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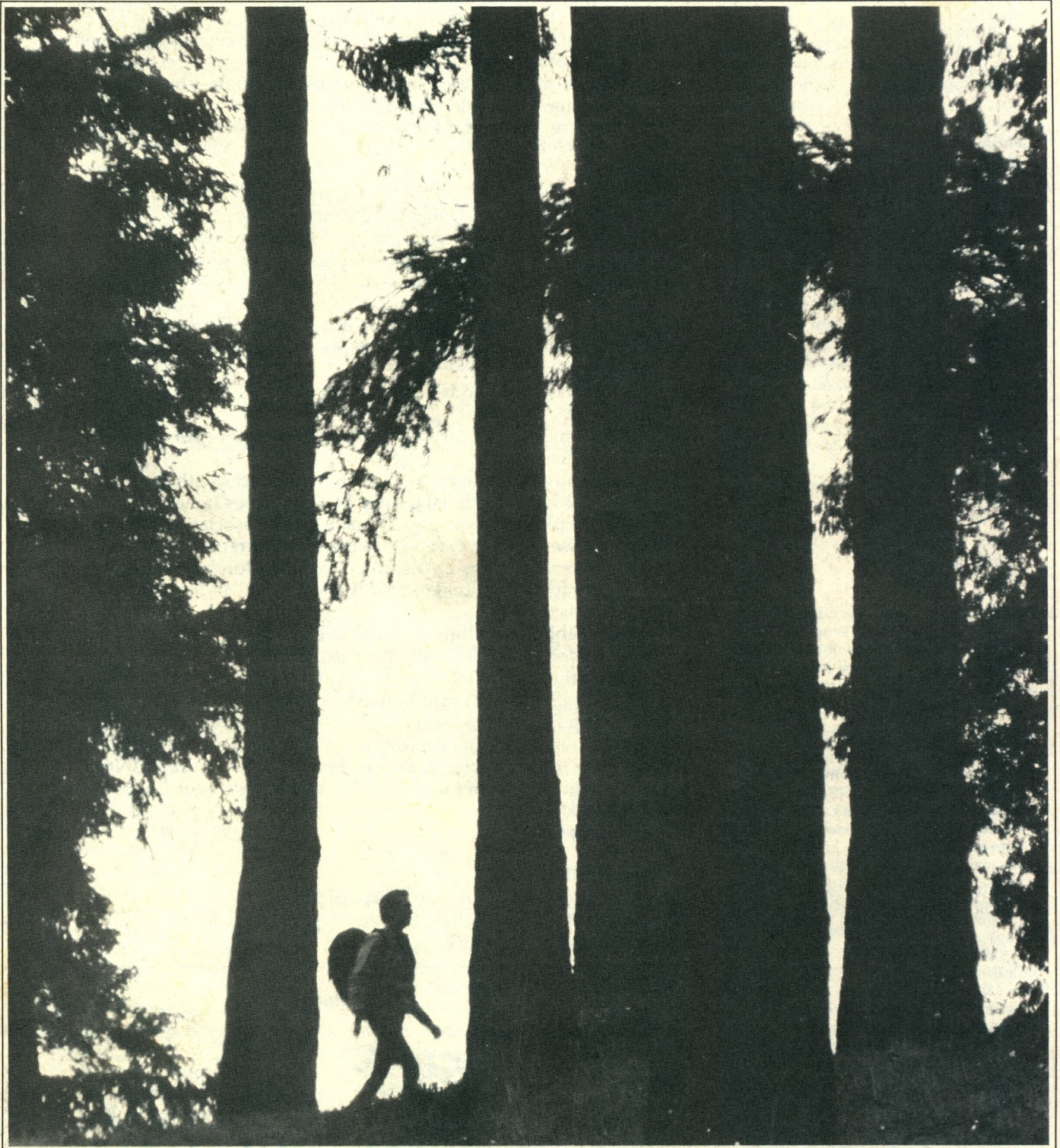
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RAIN

May/June 1984

Alert: No-Spray Forests
Activist Meets 'New Age'
Kirk Sale on Bioregions



Volume X, Number 4

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RAIN

Volume X, Number 4
May/June 1984

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This issue of RAIN is dedicated to Nancy Cospers.

