RAISE THE STAKES

NUMBER 22 The Planet Drum Review $4

FOOD AS PLACE:

Dreaming Sunflowers

BIOREGIONAL AGRICULTURE

EDITORIAL

BY JOSHUA WILSON

"Of the 4,000 or so edible plant species that have fed human societies at one time or another, only about 150 are widely cultivated now and just three provide 60 percent of the world's food. The others, the largest part of a hungry world's storehouse of potential crops, are in danger of becoming extinct. Demand for food is rising quickly, little new land is available for cultivation, and today's most common crops have been pushed to their maximum yields. The U.N. Food and Agriculture Organization estimates that about 700 million people around the world are now undernourished. Of these, 15 million will die this year as a result of diseases brought about by malnutrition or outright starvation. Still, the forecast is that global population will increase 70 percent by the year 2025."

—from the San Francisco Chronicle, *20 Oct., 1993.*

In the mid-1980s, after a summer vacation spent reading too many apocalyptic science-fiction novels and pop-science *Discover* magazines, it occurred to me that it would be necessary, in the future, to live no more than 50 miles from where one's food was grown. Any further from the well would be extremely poor planning.

There are many issues around the world that grow increasingly urgent. Population growth, aggressive resource consumption and the consequent degradation of planetary ecology, for example, are among the most fundamental and destructive ills of modern global civilization. These issues *will* achieve some sort of resolution, merely because of their scale and increasing momentum. It seems extremely urgent that this resolution is agreeable to the human condition, and not as much of a tragedy as it could be.

Industrial agriculture is, unfortunately, a destructive expression of our growth-oriented economy. This is appropriately ironic, because large-scale agribusiness is ostensibly altruistic. The "Green Revolution" of the 1950s and 60s was idealized as humane, efficient, productive, chemically supplemented, mechanically assisted and genetically engineered—the means by which technological civilization would eliminate famine.

As recent adventures in East Africa demonstrate, this ideal is very distant from reality. In Ethiopia, Somalia and the Sudan, a specific formula is at work: a crisis in food production is exacerbated by political instability, and a fabulous blight is released onto a population. Death by starvation is a slow, grisly way to go. I didn't know that human beings could be so thin and still be alive. The question is, will we see this pattern repeat itself in the future?

While large-scale agribusiness has been successful in feeding large populations, especially those of "developed" nations, there are very important questions regarding its sustainability. Huge, genetically uniform crops can be destroyed by a single virulent fungus or insect pest that has adapted to pesticide applications. Water-intensive crops produced in inappropriate desert regions are painfully vulnerable to drought conditions, especially when increasing human populations further deplete water resources. And a highly consumptive, export-driven economy can use up a natural resource base faster than the local ecosystem can regenerate itself. Symptoms of an unhealthy agriculture are wasted topsoil, chemical fertilizer runoff that pollutes watersheds, and pesticide buildup in local ecosystems. This can create real problems for regional cultures.

So it turns out that 50 miles from plough to plate might not be such a goofy idea after all. Some bioregionalist thinking might even assert that 50 miles is itself a bit far, and that human culture needs a much more intimate connection with *what we eat* and *where it comes from.* Why? So as to understand more clearly our relationship with, and dependence upon, the health of local and planetary ecology. In other words, you might want to look no further than your backyard for food.

A bioregional agriculture is by definition localized, and *designed* to make the most efficient, productive, sustainable use of the regional resource base. In a bioregional agriculture, the limits of the local ecosystem are not confining, but rather the parameters in which you build an appropriate, abundant, healthy food production system. Buzzwords include **crop diversity**, **organic farming methods**, **native seeds**, **seasonality**, **permanence within a place**, **technical know-how**, **observing and planning,** and **local self-reliance**.

There are many angles to consider. *Agriculture* is not merely growing food, but a way of life associated with food production and consumption. This issue of *Raise the Stakes* presents many chewy discourses on the nature of a bioregional agriculture, as well as resources for readers to pursue the subject further—as an academic interest, or by doing their own digging in the soil.

As this issue goes to press, certain Western countries are gearing up for a Feast of Thanks. It is an archetypal human ritual found in one form or another all around the world, and throughout history. Ideally, this is a celebration of abundance, and also a sober recognition of the potential for scarcity.

Unfortunately, this holiday has in some respects become part of a season of excessive consumption: frantic, and for its own sake. By observing this, we can recognize the negative aspects of our own agriculture and cultural priorities.

We may even perceive that agricultural reform is not merely some utopian daydream, but rather a necessary act of self-preservation. So the question is: Will we allow human civilization to endure the consequences and crises of an unsustainable global industrial agriculture? Or will we as a species work for a more agreeable resolution to these issues? ✯

A Garden Growing Wild

The Promise of a Bioregional Agriculture

BY PETER BANE

Walk out your back door and take a look around. What do you find to eat? A few wild herbs struggling for a place in a neglected corner of the lawn? Have some squash seeds in your compost pile escaped oblivion, sending their adventurous tendrils over the fence? Maybe an old apple tree down the alley—planted 40 years ago—is still bearing, or a moist, shady spot in the back might be sprouting some mushrooms. And then there are those pigeons roosting under the garage eaves...

Nonsense, you say? "Herbs won't feed me. And food growing out of garbage? Wormy apples, poisonous fungi, polluted pigeons. Better get on down to the supermarket and rustle up some grub."

Bioregional agriculture begins with a vision of abundance. We must imagine, and then create, a world in which there is enough for everyone. A world where cars and refrigerators are small, shared and not essential, but where dinner is growing in the backyard, company is across the street, and work is around the block or down the lane. If we stop paying for our standard of living with our quality of life, we'll have time to celebrate the recurrent excesses of nature, time to mark the passage of the seasons and the cycles of human life. If food grows on trees, we'll have the leisure to dance, sing, paint, weave, and embrace our friends. We'll also have the makings for a rich and abundant cuisine.

Before the industrial era, all food was regional in origin. There was little choice. Preservation technologies made storage problematic, while bulk transport was confined to seacoasts

continued on page 2

Photos: Judy Goldhaft./Collage: Peter Danaher

A Visit to the Supermarket

If you're like most of us, your last meal came from halfway across the continent, an average of 1300 miles, and cost ten times its food value in energy to produce. It was grown in denatured, overworked, eroding soils, propped up with chemical fertilizers and a host of poisons, picked underripe by underpaid migrant labor and swathed in old-growth forest and Persian Gulf oil (boxed up and trucked away). Our food passes through dozens of hands to reach us, none of which belong to anyone we know.

Millions of animals are born, raised and slaughtered without ever seeing the light of day, in order to feed us a diet so rich in fat we die in droves of heart attack and stroke. Crowded into battery hen houses and feedlots, the poultry, pigs and cattle we eat end their stressful lives deep in their own manure and mad from confinement. They often eat their own kind reprocessed as feed. We get the parts that aren't cancerous. When the slaughterhouses can't keep the filth out of the flesh, people die. So the government wants to irradiate the meat to kill the stink.

In the anonymous marketplace, appearances make the difference. Perfectly cosmetic fruits and vegetables have become the indicator of our alienation from nature and each other. Of our 20 major food crops, a handful of hybrid varieties of each have been selected for size, response to fertilizer and irrigation, durability in transport, ease of mechanical processing, and resistance to yesterday's pests. These make up the increasingly narrow genetic base of our

continued on page 2

"Bioregional agriculture begins with a vision of abundance. We must imagine, and then create, a world in which there is enough for everyone."

Gardening... *continued from page 1*

and navigable rivers. Cultures were dependent on the vicissitudes of weather and landform, on carefully nurtured skills and studied observation of natural excesses. Population densities remained low. Two centuries of industrial growth have changed all that.

While we can learn much from traditional cultures, particularly how to cultivate wild gardens, we cannot meet our needs in the same ways. Not only do our numbers exceed by an order of magnitude the pre-industrial population of the planet, but the natural capital which sustained our ancestors has been seriously depleted: soils are wasted, forests leveled, crop plants made extinct, aquifers and rivers drained, dammed or polluted. Fisheries and game stock are strained, if not exhausted.

We cannot continue the mechanical exploitation of nature. Even if the raw material for continued economic growth/waste were available, the biosphere can't absorb the quantity of pollution which would accompany its extraction and processing. We must find a new way forward.

We can meet our needs if we are willing to adopt three aims:

1. **Design cultivated landscapes which mimic nature.** Agriculture must become small, local and diverse. Healthy ecosystems are composed of many functional interactions between plants, animals, soil and trees. Wastes of one element become nutrients for another. Healthy agricultures work the same way.

2. **Grow food everywhere people live, especially in cities.** People do best when they have access to the resources to provide for themselves. It starts with clean air, water and wholesome food. Intensifying production where we live minimizes transport and energy costs and reduces our impact on the rest of nature.

3. **Live within our solar energy budget, cycle all nutrients, reduce consumption, and use everything at its highest potential.** Design for durability—not disposal—is the answer. Ultimately our entire industrial system must enter an ecological cycle with nature, where all costs and processes become internal. Pollution indicates some yield of the system isn't being used. Mountains of human shit flushed into the sea should be directed back to the soil. We can begin by making our agriculture a net producer of energy.

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Return now to the backyard where we began and observe some of the elements of appropriate bioregional strategies:

The wild herbs are useful native plants that sow themselves. The typical Cherokee woman of Tennessee 200 years ago knew 800 edible and medicinal plants and their uses. We can begin to recover this knowledge and make a place in our gardens for these allies.

The squash growing out of the compost heap is a Native American food plant which is widely adapted and often seeds itself. Dumpheap gardens not only demonstrate the recycling of nutrients, but are generous collections of diverse and locally adapted useful plants. We can select these traditional garden varieties and save their seed in every region, exchanging those seeds with our neighbors and others to ensure their survival. There are a number of seed companies that specialize in open-pollinated (true to type) and traditional varieties. Most of them contract with small growers around the country. The Seed Savers Exchange** coordinates a network of heirloom gardeners who make many such varieties available for sale or trade. And of even greater importance, new regional exchanges are developing, such as the Southern Grasslands Seed and Plant Exchange in Texas.** Similar networks are needed in every bioregion. Begin to save seed and you will soon find others who share these concerns.

The old apple tree represents the work of previous gardeners–work to be conserved and respected. It's also a perennial plant which bears reliably over many years. Because they are more energy efficient, requiring less work and yielding more each year for decades after planting, we should emphasize trees and shrubs in our gardens, parks and farms. Trees also form the central elements of assemblies, or *guilds,* of plants, animals, insects and fungi. By observing these assemblies in nature, we can mimic them in our gardens by substituting domesticated or useful relatives of the wild plants.

The mushrooms are a neglected food and medicinal resource. Many of them can be cultivated, and they make direct use of wood fiber and detritus which would not otherwise be edible. By converting waste into food and accelerating the nutrient cycle, mushrooms play a key role in cultivated ecosystems in any humid temperate environment.

Pigeons are nearly perfect livestock. They can live anywhere people live and thrive with minimal input; indeed they are often considered a nuisance in cities. If only people knew. Pigeons harvest seeds and insects from far and wide, incorporating nutrients from neglected sources, their manure is of great benefit to the garden, and they give us a meal-sized piece of meat, with no leftovers. We need to expand our range of protein sources: backyard poultry, fishponds and insects are all good choices.

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In sum, our backyard garden represents a nascent polyculture waiting to be developed. Emphasizing native herbs and leafy greens, hardy crops, perennials, fungi and small animal protein, we can meet our most important dietary needs in our own neighborhoods with very little work. By careful placement of the elements we can increase our cropping efficiency by synergetic relationships. With proper selection of species, varieties and breeds, this system can be adapted to any climate or amount of space available. The keys are density, multi-functional diversity, and proximity to the caretakers (ourselves).

A small, local, diverse agriculture lends itself to different types of behavior than that of a global monoculture. We can expect to see all manner of cuisine created and expanded as different regions discover their own excellence. Food processing, such as brewing, baking, drying, smoking and cooking, which is the first level of industry, can grow beyond meeting the needs for cold-season storage at home, and toward cooperative food marketing. Community canning and storage facilities, kitchen business incubators, community-supported agriculture, and local scrip currencies based on farmstand produce all enhance the human community of eaters in the bioregion. These activities provide opportunities for social exchange, employment, cultural sharing and economic development.

While we green and plant the cities with edible landscapes, we must also repopulate the countryside. Healthy land needs human caretakers, and a bioregional agriculture based on solar energy needs many observers, planters and harvesters. The present hollow structure of rural towns and districts virtually requires abusive grazing by beef cattle and a mechanized, chemically-driven monoculture. We need to make many millions of investments in water catchment, soil improvement, reforestation and energy production in the country. Increasing rural populations will make that possible.

Long-term solutions will involve the creation of new agricultural villages. A step in that direction would be the establishment of "cluster developments": rural co-housing units linked to existing farms in the exurban fringe (within an hour of metropolitan areas). Besides providing rural amenity for the many who seek a greener life, this strategy can help preserve farmland in the areas where it is most critically needed.

These cluster developments need take little of the more marginal crop land. They also provide the future basis for a new rural economy with home-based employment, access to urban markets and services, resources for proper land management, and soil, water and wildlife conservation.

Bioregional agriculture implies another element which I haven't mentioned, and that is time. Culture is life shaping the world to its own needs. Culture means enduring through time–something cultivated. If we understand ourselves to be at a point when a renewed bioregional culture and agriculture are being shaped, we can understand the importance of clear intent and good beginnings. Most of us won't live to see the full flowering of this cultural renaissance, but if we commit ourselves to creating edible ecosystems, putting food in the cities, people in the countryside, and carefully stewarding our natural resources, we will go a long way toward the abundance that will make regeneration possible. ✯

**See "For More Information," page 6.

Peter Bane is a writer, teacher, and advocate for social change. He edits and publishes The Permaculture Activist, *a quarterly journal for permaculture in North America. He lives with his wife and daughter in the green hills of Middle Tennessee, and invites readers to contact him at Rt. 1, Box 38, Primm Springs, TN 38476.*

ANNOUNCEMENT

ATTENTION* UPRIVER DOWNRIVER *SUBSCRIBERS: The only copy of the *UPRIVER DOWNRIVER* subscribers mailing list has been lost, due to the failure of a hard disk drive.

If you are a subscriber to the bright journal that celebrates Northern California and the Shasta bioregion, please drop us a line with your mailing address and the expiration number that appears on your mailing label.

We'll extend your subscription an extra issue in gratitude. And if you haven't subscribed yet, this is a good time to do so—subscriptions are $10 for four issues. Financial contributions rather than sympathy will be appreciated. *UPRIVER DOWNRIVER,* Box 103, Petrolia, CA 95558. [*UPRIVER DOWNRIVER* is described in RTS #15.]

ANNOUNCEMENT

Educational Opportunity: Emilia Hazelip, a bioregionally sustainable agriculture advocate and teacher based in France, is planning a tour of the U.S. during the winter of 1995.

Hazelip will be offering workshops on "soil self-fertility", a method that uses a broad diversity of plants on permanently mulched, nondisturbed ground. Other topics include:

- ✯ principles of sustainable agriculture design,
- ✯ methods for the intensive production of vegetables, trees and other crops, for family- or market-scale gardens and farms,
- ✯ water cycles, soil regeneration and building, and erosion remedies.

To sponsor a workshop, or for more information, contact: Domaine Des Courmettes, F-06140 Tourette sur Loup, France, FAX 93•59•26•34

Supermarket... *continued from p. 1*

industrial agriculture. A swelling human population is balanced precariously on a tiny fragment of the earth's immense diversity of plants and animals, while the non-commercial is bulldozed out of existence.

But hybrid seeds, and the chemicals which grow them, cost dearly. The corporations fatten up while every year more smaller farmers go broke. They leave the land, and with them goes a wealth of knowledge of place, of weather and soil and the intricate dance of season and sequence which kept life coming back to the fields.

The land, now a commodity and no longer a place to live, passes into the hands of big farmers and corporations. Fields get bigger and the demand for uniformity increases. As the skills for managing complex interactions are lost, plants are separated from animals, landscapes are simplified, forests cut and wetlands drained. Wildlife disappears, while pests increase. People crowd into the cities or flee to the human monocultures of the suburbs.

This spiral of destruction is driven by cheap energy and the demon of development–which means converting the commonwealth of the many (clean air, water, fertile soils, forests and genetic diversity) into the private profits of the few.

Our present system of agriculture is dependent on oil, highways, trucks, steel mills, phosphate mines, nuclear power plants and armies of police, soldiers, inspectors and bankers. All to provide us at great and untold cost with something that ought to be right outside the back door, freely available to everyone. What we eat, and how we get it, is unhealthy, and leaves us dangerously dependent on an unsustainable system.

Modern industrial agriculture has driven us to the brink of destruction for the sake of *control.* We must create an alternative to this nightmare, or we'll be forced to live and die with it! If global industrial food production based on the violent control of nature has become the problem, then bioregional agriculture working *with* nature is the solution. Reflected in every threat to diversity, local autonomy, health and prosperity we can see the outlines of a vibrant and colorful cultural renewal–if we choose to.

—P.B.

Linking Plant Homelands and Human Homelands

Horticultural Practices of California Indian Tribes

By M. Kat Anderson

Edward H. Davis, 1908. Courtesy of the Museum of the American Indian.

Kumayaay woman, named Wypooke, winnowing grain in an age-old gesture. The processing of native flower and grass seeds along with the manipulation of the environment to produce those seeds was part of the heritage of California Indians long before the coming of Spaniards.

—Malcolm Margolin

Knowing a plant in all its dimensions means knowing it not only in our home, but in its home as well. Historically, plants were truly integrated into indigenous people's lives in California.

They knew plants in the *cultural* context, where plants were brought to the village site, and people participated in soaking, drying, trimming, cooking, dying and transforming those plants into useful medicines, baskets, foods, building materials, games and clothing. They understood the creative transformation of the plant into useful items.

Equally important, California Indians knew plants in the *biological* context, visiting plants where they grew naturally—in the overflow channels of streams and the nooks and crannies of steep rock walls, or at the edge of dry montane meadows. Plants were met on their own biological and ecological terms. Indigenous people formed and answered a myriad of inquiries through keen observation: When does this plant ripen? What kind of habitat keeps this plant healthy? What animals compete with humans for this plant? What insects pollinate it? How is it adapted to fire?

