of geography in terms of distance, time, weather, and compass. Aboriginal people view the landscape as a place of legends and living journeys, where spirits of ancestors crisscross on "dreaming paths." Navigation, hunting, and gathering are done primarily by singing and dancing and reenacting the stories that are part of the tribal mythology.

*Full flavour rings a high note.*



Bringing the 20th century into perspective



Men await the arrival of the neighbouring tribe and the teenage boys, who will be initiated into manhood through the age-old corroboree ceremony.



Peter Njamme watches for dust on the horizon so to warn away the women and non-initiates, who are prohibited from seeing the corroboree participants.

Suppose you were an Australian-born painter who had trekked through Europe and Asia, searched out the roots of authentic relationships with other people and Nature, learned to become an excellent whole-foods chef for mass gatherings along the way, and then came back with an unpeeled eye for your native land? Warwick Nieass thought the most natural thing to do would be to get a job as a mission cook for an Aboriginal settlement in the Gibson Desert of northwestern Australia.

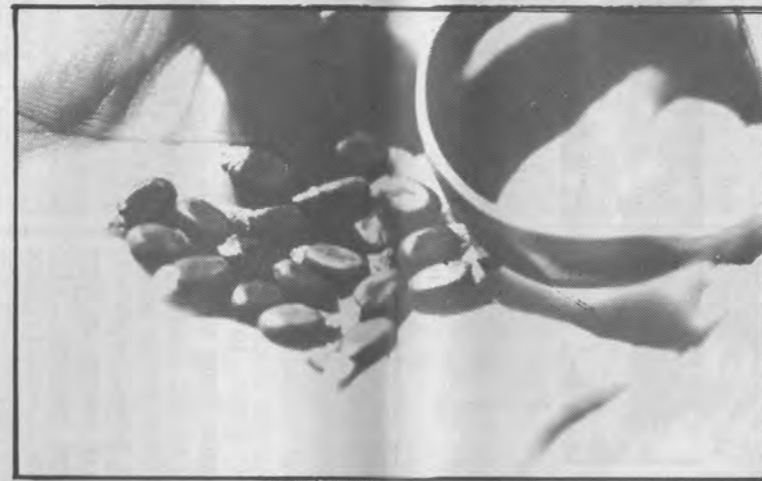
Soon after arriving, he began to learn native art techniques, encouraged their reuse, and organized trips with Gorgidja and Pintupi tribes into the bush to gather materials for traditional paintings and stone sculptures. Trips to gather and prepare native food, medicine, and tools followed, with mixed groups of elders who still possessed the old knowledge and youngsters who were learning it for the first time.

Nieass and his partner Sylvie Poirier photographed and recorded the timeless practices they were taught in the manner of participant anthropologists, who learn native ways of living so that culture-of-place can endure.

—Peter Berg



Lawandja dish now vibrating Following this, her dream... Every a tam dancing... Fibers waving



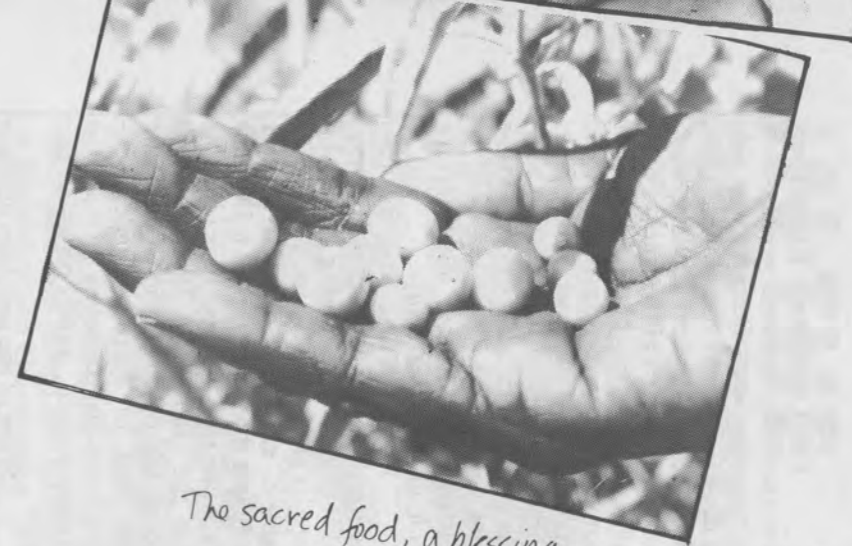
The seeds fall clean



Seeds falling over stone. Grinding. One seed meeting sand and soil.



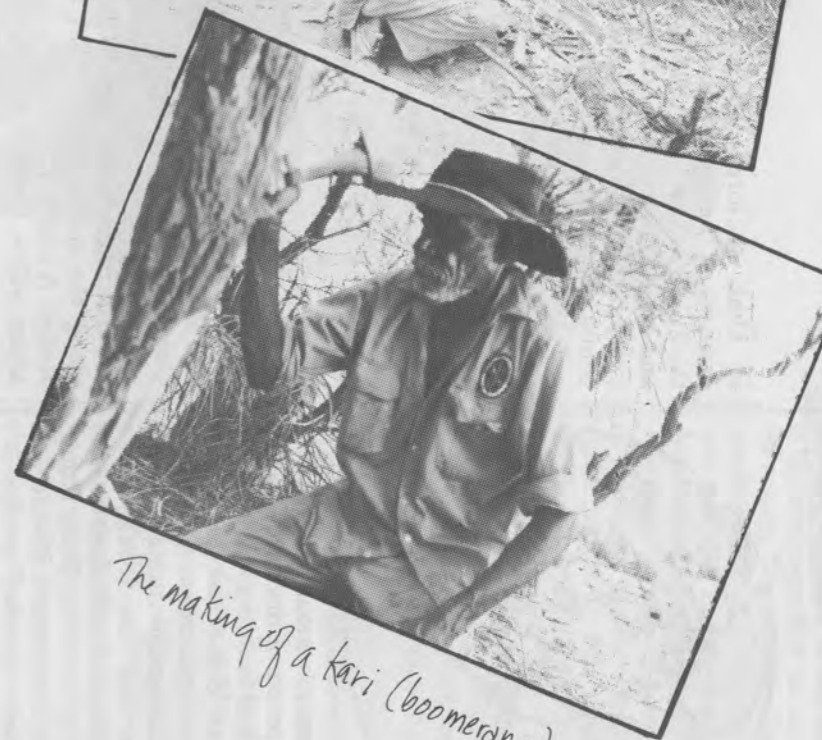
Bodies nourished with this roasted paste in our hand.



The sacred food, a blessing



Sunfly Djumbajim chops the mulga tree



The making of a kari (boomerang)

# Watching and Waiting on the Triple Divide



**BRIDGER BASIN, WYOMING.** From the porch of my cabin, on an old homestead known as Rattlesnake Dick's, I can look across the rolling, snow-covered plains and see the Wyoming Range undulating along the western horizon like a vast, white snake, earthbound and asleep. Behind me the wall of the Wind River Range rises to the Continental Divide in a sweep of glacier-polished granite. It's quiet and a bald eagle flies above me and roosts in an old cottonwood.

Quiet, until a semi loaded with part of an oil rig roars in front of my house, gearing down for black ice on the East Fork bridge. At night I hear coyotes, a symphony of winter hunger, and a great horned owl hoots by the river until the night is shattered by the scream of an Air Force jet on a low-level practice run. The sonic boom brings a shower of dust from the logs of the cabin.

The counterpoise of open country and quiet with the evidences of civilization in its heaviest and most ominous form is a paradox of living in this area, one of the coldest and most remote of the lower 48 states. In the wide, unpeopled spaces, I can fool myself that the desert and mountains go on untroubled — until the semi or the bomber intrudes and shatters the fragile illusion.

While employed by the U.S. Forest Service, I lived on Pinion Ridge above the upper Green River for three summers, which in this country are short and cool. Our tents were pitched precisely on the divide between the watershed of the Green, which meets the Colorado below Dead Horse Point

in Utah to form the main trunk drainage of the western interior, and the Snake, which joins the Columbia and eventually the Pacific Ocean off Oregon. The dishwasher we tossed out behind the tents would filter into the soil and become part of the Fish Creek-Gros Ventre River-Snake River-Columbia, while an early morning pee taken where the ridge drops off, giving a striking look down on Green River Lakes, would gradually and inevitably find its way to the salty trickle that is the remnant of the Colorado at its delta before entering Mexico's Sea of Cortez.

In sight from my cabin porch, and about a stiff day's hike east, is the Continental Divide and the headwaters of the Wind River, which, like the Green, has beginnings in glaciers along the spine of the Wind River Range. A coppery leaf from a stunted alpine willow, should it manage to stay

The residents of the mountainous Divide areas in Wyoming are aware of being at the apex of three major watersheds as increasing national attention is focused by the growing need and greed for water on this remote and beautiful region. Wyoming, with two senators and one congressman, lacks political clout and has been tapped as the site of several massive projects involving vast resources, such as the Wagon Wheel plan which proposed subsurface nuclear detonations to unlock gas deposits in the Bridger Basin, and the MX missile site.