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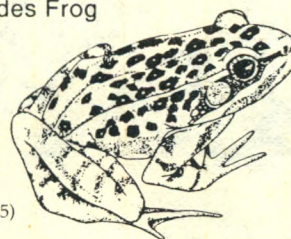
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Cascades Frog



Red-legged Frog



FROM:
*A Field Guide
to the Cascades and
Olympics* (see page 35)

RAINDROPS

We've been receiving a steady stream of responses from the flyers we sent to every individual subscriber last time. Thanks to everyone who has sent in a list of 10 potential subscribers. Keep them coming! Several people called or wrote to tell us they'd received two copies of the March/April issue—before they'd found the explanation on the flyers inside. The best letter of the bunch was from a reader in Houston, Texas: "For reasons known but to god (and even she may be puzzled), I received two copies of Volume X, Number 3—which must be an expensive error for you. Hope this helps you get your records straight." A couple weeks later, she wrote back to say: "I fired off my note to you before I even opened the magazine, obviously. My reaction time was swift because a year ago a computer stuttered and I got 97 copies of *Inquiry*—an event which I think would spook anyone! I've sent the extra to a good friend who used to live in the Pacific Northwest. I really value RAIN—every issue is interesting."

(Thanks. We love to get letters and wish we'd get more.)

Another of our low-cost promotion strategies is to trade our mailing list for

someone else's. Since last July, we've traded lists (or parts thereof) with *In Context*, *East-West Journal*, *Science for the People*, *Conserve Neighborhoods*, *Parabola*, the Chinook Learning Community, and the University of California at Davis' Appropriate Technology Program. Please tell us if you'd rather not receive extras via your RAIN subscription, and we'll hide your name when we trade lists.

Also, if you belong to a group of RAIN-minded people (a solar energy association, for example), find out if you can share your mailing list with us. We'll use the names for just one mailing—a brochure or a sample copy—and then they're all yours again. We'll take the names in any form, the neater the better, but of course we prefer typed names on sticky labels above all.

Our new intern, Cathy Baker, has been a great help in getting out these mailings (and hundreds of other things, too). Cathy comes to us from Reed College in Portland, where she's majoring in anthropology. Summers in the Cascades have taught her the lore and lay of the land in the Northwest.

The theme for the September/October 1984 issue of RAIN will be *Art in Every-*

day Life. We'll be exploring at least two aspects of this theme: (1) what is it like to live in a society where art is not something separate, and there are no "artists" because everyone is an artist; and (2) what role do art and design play in our lives today as we strive to create a better world, and how can we integrate art into our daily lives. Send ideas and information to Tanya Kucak at RAIN.

We're also looking for some up-to-date information on *composting toilets*. We haven't heard much about them in the past few years. Have you? Write to Cathy Baker at RAIN as soon as possible if you have information, leads, ideas, or personal experiences to share on composting toilets.

Many of the items in this issue—as in past issues—strike the common chord of connectedness, of the patterns that bring unlike things together. I came upon these sentences by Roger H. Garrison in the February 10 issue of *Maine Times*: "The pernicious practice to be avoided is the piling up of general knowledge which has no connection to individual personal experience; . . . The only useful knowledge is connected knowledge." —TK

LETTERS

I am a Portlandite traveling in India studying health care programs here with a self-help/preventive care emphasis. It is frustrating, tiring, and difficult. So many problems—a rigid hierarchy by casté, severe oppression of women, limited resources. . . .

A friend of mine who had been traveling with me, but returned to Portland in January, just sent me a copy of RAIN (January/February 1984). I read with tears in my eyes. There are positive things happening back home!! (The article on nuclear-free zones was especially good to hear about.) I feel hope, and I am anxious to go back to my community where I understand things and can work for change in a way that is meaningful.

Until then, I continue here, learning and gaining some global perspective. Thank you for the piece of home. (By the way, I left the copy of RAIN in Goa, so maybe it will be picked up and spread around!)

Monica Irons

As long-time fans of RAIN (and former editors of *Acorn*—now gone under here in the good old Midwest), we were excited to see the "Exploring the Globe" article in the January/February 1984 issue of RAIN. In fact, I could hardly believe how similar our intents are. I think what got us going on our own project was the realization that the "earth from space" is probably the most popular commercial media image around today—and yet 70% of our population doesn't know where Miami is.

Our study of the planetary grid system is an old one. We worked with a group of networkers we plugged into about a year and a half ago. They have an *esprit de corps* that reminds me of the best days of A.T. networking (for me) when there was much excitement and much open sharing of philosophy and technical discovery—before the days of U.S. DOE Washington meetings, CDC, Western Sun, and the Appropriate Technology Small Grants Program. I can't believe how many of the people we correspond with are active solar/A.T. practitioners who are thinking about global communication and the

future of what might be thought of as "Third World Science"—science that will combine ancient and modern science and religion/spiritualism/parapsychology. We are excited about our own possible ways to contribute to the research.