By harvesting continually from the same gathering sites over time, California Indians began to understand plants' needs in a deeper way. Memory of the plant and its ecological requirements were enriched with each successive visit, and by each new human generation using ancient knowledge. They developed harvest limits and techniques that ensured a plant's continued abundance in the future.

Today, a few people from different California Indian tribes still gather and tend wild places, adhering to ancient rules and techniques that allow for resource use while keeping the resource base intact.

Continual harvest, transformation and use of plants fostered an intimate relationship between California Indians and nature, unattained by the modern-day botanist, ecologist (who knows the plant only in the natural world), silviculturist (who only knows how to grow the plant), craftsman (who only knows how to shape the plant for human use), or the average homeowner (who uses plant products).

The Complexities of Harvesting and Tending the Wilds

Unlike the modern absentee timber or agricultural land owner, California Indians were rooted in places. Tribal territories were limited, with impressive population densities. They often did not have the luxury of abandoning degraded gathering sites and moving on to new areas. Frequent and constant use of areas over hundreds, if not thousands, of years enabled people to observe changes in the plant community and rectify unwanted alterations in the land. By harvesting directly, without a middleman, California Indians could sense when gathering methods were detrimental or depleted plant and animal resources.

California Indians ensured sustained yields from many different plant species through sophisticated harvesting strategies, and a variety of horticultural techniques such as burning, pruning, sowing of seed, selective harvesting, coppicing and tillage. Hupa and Tolowa gatherers in Northwestern California still practice tillage, as they collect wild edible bulbs, corms and tubers. Western Mono and Foothill Yokuts weavers in the Sierra foothills still carefully prune native shrubs to encourage growth of long, straight sprouts for basketry.

Properties of resource plants might be altered or destroyed by animal competition. For instance, animal grazing of young shoots for basketry causes unwanted lateral branching, while egg-laying in acorns by filbert weevils and filbertworms renders the nut inedible. Therefore, California Indians cultivated an elaborate understanding of plant and animal interactions. They timed collection to successfully compete with other animals, and used horticultural techniques to reduce insect competition.

The harvesting and manipulation regime was crucial to continued plant use and survival, and was consciously adjusted to maintain, increase or decrease a plant population. There are at least seven components: **harvesting tools**, **pattern of harvest**, **scale of harvest**, **intensity of harvest**, **season of harvest**, **frequency of harvest** and **horticultural techniques**. Unfortunately, while there is a great deal of anecdotal information on Indian horticulture, there has been very little academic investigation in the field.

Harvesting Tools: The tools used in California, such as the deer antler, digging stick, knocking stick, seedbeater and obsidian knife appear primitive and unlikely to affect vast areas. However, investigations show that their power to transform landscapes has been underestimated. For instance, underground swollen stems (bulbs, corms and tubers) were harvested extensively by California tribes for food and medicine. Indians today assert that, along with natural disturbances (such as landslides and rodent activity), digging bulbs enhanced productivity at gathering sites. Digging may have "thinned" the number of bulbs, severed the bulblets and cormlets to activate their growth, aerated the soil, lowered weed competition, and prepared the seedbed to increase seed germination rates. Use of the digging stick may have increased the distribution, quality and quantity of bulbs, corms and tubers on traditional gathering sites in many areas.

Tools appropriate to the task were used by native people. These "means" were purposefully designed not to destroy the "ends." For example, *seedbeating* was a common technique used all over California to harvest seeds from grasses and herbs. Rather than uprooting whole plants or breaking off the seedheads, seedbeating kept perennial plants in place, while ensuring that a certain proportion of seeds fell to the ground, perpetuating the plant in the area. It allowed for repeated harvests, maximizing the number of ripe seeds gathered, and minimizing the vegetative part detached with the seed.

Pattern of Harvest: In most parts of California tribal groups gathered vegetation in special areas, keeping with patterns and principles passed down from generation to generation. These areas, shaped by long-term use, were designated for basketry materials, bulb gathering, seed collecting, cordage harvesting or greens picking. They contained the best plants for the intended purposes, and were continually, carefully and intensely managed and harvested.

Scale of Harvest: According to Indian elders, collection sites were frequently small-scale, and plant populations existing there naturally were gathered and managed in "patches," maintaining the general character of the natural habitat. Thus, these areas appeared "untouched" to outside observers.

Intensity of Harvest: Gathering strategies employed by California Indians allowed for a sustained-yield production of wild plants. Frequently individual plants and parts were left behind to ensure future populations. Examples include leaving part of the stipe behind (to not disturb the mycelia) in the harvest of fungi; leaving parent plants and/or bulblets, cormlets, and the tuber fragments of wild onions, brodiaeas, wild carrots and lilies behind in the loosened earth, to grow the following year; gathering sea lettuce and leaving the holdfasts; and harvesting sedge and bracken fern rhizomes for basketry, leaving the perennial plants in place, and stimulating continuous rhizome production.

Season of Harvest: The time of year that plants are harvested affects the longevity and productivity of plant species. For example, severe pruning of dogwood during the summer months can drastically decrease plant vigor. Instead, California Indians often would (and still do) prune in the fall or winter, *after* the leaves drop, "when the sap's down." Pruning young shoots or branches during this dormant period is probably the least detrimental to the shrub species (dogwood, buckbrush, redbud, sourberry, mock orange, buttonbush) that were used for arrows, baskets and other cultural items.

"Landscape compositions and patterns were not purely happenstance, nor incredibly rich solely due to the 'natural' bounty of California, but rather were at least partly attributable to the sophisticated environmental management of Indian tribes. Landscapes in California are dependent on periodic human disturbance—they have coevolved with human interaction."

Frequency of Harvest: Different plant populations were harvested at different frequencies, allowing gathering sites to regenerate. For example, bracken fern and sedge rhizomes were gathered for basketry material, and then not harvested for a period of two to three years, until new rhizomes were of the proper length and quality.

Horticultural Techniques: Many plant species reach a degenerate or senescent stage in their life cycle, unless subjected to periodic disturbance. Indians used a variety of hor-

continued on page 4

The Soil Garden

BY JIM NOLLMAN

In contrast to commercial farmers, organic gardeners practice a "golden rule of organic gardening," that declares we put back into the soil everything we take out. Any gardener who practices this rule soon learns that he or she is not so much growing produce, as growing soil. The result is that the organic garden is perhaps best understood as a soil garden, the place where human beings grow soil.

In the 1950s chemical fertilizers and pesticides made their dramatic entrance. This meant that the soil's *inherent* fertility was no longer the fundamental element in the farming equation. The richness stored in soil over thousands of years, and washed out in 50, was now promised to be restored by the laying on of highly-concentrated amendments derived from petroleum and coal. Petrochemicals were touted as the farmer's means to take full control over his own destiny, allowing him to enrich soil at will, and by dosage. Farmers could stop viewing their land as a legacy for generations, and instead view it only one season at a time.

The use of poisons and concentrated fertilizers destroys many of the microbial organisms and earthworms that give soil its nutritive structure. Healthy soil is sticky and crumbly, and holds together in little balls that can endure rain and wind. When we forgo the process of adding organic matter, the once-stable crumbs of soil are prone to dissolve into black sand easily carried away by rain. The thick tires of heavy machinery add insult to injury, ruining the essential tilth, or airiness, of the soil. Without tilth, wet soil eventually becomes compacted into hardpan.

For well over a hundred years, hillsides all across the United States have been plowed up into neat parallel lines by heavy machinery, as if to fit some abstract geometrist's grid, optimized for little else besides the mechanical exigency of maneuvering a tractor. This method seems to facilitate the erosion of hillsides, banks, knolls and eskers.

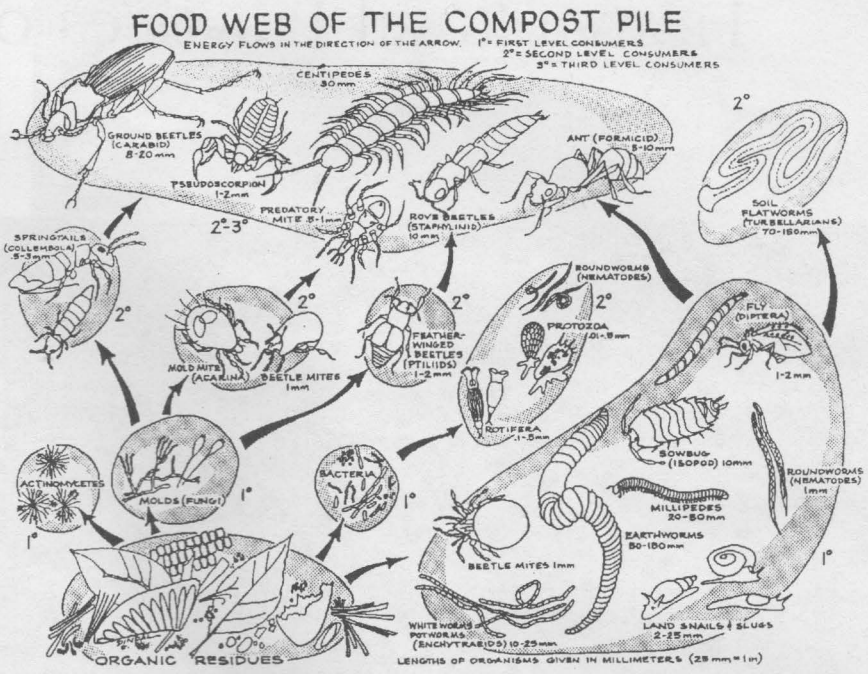
Farmers in the state of Iowa, with the greatest concentration of prime farmland in the United States, have already destroyed half the topsoil. In parts of Ohio, farmers lose two bushels of topsoil for every bushel of corn harvested. Back in 1950, J. Russell Smith wrote that "the soil washed out and blown out of the fields of the United States each year would load a modern freight train long enough to reach around the world 18 times." All farmers and ranchers—as if working together—lose an inch of topsoil from the United States every 16 years. Nature takes 100 to 500 years to replace it. The history of American soil clearly demonstrates that we stand on the edge of an abyss. Our soil bank is nearly bankrupt.

The methods of organic farming offer one solution. The Chinese, for instance, do not *farm* their soil as Americans do—planting vast rows of chemical and machine dependent monocrops—but rather they *garden* their farmland in much smaller plots. Plantings are diversified. Organic waste is returned to the soil through comprehensive composting and mulching. In certain areas of China the land has produced crops continuously for 5000 years. Former U.S. Secretary of Agriculture Bob Bergland has written that the Chinese feed their huge population by producing nine times more food per acre than the chemical and heavy machinery-dependent American farm.

Far-seeing organic gardeners grow soil in order that plants, home, nation and even planet may prosper. [Organic gardening is] one of life's best tutors for teaching a sense of place. ✯

Adapted from "Why we Garden: Cultivating a Sense of Place in a Changing World," to be published by Henry Holt in the spring of 1994.

Jim Nollman is the founder of Interspecies Communication, an organization devoted to promoting dialog between humans and wild animals. Readers are welcome to correspond at 273 Hidden Meadow, Friday Harbor, WA 98250.



Dr. Daniel L. Dindal from Ecology of Compost, *which is available for $1 + tax from SUNY College of Environmental Science and Forestry, Office of News and Publications, 122 Bray Hall, SUNY—ESF, 1 Forestry Drive, Syracuse, NY 13210*

SOIL FERTILITY

Fertile soil is rich in humus, formed from decomposing organic matter. Under favorable conditions, organic matter is literally consumed, eaten up by soil life such as bacteria, fungi, soil insects, and larger animals like the earthworm. The residue of soil life is humus. Increasing humus causes soil to become darker and more absorbent, reduces erosion and mineral leaching, improves drainage, helps prevent insect and disease attack, etc.

For maximum organic fertility, humus must develop rapidly, and in large quantities. Organic farmers must create soil conditions that will support high populations of soil life. Good soil conditions include high moisture, good aeration and drainage, a near-neutral pH level of about 6.5, warm temperatures, abundant organic matter, and nitrogen-fixing plants. Soil life consumes excess nitrogen as it breaks down organic matter into humus. One of the most economical sources of nitrogen fixation is on the roots of legume plants, such as clover, alfalfa, cowpeas, beans, peas, vetches and sesbania. These can be introduced as part of a crop rotation or permanent pasture.

All tillage (plowing) tends to decrease organic matter and helps compact soil into hardpan. Hardpan lacks air and cannot absorb water well. It is important to do the least amount of tillage necessary to grow the crop.

Water should be the first consideration in planning an organic farm. When water runs off a field, it puddles on the surface and evaporates, or passes quickly through the topsoil and sometimes carries away nutrients. Fields should be designed to make the best use of rain and irrigation, with the least labor and expense.

Adapted from "Soil Fertility for Organic Farmers", by Eric and Beth Ardapple Kindberg. For copies of the full article, contact the Ozark Small Farm Viability Project, Box 99, Mt. Judea, AR 72655.

Linking ... *continued from page 3*
ticultural techniques to stimulate asexual and sexual reproduction, such as burning, pruning, weeding, tillage, irrigating, sowing of seed and selective harvesting. Burning was probably the most widely employed, efficient and significant management tool utilized in California. Pomo, Modoc, Achomawi, Cahuilla and Diegueño people burned large areas of herbaceous plants, after collecting their edible seed and scattering some to maintain productive areas. Older woody stems of gooseberries, chokecherries, manzanitas and other berries were fired by the Wukchumni Yokuts, Pomo and Achomawi tribes to encourage thick berry crops. Hazelnut and willow trees were fired to encourage the long sprouts so prized in Yurok, Karuk, Hupa and Wiyot basketmaking.

By understanding these seven elements, one can see that landscape compositions and patterns were not purely happenstance, nor incredibly rich solely due to the "natural" bounty of California, but rather were at least partly attributable to the sophisticated environmental management of Indian tribes. Landscapes in California are dependent on periodic human disturbance–they have coevolved with human interaction.

Transforming Wild Plants into Cultural Items

California Indians sought out plants' *potential properties*, experimenting and transforming them into useful items. When a plant becomes a vehicle of expression for human creativity, it invites intimacy. By being actively involved in shaping plants for human needs, native tribes had an immediate stake in the well-being of plants. The links between plants and survival were reinforced daily. California Indians cared about the source of their existence: the health and longevity of plant populations and communities. Western utilitarian views of nature often are concerned with what the land can produce, without regard for its long-term ecological health.

Knowing how to transform a plant into a useful item means knowing its useful characteristics. These might include: color and flexibility for basketry; or straightness, less pith and uniform cell structure for arrow making. Transforming plants into different items requires intimate knowledge of their anatomy, physiology and morphology. For example, modern Indian weavers from different tribes use the wine-red bark of redbud for basketry design work. They know that redbud must be gathered in the fall or wintertime, when bark adheres to sapwood. In springtime there is too much moisture, causing the bark to slip and rendering the material unusable for creating red designs in baskets. Old branch growth is unsuitable for designs, as the red pigments occur only in the epidermal tissue of the juvenile growth.

Wild Plant Use and Reinhabiting Nature

Flora were intricately interwoven into California Indian life. Sprouts were used to stir seedmeal in plant-fiber baskets. Plants adorned the hair and body in ceremony, were used as offerings made to the funeral pyre, cured ailments, poisoned enemies, were converted into storage granaries, family dwellings, ceremonial houses, and warmed hearths and cooked food.

California Indians understood plants' needs and habits. The common assertion among Indian cultures in California today is that plants yearn to be used, and that in the absence of human use, plants and animals are offended and consequently disappear. The understanding that certain plants were honored through human use reinforced the feeling that Indians belonged to a place. Indian cultures acted out this feeling by leaving offerings for plants, asking permission to use them, and thanking them for their bounty.

In sharp contrast, most Western wants and needs put pressure on natural resources. Development is viewed as necessarily destructive or exploitative, ultimately exhausting the resource base.

Native American Indians never lost the connection between a plant resource and the natural world it came out of. Plants were not commodities or objects, but rather part of vibrant, living communities. When this connection is lost, it is easier for a culture to overexploit and damage the natural world.

California Indians today still choose the tools, frequencies, scale, and kinds of harvesting and horticulture in wild places, and work within the limits of nature's tolerance and resilience. The linkages between conscientious harvesting of plants in the wild, crafting plants for special purposes, and use of the transformed plant, must remain intact for humans to learn the intricacies of coexisting with plants and animals, and truly reintegrating with nature. ✯

M. Kat Anderson is a Ph.D. candidate in Forestry and Resource Management at the University of California at Berkeley. She has been researching indigenous horticultural techniques and their application to modern wildland management.

[See Weaving Alliances p. 13 for News from Native California *and* CIBA.*—Ed.]*

Eating Our Teachers:

Local Food, Local Knowledge

BY MARTI CROUCH

"If I follow your argument to its logical conclusion, then as bioregionalists we wouldn't be able to eat bananas in the Midwest. Do you really mean that?"

Question asked by a student after a seminar on bioregionalism at a college in Iowa, 1992.

A pawpaw pie is baking in my oven, and its tropical odor fills my house. This year there is a bumper crop of these native fruits, sometimes called Indiana Bananas, free for the picking in the forests surrounding Bloomington. While peeling and mashing, I began thinking about the profound differences between eating a pawpaw pie and a banana pie. By eating one and not the other, I am literally a different person. I know different things. The knowledge I gain by eating local food may be vital for me to become native to this place. Conversely, eating food from far away may actually prevent assimilation into my local environment.

A comparison of pawpaws and bananas will serve to illustrate my point.

Who are the pawpaws?

The pawpaw tree belongs to the custard apple family, denizens of the New World Tropics. Of the more than one hundred species in the family, the pawpaw is the only one to have migrated this far north. The fruit has a heavy perfume and large drooping leaves that invoke the tropics. In fact, summers in the central hardwood region of the United States *are* tropical, with moist air from the Gulf of Mexico creating a warm, humid climate, ideal for lush growth of southern creatures. The pawpaw just had to figure out how to survive the brutish winters up here.

Pawpaws do not survive in the extreme northern parts of this continent, nor do they grow in the dry West. They are most likely to be found in the bottoms of ravines, as thickets in the understory of deep woods, and planted in yards in town. Pawpaws have not been domesticated, and vary greatly in tree-size, color of fruit, time of ripening, flavor, etc. They are native, wild and free.

Who are the bananas?