The climate of the Bridger Basin alternates arctic winters with desert summers and ranchers must irrigate to grow native grass hay, the only crop, but recent wrangles over water and development rights pose the demand of industrialization and population growth as threats to cattle ranching while bids mount for appropriation and diversion of waters from

The Little Snake River diversion currently debated would shunt high-quality water from the west side of the Divide into the North Platte, which supplies Casper and the water-short central part of the state. This is influenced by the plans for one or more coal-slurry pipelines that would export Wyoming coal and water. These mining and construction projects would corral a lot of dollars in the state and, most probably, lead to demands for further diversion or trade-off of water rights.

Ranchers who have survived the harsh weather and dive-bombing cattle prices are beginning to feel a bit nervous about their water. Because industry and urbanization foster cashflows that make the cattle industry seem like small change, it is probable that the changes in Wyoming will loosen the political grip of ranching and lead to more agriculture/environmentalist coalitions such as have already formed, mostly on an ad hoc basis.

Some of the neat lines dividing conservative development addicts and liberal conservationists can't be drawn with certainty in this ruggedly individualistic area. Some residents welcome oil drilling on their land, since it puts hard cash in the ranch coffers, while being ferociously opposed to clear-cutting on the Upper Green. During the 1977 drought, while trout gasped in Utah streams emptied by irrigation, a number of upper Basin ranchers voluntarily sacrificed part of their hay crop to maintain instream flows. The one certainty is that, for this huge valley located in the Overthrust belt and heading major watersheds, there will be accelerated change.

It's quiet at Rattlesnake Dick's tonight, but such calm can be deceptive. Down where the East Fork and New Fork Rivers join before meeting the mainstem of the Green, a band of coyotes howls before starting the nightly hunt. It's still a lovely and lonely place to live, but the illusion of immunity to civilization's worst excesses has begun to fade and fray. Complacency yields to an air of watching and waiting.

—C.L. Rawlins



afloat and dodge the turbines of numerous dams, might follow the waters as their names changed, from Wind to Bighorn, Yellowstone to Missouri, joining finally in the slow, deep pulse of the Mississippi. Our leaf (a charmed leaf, certainly) would exit the continent to a fanfare: the car horns and trumpets of New Orleans, the raspy airhorns of steamers and the saurian moans of foghorns in the Gulf of Mexico.

western Wyoming.

One such issue involves exporting saline water from the Big Sandy, a tributary of the Green, to Utah to cool coal-fired power plants (with most of the power exported) and/or to move coal slurry to West Coast or Southwest markets. This diversion, it is claimed, would reduce the lower Colorado's salinity, which is hurting large-scale irrigated agriculture.

## Healing the Waters



Concerned Citizens of Eureka Springs, Arkansas, the city that water built, have formed a National Water Center and initiated National Water Week to bring to public attention the need to heal the waters.

Although Eureka Springs became famous in the late 1800s for the healing qualities of its water, a recent exfiltration study funded by the EPA found all the springs polluted. When a trace dye was flushed down a toilet it came out directly in a spring in the middle of town. Renovation of the sewage treatment plant would do

nothing to clean the springs or clear up contaminated groundwater. Concerned Citizens learned that the best treatment was to keep waste out of the water and began a campaign for water conservation. One of our slogans was "What's a nutrient on the ground is a pollutant in the water." A door-to-door survey uncovered 58,000 feet of leaking sewer line, 60,000 feet of leaking service connections, and 147 septic-tank leach fields pouring wastewater through our porous fractured limestone. Our group came to the conclusion that the most appropriate treatment of

wastewater would be on-site systems rather than transporting water long distances through easily broken pipes to central treatment plants. We proposed a pilot program of 100 on-site systems that would separate grey and blackwater. The greywater could be treated and discharged at the site; blackwater (toilet water) could be handled either through dry or composting toilets, or with low-flush toilets and a holding tank.

The state Health Department and Department of Pollution Control and Ecology have so far rejected the pilot program.

In order to keep the water issue before the public, National Water Week has been initiated as an annual event on the autumnal equinox. The mayor and governor signed proclamations proclaiming National Water Week and many dignitaries and authorities in the field have been invited to give talks.

Public education worked locally. Contrary to the opinion of the engineers that people would oppose composting toilets, a door-to-door survey of 1000 homes found that one-quarter of the water

customers were willing to try composting toilets; one-third indicated willingness to try other water conservation devices.

Concerned Citizens decided to rename the group the National Water Center. We make publications available on water and wastewater and write a monthly column for *Ozarkia* magazine on water news. The National Water Center is forging links with other organizations concerned with water and the environment.

The Fourth Annual National Water Week will be held September 23-29, 1983 in Eureka Springs. Activities will include a Water Works Art Show, pontoon boat rides on Beaver Lake, canoeing on the White River, a compost-toilet workshop, and a day-long Water Festival in Basin Park.

When we no longer use water as a vehicle to transport wastes, we may once more know the joy of kneeling to the earth to drink from cupped hands.

—Barbara Harmony

CONTACT: National Water Center, PO Box 548, Eureka Springs, AR 72632. 501-253-9431.

The last glacier in New England left behind a 100-mile-long puddle that was the beginning of the Connecticut River. Today, the Connecticut begins its 410-mile journey in a series of three lakes at the Canadian border. It later divides Vermont from New Hampshire for some 200 miles, then flows through equal areas of Massachusetts and Connecticut before emptying into Long Island Sound.

When some restless Europeans were first settling on the coast of Massachusetts, five or six groups of native Algonkians lived along the *Quinnehtikut*, or "Long Tidal River." The Algonkian origin myths opened with two primordial women impregnated by the foam of the sea. (Not a bad grasp of evolutionary science.)

Europeans first ventured up the river in the early 17th century in an attempt to get closer to the fur trade. When the fur trade began to move west later in that century, settlers remained to farm the Connecticut Valley. In 1798, a 16-foot dam became the first man-made structure to impede the flow of the Connecticut.

There are twin forces pulling the river these days, not only figuratively toward restored health or continued pollution, but also literally: toward its natural mouth in southern Connecticut or diverted toward the thirsty megalopolis of booming, high-technology Boston, 100 miles away.

The Connecticut Watershed has several other problems apart from the arrogance of those who would change the river's course. Briefly, they are:

- Groundwater pollution — from the use of road salt as well as other sources;
- Hazardous wastes — a regional dump site is proposed for Warren, Massachusetts;
- Mt. Tom Coal Power Plant,

# QUINNEHTIKUT CONNECTICUT RIVER

## The Long Tidal River



which may have serious environmental impacts;

- Acid Rain;
- Loss of agricultural land;
- Wetlands protection.

Despite the range of problems, hope is definitely being kept alive that all of them can be dealt with by "earth soldiers" active on the political, economic, and social fronts. Notable among these is the Connecticut River Watershed Council (CRWC). Although a

membership organization with a small staff, its influence is widespread because it takes an entire bioregion as its area of concern. Four separate state governments, a dozen county governments, and several regional planning commissions are involved, but the CRWC has spawned a variety of cooperative efforts between them and private industries.

Two publications are geared toward reporting on the watershed as a whole. The *Valley Advocate*, an alternative news weekly which covers cultural and political happenings as far south as New Haven, Connecticut, and as far north as Brattleboro, Vermont, and the *River Valley Voice*, a bimonthly journal, with a somewhat narrower ecological/political focus, produced entirely through volunteer labor.

Watershed activists are counting on unity within the bioregion. Cooperative efforts centered on ecological issues are numerous despite, or maybe because of, decreased federal support. The Massachusetts Audubon Society has teamed with the state's Department of Fisheries and Wildlife to attempt to reintroduce salmon to the Connecticut after a 150-year

absence. The Arcadia Nature Center is finding and training volunteers to gather water samples which the University of Massachusetts is testing for acidity in a project entitled Adopt-A-Stream. The CRWC works with area industries who donate parcels of land (4500 acres so far) to be preserved and held in trust for the people of the valley. Citizen task forces have been formed to review environmental impact of the Mt. Tom power plant and to study the potential river diversion. Area environmental groups are making heroic efforts to provide concerned volunteer citizens with the technical expertise necessary to challenge these projects.

The Connecticut River may contribute to its own salvation. In Springfield, the second largest city in Massachusetts, officials have been active and successful in a drive to revitalize a depressed downtown area through a strong public-private partnership. One of their main concerns was that the river, which flows two blocks west of Main Street, be an integral part of the renewal process. A publicity campaign asked citizens to suggest possible ways to make the river an integral part of urban revitalization. Over 2000 suggestions were received calling for greater neighborhood access, bike paths, and boating ramps. One riverfront park has been constructed and more are planned.

The point of all this is that even if the river is still being treated as an economic resource, at least the economics have to do with its aesthetic value rather than its disposal chute value. It might be a short step to a vast number of urbanites being convinced by personal contact that there is an intrinsic value to a sense of place.

—Donald P. Dulchinos

CONTACT: Long Tidal River Project, 124 South Street, Northampton, MA 01060.