In March we made our first big "leap" with the concept of the grid at our Third World Conference. We think that the grid can (if we believe the Russian researchers, who are trying so hard to communicate with American *people*) make an enormous contribution to the health, welfare, and future planning endeavors in Third World countries.

As I said, I am happy to see RAIN make this step into global thinking. It is so important, and it seems to add a whole new future to the magazine. (Send any questions to me at 105 Wolpers Road, Park Forest, IL 60466.)

Bethe Hagens
Intercultural Studies in Global Mapping
and Communication
Governors State University
Park Forest South, Illinois

ACCESS: Energy



***Be Your Own Power Company*, by David Morris, 1983, 326 pages, \$9.95 from: Rodale Press
33 East Minor Street
Emmaus, PA 18049**

When the Public Utility Regulatory Policies Act was passed in 1978, it effectively eliminated the legal monopoly electric utilities had over electric generation by requiring them to purchase at a fair price electricity generated by small, independent power producers. PURPA only applies if the small producers generate electricity via cogeneration or with renewable resources such as photovoltaics, windpower, and hydropower. Author David Morris, codirector of the Institute for Local Self Reliance, explains how to generate and sell electricity to utility companies from backyard and small-scale systems.

Although several books are available that explain, mainly from a *Popular Science* perspective, how to design wind turbines, micro-hydro generators, and the like, this is the only comprehensive guidebook on the financial and legal issues involved in interconnecting with the utility grid. The issues can be complex, but Morris dissects each one in an easy-to-understand fashion. One of the most crucial issues involves determining the price the utility should pay for a small producer's power. PURPA regulations require utilities to pay roughly the same price per kilowatt-hour that it costs them to add new baseload generating capacity, such as from a new coal or nuclear plant. This price can turn out to be high. The federal rules, however, are only guidelines, and the ultimate sale price a small producer gets is largely determined in individual negotiations with the local utility, which, in all probability, isn't anxious to hook up to a backyard windmill, let alone pay a high rate for the electricity. Morris explains what considerations should go into calculating the actual sale price, and he takes readers through basic negotiating points and standard contracts. He also covers the

advantages and disadvantages of each of the renewable-energy-generating technologies.

If you've started down the road to generating electricity from renewable resources and selling part or all of it to your local utility, you've probably got more questions than any book could answer. But this one can answer a lot of them, as well as answer questions you hadn't thought to ask but probably should have. —Michael Philips

Michael Philips is a Senior Energy Analyst for the City of Portland Energy Office. Previously, he worked for the Solar Lobby and the National League of Cities in Washington, DC.

***New Energy Sources for Developing Areas*, by Sandro Amaducci, 1984, 277 pp., \$24 from:**

**Sandro Amaducci
246 avenue Coghén, bte 2
B-1180 Brussels
Belgium**

Applications of pedal power, microbial digestion of treated cereal strains in the rumen, the sea-clam wave energy conversion system, and holographic thin-film systems for multijunction solar cells are four of the 230 research projects indexed in this directory. The author surveyed over 1000 research centers or organizations that have an interest in energy research in the European Community or in ACP countries (63 countries in Africa, the Caribbean, or the Pacific, associated with the European Community) to collect this information. For the most part, the projects studied are intended to provide solutions to energy problems in developing countries.

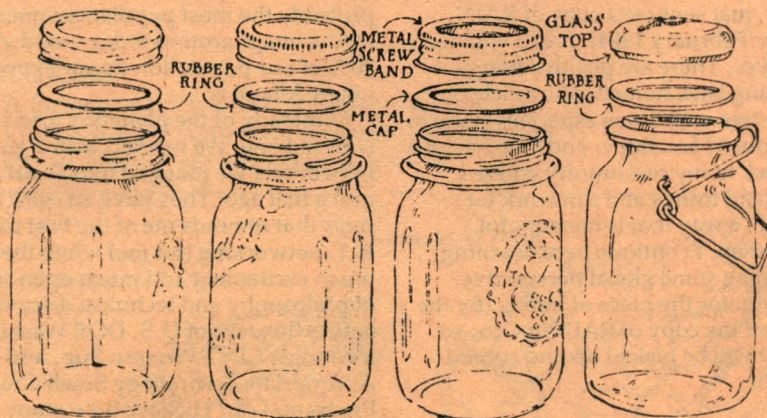
Each one-page entry includes informa-

tion, in English and French, on the sponsoring group, original language (mostly English and French), research protocol, start and end dates of the project, financial sponsor, publications, and indexing information. In the back of the book, the author has organized the projects by new and renewable energy sources (solar energy, biomass), disciplines (chemistry, forestry), applications (production of electricity, water pumping), and activity sectors (household, tourism) and localization (mountain, coastal, and island). This is a good resource if you want a quick reference to representative renewable-energy research in Europe and selected developing countries. —TK