Edible seedless bananas were domesticated from wild bananas in southeastern Asia, probably over ten thousand years ago. They only grow in frost-free tropical climates, and are propagated by cuttings. Bananas were taken by humans to other parts of tropical Asia, Africa, and islands in the South Pacific. Some escaped back into the wild, and exist in feral colonies.

In many cultures, bananas are a major food source, and the whole plant is used for fiber, animal fodder, medicine, dyes and so on. The versatile domesticated banana has demonstrated its ability to fit into local, tropical agriculture throughout the world. There are now hundreds of different varieties, many specific to particular locales or with specialized uses.

However, the bananas we eat here in Indiana bear little more than superficial resemblance to their locally-consumed tropical relatives. The first bananas came to Latin America from the Canary Islands, brought by the Portuguese in the early 1500s, and grown for local consumption and trade. In the late 1800s companies began shipping bananas to North American markets, and advances in transportation technology accelerated the economic success of large plantations.

Growing large tracts of one crop —a monoculture—is hard on the soil, and creates serious disease and pest problems that are met with chemical warfare. Bananas grown for export are cloned from just a few varieties, and thus are particularly susceptible to diseases and pests.

Replacing local food production with export-oriented agribusiness has been devastating to tropical peoples, and to wild lands displaced by expanding monocultures. The bananas we eat are not only domesticated and alien to this hemisphere, but they have also been enslaved to the needs of global corporations at the expense of local communities.

Learning from fruits

Your interactions with pawpaws and bananas take very different forms. In the case of the pawpaw, I go out into the woods close to home and find trees to pick fruit. The pawpaw is a free organism, reproducing and living according to its own needs. I meet it as a whole being, in its own world, interact with it, and observe its life. As I pick fruit, I brush against the leaves and absorb their unique molecules into my skin (a potential cancer-fighting agent has recently been identified in pawpaw leaves.) I can notice whether the tree looks healthy, and what has happened to it since the previous season; what other kinds of organisms are around it; whether it is growing singly or in a group; and how it smells. Are the fruits ripening earlier or later than in the past, and are they more or less abundant? By observing, I learn about the limits and cycles of this place.

The fruit is free for me to take, and for foxes, possums, raccoons, squirrels, coyotes and yellowjackets. I absorb information that nature is abundant, and that I am related to all the other animals that share my food. When I eat the fruits, the complex mix of molecules has a myriad of effects on my body, from supplying energy and building blocks for my tissues, to stimulating my bowels (there is a mild laxative in pawpaw fruit). The chemical composition of the fruit varies with season and individual tree, also. Most of the pawpaw fruit molecules are undescribed, and their influences in my life when I eat them are unknown. If I pay close attention, I may be able to learn how I feel after eating them. From my interactions with pawpaws I know more about this particular place, and can use that knowledge to act locally.

On the other hand, the bananas I buy at a grocery store have already been severed from their original environment. They are out of context, or rather, in a new one. This interaction teaches me that food, although alive, is part of the industrial system, and bananas are units of production. They cost money, and thus teach me that nature operates out of scarcity rather than abundance. The bananas are also available year round, so I come to expect everything all of the time. The chemical composition of the bananas I buy is likely to be uniform because of the genetics and production methods used in plantation agriculture. All of the processes of growth and transport that got them to me are invisible, hidden by time and distance, and I am thus shielded from both positive and negative aspects of banana production by being alienated from the whole.

This allows me to unknowingly participate in practices that I abhor, such as poisoning of the land and air with pesticides and diesel exhaust, or support of oppressive political and economic regimes. Out of sight, out of mind.

Combined with lack of seasonality, these monocultural practices

continued on page 6

COMMUNITY SPONSORED AGRICULTURE

Community Sponsored Agriculture (CSA) is a term for a special relationship between small organic farms and their immediate communities. CSA members are guaranteed a reliable local source of delicious and chemical-free fresh produce, while the member farmer is guaranteed a ready market for his or her harvest, as well as community help in producing that harvest. CSA is not functional until farmer, farmland, labor, operating capital and consumers are all coordinated.

CSA encourages farmers and consumers to understand and support each other, and to invest their resources in land improvement. The means of production belongs to producers and consumers, who contribute skill, labor and capital, and take responsibility for leaving the land better off for their use of it. By having the support of a community, a farmer is able to experiment and diversify. Members may want exotic items like Chinese cabbage, Armenian cucumbers, Roquefort cheese or Louisiana hot sauce, and the farmer must learn how to produce these things.

The CSA can also be an educational opportunity for young adults interested in becoming farmers—apprenticing allows them experience in growing and preparing a wide variety of foods. This also allows consumers to develop a more intimate connection with what they eat, and where it comes from.

For example, on Ash Grove Organic Farm in New York State, one year membership costs $150-350 per person. Up to $150 may be paid with USDA food stamps, and up to $200 may be "worked off" at an exchange rate of $5 per hour. Membership includes weekly deliveries of certified organic produce during the harvest season; participation in a buyers' club that saves 30-50% on staples (including coffee and cheese); and social and educational activities, as well as general access to the farm.

Adapted from Ash Grove Organic Farm literature, and "Community Sponsored Agriculture," by Hugh Lovel, Katúah Journal, No. 34, Spring 1992.

For more information on CSA, contact:

Ash Grove Organic Farm
1297 Martin Hill Rd.
Corning, NY 14830
Telephone (607) 524-6836

Indian Line Farm
R.R. 3, Box 85
Jug End Rd.
Great Barrington, MA 01230
Telephone (413) 528-4374
Publishes a directory of CSA in North America.

Biodynamic Farming and Gardening Association
Box 550
Kimberton, PA 19442
Telephone (215) 935-7797
Contact: Jean Yeager
Distributes free catalog of information, publications, audiotapes, etc. The Biodynamic Association is holding its 5th National CSA Conference, January 14-16, 1994.

Wendy Wells

Eating ... *continued from page 5*
mean that I absorb a sameness as I eat bananas day after day, all year. Thus the banana is a good teacher for me if I want to learn how to fit into a global industrialized world.

You are who you eat

One of the most powerful kinds of knowledge from eating is gained from the relationship with other beings. Eating is one of the most intimate interactions that we have with others–to reach out and grasp another being, kill it, and take it's body inside our own, to gradually assimilate the other into ourselves. Babies imprint on flavors of food their mothers eat while suckling, and the aromas of cooking are among the most powerful evocators of home and culture. Many cultures identify themselves by what their main foods are: "We are the salmon people"; "Corn is our mother"; "We are the Pepsi generation." We reflect and are reflected by the food we eat, and the way in which we interact with food organisms.

You are what you eat

Another source of knowledge from food involves a flow of material. Water, minerals, energy from sunlight and molecular or chemical information move back and forth across the ephemeral boundaries of individuals. Our bodies are renewed with the bodies of organisms we eat, and the soil, water and air that they and we consume.

Because of the dynamic nature of this transmutation of beings, our bodies are receiving new information about the world via food. For example, if the water in a nearby river is polluted, fish may accumulate toxins, which are transferred to us when we eat the fish. If we then become sick, the toxins in the water have been lodged directly into our bodies and become a source of knowledge. We don't have to do fancy measurements or statistical analyses–vomiting can be an educational experience. The eater now wonders what in the fish and water is wrong, searches for answers, and attempts remedies. There is strong incentive to clean up the river when we depend on it for sustenance.

Sometimes actions are "informed" by components in food without conscious knowing. In Australia there is a kind of clover that makes an estrogen precursor in its tissues. During periods of adequate rainfall hormone levels are low, but during drought the hormone accumulates at high levels. Many mammals and birds eat this clover, and their reproductive cycles are affected by it, so that during drought periods the birds and mammals have fewer successful pregnancies. Thus, when the food and water supply is low, there are fewer organisms competing for those resources.

Response to the drought was mediated by interaction with food organisms, not through conscious design, but through complex feedback mechanisms. By eating local food, we may be allowing ourselves to be influenced by many such unknown interactions.

Adaptive characteristics have been shown to be acquired by eating. For example, reindeer eat lichens and mosses that survive the cold Arctic climate in part because of lipids in their cell membranes. These lipids are transferred to the reindeer and become part of the reindeer's adaptation to cold. Similarly, people who inhabit extremely cold climates may be better able to live there by eating other cold-dwelling creatures, such as seals and whales. Not only does such a high fat, high protein diet result in higher metabolic rates, but the unsaturated fatty acids in these foods are incorporated into human lipids with little modification. This may allow people to function more smoothly in the cold, as is the case for whales and seals.

Since the challenges of a particular place—climate, pathogens, predators—are shared between many species, it makes sense that some strategies for coping will be similar between them, and that some adaptive information will travel through the food web. Few of these kinds of interactions are well known to science, although some cultures are more aware of the possibilities than others.

I was not able to find information about these kinds of material flows of knowledge between pawpaws or bananas and humans. Food is not commonly considered a source of knowledge about local environments, so questions that would lead to examples have not been asked.

Eating appropriate teachers

If we are who and what we eat, and we have choices available to us, then perhaps we can choose to be particular kinds of people by eating different foods.

If we want to be wild, diverse and free, then eating enslaved, uniform bananas may not allow it. Maybe when we eat food from far away, we cannot learn from the interaction between our bodies and food, because the feedback loop between cause and effect is too long. If we don't know what river the toxic fish came from, how can we use our illness to figure out what to do about it?

Maybe the knowledge we receive from that food is horrible: greed, repression and imperialism from plantation-grown fruits; fear, degradation and poison from factory-farmed meats; and so on. Maybe this kind of knowledge makes us crazy.

To become native to a place, eating organisms that are already native may be necessary. Necessary, but not sufficient. Conquistadors and gold miners ate local food, I am sure, but acted unwisely nonetheless.

Of course, past human choices have limited current possibilities. By becoming totally dependent on agribusiness, many human populations have increased to the point that it isn't likely most people could choose to eat mainly free, wild species. However, it may be important to get some proportion of our food or medicine from the wild, so that our health is tied more tangibly to the health of the natural world we are part of. It may be vital to set up agricultural systems that are more diverse and integrated with the surrounding wild areas.

For example, although tomatoes are alien to the Midwest, they nonetheless grow very well here. Tomatoes may be appropriate bioregional food if we select for local adaptations, eat them in season, grow them organically in polycultures, and so on. Trucking them in from distant factory farms results in an entirely different, industrialized tomato.

In thinking this way, we can examine the whole spectrum of our interactions with food organisms, and thus influence who we become. In the same way that we decide which courses to take at college, or which books to take out of the library, we can choose which teachers to eat based on what knowledge we feel we need to absorb.

Answer to the student in Iowa: *"Yes, you understood my reasoning quite well. Bananas won't help you live well here in the Midwest. Here, have a piece of pawpaw pie."* ✯

Marti Crouch is professor of Biology at Indiana University in Bloomington, Indiana.

Wendy Wells

For More Information

For those readers who wish to learn more about sustainable, organic and alternative agriculture, and perhaps garden within their own bioregion,* Raise the Stakes *offers this list of resources.

Native Seeds: There are a number of alternative seed companies in the U.S. supplying old-fashioned vegetable varieties, and concerned with genetic preservation. All have catalogs and informational literature.

Redwood City Seed Company (Box 361, Redwood City, CA 94064)
Abundant Seed Foundation (Box 772, Pt. Townsend, WA 98368)
Bountiful Gardens (19550 Walker Rd., Willits, CA 95490)
Cook's Garden (Box 535, Londonderry, VT 05148)
Filaree Farm (Rt.1, Box 162, Okanogan, WA 98840)
J.L. Hudson (Box 1058, Redwood City, CA 94064)
Johnny's Selected Seeds (310 Foss Hill Rd., Albion, ME 04910)
Native Seeds/SEARCH (2509 N. Campbell #325, Tucson, AZ 85719)
Peace Seeds (2385 SE. Thompson St., Corvallis, OR 97333)
Ronninger's Seed Potatoes (Star Rt., Moyie Springs, ID 83845)
Seeds Blum (Idaho City Stage, Boise, ID 83706)
Seeds of Change (621 Santa Fe Trail #10, Santa Fe, NM 87501)
Seed Saver's Exchange (R.R. 3, Box 239, Decorah, IA 52101)
Southern Grasslands Seed and Plant Exchange (Box 603, Navasota, TX 77868)
Southern Exposure Seed Exchange (Box 158, North Garden, VA 22959)
The Tomato Seed Company (Box 323, Metuchen, NJ 08840)

List courtesy of Craig & Sue Dremann

Reference Books: This is an annotated bibliography, featuring literature on seed-starting and saving, plant propagation, organic and sustainable agriculture, plant identification, foraging, food preservation and medicinal plants.

CAUTION: there is no substitute for being in the field with a knowledgeable expert who can point out plants in "real life." Identifying plants just from one guide and using them yourself can be dangerous.

Katúah Journal, No. 34, Spring 1992. Available from Lee Barnes, Box 1303, Waynesville, NC 28786. Discusses sustainable agriculture in the Katúah bioregion.

William Logan. *The Gardener's Book of Sources: A Comprehensive Guide to Where You Can Find Everything You Need For Your Garden.* Penguin Books, 1988. Guide to general horticulture sources, plant suppliers, and other sources.

Nancy Bubel. *The New Seed-Starters Handbook.* Rodale Press, 1988. General text for seed-starting techniques for starting a variety of vegetables, fruits, trees, grains, herbs, etc. Includes 65-page section on seed-saving.

Phillip Browse. *Plant Propagation: Seeds, Roots, Bulbs and Corms, Layering, Stem Cuttings, Leaf Cuttings, Budding and Grafting.* Simon and Schuster, 1979. Well-illustrated, step-by-step, layman's guide to plant propagation. Highly recommended if you want only one, inexpensive book on propagation.

Marjorie Hunt and B. Bortz. *High-Yield Gardening: How to Get More From Your Garden Space and More From Your Gardening Season.* Rodale Press, 1986. Guide to intensive gardening, with tables and techniques not found elsewhere.

Bill Mollison. *Permaculture: A Practical Guide for a Sustainable Future.* Island Press, 1990. Guide to agricultural design, including concepts and methods. Mollison is a thoughtful designer whose philosophy is to work with entropy, turn problems into resources, and develop a more sustainable life-style which is kind to the earth.

Jeavons, et al. *The Backyard Homestead Mini-Farm & Garden Log Book.* Ten Speed Press, 1983. Economic data about intensive gardening, including income and profits.

Robert Rodale. *The Basic Book of Organic Gardening.* Rodale Press, 1971. A classic (and inexpensive) introduction to organic gardening principles and techniques.

P.A. Yeoman. *The Challenge of Landscape,* 1958. Available in the U.S. through Frank Espriella, Box 206, Guinda, CA 95637. Farm planning, water management and soil fertility building.

Barrie Kavasch. *Native Harvests: Recipes and Botanicals of the American Indian.* Random House, 1977. Extensive bibliography and botanical charts of wild plant usage, harvest and preparations.

Stephen Facciola. *Cornucopia: A Source Book of Edible Plants.* Kampong Publishers, 1990. A guide to edible plants, the best of its kind. Describes over 3000 edible plants and their commercial sources. Extensive review of cultivars of over 100 major food plants. Lists 52 pages of domestic, foreign and commercial sources for these plants. Extensive bibliography and appendices.

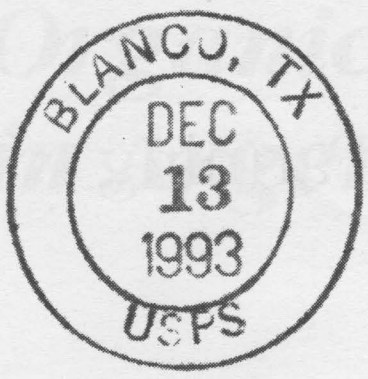
Tom Brown, Jr. *Tom Brown's Guide to Wild Edible and Medicinal Plants.* Berkeley Books, 1985.

Deborah Lee. *Exploring Nature's Uncultivated Garden.* Havelin Publishers, 1989. A guide to wild foraging.

M. Grieve. *A Modern Herbal: The Medicinal, Culinary, Cosmetic and Economic Properties, Cultivation and Folk-Lore of Herbs, Grasses, Fungi, Shrubs and Trees. (Two Volumes)* Dover Books, 1971 reprint of 1931 edition.

Roger Yepson. *Home Food Systems: Rodale's catalog of methods and tools for producing, processing, and preserving naturally good foods.* Rodale Press, 1981. Thorough guide to home food processing with extensive review of available processing equipment.

List courtesy of Lee Barnes



Letter from Blanco, Texas

BY PATRICIA DU BOSE

Our species has evolved over millions of years as a *part* of the biology of this planet. We feel good in healthy, natural places. Our environment creates us, so our responsibility is to design and inhabit healthy, natural environments. These are decentralized, complex, "messy" with lots of biomass, nurturing, and conducive to a feeling of inspiration.

When we design systems, and environments for those systems, we help them prosper. When we design into our transportation system mobility and access for people without cars, we won't have so many car-related problems. When we design an ecology or lifestyle of wellness, we won't need so much symptom treatment. As things stand right now, the environments we have created are not healthy.

Let's start by looking at what a natural, abundant, healthy, lasting food design looks like.

As a woman of fifty years, I think of a design solution as something I'll be able to feel, touch, see, smell, hear and taste. I think of a problem as something to heal, a solution as something that heals. Recipes or patterns are design solutions, one-step-at-a-time directions for what we want to produce.

The design solution on our farm in Blanco, Texas is a "higher good" our bioregional community helps to elaborate. It is a collective ideal. On paper at the Texas Department of Agriculture we are a "Certified Organic Farm." Our commitment to Nature has led us beyond those words. We sponsor adult education, bioregional organizing and children's camping, and we have an earth-bonded church. There are values we aspire towards:

Prosperity is the giving of our abilities and creativity for the greater good, which in this case is clean air, water, food, privacy, safety and quiet.