# THE GREAT LAKES A Future Look



by W.C. Sonzogni

The Great Lakes, North America's inland sea, contain more fresh water and cover more area than the total of all rivers, lakes and impoundments in the United States and have a coastline that is longer than the Atlantic and Gulf coasts combined. They cover an area greater than the states of New York, New Jersey, Connecticut, Vermont, New Hampshire, Rhode Island, and Massachusetts together. Currently more than one-third of Canada's and one-eighth of the United States' populations are con-

centrated along the Lakes' shores.

In many areas of the Lakes, trends toward degradation have been stopped, or improvements in environmental quality have actually occurred. For example, as a result of a comprehensive management effort based on information gained through careful research, Lake Erie has dramatically improved. No longer do people talk of Lake Erie as a "dead" lake. Instead, recreation on and along Lake Erie is booming, and the lake is now considered by many to support one of the finest sport fisheries in the world.

Despite considerable cause for optimism, the future of the Great Lakes is uncertain. Pollution by toxic substances and the eutrophication of the Great Lakes will continue to be important areas for study.

Currently, contamination by trace toxic contaminants, or xenobiotics, is

the major environmental problem facing the Great Lakes. More than 30,000 chemical compounds of industrial or commercial significance are used in the United States. More specific to the Great Lakes basin, a recent study by J.R. Sullivan and J.J. Delfino documented over 700 chemicals used in the lower Fox River basin, which drains into Lake Michigan's Green Bay. The use of chemicals is bound to grow as our society becomes further dependent on technology. At present, about 1,000 new compounds are developed each year. If only a small percentage of these newly produced chemicals enters the Great Lakes, the potential for ecological problems will be great. . . . Many of the contaminants that enter the Lakes eventually find their way to the deepest trenches. The long-term significance of the accumulations of sediments in these areas is not known.

Perhaps burial in the deep trenches is a safe disposal method for anthropogenic contaminants. Alternatively, contaminated deep sediments could be a time bomb that will haunt future generations.

The demand for quality fresh water is great throughout the world. Severe droughts continue to occur. In the United States recent droughts in California and the Northeast necessitated restrictive water conservation practices. Undoubtedly, the waters of Lake Ontario were eyed when the reservoirs serving New York City reached precariously low levels.

The need for fresh water has spurred considerable interest in exporting water out of the Great Lakes. Both the sunbelt states and the western states (where water is needed for energy development) have made overtures for Great Lakes water. Certainly the Great Lakes offer an abundant amount of fresh water. A

diversion of an amount less than the current diversion out of Lake Michigan through the Chicago Sanitary Canal would supply the water needs of a city as large as New York.

At the same time, a drop in lake levels of only a few centimeters has an important effect on the hydroelectric power produced at various locations along the system. Further, international treaties currently restrict the amount of Great Lakes water that can be diverted. Thus, despite the abundance of water in the Great Lakes, its use is not a straightforward issue.

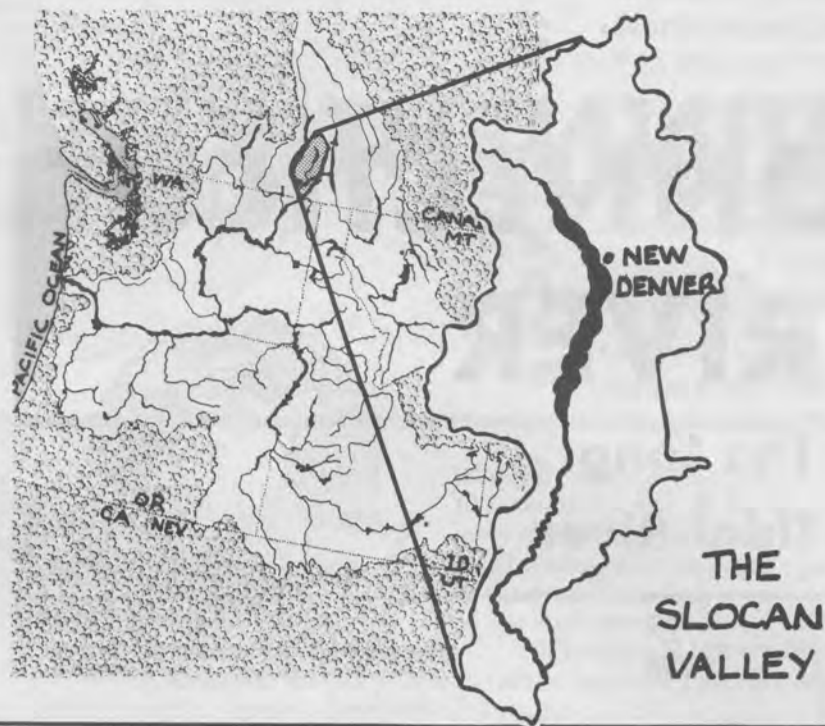
The value of the Great Lakes provides a rationale for additional water-quality research. The potential value of the water will be realized only if its quality is maintained or improved.

*This article is excerpted from a paper delivered at the Ocean 82 conference sponsored by the Marine Technology Society and IEEE Council on Oceanic Engineering. A complete conference report is available from the Government Printing Office. To inquire about the report, refer to document number 82CH1827-5, and write Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402*



## SLOCAN CROSS CURRENTS

### Lessons in Ethnic Ecology



The reinhabitation scene and the social/cultural/political life of bioregions are fraught with ironies. The Slocan Valley, where I've lived since 1971, is a good example.

When we hippie weirdos began showing up here a lot of people clucked because they thought we might turn out to be welfare bums. Now that the lumber mills are shutting down with the recession, it seems that a lot more local-bred folks will be welfare dependent than will the longhairs. A lot of us were small-s socialists when we arrived, but a lot of us have become small-c conservatives: we don't like big government, strong Provincial control of our local resources, or welfare bums — hip or straight!

The longhairs who came here from elsewhere in the late sixties or early seventies tended to espouse a philosophy of self-sufficiency based on integrated homesteads or small-scale

farms. Meanwhile, their old-timer neighbors had jobs off their places — logging, mining, highway work, or lumbermill work. They had given up homesteading as too austere. A decade later, few of us back-to-the-landers believe that we can live a pleasurable life on next to no money, even when the land is paid off. You might be able to if you *had* to, but you wouldn't live that way if you had your druthers. All the homesteaders I know work like devils at something they like or at something they may not like so that they can afford to spend the winters somewhere where the snow doesn't fall, buy an elaborate stereo system, keep a supply of commercially made beer on hand, buy suppers frequently at local restaurants, or to own and operate two vehicles.

Old Fred Vanin taught long-haired, former-vegetarian me what real neighborly love was about when he told me, with no self-aggrandizement, a few years ago, stories about diligently hunting deer during the winters so that he, his family, and the neighbors could have enough to eat during the worst years of the Depression.

Who do you think taught the natural-lifestyle hippies, who knew

how to stay high and be super healthy, how not to get hepatitis while living their natural lifestyles? Some hard-working, "straight" public health doctors and nurses at the sterile, chrome-and-enamel regional clinic.

Then there's peace. The region's Doukhobors, whose forebears were persecuted in Russia for their religious beliefs and their commitment to pacifism, had been bad-mouthing each other and burning down the homes and the community buildings of those belonging to the "wrong" sub-sect for decades. Who demonstrated to them how to be diverse but peaceful? The hippies — so far, anyway.

A curious phenomenon is the evolution of the folks who lived in a commune in my neighborhood whose members were hip Buddhists, yogins, Baha'is, and unspecified pagans coming together in 1970 to tune in to Mother Earth. By 1975, under the chance influence of a Bible-toting Catholic priest, they had converted to a nondenominational but fundamentalist Christianity. They now support the Moral Majority line and await Armageddon.

There is quite a large proportion of Japanese-Canadian residents

in the village of New Denver, in the northern part of the Valley. The older ones among them were interned in a prison-like camp adjacent to the village during World War II. No doubt many of the non-Japanese New Denverites felt awkward or even regretful about that episode for years after the War. But in the late '70s an exquisite traditional Japanese-style temple/community hall was built for the Japanese community, financed on a government grant. Whose idea? A group of long-haired newcomers originally from anywhere but New Denver. They procured the grant, designed the building, and built it.

Fifteen years ago, if you had given the good people here a government-sponsored opportunity to democratically decide their own economic/environmental destiny — an opportunity which is offered to them currently with the Slocan Valley Plan [See Planet Drum's *Backbone — The Rockies Bundle*.] — there would have been very few to radically oppose the general policies of the region's sawmills, the management style of the provincial Ministry of Forests, or the messy practices of the local loggers. Oh, there were a few trappers and wildlife conservationists who would have squawked — a real minority. And there was a local fellow who had gone and gotten a degree in biology at a university before he returned home; he wouldn't have liked it. But it took the back-to-the-land movement to bring expatriate Americans up here — from Los Angeles, Milwaukee, New York, Boulder, Berkeley, Philadelphia, and a few towns in Virginia and Kentucky — to write letters to bureaucrats who nearly went blind reading them before we got a dialog going with government. Now we may get a national park on the west side of Slocan Lake.

It's funny how things work out.

—Joel Russ

Correspondent Joel Russ is working on a social/historical profile of the North American back-to-the-land movement 1965-1982 which will be published by Canada's Solstice Press in fall 1983.