***Appropriate Technology Organizations: A Worldwide Directory*, compiled by the Center for Business Information, 1984, 149 pp., \$29.95 from:**

**McFarland and Company, Publishers
Box 611
Jefferson, NC 28640**

A comprehensive listing, by country, of the addresses of 1,977 appropriate technology organizations. The organizations are arranged by country (there are 16 A.T. organizations in Botswana, you can see at a glance), and there is an alphabetical index in the back of the book. I spotted a few typos in the addresses, and I wonder if some of the organizations are still in operation. In all, though, this is a good place to start looking if you want to find out about A.T. activity in any country (or U.S. state) you choose. It's good to see these kinds of guides are still being published, after the big flurry of A.T. activity of the 1970s. —TK



Types of lids: porcelain-lined screw top, metal screw cap, self-sealing cap, and clamp-type lid
FROM: *The Living Kitchen*

ACCESS: Food

***Foods for Health and Healing: Remedies and Recipes*, by Yogi Bhanjan, 1983, 140 pp., \$6.95 from:**

KRI
PO Box 1550
Pomona, CA 91769

"Anti-smog pancakes?" "Yogi tea?" Yes, they're both here in this edition of Yogi Bhanjan's teachings on the healing aspects of foods. I approached this book with a grain of skepticism, but soon became caught up with the Yogi's fresh, conversational style. He first presents various foods with their healing properties, then explores the best foods for common ailments. This leads into foods for positive health, separated into special chapters for men, women, and children. The book ends with intriguing recipes based on the synergistic effects of the foods used.

Foods for Health and Healing makes for enjoyable and interesting reading. I drank large quantities of yogi tea during a recent long, hard bout with the flu, and although I can't vouch for its curative properties, I have to say it tasted great. My only complaint about this book is its emphasis on tropical foods—besides the political and economic reasons, I'm sure there are some health reasons for eating locally. A book like this for each bioregion would be interesting. —JS

***The Living Kitchen*, by Sharon Cadwallader, 1983, 127 pp., \$7.95 from:**
Sierra Club Books
530 Bush Street
San Francisco, CA 94108

Designing a new kitchen or remodeling an old one? Then don't overlook this book—it provides a wealth of ideas and items to consider while trying to answer that age-old designer's question: What *exactly* do I want? I like Cadwallader's sense of the kitchen as the central room of the home, as it was in times past, a truly living kitchen connected to all other activities in the home. Her three model kitchens are well chosen and are taken from actual homes, giving the book a nice down-to-earth feel.

Other parts of the book, though, seem like a warmed-over hash of well-known gardening and food books such as *The Complete Book of Edible Landscaping*, *The Book of Tofu*, and *Laurel's Kitchen*. A couple of annoying references to "Frances Lappé Moore" made me feel like whacking Cadwallader with a hardcover *Diet for a Small Planet*. And I was surprised that this

author of *Whole Earth Cooking for the 80's* makes no mention of bulk foods in her chapter on purchasing economically; instead, she dwells on how to shop at your local supermarket. This book is a useful guide for the amateur kitchen designer/remodeler, but don't expect much more. —JS

***Natural Notes*, monthly, \$10/year from:**
Natural Notes
PO Box 299
Flint, MI 48501

The first issue of *Natural Notes*, "a monthly newsletter about healthy foods and simpler living," came out in late 1983. This issue features a section on the history, uses, and nutritional value of coriander and spinach, including recipes; an informative article on MSG; favorite recipes; a good article on paper recycling; and a Kid's Corner. *Natural Notes* is a homey, nicely done eight-pager, worth looking into. —JS

***Good Food from a Japanese Temple*, by Soei Yoneda, 1982, 224 pp., \$16.95 cloth from:**
Kodansha International
10 East 53rd Street
New York, NY 10022

A beautiful book on *shojin ryori*, a 600-year-old tradition of Japanese vegetarian cooking that has been preserved in a Zen nunnery in Kyoto. The 230 recipes for simple, elegant food are arranged by season. In *shojin* cookery, the cook balances the five methods (boiling, grilling, deep-frying, steaming, and serving raw) and the five colors (green, yellow, red, white, and black) to achieve seasonal variations. In each meal, the cook also balances the six tastes (bitter, sour, sweet, hot, salty, and "delicate") and the three virtues (lightness and softness, cleanliness and freshness, and precision and care).