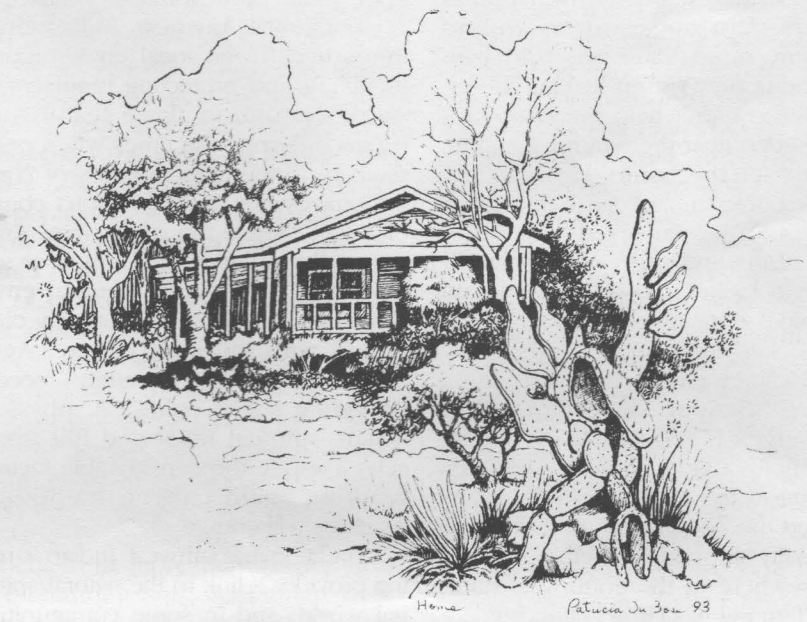
Elegance is living in health and peace, with dignity and lots of "free" time. We took a big step in that direction when we designed and planted a full, rich food system at our family farm.

I wish you could sit on our porch now and breathe the wonderfully oxygenated, biologically rich air of this hill country farm in South Central Texas. The air is moist, a product of the healthy earth we look out on. Green is the predominant color in an intricate pattern of millions of leaves on upper story, mid-level and understory trees. Shrubs, lower-level and groundcover plants interlace and reflect the play of light and shadow. The patches of deep blue sky and the smell of damp earth are a reminder for us of the immensity that surrounds this thin crust we live on. There is a lot of sound–some might even call it noisy. Water is splashing in the aquaculture. Birds and insects loose their songs and leaves rustle in the breeze. Every once in a while human voices carry from swimmers in the river or others on the land somewhere. At night the sky is full of stars and the place is even more noisy than in the daytime.

What we see from this porch is a "food forest." It's an assembly of perennial and annual plants that grow well together and help each other out. Each plant offers some gift or service. There are so many functions and ways to contribute in this system, it is so rich and complex, that I can only begin to name some of them.

The plants can be medicines, food or entertainment, offering visual, aesthetic and intellectual stimulation. They provide shelter or fuel. They transport and store water and nutrients throughout their expanse and throughout the bioregion, and they manufacture new things–fruits, wood, bark, leaves and new plants. The plants cycle carbon dioxide and oxygen and fill space with color and sound, supporting a community of animals from microbial critters, small insects and burrowing mammals to birds, cats, fish and human beings. Each animal is a mobile, functioning unit, an essential part of the system, transporting water, seeds and nutrients. Flora die, decompose and encourage a rich soil, a growing medium. Plants provide windbreaks, and a natural cooling respite from the sun.

"What we see from this porch is a 'food forest'–an assembly of perennial and annual plants that grow well together and help each other out. It is full of chemistry and variety, complicating and growing itself at a very fast rate. New plants appear each year. We humans are conscious members of this system."



This place is wild and out of control, full of chemistry and variety, complicating and growing itself at a very fast rate. New plants appear each year. We humans are conscious members of this system.

We started the system by attempting to copy natural patterns for abundance in this place. This basic recipe works whether we're talking about a large farm or a four-foot wide strip between an apartment building and the sidewalk.

(1) Trim all existing trees and shrubs to provide 50 percent sun to the ground. Professional growers enhance growth by using shade screens, which allow patterns of light and shade to move over plants as the day progresses.

(2) Form the surface of the land into shallow, flat catchments so that rain will sink in and be used where it falls, rather than run off.

(3) Apply a thick layer of biological matter (mulch). We unrolled hay as if it was wall-to-wall carpet. This allows the surface soil organisms to be wet and protected, and supplies them with organic matter to work on.

(4) Make a drawing of the area to design the patterns for walks, driveways, water run-on or -off, wind and light. The idea is to place different plant groups so that they get the most of whatever they need, are easy to harvest and don't create pollution (which is an accumulation of anything not used by the system). It's important to think of vertical layering in the design. The most productive growing areas are edges of forests where all plants receive light along a vertical space.

The element of time is important to consider. In Blanco we have different plants producing at different times. I usually make a transparent sheet for each season, which is superimposed over the basic drawing of our system. The transparency describes what should be growing, planted or harvested during a particular season.

(5) Put in irrigation to keep plants alive when it doesn't rain, and to lessen the danger of fire. This summer we went seventy days without a drop from the sky.

(6) Plant with seeds, small trees, shrubs and herbs. To make a sustainable system, at least 75 percent of the plants need to be perennial. Make sure you include a healthy mix of nitrogen-fixing and wild plants. We have found that seeds and very small plants are easier to handle, adapt better and are more affordable. Very dense planting is best (at least one plant every step).

(7) Protect your planting. In our case, that means a deer-proof fence.

(8) Make a place for something and attract it into your system. An example is installing bat habitats. By doing so you attract a beneficial, insect-eating animal. This is much easier and less expensive than buying bats (if you can even do that in the first place).

I encourage you to get your own food growing around where you live. A well-designed system of agriculture provides a healthy environment to live in, as well as the food it produces.

If each one of us takes the responsibility for making a food forest where we live, then very soon all of our children will have the experience of abundance they deserve. ✯

Patricia Du Bose is a teacher and gardener, living with her husband and daughter on a 1700 acre organic farm between Austin and San Antonio, Texas.

Glimpses of IPM

Integrated Pest Management (IPM) is a decision-making process that considers the whole ecosystem in determining the best method for managing pests. The objective of an IPM program is to suppress pest populations below the level that causes economic, aesthetic or medical injury. IPM strategies are designed to be the least disruptive of natural pest controls, human health and the general environment. IPM minimizes use of pesticides, and integrates horticultural, physical, mechanical, biological, least-toxic chemical and educational methods to solve pest problems. Estimated costs of the IPM program are $100-148 per acre, compared to $232 per acre for a chemically intensive program.

One of the many tactics of IPM is to increase the number of insects that prey upon pests. This can be achieved by planting insectary plants, using in-field insectaries, and importation and mass release of insect predators.

Insectary plants are planted with the main crop specifically to attract and nurture beneficial insects. These natural enemies later move over to the main crop and feed on pests there. Insectary plants can be intercropped or strip-cropped within the main crop, or they can be planted on the field borders, along roads, irrigation ditches, etc. What kind of plant used will in part determine where it is planted. Plants that provide an additional harvestable crop are more likely to be planted as strips among the main-crop rows.

This technique of using insectary plants is an important component of sustainable agriculture and is widely used in China, where fertile soils and abundant yields have been produced in the same ground for several thousand years.

Adapted from material published by Bio-Integral Resource Center (BIRC), Box 7414, Berkeley, CA 94707. Telephone (510) 524-2567.

Singing Up the Corn:

The Survival of Indigenous Bioregional Farming in the American Southwest

BY KEVIN DAHL AND RALPH SULLIVAN

> Watch well o'er your seed — things and children!
> Speak wisely to these our new children!
> Henceforth they shall be your first speakers,
> And the peace-making shields of your people.
> —Zuni chant, quoted by Marcia Keegan in Southwest Indian Cookbook

A visitor to the Cocopah tribal headquarters in southwestern Arizona asked if anyone still grew traditional Indian crops. It seemed the reservation farmland had all been leased out to non-Indian farmers. "No one gardens around here any more," she was told with great authority. Yet on leaving the office, she couldn't help but observe a lush garden near the parking lot. "Oh, we just let the janitor grow a few things back there," said the tribal workers, as they surveyed the rows of corn, beans and other vegetables. If they had looked closely, they would also have noticed chilies and tomatoes tucked among the landscaping surrounding the tribal headquarters.

The Cocopah once supported themselves largely by agriculture, using fields made fertile by periodic flooding of the Colorado River. Dams stopped the flooding, and the farming eventually stopped, as well.

Elsewhere in the Southwest traditional farming has fared better, but like the Cocopah janitor's plot it has survived tucked away, in many cases virtually invisible. For instance, the U.S. defines a farm for the purpose of the 1987 census as "any place from which $1000 or more of agricultural products were produced and sold or normally would have been sold during the census year." Researcher Sandra J. Turner notes that the census missed most Southwest Indian crop production in New Mexico, where traditional farms produce crops for family and ceremonial use. The census even failed to list corn as a New Mexican crop, yet at many pueblos corn is grown and harvested every year, as it has been for centuries. This continues despite forced relocations, the loss of traditional farmland and water rights, and changing lifestyles. Entire reservations in Arizona and New Mexico have lost their farming traditions. There are crop varieties described in literature as recently as fifty years ago that no longer can be found.

In the last ten years, a nonprofit group–Native Seeds/SEARCH (NS/S)–has worked to encourage the recognition and preservation of the traditional crops and farming systems in Southwestern America and Northwest Mexico. NS/S started as a project of a hunger action group that was promoting gardening to improve nutrition on the Tohono O'odham reservation west of Tucson. There was some reluctance about broccoli and spinach, but enthusiasm for "that short corn that grows well in our summer heat" or that "good-tasting melon my aunt always loved." Because the project was active in different villages it was able to serve as a seed exchange, returning native crops to families that had lost their seed. The program soon grew into a regional seedbank, distributing seeds and information to both Indian and other gardeners.

The survival of these centuries-old farming traditions–clearly suited to Southwestern bioregions–is remarkable, considering the elements working against them. The characteristics that have helped traditional farming endure are some of the same concepts upon which bioregionalism is based.

Traditional American Indian farming is tied to the local environment, modeling and protecting biodiversity, stable enough in these features to produce despite the times when pests seem to outnumber the ears of corn, the times when the rains don't come, or when there's too much rain. And, just as these agricultural practices are intimately tied to the regional environment, they are also intimately connected with the local culture. Agriculture serves the community's needs, providing social cohesion, physical health, spiritual ritual and full stomachs. Despite the considerable factors working against them, traditional practices will endure.

Traditional Southwest Indian farming provides a link to the natural/spiritual world, and in some communities provides special crops necessary for specific ceremonies. Many Indian farmers are very deliberate in the blessings they offer with the planting, growing and harvesting of their crops. An abundant field can be a place of worship:

"When a man goes into a corn field he feels he is in a holy place, that he is walking among Holy People, White Corn Boy, Yellow Corn Girl, Pollen Boy, Corn Bug Girl, Blue Corn Boy, and Variegated Corn Girl," said Navajo farmer Slim Curley in 1938. "If your fields are in good shape you feel that the Holy People are with you, and you feel buoyed up in spirit when you get back home. If your field is dried up you are downhearted because the Holy People are not helping you."

The hard work of farming is made easier when it is a family event. Planting and harvest takes many hands, and in some communities draws far flung relatives home to help. This form of hard work strengthens the family and the community.

"I've been farming ever since I was a small boy," said Yellowman's Brother, a Navajo who was more than 80 years old when he was quoted in 1977. "In those days everybody helped with the farming... My family never planted corn in the same spot every year. One year we might plant corn in a certain area. The next year we would plant melon or something else in that area. Then the year after that it would be corn again. The plants grew better that way. In the old days we used to pull out weeds by hand. Later we began to use hoes. Of course it was hard work. Farming is just plain hard work. It means being there when the weeds come up. A farmer cannot be lazy, and he must be strong. He must always be at his farming."

With traditional farmers, there is always the recognition that *this is home*. Santa Clara pottery artist Roxanne Swentzell talks about the rootedness of native peoples: "Western culture has this thing: if it gets hard, if life gets to be a struggle, they just pack up and move....they never have to deal with the problems. With traditional cultures, because they are tied to a spot, a family and everything, somehow that's the whole world. You can't leave it. Everything's there, the spotlight is there. Whenever you hit a problem, you're going to have to go through it because you can't go anywhere...you are at the center of the world."

"Agriculture serves the community's needs, providing social cohesion, physical health, spiritual ritual, and full stomachs. Despite the considerable factors working against them, these traditional practices will endure."

Rebecca Olson

Farming can also be perceived as a political choice. "The threat to our people is that if we don't use our water and land, they'll take it from us," said Clayton Brascoupé, who lives at Tesuque Pueblo. "But that's not the real issue in farming. Every day we eat; that's the reason for farming. Farming helps hold families and communities together. It is a political act. To be a sovereign people, we must feed ourselves."

To achieve this end, Southwestern Indian farmers have bred diverse varieties of crops that are especially attuned to the pests and climate of this region, and will produce under marginal conditions. This is not the case with modern crops, which have been engineered to all mature at the same time, and grow to the right height for mechanical harvest.

A traditional farmer might also increase the odds for success by moving fields to different locations and planting a variety of crops. A book on Navajo farming encourages this practice: "(1) One crop can be ruined by bugs, weather, disease or low prices at harvest time. Bad luck does not usually fall on all the crops. (2) Different crops are planted and harvested at different times. A farmer who plants just one crop needs many workers and machines at planting and harvesting times; but the rest of the time there is nothing for the workers and machines to do. With many crops, fewer workers and machines can keep busy most of the time."

Native peoples were very aware of how dependent life in the desert is upon rain, as is obvious in the many ways prayer for rain was incorporated in the regional religious life. Almost all Southwestern peoples have songs and ceremonies to promote rain. As one Pima rain oration ends, "People must unite in desiring rain. If it rains their land shall be as a garden, and they will not be as poor as they have been."

These traditional agricultures offer diverse means for making productive use of available water. The desert Southwest has spawned many dubious projects, such as nuclear-powered desalination plants, and canals to deliver water to the Southwest from Alaska and Canada. In fact, one of these projects is nearing completion, a $5 billion dollar project to pump water from the Colorado River 500 miles to Phoenix and Tucson. Originally intended to support desert agriculture, the water has turned out to be too expensive for

continued on page 9

Korosta Katzina Song

Yellow butterflies,
Over the blossoming virgin corn,

With pollen-painted faces
Chase one another in brilliant throng.

Blue butterflies,
Over the blossoming virgin beans,

With pollen-painted faces
Chase one another in brilliant streams.

Over the blossoming corn,

Over the virgin corn
Wild bees hum!

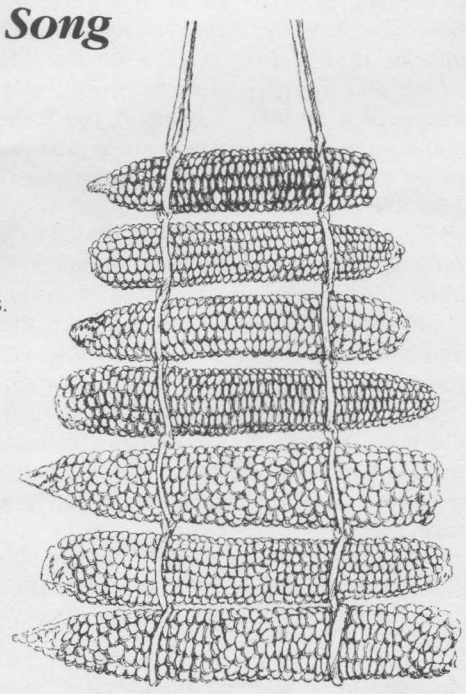
Over the blossoming beans,

Over the virgin beans
Wild bees hum!

Over your field of growing corn

All day shall hang the thunder-cloud;
Over your field of growing corn

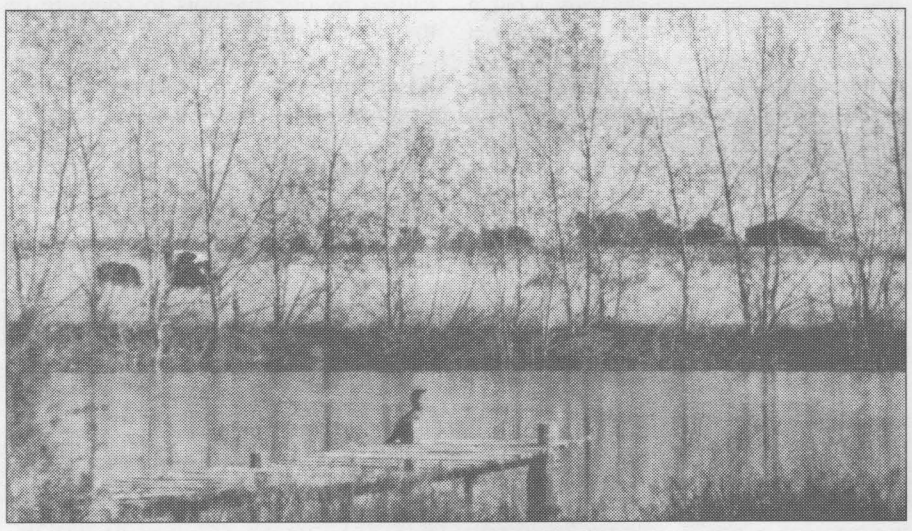
All day shall come the rushing rain.
—Hopi song translated by Natalie Curtis



Rebecca Olson

Organic Agriculture in Argentina

BY JUAN-TOMAS REHBOCK



Willow Trees on Bank of Lagoon

This report is based on an article published in the Argentine weekly Noticias *on July 18, 1993, by Maria Teresa Monesi; and on conversations with Guillermo Schnitman.*

Loss of soil fertility, soil erosion, hardpan and flooding are symptoms of agricultural mismanagement in the fertile *pampas* (temperate grasslands) of Argentina. Soil protection has become widespread, with 1,000,000 hectares managed with zero tillage (no plowing under of undesirable plants). Unfortunately, plowing has been replaced by heavy herbicide use.

Only recently has organic agriculture made some inroads, as demand for certified organic produce is on the rise. A pioneering Argentine organic farm is Las Palmeras, on 750 acres of formerly mediocre, flood-prone ranchland, in the watershed of the Rio Salado, 100 miles southwest of Buenos Aires.

Guillermo A. Schnitman, a veterinarian and consultant to the Argentine National Secretary of Animal Health, has been gradually improving Las Palmeras since 1982. In that time, the farm has become home to well-fed cattle, a lagoon stocked with fish, birds and wild animals (that haven't been seen in the area for over 80 years), corn, medicinal herbs, acacia and pecan nut trees. No petrochemicals are used there, and all produce is certified organic.