## MAINE vs. THE GULF OF MAINE



**A** letter from a state at war.

We just had a *second* referendum attempt in November to close the one nuclear power plant in the state. Again the attempt failed. This time, however, even the Maine State Nurses Association condemned the plant, for health reasons; Maine Yankee Atomic president Elwin Thurlow called the nurses irresponsible. Corporations and multinationals from outside the state donated huge amounts of money to the campaign to keep the plant open, and *still* 44% of the voters called for a closing of the plant. After the election Maine Atomic Yankee bought ads in all the major papers thanking the voters for their

trust. We need to change our image. Too many people think of Maine as a picturesque wooded state of fishing villages, rural farms, nice motels, and gift shops — "Vacationland," as it says on our automobile license plates. We are an occupied territory. Two-thirds of the land is owned by paper companies that carry out massive aerial spray programs every year to kill spruce budworms, hardwoods (in addition to spray programs for apples, blueberry fields, and gypsy moths). A chemical wonderland — full of lakes, rivers, and streams bringing the chemicals home to the rest of us.

This is not exactly the

tar-paper shack and lobster-trap culture — this is Maine the occupied territory. "Environmental" organizations can't be counted on for much. The Audubon Society and Natural Resources Council (we call it the Neutral Resources Council for its usual stands on major issues) are more concerned with fundraising and maintaining a fundable image. This is a poor state — who here has the money to donate to environmental organizations?

The Gulf of Maine area of the state is hardly represented in the government of Maine, except as an exploitable resource. Structures don't exist to work within the exploiter government. The occupiers set up a

system, and it is still in control. There is so little work, so little money here, that people are afraid of change and are easily threatened. Utilities and big companies play on that fear. Health issues in the nuclear debate were hardly raised, only the pocketbook issue: Would your energy bill go up for the next few years? What about replacement fuel costs?

We need to find and endorse candidates who have some idea of bioregional perspective — candidates who support policies that would actually be beneficial.

And what happens in the meantime? First of all we need to get people here thinking in new ways, looking at the place, the needs of their home,

and beginning to voice support for the health and vitality of *This Place*. Our supposedly liberal Democrat governor doesn't know where he is when he says, after a trip to Ireland, "I've been to the Holy Land." *This* is the holy land. Wherever we are is holy (and we are not, perhaps, holier).

"Occupation is the imposition of rule by aliens," writes Michael Zwerin in *Devolutionary Notes*. Here we are, crossing the border into this state, the billboard: "WELCOME TO MAINE! VACATIONLAND!"

—Gary Lawless

CONTACT: Gulf of Maine, PO Box 186, Brunswick, ME 04011.



# RIFFS, READS & REELS

## RIFFS



**JUJU MUSIC**  
(King Sunny Ade and His African Beats)  
Mango Records Division of Island Records, 444 Madison Avenue, New York, NY 10022.

*There has always been popular music in Africa, of course, and there are types of African music showing no European influence, or almost none, that are both modern and popular. "Traditional" musical modes, in the words of the Nigerian composer Akin Euba, "not only flourish, but are the main musical fare of most Africans."*

John Storm Roberts  
*Black Music of Two Worlds*

Fourth World traditional music, Yoruba party music, Nigerian roots music, Juju music — ethnomusicologists have long regarded it as an unfortunate direction instead of a new and lively evolution. Recordings are hard to come by outside the African continent, and news of its development has been relegated to obscure journals and dedicated pursuit in the word of mouth department. The U.S. release of King Sunny Ade and His African Beats new record *Juju Music* signals a reversing trend. People inhabiting Western dance-crazed environs and popular musical sensibilities will soon understand why Sunny Ade (pronounced Ah-day) is called The Chairman in Nigeria, and why Juju music is the dance music of Nigeria's largest tribe, the Yoruba.

Juju music is said to have evolved from music called Kokoma in the region of Lagos in the early 1950s. It featured a variety of vocalists, three drums, and a Yoruba hand piano. Later in the decade electric guitars were introduced, characterized by frantic single-string picking and high-life chording, but the intensely individual sound of Juju stems less from guitar work than from the use of Yoruba percussion — such as talking drums — and from a singing style akin to highly distinctive traditional Yoruba styles. Recent instrumental innovations include the steel guitar (Hawaiian style, though Sunny Ade claims to have never heard any slack-key or slide styles from Hawaii) that floats beautifully over the complex rhythm section.

*If there is a unifying theme to these efforts, it is this: take what is best from the old ways, combine them with what is best from the new, try them as experiments, and carry on from there.*

Peter Adler  
*"Hawaii Nei Report"*  
*Raise the Stakes No. 4*

Sunny Ade and his 17-piece band have helped to innovate a lot of this experimentation, and Ade's 40 albums in just the past 10 years attest to his success even if they are hard to come by on this continent. *Juju Music* and Ade's current North American tour could be the catalyst for introducing Ebenezer Obey, Prince Nico, or other purveyors of Nigerian dance music that will keep our regional rhythmic dancing to a Yoruban can't-stop-it beat.

Robert C. Watts

## READS



**NEW WEATHER OBSERVER**  
Box 485, Inverness, CA 94937.  
\$15/year.

*There was a desert wind blowing that night. It was one of those hot dry Santa Anas that come down through the mountain passes and curl your hair and make your nerves jump and your skin itch. On nights like that every booze party ends in a fight. Meek little wives feel the edge of the carving knife and study their husbands' necks. Anything can happen. . . .*

Raymond Chandler  
*Red Wind*

Nothing surrounds and influences our conscious and subconscious lives on the planet day to day more than the weather. It can cast a Raymond Chandler shadow over our perceptions or it can create an indecipherable smile with the first step into daybreak. But, like other important items of biological news, we get a diluted and often comical presentation of weather from the conventional sources that entertains more than offering insight. Weather forecasting is a high-tech global satellite network that works in general patterns and trends and tends to ignore intuitive regional information and, above all, the fact that we're an inseparable part of this very natural process.

Well, that all seems to be changing with the emergence of the *New Weather Observer*. Co-editors Susan Peaslee and Elizabeth Whitney look at weather "not simply as a view of looming disaster, but as view of wonder at the forces that shake us to our essential selves, stripped of nationalities, politics, lifestyles, and ages." You can expect to see a variety of styles and techniques that mix applied forecasting with items such as "Why Is This Turtle Sleeping?" and "Animal Friends Plan Ahead for a Long Hard Winter." Added attractions include a wide variety of climatologists who correspond from their regional observation points, putting keen eyes and aching joints to work on behalf of a fresh "meteorjournalism." Membership is \$15 and includes all 1982 publications as well as forthcoming issues for 1983.

Robert C. Watts



**COYOTE**  
1145 East 6th, Tucson,  
AZ 85719.  
\$10/year (12 issues).

*"Hey, what are you people doing on this property?"*  
*"We're just cleaning the ditch."*

*Eloy always answered without looking up as he methodically redug, rearchitected, and revitalized the ditch after its winter of disuse.*

*"But what's the point?" a Harvard-Law-grad-turned-cocaine-dealer asked. "Who uses it anymore?"*

*Eloy explained: "We have a field, and we plan to irrigate it once again. Our water rights are in order. So please don't interrupt the water flow while we're using it."*

*"I'm tired of having that trench in my backyard," a woman complained. "It's dangerous. I twisted my ankle in it last autumn."*

*Eloy apologized politely and ambled ahead, rhythmically scooping out dirt, repeating a ritual as old as the first Indians that had entered the Chamisa Valley nine centuries ago.*

John Nichols  
*Nirvana Blues*

The Sunbelt — the promised land of peppery days and asthma-free mornings. Following faltering Northeast industrialism and record-breaking winters comes the most recent wave of refugees transporting their last-ditch recollections of suburban renewal. These days, wandering lost in the desert has a whole new meaning. The Chamber of Commerce welcome wagon eases this rootless transplanting with scenarios of fountains, food, and that little tract of lawn in the front yard. The only thing that evaporates for Sun City immigrants is worry.

In an effort to reverse the trend, *Coyote*, a publication of the Tucson Food Conspiracy Community Project, is moving from its food-cooperative identity into the pursuit of "high quality information" that reports and frames the activities of the Southwest desert in bioregional terms.

*Coyote exists to explore and celebrate the diverse cultural and biological heritages of the southwest desert, as well as to provide people with high quality information on what it means to live in this place and time. We wish to reflect upon and advocate the preservation of all that is special and unique about the area in which we live. We also want to support progressive changes — ones which make for a better life for all inhabitants, human or otherwise.*

*Coyote* features in-depth interviews with regional favorites such as Gary Nabhan on Sonoran culture and food production, or most recently, Danny Lopez and Ofelia Zepeda, "two Papagos who are working not only to preserve Papago cultural traditions, but are helping to create a whole new literature, one tied intimately to the land." There are desert self-reliance articles, Southwest environmental reports, community notes, and cultural forecast and updates — in-place dispatches that equip aquifers and inhabitants for a future that doesn't need to be watered daily and mowed once a week. With their circulation of 30,000 and "let's stick it out" sense of humor, *Coyote* helps to crack an *Arizona Highways* version of the Sunbelt and points toward bioregional highways for the Southwest.