The author includes descriptions of Japanese foods such as lily root and ginkgo nuts. A series of delicious color pictures of prepared foods, as well as line drawings sprinkled throughout the book, aid you in selection and preparation. An introduction to each recipe tells the history of or interesting information about the dish. *Shojin* cookery delights in innovation, and so in many cases the recipes use Western ingredients (such as zucchini, which was only introduced to Japan in the 1970s). You'll find sushi (Bamboo Sushi), tempura (Ginger Tem-

pura), and miso dishes here, but let your senses delight in such uncommon dishes as Tangerine "tofu," an orange pudding that looks like tofu but is made with tangerines and potato starch. One caveat: Many recipes contain more salt (miso, seaweed, soy sauce) than most healthy-eating guides recommend. —TK

***The Motion-Minded Kitchen*, by Sam Clark, 1983, 146 pp., \$9.95 from:**
Houghton Mifflin Company
2 Park Street
Boston, MA 02107

I've lived with 10 kitchens in the past five years—none of them designed quite right—and what Clark says about kitchen design rings true. Clark recommends simplicity: "The motto of good design is 'omit needless details' . . . but the motto over the door of the dream kitchen reads, 'omit nothing.'" To design a kitchen that works, Clark suggests studying the individuals who will use the kitchen and their movements, in the tradition of the kitchen-research era (1930-1955). He details principles and examples that don't waste *therbligs*—the fundamental movements out of which any work is built. "Items used habitually should be retrieved and stored with a minimum of motion. Those used constantly should be accessible with a single motion." There's a good bit of common sense here.

This isn't merely a book on design theory, however. It's a hands-on resource for people who want to remodel their kitchens. Clark gives good advice on estimating the time and cost of your project, and he provides plans for kitchen components that minimize *therbligs*. He's a big fan of open shelves, and the main part of the book consists of a guide for constructing them. I particularly like the idea of dish drainers located above the sink that also serve as storage space. According to Clark, "Open shelving leaves stored items more visible and accessible, and costs about half of what closed cupboards cost. Narrower shelving, 6 to 10 inches deep, impinges less on the room space, and casts less shadow over counters. It can be positioned lower, making the contents easier to reach." Furthermore, he argues, building the cabinets in place, instead of using manufactured, prebuilt boxes, saves time and money.

The appendices give more information on tools needed and motionmindedness, and provide kitchen layout templates and forms for estimating costs. —TK

The lung channel, as depicted in the *Lei Ching* of 1624, has 11 points on each side of the body.

FROM: *Celestial Lancets*



Acupuncture: Balancing the Patterns

by Tanya Kucak

The concept of health, the value of traditional wisdom, and the theme of the interrelationships between things and ideas are three perspectives that surface again and again in RAIN. These three perspectives are also central to Chinese medicine. This article presents an overview of acupuncture, a system of medicine that is of particular interest because it is applicable to two pressing concerns in our increasingly polluted and stressful world: It serves as preventive medicine, and it can successfully treat chronic illnesses. There are correlations between the way we treat our bodies and the way we treat our planet.

A system of medical treatment that was already 2000 years old when modern science was born, acupuncture consists of inserting fine needles at specific points on the body to treat various illnesses and malfunctions. Moxibustion, or moxa, a closely related therapy, uses the radiant heat from burning the herb *Artemisia vulgaris* (common mugwort), rather than needles, at the points. Moxa is often used in conjunction with needles on the same point at the same time.

The oldest references to acupuncture occur around 600-700 B.C. By 100 B.C., acupuncture and moxibustion were in universal use throughout China. The development of the entire system was essentially complete by 300 A.D., according to Lu and Needham in *Celestial Lancets* (see access). Nevertheless, Chinese medicine is part of a living tradition; indeed, acupuncture analgesia was discovered just two decades ago, and doctors have used it in place of drug-induced anaesthesia for major surgery. Additionally, hundreds of new points have

been discovered in the past 50 years, particularly on the ear.

Acupuncture is part of a holistic tradition, and its philosophy is "medieval, albeit subtle and sophisticated": Its practitioners "never lost sight of the psychospiritual organism as a whole, and its grand design was the restoration of natural harmony," write Lu and Needham. In this sense, acupuncture takes a sort of ecological approach to health, wherein everything is in balance—dynamic equilibrium—and a break in the pattern has repercussions for the entire system. Disease is the pattern that disconnects.