On Las Palmeras the first step was to improve cattle management, by creating pastures and planting windbreaks of *casuarina* (ironwood) and poplar trees. A 10 year production cycle was established: the pastures are grazed with tight rotation for five years, hay is made for two, and after deep tillage three cash-crop harvests are produced. The result has been a fourfold increase in meat production.

The second step addressed flooding by building a two-acre lagoon and a system of canals. Schnitman recovered over 150 flood-prone acres by building levee roads and elevating the level of low-lying pasture with the excavated soil. The lagoon shore was planted with native willow trees, which cycle water very quickly, stabilize the shoreline by absorbing moisture, provide flood control, and make the soil more permeable. The lagoon is stocked with native fish, and is home to a rebounding population of migratory birds. As lagoon biodiversity increases and becomes more complex, so does the variety of beneficial insects and other biological pest controls.

The third step was to experiment with multiple production schemes. Mississippi pecan nut trees were planted 45 feet apart, allowing cultivation in between. Once the trees are established, grazing cattle will benefit from their shade, and the land will benefit from more permeable, moisture-retaining soil. Schnitman is re-establishing rare native *pampas* trees in guilds. Guilds are designed, functional associations of trees that would not normally occur in nature, but which imitate naturally occurring associations. ✯

"The First Permaculture Course in the Southern Cone," (Argentina, Uruguay, Paraguay, Bolivia and Chile) will tentatively be held in early 1995 at Las Palmeras. Sponsoring organizations, all members of the Environmental Liaison Centre International (ELCI), are Guillermo Schnitman's ECOAGRO, Reconciliarnos con la Tierra and Fundacion del Sur from Argentina, and the U.S.-based Friends of the Trees.

The inter-American teaching team includes David Hammond of Alter-Tec from Berkeley/Guatemala, Alejandra Caballero, a landscape architect from Mexico, Jeff Mecham of Centro Internacional Bosques Tropicales from Ecuador, Michael Pilarski, Guillermo Schnitman, and several Argentine guest speakers, including five native people on fellowships.

There are 10 slots reserved for international students, at a fee of US $750. This includes instruction, handouts, room and board, field trips around Buenos Aires, and transportation between the International Airport in Buenos Aires and Las Palmeras. Round trip airfare from the U.S. to Argentina is around $900. The course will be taught in Spanish, with help for non-Spanish speakers, and will be accredited with Bill Mollison's International Permaculture Institute in Tyalgum, Australia. Dates are tentative.

FOR MORE INFORMATION CONTACT:

Michael Pilarski
Friends of the Trees
Box 1064
Tonasket, WA 98855
voice & FAX (509) 485-2705

Juan-Tomas Rehbock
339 Connecticut St.
San Francisco, CA 94107
voice & FAX (415) 826-7873,
or FAX (415) 826-8759

Singing ... *continued from page 8*

most farmers, and will instead produce more golf courses.

Native farmers, on the other hand, have developed many creative, effective and low-impact methods to grow crops in this land of little rain. They construct simple ditches from perennial streams, use lines of rocks or brush to concentrate water in their fields, choose fields where water is naturally stored from the previous winter's snowpack, plant along washes and divert summer flood waters to their plantings, place gardens beneath dripping springs, or build "waffle" gardens to conserve water.

Traditional Indian agriculture sustains the health of the people who practice it. Southwestern Indians suffer from epidemic rates of adult-onset diabetes, which was virtually unknown among these people less than 50 years ago. With the advent of government—provided commodity foods and easy access to grocery stores, desert plant foods are no longer a major part of daily fare. Desert plants are high in water-soluble fibers—gums, mucilages, pectins and other complex chemicals—that are used to trap and store water. Research has shown that desert food plants containing these fibers can help diabetes-prone indigenous people (and the rest of us, for that matter) keep their blood sugar normal. A diet high in these foods, combined with the healthy exercise of farming, can prevent or control diabetes.

A NS/S program promoting these foods has been well received by indigenous peoples, probably because many elders have been telling us all along that Indian food is healthy food. Deescheeny Nez Tracy said in 1977: "Until fairly recent years our cornfields were our life-givers. Corn was the main source of food. In fact, the farm was where most of our food came from—food that made us strong and healthy. But today we have all kinds of useless foods; some are just imitations; many are harmful sweets and candies, pastries, sodas and so on. That is where people get different kinds of ailments—toothaches, stomach aches, colds, blood disease, high blood pressure, heart attacks and more. People should be aware of what is happening today. The Navajos may have to go back to their native foods to survive. That would mean working our farms again and gathering native foods, like seeds, berries and roots."

Anthropologist Ruth Underhill (1938) described Papago (Tohono O'odham) planting methods in use early this century, and told us how important singing was in the process: "Now the corn will come up 'like a feather headdress' and the beans will come 'singing together.' But not without help. Night after night, the planter walks around his field 'singing up the corn.' There is a song for corn as high as his knee, for corn waist high, and for corn with the tassel forming. Sometimes, all the men of the village meet together and sing all night, not only for the corn but also for the beans, the squash and the wild things."

Traditional farmers have been singing through the long night of the cultural invasion of the Southwest—the dawn's light will find them still singing, and the corn still growing. ✯

Kevin Dahl is Associate Director for Native Seeds/SEARCH (2509 N. Campbell #325, Tucson, AZ 85719). Ralph Sullivan is studying environmental ethics at Prescott College.

Rebecca Olson

Singing Up The Corn

Kay Mirocha

Evening is falling.
Pleasantly sounding
Will reverberate
Our songs.

✯✯✯

The corn comes up;
It comes up green;
Here upon our fields
White tassels unfold.
The corn comes up;
It comes up green;
Here upon our fields
Green leaves blow in the breeze.

✯✯✯

Blue evening falls;
Blue evening falls;
Near by, in every direction,
It sets the corn tassels trembling.

✯✯✯

The wind smoothes well the ground.
Yonder the wind runs
Upon our fields.
The corn leaves tremble.
On Tecolote fields
The corn is growing green.
I came there, saw the tassels waving in the breeze,
And I whistled softly for joy.

—Papago (Tohono O'odham)
corn songs, collected by Ruth Underhill

CIRCLES OF CORRESPONDENCE

REGIONAL COMMENTARY

A Fall Fair in the Slocan Valley, British Columbia

BY JOEL RUSS

While many Slocan Valley gardeners had felt disappointed during the summer of 1993—a year that broke long-standing records for wet and cool summer days—in the end, our gardens were generally quite productive. Such was the chit chat and evidence at the Southern Slocan Valley Community Exchange (SSVCE) Fall Fair.

Relieved to wake up on September 18 to blue sky and a visible sun, people converged—arriving by car, truck, bicycle or on foot—to set up the marketplace.

The overall turnout was heartening, and included people of all ages—from infants to grandparents.

We gathered early on a Saturday morning in Perry Siding, on the field surrounding a building that in the 1950s had served as a one-room schoolhouse. The Threads Guild, as the building has been renamed, has served for a number of years as a communal workshop for local alternative-community weavers, and often as a meeting place for environmental activists. The yard around it is a great meeting place, too, when the weather's warm.

In the early afternoon we held a garden produce contest. Categories included "biggest," "most unusual" and "most esthetically interesting and grooviest." When we looked at the entries (all organic), a timeless pageant undoubtedly surfaced in the minds of all the gardeners present: the hand-preparation of the soil, the watering and weeding, the nurturing devotion and the expectations—all enfolded by nature into the end result, whether pumpkin, Hubbard squash, carrot or cucumber. The good Earth.

The food booths customary for any autumn celebration were in evidence, offering garden produce, fruit, baked goods, confections and juice. Inside the Threads Guild building organizers had brewed tea for anyone who wanted it. Two storytellers entertained the children, and delight was the spirit of the day. Surrounded by acoustic music and vistas of conifer-carpeted slopes of the Southern Selkirk Mountains, smiling sellers peddled textiles, hand-woven rugs, basketry and snowshoes made from local materials, handmade dolls, herbal powders and tinctures (locally grown or gathered), perennial-flower bedding plants, handmade soap and jewelry. Booths stood side-by-side with tables and blankets on the ground. There were also people offering miscellaneous second-hand goods, spanking-new cookware, environmentally friendly cleaning products and valuable services, such as small-engine repair.

It was a rather unusual marketplace, because the majority of the sellers were willing to accept "Clams" as readily as dollars. The SSVCE is a Local Exchange Trading System (LETS), a term coined by B.C. computer programmer and community-exchange theorist Michael Linton. A LETSystem is a network established to enable exchange utilizing credits (ours are called "Clams"). Credit accounts are maintained for people via computer. A seller sets her/his own rates for goods or services, more or less as though in dollars, and can take money as part of the payment if s/he wishes. This allows flexible transactions among many people, rather than restricting exchanges to one-to-one barter.

Two of the chief virtues of a LETSystem are that it enables exchange when money is in short supply, and it *keeps local energy local*, instead of draining it away into the big world. Social anthropologist Lucy Mair once offered a useful definition of economy: "How people get their livelihood, what sources of food they have, what use they make of the natural resources of their environment, how labor is organized and tasks distributed..."

We are attempting to see our own economy in this light. Federally-issued currency often being in short supply, we don't wish to restrict the notion of "economy" as having reference only to cash. That's the practical side of things. There is also an important philosophical gesture in all this: a consumptive over-use of regional resources, in the desperate endeavor to accumulate federal currency, is devastating to local natural systems.

If there was a theme to our Fair, other than joyous thanksgiving for the harvest, it would have to have been "getting to know the community better." Our region, the West Kootenay (in the Upper Columbia River System) has been experiencing an influx of alternative-lifestylers rivaling the tremendous influx of the early 70s. Consequently, community building has been one of the prime purposes of the SSVCE. Gardeners who had never chatted before compared notes at the Fair, musicians who had never played together jammed. Our Fair was organized by SSVCE steering committee members Heidi Warrington and Nina George, both relative "newcomers" to the Valley, though very dear members of our community.

The year-and-a-half-old SSVCE, with about 60 members at the start of the Fair, was up to about 85 by the end. We've envisioned 100 members as ideal for our system. A larger number might result in a weakening of face-to-face acquaintance among the members, and of all-important faith. That any monetary system operates on faith is obvious. So does any healthy community.

There is at present another LETSystem in the northern portion of our 67-mile-long valley. If our own grows too large, we will probably recommend that another be formed locally. Then, perhaps, we'd alternate the honor of hosting the annual Fall Fair. But as someone who has lived here almost continuously for over twenty years, I feel strongly that we must continue to nurture a Fall Fair—the social and cultural fruit of our yearly efforts that is open to all valley inhabitants.

Report from Hanoi

BY LINZY EMERY

Hanoi is interesting as a model for Green Cities because it still has many elements that we try to promote in the U.S. Almost everyone goes around by bicycle (and now increasingly minibikes), and goods are transported by cyclo, which means the air is still very clean. I've been amazed by Vietnamese resourcefulness with re-using and recycling. Appliances, tools and electric fans are almost never thrown away, and if they are people dig them out of the garbage, fix and resell them. A small bicycle tire repair enterprise can consist of someone sitting on the street curb with an old pump that's been so improvised and repaired you can barely recognize it, and a pot of water for detecting leaks, waiting for passing bicyclists. Other free-marketeers sell cups of tea and single cigarettes. Due to the low level of manufacturing, packaging is almost non-existent. People use leaves to package fresh foods or flowers, and grass to tie it up. Garbage is literally hand-sorted on the street and every piece has value, from flimsy plastic bags (which are spread out over the sidewalks to dry out) and broken pieces of plastic and glass to rotting food, flowers and tree branches, which are carted away to make compost. Instead of refrigeration, animals and fish are sold alive at the market, and kept that way right up until the time they will be cooked. Groups of chickens and ducks are always hanging upside down from bicycle handlebars.

Right in front of my house, the neighbors have a whole integrated farm, including chickens, a pig, a pond full of fish and water vegetables, a dry vegetable garden and fruit trees all within a small lot. We don't have garbage collection and there is no waste treatment plant yet in Hanoi, so we dump all kitchen waste in the back garden and in a few days it's almost completely gone. Human waste gets picked up in buckets and taken out of town to fertilize farms. However, this practice causes intestinal worms in 95 percent of the people around Hanoi.

It's true that these concepts of repair, recycle and re-use, second nature for Hanoians, are actually just matters of practicality and survival, due to poverty, the difficulty in obtaining goods, and the general lack of modern technology and information. But it would be good to recognize the value in some of these practices and encourage local leaders to include them in plans for the coming rapid and large-scale development.

Hanoi is beautiful and still feels like a small town–that is, a crowded small town. The roads are packed with bikes always bumping into each other and knocking each other over, and there are hardly any stop lights yet, so all intersections are a maze of weaving vehicles. There are lots of trees everywhere and several beautiful lakes throughout the town. Every night I go running at 6 p.m., just as the sun is setting, around one of the big lakes with running trails. Nightlife is kind of lacking but if you're resourceful, you can make life interesting. Luckily, I also enjoy staying home and reading and writing, and there's always more Vietnamese language to study. People generally go out to small dark cafes, which are everywhere, usually lit by strings of Christmas-type lights, which I find charming. They serve small espresso-size cups of strong but sweet black coffee in little bowls surrounded by hot water (to keep the coffee hot). It must be wonderful in winter.

Other than cafes, we usually go to each others' houses to drink beer and eat spring rolls or whichever fruit is in season. One of the best things about living here for me is the healthy food. Everything is fresh and in the north, at least, very simple and light. Regular meals (as opposed to restaurant or party food) usually consist of several dishes, like fish, tofu, egg and various kinds of vegetables, shared together over rice. After the meal you drink a warm brothy soup, made of the water which steamed or boiled the vegetables, with a few greens, fish, egg and rice remaining in your bowl. This is in place of soft drinks or juices, and I loved it after I got used to it. It goes better with the meal and is full of the vitamins that we often pour away. Dessert is almost always the fruit in season. Hanoi usually only has one at a time and you eat it constantly until the season ends. My body has felt really good here and I hope to cook like this when I return to the U.S.

A Bioregional Movement in Australia?

BY CAM WALKER

Australia has a broad-based and powerful environmental movement. A noticeable trend is the attempt to define what it means to live here. There are a few groups that identify themselves as bioregionalist (such as the Manning River Bioregional Association in NSW or the Yarra Yarra Bioregional Network in Victoria), but given the low profile of bioregional thinking in Australia, many people simply haven't been exposed to the concept. However, their day-to-day lives and organizing activities operate within a framework that is responsive to place. Local and community self-reliance, matched with an ever-growing respect for place, makes sense when you look at the damage caused by our attempts to compete on the world market.

There are few bioregional magazines, no national gatherings or congresses, and very few local groups. Among green activists, the word bioregion conjures up vague images, and few people at present utilize the word or concept in their campaigns or organizing.

Australia operates as a Third World country in the regard that it exports many resources in the least value-added form. The human population is mostly squeezed onto the coastal side of the ranges on the eastern seaboard. We are continually destroying valuable agricultural land (a scarce resource in this dry, flat country) by establishing low density suburbs. We are only now learning to appreciate the original vegetation instead of always trying to replace it with a re-created Europe. We need to take a long and hard look at how and what we produce at home, the fairness of our trading relationships with other countries, and the nature of our international politics. Australia is edging to increase its sphere of influence in the Asia-Pacific region, while ignoring massive problems at home.

In 1993, we have a huge green movement (the combined membership is bigger than the two main political parties) which is increasingly bogged down in "dialogue" with government and business. At the same time we are suffering serious recession, and industry is spending millions of dollars to convince the public that environmental considerations will have to take second place to economic ones. In rural areas, where bioregional groups are most likely to arise (because people are in more direct contact with the natural world and more affected by ecological destruction), industry has worked hard to place wedges between communities dependent on resource utilization and those practicing reinhabitory lifestyles.

There are, however, many promising developments, one of the strongest being Landcare. Landcare groups involve new settlers as well as traditional farmers. Activities revolve around identifying problems (erosion, salinity, etc.) and developing strategies relevant to the local situation. Funding is available, although the work itself is voluntary and locally controlled. Landcare is especially valuable because it gets people thinking about natural systems, and motivates them to solve their own problems rather than relying on some government "expert."

Partly (though not completely) connected with Landcare is the rise of huge revegetation programs, which attempt to repair the damage of 200 years of European land-use practices. Revegetation projects are helping people realize the specialness of their particular place. Cultural festivals that are bioregional in flavor, if not name, are occurring where revegetation is supported by strong community networks. Such is the case with the seasonal celebrations held on the Merri Creek in suburban Melbourne in Southern Australia. This is fertile ground for bioregionally inclined groups and individuals to "spread the word" to potential converts.

There is a third movement that gives a political and cultural perspective to the ongoing development of Australian bioregionalism: grassroots, community-based environmentalism. These people are already working on issues, and many are developing strategies that go beyond saving patches of forest or stopping harmful developments.

It would be more efficient to encourage activists working within these movements to adopt bioregional perspectives rather than attempt to create a new movement. Bioregionalism can be seen as a framework that defines the green/social change/cultural work we do rather

continued on page 11

Australia... *continued from page 10*
than an end in itself. Given the present recession, there is slow but marked growth of self-help and community ventures. These areas are fertile ground for our vision of recreating human culture within natural ecosystems.

There is now a nationally based bioregional journal for Australia: *Inhabit*. It is too early yet to say if this will have any impact on the thinking of the broader green/social change networks, but it appears that this would be the element of society which would be most open to bioregional ideas initially. There are plans to call the first continental congress in a year's time. There could well be a strong bioregional movement in Australia within 5 years if we take advantage of the current changes in people's thinking, and can encourage the involvement of those people who are already working for a more fulfilling, equitable and sustainable world.

Great Lakes Bioregional Congress

BY BEATRICE BRIGGS

The first bioregional Congress ever held in a city took place in Chicago (the Wild Onion Bioregion), September 16-19, 1993. Over 250 people participated in this Great Lakes Bioregional Congress, which featured field trips, "real work" experiences, workshops, ceremonial circles, plenaries and cultural exchanges. A Saturday night pow-wow at the American Indian Center attracted another 150 people from the local community for a bioregional buffet, drumming and dancing.