Robert C. Watts

*Look for material gathered for Planet Drum's Sonoran Desert Bundle in the Coyote summer issue.*

## REELS



**KOYAANISQATSI**  
The Institute for Regional Education, PO Box 404, Santa Fe, NM 87501.

*A rocket is being launched. . . . Mining equipment shot into space?*

*Wide views of raw canyonlands, mammoth bone-dry rock formations. . . . How huge were the forces that made Earth.*

*Opening music continues and multiplies with speeding time-lapse white clouds building and folding in enormous skies. . . . We come from this.*

*Sunset on broken mesas. Swarms of bats leave their caves. Speeding clouds turning over like waterfalls. Bird's-eye vision of a wooded inlet. . . . A reservoir in the desert?*

That's the first cinematic beat of *Koyaanisqatsi*, and the introduction to a film language so large in scale and mythically suspended between the forces of creation and destruction that the word *votive* (made to fulfill a spiritual vow) hangs over its timeless running length. In the next unnarrated, pure-light-and-sound beat a gigantic mining operation pounds and shovels the Four Corners region, coal is slurried to monumental power plants, and electrical lines hung on grotesquely huge towers carry away the living planet. Next, alternated images of power (a nuclear reactor on a swimmer's beach, masked-nose jetliners) and destruction (ruined modern housing projects, debris blowing down city streets). Then people moving as though fatigued massed zombies: garish card dealers in Las Vegas, 5 o'clock rush. Machines produce food, machines transport us everywhere; people are becoming machine parts. Elements of ultimate planetary force move eerily over and through it all. Slow sunset over a rush-hour freeway, the moon haunting the solid glass walls of a skyscraper.

"*Koyaanisqatsi*" is a Hopi word that carries the meaning of "world out of balance." Director Godfrey Reggio, music composer Philip Glass, and photography director Ron Fricke collaborated to infuse this concept with immediate reference to our Late Industrial period, and succeeded artistically in putting film beside works associated with past epochs of fundamental human spiritual trial such as the poems of Blake, the paintings of Bosch, or the sculptures of long-abandoned Angkor Wat. *Koyaanisqatsi* isn't about, it is. The Earth is grand but vulnerable, we are a small species who can destroy life unless we venerate it.

For information about how to obtain or view *Koyaanisqatsi* contact the Institute for Regional Education at the above address or at 505-988-9800.

Peter Berg

*The film opens a limited engagement (probably no more than a week) at San Francisco's Castro Theatre on April 26 in a benefit premiere. Keep a sharp eye out for showings this spring in other areas.*

# WEAVING ALLIANCES

The purpose of this page is to encourage direct networking. Here are people who identify with, and live in, particular places — bioregions. They want contact with other such people and groups. Some are organized around overtly bioregional concerns, others have joined to address particular issues that are directly related. All share an intent — to learn to evolve habits that are in keeping with long-term sustainability, social behavior that is respectful of biological continuity.

The bioregional movement is expressing and defining itself through direct actions, periodicals, conferences, community congresses — through research and writing as often as through building and planting. While one of us gives a workshop another may be giving legal testimony. All of us can be moved by familiarity with other people's work in other places that is resonant with our own. If you would like to be involved, contact one of the people or groups in your area.

Participate in making this page into an effective tool for all of us to use. Send additions, suggestions and updates. Network with us by letting us know about your work, by sending addresses of those who should see a sample of this issue or future issues, and by telling us how we might be mutually helpful to one another.

The next deadline is July 1, 1983. Send a description of what ideas or beliefs hold your group together, what area you identify with and serve, what you hope to do, and who to contact. Shoot for 150 words.

## FRIENDS OF THE TREES

*Bioregion (life-region). A part of the earth with similar patterns of plant/animal life, usually dictated by climate and topography. The boundaries of human culture (before industrialization) were often the same as bioregional boundaries.*

The Pacific Northwest could be divided into two large bioregions: the Maritime and the Interior. Friends of the Trees would like to initiate a bioregional congress for the Interior Pacific Northwest which could take place this winter or winter 1984-85.

Friends of the Trees society is for those who express their vision of a beautiful/bountiful world by getting down on their hands and knees in the soil — growing, planting, and caring for trees. We distribute trees, seeds, and horticultural information. Yearly membership, \$3 (larger donations appreciated), includes newsletters, seed catalogues, and announcements. For a copy of the latest Friends of the Trees newsletter send two 20 cent stamps.

Contact: Friends of the Trees, P.O. Box 1064, Tonasket, WA 98855.

## TILTH

Tilth has continuously stated and illustrated the relevance of the concepts of bioregionalism and reinhabitation. (Note their new address.) It is a regional association made up of people creating a biologically sound and socially equitable agriculture for the Pacific Northwest.

*The Future Is Abundant: A Guide to Sustainable Agriculture* (\$12.95 postpaid) is an invitation to participate in cultivation of not only the soil, but also of earth wisdom. Although principally an excellent reference guide to organizations, seed and nursery companies, and a range of good reading, the articles provide strong connective tissue. The sophisticated expression of the restoration ethic interwoven throughout is now finding expression in both publications and actual projects. —Sheila Rose Purcell

Contact: Tilth, 2270 N.W. Irving, Portland, OR 97210; 503-227-5110.



## CHINOOK LEARNING COMMUNITY

We invite you to join us May 10-15 for a conference, Building a Planetary Village, that will bring together people from around the world who are committed to working in their home communities to build villages that are ecologically sound, personally nurturing and planetarily responsible.

Contact: CLC, Box 57, Whidbey Island, WA 98236; 206-321-1884.

## WABASH BIOREGIONAL REPORT

From the Great Lakes Plain, the Till Plains and the Southern Hills to the Lowlands, the Wabash bioregion is described in careful detail by the students of Landscape Architecture at Purdue University. Topics examined: energy, economy, preserving soil, wastes and physiography and climate. Write for specifics on the report or to join with others in the Wabash.

Contact: Sue Kopka or Greg Schlink, Dept. of Horticulture, Horticulture Building, West Lafayette, IN 47907; 317-494-1293.

## HUERFANO VALLEY CITIZENS' ALLIANCE

Huerfano Valley Citizens' Alliance is a coalition in opposition to wholesale, disrespectful use of our local resources.

We are working the southeast part of Colorado, in Huerfano County, a place rich in tungsten and other heavy metals, natural gas, CO<sub>2</sub>, gas, gold, and uranium.

We negotiated a precedent-setting out-of-court settlement with ARCO over CO<sub>2</sub> development. Now we are actively opposing open-pit uranium mining in our bioregion.

We would appreciate help and invite interest.

Contact: HVCA/Roz McCain, Box 316, Red Wing, CO 81066; 303-746-2286. Or Kent Mace, ASR 21, Gardner, CO 81040; 303-746-2389.

## FRONT RANGE

*From Palmer Lake to Poudre Canyon*

We are only a part of the vast Front Range area where the Rockies meet the Plains. We define this section by the outlying small hills, running East from the main Rockies, which define the storm patterns.

Let's have an early June get-together in Boulder to discuss permaculture and other bioregional concerns.

Contact: Front Range, Allison Peck and Milan Piperski, 1545 Redwood Avenue, Boulder, CO 80302; 303-443-0849.

## HIGH PLAINS ALLIANCE

Last spring a group of people got together and considered: 1) Plans are on the corporate drawing board to make our region an ecological graveyard; and 2) There is a need to educate, to publicize using all media forms, to research, and to give testimony at hearings. We have worked in each of these areas steadily ever since and ask others to join us.

Contact: HPA, Box 197D, Buffalo Star Route, Sheridan, WY 82801; 307-674-4715.

## FREMONT LEARNING EXCHANGE

Initially a barter referral service, the Community Exchange now sponsors two projects designed to promote local trade and production and create access to goods for people without money in the Seattle area. First, we publish a weekly bulletin, *Access*, distributed through churches, food banks, community service centers, and by subscription to individuals, which lists goods and services available through barter, sharing, or for free. The second project, the Bankery, is a vegetarian cafe/bakery, with space in the storefront available for barterable goods held on consignment. The kitchen equipment is available to those who wish to cook and bake and offer their products for trade on the premises. Tokens redeemable for goods are distributed at the nearby free food bank. Each token is backed by one pound of grain, held on reserve.

Contact: Kathy Jorgensen, 3410 Fremont Avenue North, Seattle, WA 98103; 206-632-1285.

## KANSAS AREA WATERSHED COUNCIL

Bioregionalism is emerging on the prairie. The perennial prairie roots are giving sustenance to new growth. The Kansas Area Watershed Council is an evolving group of people with a prairie bioregional consciousness.

Our purpose is to bring the inhabitants of the Kansas Watershed and surrounding areas together to create a viable, sustainable, and self-reliant way of life within our bioregion. We have formed an ongoing council to exchange ideas and resources; to share skills, knowledge and activities; to increase local production; to establish community and bioregional trade; to foster the politics of ecology; to tell stories, sing songs, and further develop our unique culture; and to share the joys of life and stewardship upon the heartland of our country — the prairie.

Last spring the KAW Council had a large gathering where over 100 people camped and worked out a formal set of resolutions. They were presented to the entire council and adopted (copies available for \$1.50 from KAW or, for an excerpted version, see *Raise the Stakes* No. 6).