In ancient China the work of the physician was to maintain health rather than to treat sickness. Since signs of imbalance preceded any onset of symptoms, the physician could find, and correct, disharmonies and imbalances in the patient before they became manifest as disease. The practitioner of traditional Chinese medicine can detect potential problems with far more precision, and far sooner, than modern instruments can. In a similar vein, Felix Mann (see access) writes, "Many patients who have been treated by acupuncture notice a considerable improvement in their general health. This is because acupuncture can correct those minor disturbances in health which are undetected by other methods of diagnosis, and which if they remained untreated could in later years easily turn into a serious overt and easily recognized disease. The sensitivity of Chinese pulse diagnosis . . . makes it possible to detect minor disturbances, enabling immediate treatment to be given

at an early stage." Indeed, an acupuncturist once told me that I should take some Chinese herbs to correct imbalances, or else symptoms might show up in 10 years.

Acupuncture helps the body heal itself. "The general impression one gains from the literature [clinical studies]," write Lu and Needham, "is that acupuncture can bring about a marked increase in the body's own resistance and healing power, together with direct effects on the nervous system in the case of neurological abnormalities." For over 20 years, stress specialist Hans Selye has spoken in favor of acupuncture as a method of enhancing the body's resistance to stressors.

Moxibustion, too, is preventive medicine. In medieval times, Chinese scholars would apply moxibustion to three or more points on the body after each 10-day period of good health, and travelers regarded mugwort as one of the most important components of their first-aid kits.

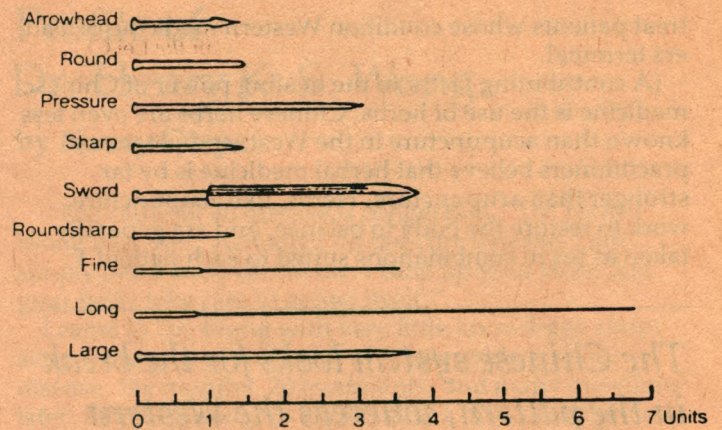
Most practitioners regularly use only 70 to 150 points. There are 2000 points in all, and 361 major points, which are located along 12 primary bilateral channels (or tracts or meridians) and two channels that run along the front and back of the body. Moreover, the network of points is interconnected, forming a circuit, since each channel connects to the next. The classic analogy that the Chinese use is a system of waterworks. Thus, the points are located along channels, and many of the Chinese words for the points indicate traffic, transmission, and bodies of water. The system of points is a microcosmic equivalent of the stars in the heavens, but it is fundamentally circulatory in nature.

'Acupuncture can bring about a marked increase in the body's own resistance and healing power, together with direct effects on the nervous system in the case of neurological abnormalities.'

Two substances circulate in the body via the network of channels—*ch'i* and blood. According to O'Connor and Bensky (see access), *ch'i* "signifies a tendency, a movement, something on the order of energy"—a psychophysiological power. When acupuncture is used, the *ch'i* is said to be "obtained" and then manipulated.

The channels form a web that joins the internal organs with the skin, flesh, ligaments, bones, and all other tissues, and integrates each part with the whole. Lu and Needham write, "The marvel is that the tracts were (and still are) anatomically invisible, thought of always as crevices or impalpable channels for vital *chhi*, not obvious tubes like the blood-vessels and lymphatics; and perhaps in the end it may turn out that what they really signify is a system of lines of equivalent physiological action."

There is no matter/energy dichotomy in Chinese medicine. Chinese medicine does not regard the internal



The nine needles

FROM: *Acupuncture: A Comprehensive Text*

organs as independent anatomical entities, but focuses on the functional and pathological interrelationships between the channel network and the organs. Thus, each of the 12 primary channels—lung, large intestine, stomach, spleen, heart, small intestine, bladder, kidney, pericardium, triple burner, gall bladder, and liver—bears the name of a vital organ. (Incidentally, the triple burner does not correspond to any particular organ, but rather to a function.) In practice, the acupuncturist commonly treats a particular organ through points on other channels as well as points on the connecting channel.