The Congress was headquartered at the International Conference Center in Uptown, which provided affordable dormitory space, abundant tasty food, and plenty of space for our large gatherings and breakout rooms. To make the facility "ours" for the weekend, we hung banners bearing the GLBC fish logo, and gave the meeting rooms bioregionally appropriate names like "Valparaiso Moraine," "Vernal Pond," "Cattail Marsh," "The Dunes," "Oak Savanna" and "North Woods." Meals were served in the "Great Prairie Dining Room." The Watershed Café was a special place for socializing over snacks of fruit, pastry and beverages.

The main hall, which served as base camp for registration, information tables, the GLBC bazaar and two plenaries, came complete with five pillars. Rather than treating these as obstacles, we wrapped each in muslin, on which an outline of one of the Great Lakes was drawn. Over the weekend, people contributed to this art project, drawing flora and fauna of their local region, hanging totem objects from home, and otherwise deepening their identification with these precious inland seas.

The Congress began Thursday evening with an imaginative welcoming ceremony to the Land of the Wild Onion. Events included improvisational acting and singing. Singer/song-writer Jim Scott followed with an hour of mellow vocals and guitar playing, soothing the nerves of tired travelers and harried organizers alike.

Friday morning opened with an invocation of the spirits of the four directions, individual introductions by watershed, a brief review of the principles of consensus, and acceptance of the Congress agenda. Following this, five experienced Congress-goers (Stephanie Mills, Whitney Smith, Bruce Hinkforth, David Haenke and Susan Rans) served as resource people to the whole group, answering such questions as "What is a bioregion?" and "What is the significance of bioregionalism in an urban setting?"

After lunch, led by knowledgeable "native guides," participants went by foot, public transit and car pool, to learn how the daily challenges of community-building are played out in Chicago neighborhoods. They discovered beauty, biodiversity, history and hope in unexpected places. Others stayed at the Congress headquarters to attend workshops ranging from "NAFTA and its effect on the Great Lakes" to "Neon Street: A Program for Runaway and Throwaway Youth."

That evening brought an explosion of "wild culture," with a play tracing the 350 million year history of the Great Lakes in eight action-packed minutes, a riveting retelling of the Universe story (15 billion years in 10 minutes!), songs, poetry, the moving genealogy of a man whose family has lived in Illinois for five generations, and an impassioned reading about Chaos and Eros, accompanied by equally impassioned drumming. An amazing group of 20 high school students from Detroit provided what was for many the highlight of the evening, as they led us in the creation of a "trust circle."

Saturday morning most participants headed out for hands-on experiences at Lake Michigan (to collect, catalogue and sort over 800 pounds of trash at Montrose Beach), Lincoln Park (to mulch 120 trees), the Chicago River (to assist in river clean-up), Miami Woods (to help restore a tall-grass prairie-oak savanna), and the Loop (to scrub a huge sculpture by Jean DuBuffet in front of the State of Illinois Building). Others stayed put, choosing from workshops such as "Prehistoric Earthworks Around the Great Lakes," "Co-Housing and Eco-Villages," and "Demilitarizing Our Schools." Afternoon workshops included Indian treaty rights, eco-feminism, environmental racism, ecological economics, sustainable agriculture, and creating eco-rituals and bioregional calendars.

The Saturday night pow-wow was for most the high point of the Congress. The Food Committee created a sumptuous feast of baked squash, rice pilaf, chili, cornbread, fry bread, salad and apple crisp, using mostly locally-grown, organic ingredients. The large turnout from the Native American community brought a cultural sharing that, as far as we know, was unprecedented at bioregional gatherings. Joining together in the "all tribes" dances, which more than justified the months of work and preparation.

Sunday morning we gave brief reports of various field trips, real work experiences and workshops, and engaged in a group evaluation of the whole Congress. It was the consensus of the Congress to try to hold the next GLBC in Ontario in 1995.

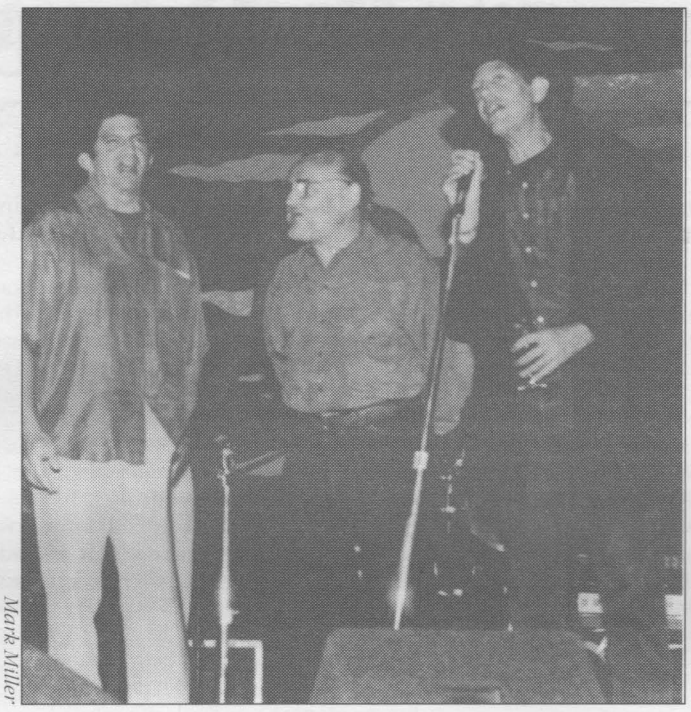
Before parting we formed a human map of the Great Lakes watershed, and made vows to continue our commitment and learning. The closing circle ended with a spiral dance, after which we shared one last meal before heading home.

As this brief description illustrates, a city can be a great place to have a bioregional Congress. First of all, many of the relevant issues and people who are constructively addressing them are readily at hand. Secondly, an urban location dramatizes the fact that cities are in bioregions, and that urban realities are a crucial dimension of the bioregional movement. Seeing the courage, imagination and persistence of city people, rebuilding their communities in pursuit of ecological sustainability and social justice is, according to the "country mice" in attendance, amazing, inspiring, and rather a relief.

The Congress was recorded by a volunteer crew from Earth Network, a local nonprofit organization. If you missed GLBC '93, be sure to catch the video.

Correspondence and video orders should be directed to: Beatrice Briggs, 3432 N.

PLANET DRUM FOUNDATION'S 20TH BIRTHDAY BASH



Mark Miller

Scoop Nisker, Peter Berg and Peter Coyote Sing "Happy Birthday"

With the coming of the Autumnal Equinox, Planet Drum Foundation entered its 20th year of existence, and celebrated the event at San Francisco's Fort Mason.

More than 500 attendees filled the enormous Festival Pavilion, exploring a variety of booths promoting "Things you can do that really work," including recycling, organic produce, and even valet bicycle parking for an auto-free San Francisco. Taking the main stage, Planet Drum founder Peter Berg welcomed the crowd, then quickly turned the spotlight over to the MCs actor Peter Coyote and radio personality Scoop Nisker. The pair took turns introducing the procession of guest speakers who kept the audience simultaneously enlightened and entertained.

Jerry Martien, a "poet laureate" of the Shasta Bioregion, began by reading a selection of poems ranging from pieces on a threatened dune system, to the relationship between earthquakes and the people who shake above them. One theme he returned to throughout his reading perhaps best summed up what the event was all about: "What happens to the land could happen to you."

Author Stephanie Mills stated that bioregionalism is about constants, not trends (which often undermine otherwise sincere environmental movements), and emphasized the necessity for self-leadership among people, not centralized government out of touch with individual bioregions. Publisher Malcolm Margolin cited Native Americans as the original bioregionalists, who posses a knowledge of place we would do well to learn from. He was followed by eco-rappers 2wo Dominatorz, describing ecological conditions in the inner city.

Eco-feminist Starhawk read the opening passage from her latest novel, *The Fifth Sacred Thing*, offering a positive visionary alternative to the modern corporate-controlled world. After the reading, she inspired the throng by softly beating a shamanic drum and inviting surprisingly powerful and quieting short meditations on what audience members felt was most valuable to them and how they could preserve and defend those things.

Gary Snyder read some poems that have become milestones in ecological consciousness and noted that, while no one attending would in their lifetimes witness the "culmination of bioregionalism," nevertheless it is the right direction for the entire planet.

Well into the evening Peter Berg re-emerged onstage, offering a list of model proposals for the next 20 years. He noted how ridiculous it was to use Sierra snowmelt and springwater for toilets, when recycled graywater would do just as well; called for digging up half the streets in San Francisco and replacing them with community orchards; and irreverently noted that "Memorial Day" should be abolished in favor of "First Salmon Day," paying homage to the Shasta Bioregion totem fish who annually journey through San Francisco Bay.

After a rendering of "Happy Birthday," followed by generous servings of cake and ice-cream for all in attendance, the evening came to a close with the outrageous humor of Latina comic Marga Gomez, and dancing to the sensuous polyrhythmic music of Batucaje. ***Mark Miller***

Here are some selections from the birthday greetings Planet Drum received.

Friday Sept. 24

Dear Drumlings,

Greetings!

Congratulations, Adulation, Celebration, Shasta Nation! (a chant)

From Bioregional Project,
Ozark Nation, Haenke del Panky.

Most magnificent 20 years
Where you steers
BR movementeers
By brain and funstuff without peers
The dust all clears

Oh I'd love to be with youse
A party to be matched by fews
A peak experience, Lsnooze, I lose!
Here in the mid-turtle, a tear, some blues.
I'm thinking of you, send some news
Meanwhile my thoughts will cruise
To the 20 drum party, hullabaloos

To all o' you big hugs
& kisses from my pugly mug
& this my wishez
Here & anon
for 20 more, Carry on!

Dear Peter and Judy and all at Planet Drum:

We wish to have lots of money to take the plane to be with both of you at the party of your 20th anniversary.

It's a planetarian party and in this sense we are not so far, we will be with you and all your friends tomorrow, dancing, smiling, sharing, loving you.

What else can we say? Except that we miss you, we would like to have many days to talk with you and share many, many wonderful things.

Also, that we wish Planet Drum will last forever, as an option of present and future, for the present and future generations. Our planet remains enriched with Planet Drum as a lovely, happy and useful resonance of the universe.

We wish you the best fortune to continue your job, that is also ours.

!Long life for the Green Revolution!

Alfonso Gonzalez Margot Aguilar
Grupo de Estudios Ambientales, Mexico,
D.F.,Valle de Mexico Bioregion

Friday, Sept. 25th

Dear Peter, Judy and all Planet Drummers!

In the 20 year anniversary of Planet Drum, please accept our deep congratulations and our encouragement to continue enlightening with your shining example.

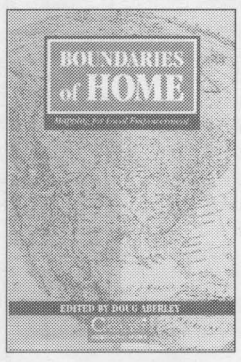
From the other side of the Atlantic Ocean, on the Mediterranean Basin, a group of Catalonian Bioregionalists are present in spirit with your/our celebration.

Warm greetings,
Josep Puig Crev Forér
Alternativa Verda,
Barcelona, Catalonia

READS & READS & READS

Boundaries of Home

EDITED BY DOUG ABERLEY
NEW SOCIETY PUBLISHERS
BOX 189, GABRIOLA ISLAND BC
CANADA V0R 1X0
$9.95 U.S./$11.95



There has been a real need for an authoritative guide to the mapping of one's bioregion. Besides providing an eye-opening and absorbing project, this can be a strongly empowering exercise on at least three levels: it delimits a geography for carrying out the broad work of reinhabitation; it declares a natural territory that is independent of political boundaries; and it establishes a touchstone for inspiring cultural representations that can pronounce a life-place with convincing measures of authenticity.

Boundaries of Home was conceived to provide this long-desired tool. Editor Doug Aberley sees bioregional mapping as an aid for a wide social movement that includes not only indigenous and ethnic place-located groups, but also people "asserting their aspirations for political and economic regimes that mix the best of all their origins." That could be a very large portion of any area's population. "Imagine this," Aberley invokes. "In the town hall of your community a large atlas that declares 'home' in a great variety of ways is prominently displayed. It has several hundred pages that depict [such things as] climate, soils, flora and fauna, historic places, wind patterns...Every year or so your community updates the atlas, growing another layer...elders are invited to 'speak' each map...there are songs, dances and ribald stories...it is entertainment and celebration on one level, on another...validation of larger community potential and purpose. This is the role mapping plays in the bioregional vision."

Contributors include a wide geographical range of mostly North American cartographic activists who present both city and country perspectives. Each is worth reading, and together they convey an impression that the need for ecological sustainability is prompting profound changes in overall perceptions of place.

One cautionary observation: some contributors exhibit an uncritical enthusiasm for geographic information systems (GIS) technology that may be misleading for someone new to sophisticated forms of map-making. GIS computer data bases can provide a seemingly complete body of information, from sources that range from old records and scenic photos to satellite images. But there are great differences between in-the-air sensing from space and on-the-ground experiences of direct participants.

This is especially true for purposes of restoring and maintaining eco-systems. Knowing a general mix of vegetation as recorded by a satellite, for example, can never be adequate for determining what flora to plant at a unique spot on a specific slope of a particular hill. Seasonal and historical changes, social influences and cultural understandings are other on-the-ground factors that need to be experienced to be understood. Writing in the October 1993 *Geo Info Systems*, practically a GIS fan magazine, Nancy Tosta complains that "our vision is being blinded by the technology, and we're losing perspective on how things really work and how people work together...inhabitants affect the space's use and value, and the space affects their well-being. Their sense of that space is intimately tied up in their lives, unlike the remoteness with our maps and images in the GIS."

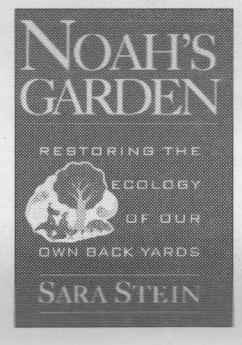
The most notable inclusion is by editor Doug Aberley himself in a long chapter titled "How to Map Your Bioregion: A Primer for Community Activists" which is so detailed and thorough that highly devoted mappers will be amply employed using all of the techniques and frames of information that are presented. Readers with particular interests, who scan sections of this chapter dealing with external and internal boundaries, economic structure and local areas, are bound to find some new factors among dozens that are offered for consideration.

Boundaries of Home is a valuable addition to the growing shelf of practical bioregional literature. Get a copy and find out new ways to express the basic contours of your life-place. This is the sixth book of New Catalyst's Bioregional Series, which is available by subscription. Please write New Society Publishers for more information.

Peter Berg

Noah's Garden—Restoring the Ecology of Our Own Back Yards

BY SARA STEIN
HOUGHTON MIFFLEN,
NEW YORK, 1993.
$21.95



"I want us as a culture to depart from the old tradition of evaluating land according to what can be extracted from it as a commodity or abstracted from it as a social asset, and turn instead toward a new tradition of valuing land by the life it harbors"–Sara Stein

The word "bioregion" is nowhere to be found in this wonderful book. However, it is probably the best bioregional primer for residents of the Eastern Deciduous Woodlands I have encountered. It also serves as a model for books which should be written about each of the biological provinces which make up Turtle Island.

Sara Stein tells the story of her own arrival into bioregional consciousness from the viewpoint of a middle class American family, describing the lessons she and her family learned on their property in Pound Ridge, New York. The intimate nature of this process, and its focus on one piece of land, is ideal for reaching people in our suburban and exurban communities.

At the same time, Stein does a wonderful job of gradually unfolding what I have come to call "the paradox of the universal and the unique." By exploring the pattern of life in this one unique place, she leads us to understand it in the context of the vast patterns of geological, evolutionary and historical time. She demonstrates that each of our various metes and bounds or leaseholds is fundamentally a place, part of living systems, which we can choose to celebrate and enhance or ignore and destroy. *Noah's Garden* doesn't explain any problem without suggesting simple, localized, positive actions one can take to improve the situation.

In Colonial times, New York had been the breadbasket of America. Then at one point in the mid 1800s, many people left the region because of the difficulty in working the land. We joke around here about "rock farming," the way that no matter how many times one clears a field, next spring it will have produced a bumper crop of boulders. It wasn't always so, and the progression from breadbasket to rock farming is a function of human intervention in the landscape.

Stein speaks of how the journals of the first "boat people" noted a precipitous decline in the productivity of the land two years after its clearing, and explores the impact on her property of erosion resulting from this clearing and monocultural farming. She goes on to describe the impact of this activity on bio-diversity, migratory patterns, and the way water moves through the landscape.

Having established this historical context, *Noah's Garden* then describes the ways that we can inhabit the land in harmony with regenerative processes. The book is full of very specific suggestions for how one can plan a landscape to assure bio-diversity, and provide food year-round for insects, birds, and other animals who share the land with us. There are even plans for birdhouses, and layouts for landscaping sub-divisions that include wildlife corridors. Stein also deconstructs the American fascination with lawns, explaining their genesis in the culture of European royalty, and their true nature as monocultural deserts. Myriad alternatives for developing our yards are offered.

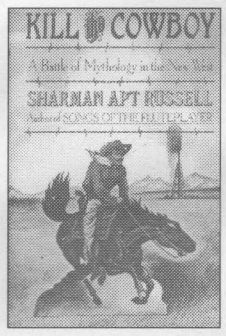
Noah's Garden describes with passion and elegance the webs of interdependence which our all-too-often blundering interventions disrupt. There are explorations of the symbiotic relationships between plants and insects, and between those insects and various birds and animals. The book also explains the process of regeneration underway in the region. It is somehow heartening to know that the topsoil is slowly rebuilding, and that the new growth forests are maturing to a point where species such as wild turkeys, coyote and porcupine can reinhabit the region.

Stein is humble, inspired, poetic and scientific—all in good measure—and *Noah's Garden* is a pleasure to read, packed with solid information. It will be of interest to everyone from sophisticated gardeners, to those who have just bought their first quarter acre and have never worked with the earth before. It would be ideal for discussion circles exploring ecology and bioregionalism, and offers a model methodology for understanding our life-places well enough to participate in shaping their future.

Bice C. Wilson, AIA

Kill the Cowboy

BY SHARMAN APT RUSSELL
ADDISON WESLEY,
NEW YORK, 1993
$20



If you are looking for a comprehensive and accessible survey of the "public lands grazing problem," you won't do better than Sharman Apt Russell's book, *Kill the Cowboy*. This rancher-teacher-writer, grown up in the vast Sonoran and Chihuahuan drynesses of Arizona and New Mexico, understands that land use issues are expressions of places and cultures: that a merely political response to such issues is large flotsam on the sea of historical upheaval and myth-in-transition.