We are working toward a large fall 1983 event that will celebrate harvest and be an informational fair with workshops and demonstrations. We are looking forward to the North American Bioregional Congress and plan to be actively involved and send a representative delegation. Please come join us.

Contact: KAW Council, c/o Kelly Kindscher, Rt. 3, Box 162AA, Lawrence, KA 66044; 913-842-0219.

## SOUTHERN UNITY NETWORK/RENEWABLE ENERGY PROJECTS

Realizing the value of humans as a bioregional resource, SUNREP has established a regional appropriate-technology network of over 7,000 individuals and organizations. Last year, we came together for the first time to hold Southeastern Connections, an event focusing on four areas: 1. Bioregional issues which cross geopolitical boundaries and that potentially have adverse effects on the Southeast; 2. Developing of conservation/preservation strategies that address those issues; 3. Building skills and transferring information required to implement the strategies; and 4. Formulating links among groups which agree on the bioregional agenda. We hope to continue working together on long-range issues in our bioregion.

Contact: SUNREP, David Pate, Box 10121, Knoxville, TN 37919; 615-971-4606.

Edited by Sheila Rose Purcell



## CAROLINA FARM STEWARDSHIP ASSOCIATION

We are farmers, gardeners, and consumers working to encourage sustainable, ecologically sound farming and gardening in the Carolinas. A recent activity of ours is the publication of a song book (\$5.25) with gardening tips, agricultural songs, and songs of the land movements.

Contact: CSFA, Debby Weehler, Route 1, Box 397, Franklinville, NC 27248; 919-498-4076.

## KENTUCKY NEW FARM COALITION

The Coalition supports efforts aimed at enhancing self-reliant living and improving and regionalizing agricultural production, processing, and distribution. We've held winter and summer meetings for five years. We cosponsor occasional events like the Harvest Square Dance.

The *Kentucky New Farm Gazette*, the voice of the coalition (\$12 gives you a year's subscription while reducing admission to biannual meetings and supporting the coalition's work) has regional, farming-oriented articles and information about a variety of activities and groups.

Contact: KNFC/David and Jenny Sawyer, Route 1, Pleasurville, KY 40057; 502-878-4826.

# ALLIES

Allies have a planetary or continental focus, a necessary link for our regional projects and perspectives. Join us in working with them.

## TRANET

Transnational Network for Appropriate Technology seeks: 1. To stimulate exchanges among individuals, groups, and networks in all parts of the world that are actively involved in appropriate technology; 2. To educate the public; 3. To promote the development and use of tools, devices, and processes that increase local self-reliance with optimum use of local resources.

This is done principally through a regular newsletter directory and also by holding seminars, acting as advisors to the United Nations or other international agents, arranging tours and assembling, and providing appropriate-technology libraries to worthy groups.

\$15 a year for subscription and membership.

Contact: TRANET, Box 567, Rangeley, ME 04970; 207-864-2252.

## PLANETARY CITIZENS

You are invited to take part in the Planetary Initiative for the World We Choose and to join with citizens from your area to deliberate and act together. If you wish, you can follow the process all the way to the culminating Planetary Congress in summer 1983. From the Congress will come a consensus mandate from ordinary people of all walks of life from around the world for a future greatly different from our troubled present: one the planet can sustain and that is responsive to the needs of all of Earth's inhabitants; a future which is life affirming, contributing to an experience of life that more fully represents humanity's potential.

Contact: Planetary Citizens, 777 United Nations Plaza, New York, NY 10017.

## PLANNERS NETWORK

The Planners Network started in 1976 as a way of bringing together progressive urban and rural planners for sharing ideas and creating a sense of community and mutual support. There are now nearly 1,500 members across North America and elsewhere.

The Network is eager to link its members' expertise to progressive community and national struggles, in an advocacy role. We are experienced in housing, health services, community economic development, and other technical fields and are committed to effective political and social action supporting human rights and needs and a redistribution of wealth and power in the country.

Members relate their politics to their professional work and try to do this more effectively. The national membership welcomes and anticipates more varied projects for the future.

Contact: The Planners Network, 1901 Que Street N.W., Washington, DC 20009; 202-234-9382.

## THE WORKBOOK

The Workbook is a fully indexed catalog of sources of information about environmental, social, and consumer problems. It is aimed at helping people in small towns and cities across America gain access to vital information that can help them assert control over their own lives and their region. \$12/year (6 issues).

Contact: Southwest Research and Information Center, P.O. Box 4524, Albuquerque, NM 87106.

## OPENING for Networker

Over the last two years of morning mail runs we have seen both quantitative and qualitative leaps in the correspondence and information received. The rich variety of these expressions of bioregionalism makes my leaving Planet Drum and offering up my position an emotionally mixed situation. I'll be starting law school to focus on community based mediation and environmental law, concerns I consider parallel to the work I've done with Planet Drum. Rumbly from within the belly of the legal beast are only meaningful as a complement to the clear "political statements" made by those taking ax to oak for heat, or hand to soil for food.

In the welcoming spirit of growth and continuity we invite your interest in the position of Planet Drum networker. Send letters, resumes, and/or recommendations of others who would be interested.

—Sheila Rose Purcell



## Farms? In Berkeley?

Well, maybe not farms, but we have got some pretty serious gardens and gardeners here east of San Francisco Bay. That's not news, but what's new is gardeners bunching together to say "Give Peas A Chance!" and "Raise Vegetables, Not Flags!" These are some of the slogans of the recently born Revolutionary Garden Party, a local network for garden fanatics. Before we introduce you to the RGP, we'd like to tell you about our garden club, which convened the first party.

Six of us originally got together in January 1982 to form a study group on radical agriculture. We thought we'd read and discuss books, go on field trips, and generally be supportive of each others' garden fetishes. After two or three meetings we decided to garden together because we each wanted more space, but more importantly, we wanted to share the activity that brought us together. Now we have three gardens in backyards belonging to other people that we found through newspaper ads we placed. We exchange some of the produce for space.

While gardening itself has been a major activity we've also read and discussed one book, taken field trips to farms and gardens, shared resources with each other (seeds, seedlings, tools, books, vehicles, gardening lore) and provided camaraderie and emotional support for many aspects of one another's lives. We tend to feel that most efforts at social change are entirely too focused on issues that ignore our daily lives. While this group meets many of our needs, we also want to encourage urban agriculture and connect with other gardeners in our area. That's why we convened the first Garden Party. We slanted our advertising towards local gardeners who see gardening as a political act. (One of our slogans is "Squash the State.") Almost 40 people came to the November party and wanted to keep meeting. We (the RGP) now meet once a month, have a potluck featuring home-grown foods, share announcements, organize events, and work on projects. In our first few months we have shared seedlings, held classes for one another on seaweeds and mushrooms, found space for gardening and gardeners for spaces, made new friends and shared old ones, and, maybe most importantly, validated the gardener in each other. In the city, the need to be connected and related to as land dwellers is hard met.

The RGP will continue to meet the needs of its members: our strength is the passion we share. We have discussed a number of projects we'd like to organize or assist with which would continue to de-urbanize the city and bring the power of food production to more people's lives. Here are some: teaching classes; bulk purchasing; forming an urban-orchards group to prune, pick, and plant fruit and nut trees; helping with food banks; maintaining a farmers market; urban mini-farming for income; "Meet the Farmers" night for farmers to talk to consumers about their lives and work; and publishing.

We'd love to hear from others with similar interests in other parts of the country. Send us your ideas, attitudes, and puns. If you live nearby, come to our meetings.

—Bill Klitz  
Contact: RGP, c/o Bill Klitz, 2143 1/2 Derby Street, Berkeley, CA 94705.

## 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 bonus publication, a 25% discount on all our 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 a list of Planet Drum members in your area. You can send us the names of interested people who will in turn receive a complimentary issue of *Raise the Stakes*. Send us ten names and we'll send you a copy of *Reinhabiting a Separate Country* for your effort.

3. Distribute Planet Drum materials to your friends and neighbors.
4. Send us a list of your area's cultural and cooperative outlets: bookstores, food co-ops, community and environmental centers.
5. Arrange a bioregional workshop in your area. For transportation, room, and board Planet Drum will come to help you.
6. Send *Raise the Stakes* a report from your region.

### A Gift for Renewing Members

Renew membership before July 15, 1983, and receive a free copy of the book *City Country Miners*, while supply lasts. Edited by Michael Helm, the 256 pages offer a collection of prose, poetry, oral history, and art by the likes of Peter Coyote, Lenore Kandel, Peter Berg, and many others. Noel Peattie says of the book, "Here you can learn what it is like to live with a succession of woodrats, what it's like to counsel not only unwed mothers but unwed fathers, and what happens in a State in which one out of every nine adults has a real estate license."

### Planet Drum Pulse

Now on the Planet Drum beat: a project to create a Biopolitical Map of North America. We're seeking funds for research and publication; we hope this will eventually be a bonus publication for Planet Drum members.