Nobody knows precisely how acupuncture works, and Western science has always been skeptical of things it can't explain, so the West has been slow to accept acupuncture. Nevertheless, over 2000 years of clinical experience attest to the effectiveness of acupuncture: It would not have lasted this long if its effects were purely subjective and psychological. In fact, you don't have to believe in acupuncture for it to work, and it works on animals. The Chinese began using acupuncture on animals in the thirteenth century. Recently, a Boston acupuncturist has been wielding his needles on race horses, with the result that the horses can run faster and recover more quickly from a race. (See "Acupuncture Goes to the Races," by Peter Bates, *East-West Journal*, November 1983.) Acupuncture did enjoy popularity in Europe during the first half of the eighteenth century (Balzac mentioned acupuncture and moxa in one of his novels in 1828), but it fell from interest by the 1850s, and didn't have much influence in the West until the 1950s. By then, the Chinese themselves were beginning to make new discoveries about acupuncture—most notably, acupuncture analgesia. Chinese physicians found that patients could converse with the doctor or perform certain movements to assist the surgeon while feeling nothing of the scalpel, and afterwards, rarely experience the post-surgery nausea or complications that often accompany drug-induced anesthesia.

Many doctors, Western and Chinese, are studying both Chinese medicine and Western medicine to determine what works best in a given condition. Often, Western medicine can treat diseases that Chinese medicine finds intractable, and vice versa—Western physicians visiting China have seen Chinese medicine used to

treat patients whose condition Western medicine considers terminal.

(A contributing factor to the healing power of Chinese medicine is the use of herbs. Chinese herbs are even less known than acupuncture in the West, and yet many practitioners believe that herbal medicine is by far stronger than acupuncture. Herbs, like acupuncture, work to restore the body to balance, and are generally taken as tea in combinations suited to each patient.)

The Chinese system looks for the break in the pattern, whereas the Western system looks for the broken part.

Western science's study of acupuncture has revealed some interesting things. Researchers at a Toronto hospital have identified acupuncture points by measuring the electrical resistance of the skin. In double-blind experiments, the apparatus has identified the classical acupoints. Reportedly, Russian holographers have also stumbled upon acupuncture points while undertaking holographic studies of the human body. (Curiously, in the mid-1800s A. Weihe, a homeopathic physician from Stuttgart, independently discovered 195 points on the body that showed excessive sensitivity to pain when

pressure was applied. About two-thirds of these coincide with Chinese acu-points.)

The Chinese system of relating points along channels to a specific internal organ has some basis or parallel in modern Western medicine. Often, a malfunction or infection in an internal organ is manifested as pain near the surface of the body—not necessarily near that internal organ. Patients with heart disease, for example, show a consistent pattern of "trigger points," areas in the shoulder or chest where pressure can intensify pain. Points like these are so reliable that atlases of pain patterns exist. Researchers are studying the neurophysiological and neurochemical effects of acupuncture as well.

Interest in acupuncture and Chinese medicine is growing at a time when faith in Western medicine is declining. Western medicine's stronger drugs and more sophisticated instruments are leading to more iatrogenic diseases and worse health, on the whole. Metaphorically, the Chinese system looks for the break in the pattern, whereas the Western system looks for the broken part. Ted Kaptchuk (see access) foresees a synthesis of the two approaches, wherein the spirit of interrelatedness of Chinese medicine will inform the Western approach to create "a more exact paradigm of biological medicine," and the Western techniques will "move the methods of Chinese medicine to new heights of precision and efficiency." □ □

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Modern Western Medicine vs. Traditional Chinese Medicine

| | | |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| events | <i>linear (A causes B) analysis: look for causal links</i> | <i>interrelated, part of a pattern synthesis: piece symptoms together until picture of whole person appears</i> |
| treatment | <i>centered on disease</i> | <i>centered on person</i> |
| mind and body | <i>dichotomy</i> | <i>continuum</i> |
| lifestyle | <i>emphasizes competition and confrontation</i> | <i>emphasizes harmony</i> |
| attitudes towards disease | <i>diseases are due to causes that can be killed, cut out, or contained; treatment unsuccessful if this fails</i> | <i>ideal of health is a positive, harmonious feeling of wellness disease viewed as disorder in the body; treatment directed toward properly ordering or "harmonizing" the body; can treat many debilitating and chronic conditions</i> |
| function vs. form | <i>great deal of emphasis on body's structure and how it changes during course of a disease; physiology and pathology are linked with structure; function is a result of structure; disease is described by what it does to tissues involved</i> | <i>emphasis placed almost entirely on function: the organs are the functions, and no mechanism explicable on a structural or morphological level is necessary; what happens is considered more important than what something looks like</i> |
| measurement | <i>precision of measurement and conceptualization is the ideal</i> | <i>affinity for vagueness, due to an appreciation that in nature things are rarely cut and dried, but instead are blurred; empirical; theory can never be divorced from practice</i> |

Profile of Dr. Henry K. S. Wong

by Nancy Cosper

"The cause of all disease is congestion," Dr. Henry Wong tells me. "Actually I do not cure disease. I am simply like a body mechanic. I tune up your body. Let your body take care to adjust itself."