Russell opens the book with a sobering survey of the health of public lands. When they are grazed, soil erosion is increased by 75 percent, riparian vegetation is devastated, water tables drop and wildlife suffers. Perennial grasslands are converted to brushy desert. Eighty percent of Western public lands are grazed through below-cost leases serving a mere 23,600 permittees, providing only seven percent of the total forage and two percent of the total feed consumed by beef cattle in the contiguous United States.

These are all symptoms of maladaptive behavior that characterizes the history of the invasion of western North America. Homesteaders and cowboys occupied a lot of territory very quickly, but don't seem to have taken the time to learn to *be* anywhere for the long term. The good news is that nowhere is that history much older than 150 years; it is possible that sane (adaptive) cultural responses might yet be invented over a time span of no greater length.

As the 19th century settlers of the West were cut loose in the wilderness, the seeds of a deeply divided American psychology were planted. Homesteaders found it necessary to rationalize an existence that included the illusion of anarchic freedom and noble self-sufficiency on one hand, and back-handed dependence on the beneficence and strength of the federal government on the other. These schisms of mind are still apparent in the political behavior of the rural Westerner.

Like it or not, contemporary culture in the rural West is indivisibly linked to stock ranching, and stock ranching comes with a whole set of attitudes about freedom, property and nature. Like any set of cultural attitudes, it imparts a sense of God-given certainty. The end of public lands ranching in my own part of the countryside would affect exactly four individuals and their families. The general and widespread indignation that would result should those four grazing leases be canceled would give you the impression that atrocities had been committed against the general human population.

This, according to Russell, is the cowboy that must be killed: that body of attitudes, false certainties, and shared illusions that prevents us from pursuing reasonable, locally adaptive behavior. There probably *is* a sane way to grow meat in the West. Grandiose posturing and generalized panaceas are probably not going to show us how to do it.

The author carries her argument through storytelling, and they are a great bunch of stories that ring true because you know characters like these in your own watershed, and heard these attitudes expressed in the bar just last night. She takes us through the fierce analyses of Denzel Ferguson and Lynn Jacobs, which find the situation so bleak their solutions tend to be captured by slogans: "No moo in '92," "Cattle-free by '93." She delivers a measured response to Alan Savory's group, Holistic Resource Management Systems, which seems to pop up everywhere, and tells the story of brave forester Don Oman, whose resistance to the powerful ranching interests around the Sawtooth National Forest is a drama as stirring as any Hollywood horse opera.

Russell finds her richest stories in the places where inhabitory people—ranchers and enviros and restorationists and homesteaders new and old—are going through the pain of real communication, a process which requires each one to let go of a large piece of their body of preconceptions, so that the others can be heard.

Rancher Doc Hatfield experiences an epiphany when he realizes, with true sorrow, that the environmentalists he's been dealing with have no land of their own to manage. "'Surely,' he remarks today, because the idea still strikes him, because he still feels sorry, 'improving the land by law can't be a very emotionally satisfying experience.'"

Somewhere between engaging the particulars of ecological systems and becoming committed to the local human community, Steve and Nena MacDonald and their friends find the deepening patience to continue planting willow poles in trashed riparian corridors, and to attend meeting after meeting after meeting. The writer finds heart in these stories, and takes us along with her.

Sharman Apt Russell's writing style is a strong sort of inflected journalism, accessible and factual but ever revealing the inhabitant's passion. *Kill the Cowboy* is an endearingly *warm* book about a theme that is full of hard-to-swallow histories of mismanagement and ecocide. She has learned what many of us need to learn and learn again. Land management crises are inexorably driven by particulars as varied as places and populations themselves. No land use prescription can be separated from the day-to-day attitudes, actions and relationships that combine to make up local culture. Who is better placed to engage these crises than those who are willing to dig in and take their chances on what they might learn through long-term reinhabitation?

Freeman House

WEAVING ALLIANCES

NORTH AMERICA

Pacific Coast:
Publication:
News from Native California
Box 9145
Berkeley, CA 94709
Telephone (510) 549-3564
FAX (510) 549-1889

A unique and entertaining quarterly magazine written and produced by California Indians and those close to the Indian community. Each issue has lively columns and articles on art, upcoming events, language, traditional skills, political concerns and more. Beautifully designed, carefully printed, and illustrated with dozens of historical and contemporary photos, *News from Native California* is not only a source of up-to-the-minute news, but also an important historical archive.

The current issue features a 24-page full color supplement on the regalia-makers of the Klamath River area. The next issue will feature makers of traditional and modern California Indian games.

Special Offer: *News from Native California* is offering a special one-year, 4 issue subscription to new subscribers for only $12.50, $5 off the regular subscription price. Write to them for more information.

Pacific Mountains:
Sandy Bar Ranch
Box 347
Orleans, CA 95556
Telephone (916) 627-3379

Sandy Bar Ranch is located on the Klamath River in the heart of the Six Rivers National Forest. It is an educational organization teaching regional history, sustainable agricultures, and offering hikes, workshops and activities weekends.

"The Klamath Mountains are a geographically complex zone of overlap between North America's northern and southern forest. The Klamaths have been identified by the International Union for the Conservation of Nature as one of the seven areas of global biological significance in the U.S. The area encompasses one of the largest tracts of remaining old-growth forest in California."

Publication:
California Indian Basketweaver's Association Newsletter (CIBA)
16894 China Flats Road
Nevada City, CA 95959
Telephone (916) 292-0141
Contact: Sara Greensfelder

"Through educational and artistic programs, networking and communication with environmental and governmental agencies, *CIBA* works to preserve and perpetuate California Indian basketweaving traditions.

"*CIBA*'s efforts include working to increase California Indian access to traditional cultural resources on public and tribal lands; reduction of the use of pesticides where they affect gatherers; broadening communications with other American Indian traditional artists; and to work in a manner which respects our Elders and Mother Earth."

Contact people:
David McFarlane, Walter Epp
& Joanne McFarland
5724 Fresno Ave.
Richmond, CA 94804
Telephone (510) 528-2109

We are interested in starting a sustainable land-trust community, and are looking for people who want to participate.

Basin and Range
Tierra Madre
Correo 17
San Miguel de Allende
Guanajuato, 37700, Mexico
Telephone (465) 21886
Contact: Patricia Gonzalez

The historic town of San Miguel de Allende, 180 miles north of Mexico City, is experiencing a period of growth that has resulted in unsustainable use of water tables, a population that has doubled since 1989, traffic congestion, garbage problems, desertification and deforestation. Tierra Madre is devoted to the promotion of ongoing environmental awareness and education throughout the bi-cultural community of San Miguel de Allende, Guanajuato, and the surrounding area.

As a new bioregional group, Tierra Madre is very interested in networking with other organizations. "Instead of working alone, we must share our problems and solutions."

Great Lakes:
The Cottonwood Foundation
Box 10803
White Bear Lake, MN 55110

The Cottonwood Foundation is a small, independent, non-profit funding group, founded in 1992. It was formed to provide financial support to grassroots organizations that promote cultural diversity, protect the environment, and empower people to meet their basic needs. It hopes to be a point of referral and funding for organizations that share these interests, and is looking for groups that might be appropriate recipients of support.

The Cottonwood Foundation is all-volunteer. 90 percent of all contributions go directly into grants for selected organizations. Less than 10 percent of all donated dollars are used for administrative and fundraising costs. Cottonwood accepts donations of any size to support its efforts.

Atlantic Coast
NorEaster Society
Box 1345
Westerly, RI 02891

"We are a non-profit community collective interested in the life, ecology, folklore, history, politics and conservation of our region. We started the NorEaster Society in response to the reckless, unsustainable use and development of our barrier beach system. This is a place unique to the Northeastern Coast, with both sandy and rocky shoreline, chains of fertile salt ponds, and numerous islands, bays and coves. The coastline is relatively undeveloped, but this is a critical time. A small number of us got together to educate the community...and from there took on the goals of researching, protecting and restoring a participatory living experience in the wider biotic community and culture."

Institute for Bioregional Studies
449 University Ave., Suite 126
Charlottetown, Prince Edward Island
Canada C1A 8K3
Telephone/FAX (902) 892-9578

The Institute for Bioregional Studies offers a three week residential program in Integrated Resource Management. Studies include: Social Ecology, Appropriate Technology, Environmental Planning, Organic Agriculture and Community Self-Reliance. College credit is available. Send $5 for an information catalogue.

EUROPE

Publication:
Ecology and Freedom
Magazine of the Social Ecology Network
c/o Crouch Hill Recreation Centre
Hillrise Road, London N19 3PT, England
Contact: Gideon Kossoff

"We need in Britain to work to reclaim our lost sense of ecological regionality. In particular, we need to recover the sense that we can play a creative role within the natural areas we inhabit.

This is not a nostalgia-trip. We believe that new decentralising and labour-saving technologies–new forms of agriculture, textiles and energy use–should be used and sensitively adapted to regional ecologies by the inhabitants of those regions."

Contact Person:
Dr. Roman Schweidlenka
For the Earth–For Life–Working Circle
Obersdorf 35
A-8983 Bad Mitterndorf, Austria

ASIA & THE PACIFIC

Asia-Pacific People's Environment Network (APPEN)
c/o Sahabat Alam Malaysia
43, Salween Rd.
10050 Penang, Malaysia
Telephone (04) 375705, 376930

"Over the last few years our region has become a dumping ground for dangerous waste technologies, such as incineration. Our main concern is the adverse effects of incineration on human health and the environment, in addition to the fact that incineration discourages prevention or minimization of wastes at the source.

APPEN is in the process of collecting information on incineration projects. We are interested in details about companies involved, the length of time such projects have been in existence, people's protest efforts, etc. Any information on this issue would be greatly appreciated.

Contact Person:
Kenichi Suzuki
2-13-11-301 Kamimagaya
Konan-Ku Yokohama, 233 Japan

Planet Drum PULSE

Outside the Planet Drum office there have been unusually vibrant spring wildflowers, soothing summer fog, a fall garden harvest with an abundance of tasty tomatoes and peaches, and early October rains giving way to a hot dry Indian summer soon followed by the short days of winter.

The diversity of the changing seasons parallels the multitude of events, presentations and performances taken on by Planet Drum staffers.

We lost long daylight hours at summer's end as well as valuable interns who had to return to college. Jenny Lee, Robin Spear and Ainslee Butler are missed, but we continue to hear about their new adventures. New intern Larry Diamond earnestly assists with many activities and also is working to develop a renewable energy workshop/workday. Steady volunteer Ambreen Husain is visiting from London and has taken on the mammoth task of updating over 140 participating groups' activities for the Green City Volunteer Network.

To celebrate the autumnal equinox and twenty years of following the rhythm of the Earth's drum, Planet Drum held a Shasta Bioregional Celebration birthday benefit bash on September 26th. (See page 11.)

Peter Berg encouraged audiences to get active during talks about bioregionalism and green cities at the Golden Gate National Recreation Area's Headlands Center for the Arts, and at the University of California at Berkeley. Judy Goldhaft gave her inspiring "Water Web" dance at the annual meeting of the Environmental Action Committee of West Marin. They also gave members of the San Francisco Elder Hostel a three day introduction to bioregionalism, and on the International Day of Peace, Peter spun tales at the Red Victorian Global Village Center in San Francisco.

Judy and Peter headed to the Northeast at the end of September for a fourth annual speaking and presentation tour. The first stop was at Bowdoin College in Maine, where a full auditorium gathered for Peter's talk and Judy's performance of "Water Web." While in Maine they were able to help hosts Gary Lawless and Beth Leonard finish harvesting a garden before the first frost. They also had the pleasure of kayaking on Damarascota Lake among loons, eagles, great blue herons, and a curious beaver.

The agenda in Westerly, Rhode Island, was to conduct a mapping and bioregional workshop for the NorEaster Society. At the Community Unitarian Church in White Plains, New York, Judy and Peter participated in an entire day of activities put together by Bice Wilson, to introduce bioregionalism to residents of the Lower Hudson River and Long Island Sound watersheds. Thomas Berry gave a geologian's "sermon," Judy performed, and Peter conducted a workshop.

Next stop was at the Snug Harbor Cultural Center in Staten Island, to lead a workshop for a group of activists who are planning to start a new bioregional group. The event was organized by Caroline Cutroneo, who attended last year's session at the Cathedral of St. John the Divine in Manhattan.

Traveling by ferry to the Big Apple, Judy and Peter were awed by the hugely oversize moon, orange and looming as it rose over the skyscrapers of the urban skyline. In Manhattan, the Learning Alliance and the Open Center collaborated to sponsor Judy's performance and Peter's "Ancient Future Culture" talk about bioregionalism in the 21st century. The following Saturday afternoon, Peter led a Gramercy Park workshop where participants included a teacher and students from New York's new High School for Environmental Studies.

At Brooklyn's Park Slope United Methodist Church on Indigenous People's Day (formerly Columbus Day), a packed house, including some state legislators, gathered to watch Judy perform "Water Web" and hear Peter's keynote address, followed by discussions with Dr. Barry Commoner, Sophia Johnson, Ann Sullivan, and Rob Young.

Finally they traveled through a gray-out rainstorm to their last stop, the First Susquehannock Bioregional Gathering, put together by Destiny Kinal. People and groups from all along the Susquehanna River attended, from the extreme northern tributaries in New York State all the way down to Chesapeake Bay. Environmental activists, organic farmers, representatives of local government agencies, and city and county planners all participated in discussions and a Planet Drum-led workshop.

Peter was soon off again to Salt Spring Island, in British Columbia, Canada, to give a talk and lead a workshop on locating one's community in bioregional terms.

Our grateful appreciation to everyone who has provided indispensable support for these activities by becoming new members or renewing their memberships. Many thanks also to Peradam Foundation, Richard and Rhoda Goldman Fund, Walter and Elise Haas Fund, Bill Graham Foundation, Haight-Ashbury Neighborhood Council, Levi-Strauss Company, Esprit Foundation, BankAmerica Foundation, and Wallace Alexander Gerbode Foundation, for support of the ever-expanding work of Planet Drum and Green City. ***Debbie Hubsmith***

ANNOUNCEMENT

Poems for the Wild Earth, a bioregional poetry anthology, seeks material that gives voice to particular places, species and cultures. Submissions should speak for the forest, desert, wind, wolf, tree stump, and the humans living deep within communities. It should represent as wide a range of cultures and regions as possible.

This will be an active anthology, one that is to be of use, but no rants disguised as poetry. If you want your poem to be considered for *WILD EARTH* magazine, please note that as well.

Send material to: Gary Lawless, R.R. 1, Box 228, Nobleboro, ME 04555

GREEN CITY REPORT

The Green City Project is booming! Our plan to shoot for six workday/workshops a year (up from three a year) is on track, with three already behind us. The Senator Hotel Rooftop Garden in San Francisco's Tenderloin District was completed in July, and as of the last visit with "Senator Slugs" (their garden club name) in late October, only a few annuals were on their way out. Everything else, including the residents, has taken well to the mile-in-the-sky haven of a garden.

On an ongoing basis, Green City joins the San Francisco Conservation Corps' Youth in Action program on Saturday mornings to spraypaint storm sewers with English and Spanish "Protect the Bay...Please Don't Dump" stencils. We also distribute multi-lingual flyers detailing where to take those not-to-dumpables. (All tools and flyers are provided by the SF Public Works Department). Our legal spraypainting posse attracts a lot of neighborhood attention, and we especially appreciate it when volunteers like Jeff Westergard join us so we can bilingually spread "the word" about local water pollution.

Next up was Green City's collaboration with Friends of Albany Hill and East Bay Citizens for Creek Restoration on December 11. Peter Berg (Planet Drum director), John Steere (director of EBCCR) and Gary Mason (Green City Gang member/eco-landscape architect) provided food for thought in the morning. Then we spent the afternoon working that food off on Albany Hill, clearing an oak grove choked with English ivy, cleaning up a creek, and picking up trash. Hopefully we gathered enough personpower at this event to engender a regular Albany Hill workforce.

Workdays in planning stages include a garden project at a neighborhood community center in the Western Addition neighborhood of San Francisco. The Western Addition Youth Action Center is a multi-cultural youth center that provides tutoring hand-in-hand with recreational activities. The Center's enormous yet neglected backyard has tremendous potential, with a barbecue pit, play structures and raised beds. We'd like to get some of the youth program kids involved in the planning and renovation, and perhaps even raise enough money to pay them for their work.

In addition, Green City has been asked to coordinate another Earth Block/Ciudad Verde for the Mission Economic Cultural Association's CARNAVAL '94.

The Volunteer Network "matchmaking service" is gathering all kinds of radio attention of late, and calls have been steadily increasing. Teachers, groups and individuals of all persuasions are taking advantage of our ability to refer them to now over 140 ecology organizations in need of help. Ambreen Husain, a Green City volunteer and Londoner on an extended vacation, has helped manage this onslaught by updating all of our participating group listings. The Network is turning out to be Green City's golden asset.

The Green City Calendar is also benefiting from this upsurge in attention. Esprit Foundation provided us with the capital to redesign the format and include a newsletter. In addition to listings of where and when green deeds are being done, we now have headline stories ranging from "Green in the Tenderloin?" to home energy conservation, and a regular feature column, the "Eco Rant." The Calendar is becoming an especially valuable tool for youth and school groups, and to those newcomer greens who haven't yet decided on their eco-passion. Please ask for a complimentary copy if you're not on the mailing list.

Ocean Berg is taking on the now outdated Youth Volunteer Directory, a publication Green City distributed last year to local schools. Ocean wants to redesign its format, update the information and literally bring the directory into schools to show teachers how they can best take advantage of its content.

And last but actually first, the second edition of the *Green City Program for the San Francisco Bay Area and Beyond* is almost sold out. Debbie Hubsmith is making plans for a fully updated "Opportunities for Action" index for a third edition.