Early in the spring, Peter Berg stretched his trip to the Purdue conference of landscape architects to include stops at the Southern New England Self-Reliance Movement in New Haven, Connecticut, and Pratt Institute, New York City. Later this season Planet Drum staffers are presenting workshops at the Santa Cruz and Davis campuses of the University of California and in northern Oregon. This is our year for public exposure; if you want us to visit your region let us know if you can arrange a workshop or talk.

The Manhattan Fjord Bundle announced last issue of *Raise the*

*Stakes* has been more properly dubbed the Hudson Estuary Bundle. Research and graphics assistance sought, along with funds. Contact the bundlers c/o George Tukul, Apt. 6-C, 6 Stuyvesant Oval, New York, NY 10009.

And in the Southwest, the bioregional publication *Coyote* (see review page 13) will publish this summer some pieces of the long-awaited Sonoran Desert Bundle. The bundle never materialized due to lack of funds. Thanks to Gary Nabhan for taking on this former Planet Drum project.

Finally, a reminder. For many Planet Drum members yearly renewals of \$15 were due on the recently past spring equinox. We've sent this issue in hopes that you'll renew soon, but it will be the last unless we hear from you.

### PLANET DRUM BOOKS

• *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. \$8 postpaid. "The book serves as both pioneer and genre model... representing a vital and widespread new ethos."

—New Age Magazine

• *Devolutionary Notes* by Michael Zwerin. 64 pages. A first hand account of European separatist movements today. \$3.50 postpaid. "... a strange and fascinating little guidebook to a movement that is 'redesigning the map of Europe.'"

—Rain Magazine

• *Eco-Decentralist Design: A 3-volume set including Figures of Regulation: Guides for Re-Balancing Society with The Biosphere* by Peter Berg; *Toward a Bioregional Model: Clearing Ground for Watershed Planning* by George Tukul; and *Reinhabiting Cities and Towns: Designing for Sustainability* by John Todd with George Tukul. 98 pages complete. Critical preliminary readings for intentional bioregional planning. \$10 postpaid. "... Planet Drum is not just attempting to define a type of environmental management; bioregional planning may start from a firm sense of the environment but it also takes into account the present state of, and possible futures for, cities and towns. ... If we continue to conceptually isolate our forms of inhabitation all the singular wise goals of environmental management, sustainable agriculture and community

economic development may be for nought. The Planet Drum package presents us with some beginning working tools to repair the broken fabric."

—Rain Magazine

• *Bioregions: Winter 1981/2, issue #32 of CoEvolution Quarterly*, Guest edited by Peter Berg and Stephanie Mills. 144 pages. Murray Bookchin on social ecology, Jan Morris, Gary Snyder, and Peter Berg with essays on devolution and the Fourth World. Jerry Mander, Winona La Duke, Wes Jackson and Paul Hawken are among others who contribute to this issue. Reports on the Southwest, Great Plains, North Woods, and Alaska in the U.S.A. \$4 postpaid.

• *Renewable Energy and Bioregions: A New Context for Public Policy* by Peter Berg and George Tukul is SOLD OUT.

### BUNDLES

• *Backbone—The Rockies*. A six-part Bundle of essays, poems, journals, calendars and proposals about the fragile Rocky Mountains. \$4 postpaid.

• *Watershed Guide & Living Here*. A four-color poster with pamphlet evoking the natural amenities of the San Francisco Bay Area watershed. \$3 postpaid.

• *New Orleans* ("mini-Bundle"). An aural, visual and geophysical view of the delta land, three pieces. \$2.50 postpaid.

• *Turtle Sheets*. An exquisite handprinted turtle shell rubbing with a poem by turtle's son (Peter Blue Cloud). Two sheets sewn together. \$1.50 postpaid.

• *Grounds & Surrounds*. Peter Berg's analytic review of major international and world environmentally concerned agencies. An eight page, 4" x 10" pamphlet. \$1.50 postpaid.

SEND ORDERS TO PO BOX 31251, SAN FRANCISCO, CA 94131

### Raise the Stakes! Return This Coupon

- \_\_\_ \$15 regular membership (one year)
- \_\_\_ \$50 (or more sustaining membership)

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

\_\_\_ I am enclosing the names and addresses of friends who would like to receive a sample copy of *Raise the Stakes*. I enclose \$1 for each.

\_\_\_ I would like to trade (you name it) \_\_\_\_\_ and/or a report from my region for a year's subscription.

PLEASE CUT OR COPY AND MAIL IN TODAY!

- *Nuclear Order 239*, a reprint. Gil Baille's essay discussing centralized control and nuclear power, with Martin Carey's drawing. Two pages, high quality xerox. \$.50 postpaid.
- *So to the "Fourth World."* A single sheet with Martin Carey's graphic *Vision—Mountain Man II* and Raymond Dasmann's Fourth World Proposal. \$1.50 postpaid.

### RAISE THE STAKES BACK ISSUES

- *Raise The Stakes: The Planet Drum Review, No. 2*. Contains regional reports from Québec, 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 postpaid.
- *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 postpaid.

Raise the Stakes issues No. 1, 4, and 5 are sold out. Raise the Stakes No. 6 (Winter 1983) is in limited supply. This most recent back issue features a special section on *Harvesting the Trash, resolutions from the KAW Council, a discussion of the links between bioregionalists and antinuke activists.* \$2 postpaid. Complete sets of *Raise the Stakes* are available to libraries and archives. California residents please add 6% sales tax to the listed prices.

### Stakes Raisers This Issue

Typesetting — Kara Adanalian Circles of Correspondence Editors — Peter Berg, Robert C. Watts  
Working Angels — Jack Cerino, Mark Crumb Production Manager — Nancy Dunn  
Maps — Judy Goldhaft Featured Section Editor — Michael Helm Distribution — Diane Nettles  
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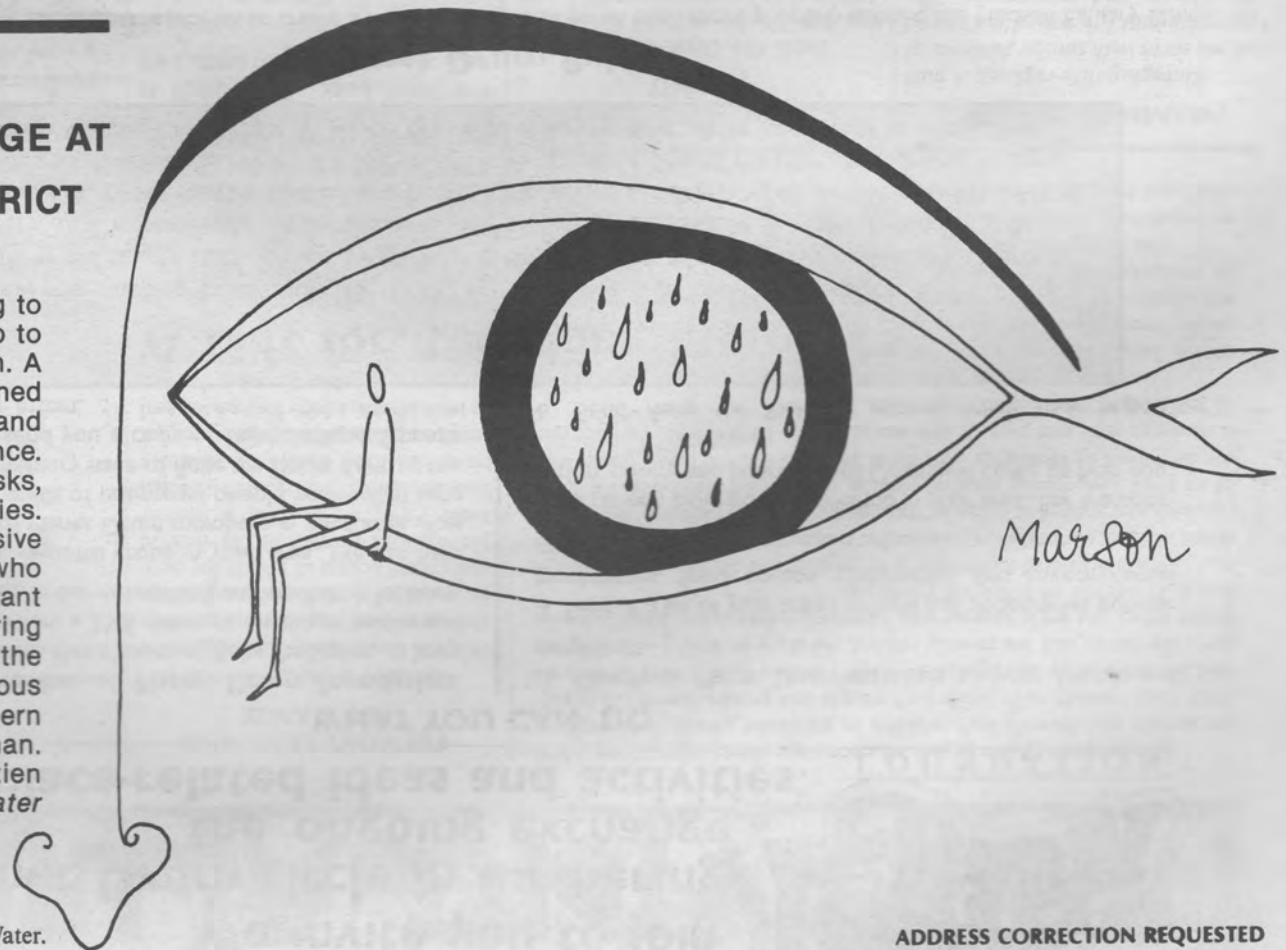
## WATER RAMPAGE AT MUNICIPAL WATER DISTRICT

From *The L.A. Times*, Sept. 3, 1979 — According to eye-witness reports, the suspects' car pulled up to the front of the building shortly before noon. A bearded male suspect jumped from the car, opened the trunk, taking out a one-gallon plastic jug, and ran in through the glass doors at the main entrance.