Sabrina Merlo

Shafi Hakim

Stakes Raisers

Peter Berg	Managing Editor
Joshua Wilson	Editor
Judy Goldhaft	Art Editor, Production Manager
Tiffany Devitt	Design and Layout
Ambreen Husain	Editorial Assistant
Debbie Hubsmith	Editorial Assistant
Jean Lindgren	Typsetter, Proofreader
Sabrina Merlo	Morale Assistance
Ocean Berg	Office Angel
Peter Danaher	Additional Design and Paste-up
Alonzo Press	Printing

Thank you to: Eric and Beth Ardapple, Lee Barnes, Craig Dremann, Malcolm Margolin, and Wendy Wells for their help with this issue.

VOICE OF THE TURTLE

Sixth Turtle Island Bioregional Gathering

TIBG VI will be hosted by the Central Ohio River Bioregion Sunday, August 14th through Sunday, August 21st, 1994 at Camp Piomingo 30 miles west of Louisville, KY on the bluffs of the Ohio River. Volunteers are urgently needed.

The Gathering features an unprecedented format: 2 1/2 days of community building, followed by a plenary where all participants will decide the character and course of the rest of the week. Folks are encouraged to establish special places/spaces for various interest and activities such as: music making, indigenous peoples, permaculture, silence, council grounds for various bioregions.

Brochures will be sent out around March 1st. For more information contact Shepard Hendrickson, 341 N. Hamilton, Indianapolis, IN 46201. Telephone (317) 636-3977. Send mailing lists to receive brochures to the Turtle Island Office, c/o Learning Alliance, 494 Broadway, New York, NY 10012. Telephone (212)226-7171. (Send only self-adhesive, zip-code ordered labels or 5 1/4" or 3 1/4" disks on "File-Maker Pro" [IBM or Macintosh] or "D-Base" [IBM] programs.)

Slackers Go South

We're talkin' laid back. We mean really laid back. Imagine a bioregional Gathering—pardon us, a *consejo,* the Spanish word for council—where breakfast doesn't get underway until 9:30, where the 11:00 workshop just might happen if anyone bothers to show up before noon. In short, a slacker's dream.

Can't find this sort of fantasy congress north of the border. We've been to too many Gatherings where the New Age slave drivers had us out of bed at six, doing yoga for an hour before our vegan muffins and Roastaroma, "reinhabiting our bodies" for cryin' out loud. Then workshops, meetings, plenaries, you name it. Sure, some partying late at night (if you break the rules and sneak a bottle into camp), but, like, it's worse than work.

This Mexican congress taught us that being laid back doesn't have to mean getting nothing done. I mean, when you strip away all of the droning on in our Gatherings, they come down to places where people recharge, share tales of success and failure, and make friends in the movement. The Mexican congress did all of those things, and one more besides: we spent a day in the nearby village of Machacapan, hanging out with *campesinos* who had never heard the B word [Bioregional]. We staged puppet shows, gave nutrition and health workshops, showed them how to compost, and talked about sustainable agriculture with people who work in the fields for $7 a day.

Of course, there are always malcontents, and so in the mid-week plenary, one person criticized the Congress for parachuting in and thinking that a day in the village would change people's lives. We agreed, so we decided to try two days. It was a tribute to the organizers' flexibility: the schedule wasn't burdened with workshops (workshops?), so changing plans was no hassle. Of course, after returning to Machacapan–to a much warmer reception, incidentally–we realized that even two days weren't enough. So to build lasting ties, a few Mexicans invited the locals to visit their nearby organic farm.

We *gringo* innocents abroad were learning how to be guests in another bioregion, amid another culture, in another language. As visitors, we were reticent with our criticisms, doling them out in qualified phrasing only when pressed. One night around the campfire, a few Mexicans hounded us for our views about the group process. Well, we hedged, we do it differently in *el Norte,* but of course, our process may not exactly work for you, and, um, we are just observing. "That's what pisses me off about you *gringos,*" one said. "You never tell us what you're thinking! Aren't we good enough friends that you can say?" So we said a little about consensus, about facilitation, about Caroline Estes steering a group of 200 through dozens of decisions in an afternoon. "Ah, you must tell us more," they urged, so two *gringos* slackers staged an impromptu bilingual workshop the next day under the hanging jungle vines. Just as we craved the spontaneity of Latin time, they sought a bit more order and admired our inescapable obsession with process.

All of this culture-crossing—between us and the Mexicans, the urban Mexican bioregionalists and the villagers—led to some telling incidents. On the first day of the *consejo,* we walked past ditches full of garbage on our way to a sacred Mayan site for the opening circle. Naturally, one of the foreigners had the bright idea: let's pick up the trash. The reaction was enthusiastic—more "Ho's" than a jailyard tool shed. So we cleaned up the roadside for the mile back to camp. Now that we'd done our good deed, many people were satisfied with the Band-Aid they'd put on the problem. Then it hit us: what do we do with all of this trash? Landfills are few and far between, recycling is available only in the larger towns. Suddenly, we understood the people who had dumped it by the road in the first place. As an isolated act, cleaning the road may have been satisfying, but it was not part of a long-term, sustainable solution. Ideally, we would have worked alongside local people to pick up the trash, in the typical *consejo* style of processions complete with music, flowers and dancing. We would have organized in the town to create a viable recycling center, with the materials trucked to Veracruz, two hours away. So we saw that putting action in motion without enough planning beforehand and follow-through later can be counterproductive, or at best ineffective.

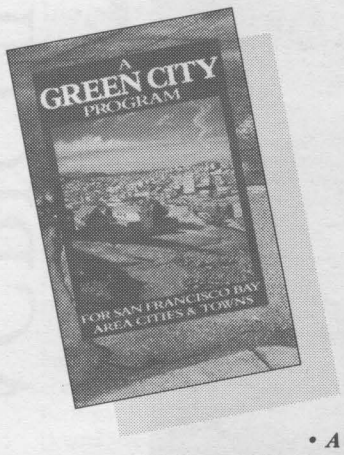
Pam McCann

Puppet Show on Recycling

After a week of slacking south of the border, we felt pretty much at home, although we were beginning to appreciate some of the order that we'd exported. Perhaps our next bioregional Gatherings will have a bit more of the relaxed flavor that we experienced at the *consejo.* And around the campfire, our Mexican guests will say tentatively, "Don't you think you're being a little, how do you say, uptight?" At that point, we'd call a consensus meeting to decide whether we were too uptight. Slack on.

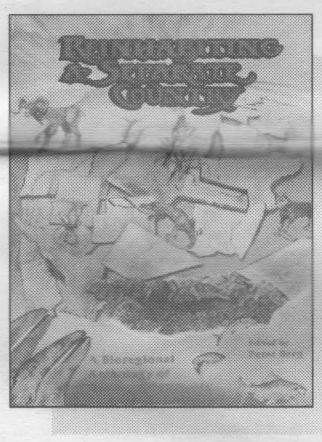
Seth Zuckerman, Pam McCann and Greg Suba

PLANET DRUM PUBLICATIONS



• ***A Green City Program for the San Francisco Bay Area and Beyond*** by Peter Berg, Beryl Magilavy and Seth Zuckerman. 90+ pps. This book is the culmination of two years' work with more than 100 Bay Area organizations, has both visionary ideas and practical applications and is in its second printing with a new chapter on Green City Realities. It addresses ecological, socially responsible and sustainable topics ranging from Smart Transportation to Recycling and Reuse. $7.

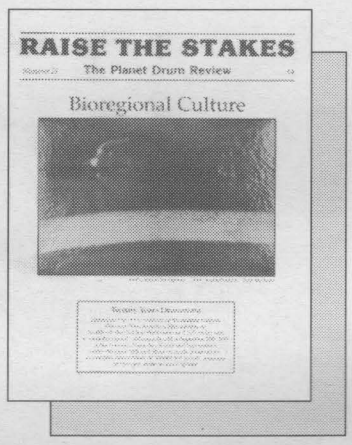
"Each chapter has a fable dramatizing how citizen action can bring healthy change on a human scale. These, and visionary 'what's possible?' sections, bring the greening of cities within reach of ordinary people pursuing sensible goals upon which consensus should be possible...its suggestions are valid and inspirational for any city."—Ernest Callenbach, author of Ecotopia



Reinhabiting a Separate Country: A Bioregional Anthology of Northern California, edited by Peter Berg. 220 pps. Essays, natural history, biographies, poems and stories revealing Northern California as a distinct area of the planetary biosphere. $7

"The Book serves as both a pioneer and genre model...representing a vital and widespread new ethos." — New Age Magazine

RAISE THE STAKES BACK ISSUES



• ***Bioregional Culture, Raise the Stakes No. 21 (Spring/Summer 1993).*** What is bioregional culture, and how is it realized? This issue of *Raise the Stakes* describes it as uniquely broad and intimate. Contents include Marni Muller's reflections on the homeplace, and Stephanie Mills' soul-search on the Indian subcontinent. Other essays include a description of the battle of mythologies in the West, a bioregional sense of musical space in Alaska, and a bioregional culture Q&A. Circles of Correspondence features Oak Ridges Moraine on the shores of Lake Ontario, The National Water Center, The InterTribal Sinkyone Wilderness Council, and Oaxaca, Mexico; book reviews; bioregional directory updates; Planet Drum Pulse and Green City Report. $4.

• ***Eco-Governance II: The Anatomy of the Shasta Bioregional Gathering, Raise the Stakes No. 20 (Fall 1992)***. An in-depth survey and exploration of the first Shasta Bioregional Gathering in northern California from conception to realization including highlights, participant reports and musings. Also sample bioregional gathering observations/outlines from Toronto's first Bioregion Week and the fifth TIBC held in Kerrville, Texas. Inspirational accounts and provocative critiques of the bioregional movement, questioning rhetoric and processes of "congressing." A companion issue to RTS #18/19; together they provide an important tool for those planning a gathering in their home region. $4.

• ***Eco-Governance: Bioregional Gatherings, Raise the Stakes No. 18/19 (Winter 1991/Spring 1992).*** Informative accounts of bioregional gatherings in British Columbia, the Cascades, the Great Prairie, Ozarks, Detroit, the Great Lakes, Ohio River watershed, northcentral Pennsylvania, and Italy. Also features special reports from indigenous groups in the Dakota Black Hills, Mexico, Costa Rica, and San Francisco in response to the quincentennial of Columbus' arrival; Peter Berg on "Post-Environmentalist Origins"; reviews, including educational magazines; bioreginal directory updates; PD Pulse; and news of the Green City Project. $5.

• ***Exploring Urban Frontiers, Raise the Stakes No. 17 (Winter 1991).*** Surveys unprecedented Green City achievements as well as some common frustrations. Green City planning from Paul Ryan's proposed "Eco-Channel" for NYC to eco-development in Brisbane, Australia. Also an interview with Richard Register on "Ecological Rebuilding and Evolutionary Healthy Future Cities", Patrick Mazza's "Portland Needn't Be a Rainy Los Angeles", Paul Glover's "Greenplanning", Nelson Denman on reaching young people with Green City theater, Beryl Magilavy on urban recycling, Bruce Hinkforth's "Cities in Climax", Peter Berg on "Recreating Urbanity", and Doug Aberley's "Can Cities Really Be Green?" Reports from Lake Baikal, Hungary, the Latvian Green Movement, reforesting Barcelona, and Planet Drum's burgeoning Green City Center for San Francisco. PD Pulse, book reviews and more. $4.

• ***Europe Now: The Bioregional Prospect, Raise the Stakes No. 16 (Spring/Summer 1990).*** Articles by George Tukel on "Reinhabitation in Hungary", Thomas Kaiser's "The Difficulty of Dis-Covering Eastern Europe", Green discussions for reorganizing along bioregional lines rather than as nation-states; new social inventions in P.M.'s "Planetary Wednesday Liberation Movement"; Ruggero Schleicher-Tappeser's "Ten Theses for Regional Ecological Development"; reports on the restoration of prehistoric sites in Catalunya and a glimpse of sustainable agriculture in Neolithic (New Stone Age) France by Marc Bonfils. Includes reports from Seitland, Ireland and the Italian Alps, directory updates, reviews and poetry. $4.

• ***North America Plus: A Bioregional Directory, Raise the Stakes No. 15 (Fall 1989).*** Features an updated international bioregional directory with listings of over 200 groups, publications and regional contacts. The magazine section reexamines the impact of Columbus' "discovery" of North America." Articles by Kerry Beane, Darryl Wilson, and Andres King Cobos express native perspectives while Kirkpatrick Sale and Peter Berg consider the upcoming 500th anniversary from a reinhabitory standpoint. Also included is Richard Grow's popular and much reprinted essay "Decolonizing the Language of the Ecology Movement." $4.

• ***Borders, Raise the Stakes No. 14 (Winter 1988/1989).*** Explores the importance of the concept of boundaries from a bioregional perspective. Features include an interview with Malcolm Margolin on "Walking the Border Between Native and Non-native Culture", Judith Plant's account of crossing a national border for the first extra-U.S. NABC, Dolores LaChapelle's "Boundary Crossing" as a way of reconciling wilderness and civilization, Beryl Magilavy on returning nature to art and Stephen Duplantier on "Distance Disease." Reports feature the Dominican Republic, a bioregional manifesto from the Mediterranean Basin and Josep Puig's argument for a new border there. Poetry by Jerry Martien. $3.

• ***Nature in Cities, Raise the Stakes No. 13 (Winter 1988).*** Urban areas don't have to be diametrically opposed to natural systems. Beryl Magilavy discusses "Cities Within Nature", urban policy issues and ecological practices are further pursued in David Goode's "The Green City as Thriving City" and Christine Furedy's "Natural Recycling in Asian Cities." Doug Aberley discusses Native American reinhabitation in "Windy Bay Journal", Brian Tokar reports on the Gulf of Maine Bioregional Congress, and Peter Garland looks at the musical tradition of Michoacan, Mexico. $3.

• ***Open Fire: A Council of Bioregional Self-Criticism, Raise the Stakes No. 10 (Summer 1984).*** From about 70 persons, guest editor Jim Dodge selects representative gripes from Marni Muller, Bill Devall, Gary Snyder, Kelly Kindscher, and others. $3.

• ***What's Happening to the Water Web?, Raise the Stakes No. 7 (Spring 1983).*** Highlights "The Water Web" special section with Donald Wooster's historical look, "The Flow of Power", and articles about the Columbia River Watch and terminal lakes. Plus reports from Euskadi and the Australian Big Scrub. Centerfold photo essay, "Songs of the Outback."$3.

• ***Cities — Salvaging the Parts, RTS No. 3. $3***

• ***Eco-Development, RTS No.2. $3.***

• Issues 1,4,5,6,8,9,11, and 12 are sold out. We can, however, make complete sets of Raise the Stakes available to libraries and archives.

BUNDLES

Amble Towards Continental Congress: A large two-sided poster evoking a bioregional overview of American history since 1492 that includes a map of the biotic provinces of North America. $4.

Reinhabit the Hudson Estuary: The Hudson Estuary Bundle. Essays, poetry, graphics, poster compiled and produced by New York area reinhabitants. $10.

Backbone—The Rockies: A six part Bundle of essays, poems, journals, calendars and proposals about the fragile Rocky Mountains. $10.

Watershed Guide & Living Here: A four-color poster with pamphlet evoking natural amenities of the San Francisco Bay Watershed. $10.

PERFORMANCES

Water Web is a 20 minute performance by Judy Goldhaft with words and movement that celebrates water and describes our complex relationship to it. Live performances can be arranged through Planet Drum. Script is available for $5.

BIOREGIONAL BOOKSTORE

Proceedings from North American Congresses (NABCs) II, III, IV. Includes essays, illustrations, poetry along with resolutions from the proceedings. NABC II-$9; NABC III-$8; NABC-IV-$10.

MEMBERSHIP

Planet Drum was founded in 1973 to provide an effective grassroots approach to ecology that emphasizes sustainability, community self-determination and regional self-reliance. In association with community activists and ecologists, Planet Drum developed the concept of a bioregion: a distinct area with coherent and interconnected plant and animal communities, often defined by a watershed and by the ideas that have developed about how to live in that place. A number of individuals and communities have adopted bioregional stances — they have "reinhabited" their regions, they have chosen to "live in place" with the intent to restore, preserve and sustain their place in the biosphere. How about you?

Become a member of Planet Drum Foundation. Membership includes two 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.

Help build a bioregional group in your area. We can help by sending a list of Planet Drum members there. To introduce your friends to bioregional ideas, send us their names and we'll forward a complimentary issue of Raise the Stakes. Send us ten names and we'll mail you a copy of Reinhabiting a Separate Country for your effort.

Send a report from your region to Raise the Stakes for publication in the Circles of Correspondence section.

Planet Drum Foundation
P.O. Box 31251
San Francisco, CA 94131
Shasta Bioregion, USA

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Shafi Hakim

YOU TOO CAN EMULATE PLANET DRUM'S HAPPENING OFFICE STAFF (pictured here and on page 14). All t-shirts are black, with the evocative Planet Drum Shaman in white and green on the front, and the intriguing Green City logo in the same colors on the back. Price is $12.50 plus $2 postage and handling. Available in small, medium, large and extra-large.

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TABLE OF CONTENTS

FOOD AS PLACE: BIOREGIONAL AGRICULTURE

Since 1973 Planet Drum has been developing and communicating the concept of bioregions through regional bundles, books, and the biannual 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 reforms appropriate to the places where they live.

Raise the Stakes is published biannually by Planet Drum Foundation. We encourage readers to share vital information, both urban and rural, about what is going on in their native regions. Send us your bioregional reports, letters, interviews, poems, stories and art. Inquiries, manuscripts, and tax-deductible contributions should be sent to Planet Drum, PO Box 31251, San Francisco, CA 94131, Shasta Bioregion, USA. Telephone (415) 285-6556. FAX (415) 285-6563.

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Sunflowers at Seed

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Soybean ink

Winter 1993/1994

RAISE THE STAKES

The Planet Drum Review

NUMBER 22 $4

FOOD AS PLACE: BIOREGIONAL AGRICULTURE

Dreaming Sunflowers

PLANET DRUM FOUNDATION
Box 31251, San Francisco, CA 94131, Shasta Bioregion, USA

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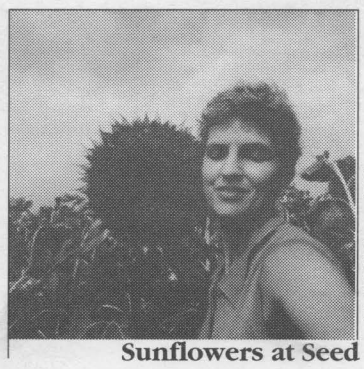

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