Once inside, he began pouring water on desks, papers, computing machines, and secretaries. Witnesses reported that he shouted various abusive remarks about water. According to a clerk who declined to be named, he shouted, "Water, you want water, I'll give you water you thieving murdering bastards." An accomplice may have assisted in the getaway. It is believed the assailants are religious fanatics from out of the area, possibly Northern California, said a MWD spokesman.

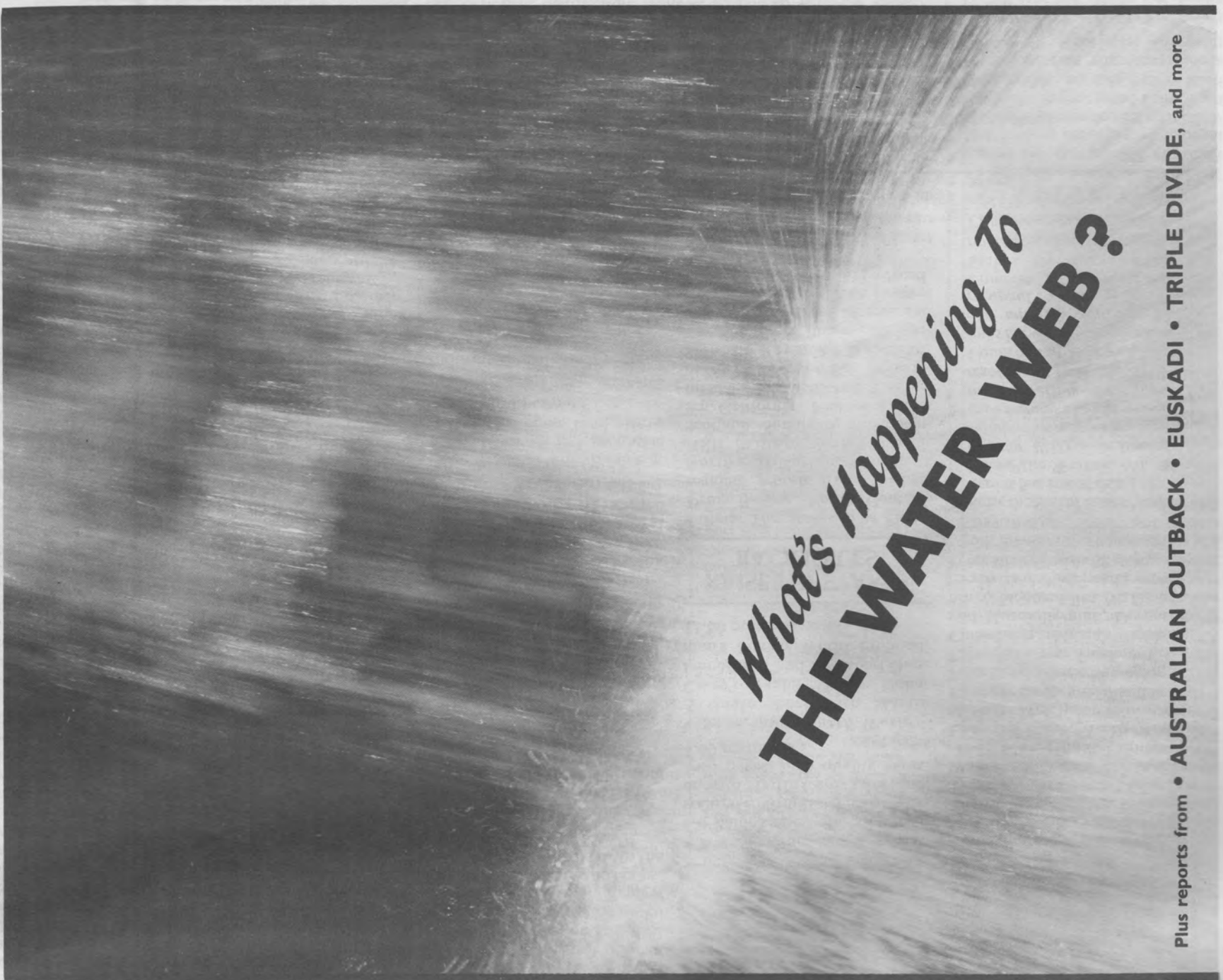
Jerry Martien  
*Bones of Water*

*Jerry Martien lives in Humboldt County, California.  
The quote is taken from his book-in-progress, Bones of Water.*



# RAISE THE STAKES

Number 7 \$2 The Planet Drum Review Spring 1983



What's Happening To  
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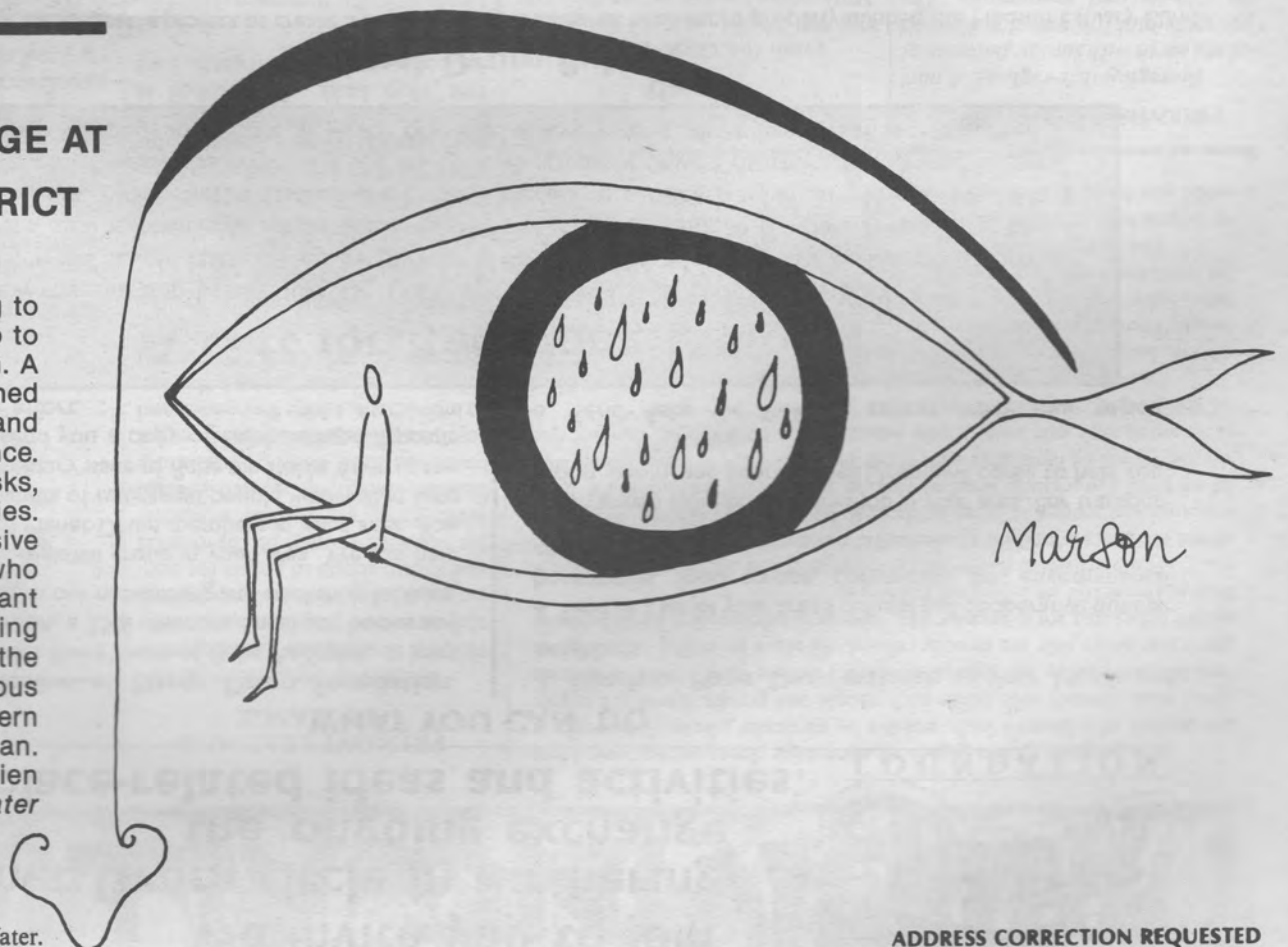
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Jerry Martien  
*Bones of Water*



Martien

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The quote is taken from his book-in-progress, *Bones of Water*.

ADDRESS CORRECTION REQUESTED

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