I came to Dr. Wong with very little knowledge about acupuncture, and with a lot of Western ideas about disease. Six months, 20 treatments, and many questions later, I am beginning to understand a little of the philosophy and the intricacies of Chinese healing techniques.

Whereas Western medicine starts with a specific symptom and looks for a specific underlying cause for the disease, Chinese medicine takes into account the symptoms and all other general characteristics as well as the natural environment of the patient. The Chinese physician looks for a "pattern of disharmony." Any one factor is another part of the whole, and thus the patient is treated for his or her pattern of symptoms, not for the cause of those symptoms.

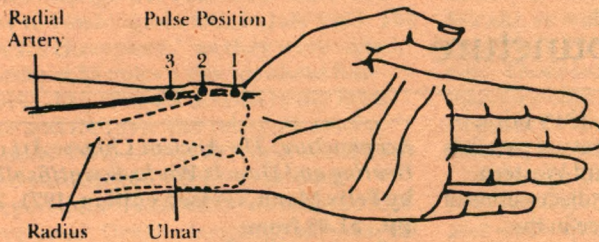
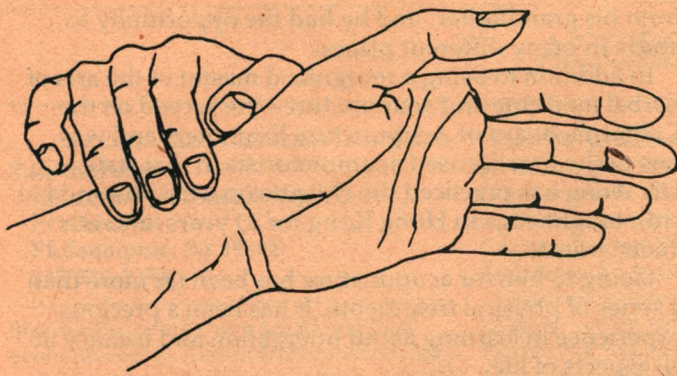
As Dr. Wong diagnoses me, he takes my pulses. (There are three pulse points on each wrist, and deep and superficial pulses at each point, in Chinese medicine.) He looks at my tongue and eyes, and he assesses my general aura. He sees hundreds of patients a year who come to him from all over the world; no two have exactly the same diagnosis. "Acupuncture releases the congestion in the body," Dr. Wong says, "then the body can heal itself."

In traditional acupuncture the doctor inserts a series of needles into points on the body. Stimulation of the points via acupuncture needles can positively affect the organs of the body.

'Actually I do not cure disease. I am simply like a body mechanic. I tune up your body. Let your body take care to adjust itself,' Dr. Wong says.

There are currently over 2000 acupuncture points in use. A physician usually chooses about 5 to 15 points associated with the patient's particular disharmony. Very fine needles are inserted from one-fourth inch to three inches deep, depending on the point. Dr. Wong leaves the needles in from a few seconds to several minutes. (In a more standard practice, the needles stay in for 10 to 20 minutes, or in rare cases, for an hour or two.)

"I do not practice acupuncture in the traditional way," Dr. Wong tells me. His skilled fingers move along the meridians of my body, confirming his pulse diagnosis. Sensing any congestion he already felt when reading the pulse, Dr. Wong inserts a needle and most often



Pulse-taking in Chinese medicine
FROM: *The Web That Has No Weaver*

When is Acupuncture Appropriate?

Many pain-control centers have an acupuncturist on the staff, because acupuncture is an excellent therapy for relieving or curing painful conditions (except the intractable pain of malignancy, which neither modern Western nor traditional Chinese medicine can effectively control). Often, chronic conditions respond better to acupuncture, and acute conditions respond better to the antibiotics or surgery of Western medicine. Current research in China and the U.S. is attempting to determine which therapies work best for which conditions. The chronic/acute division is general; usually, each patient's history and condition determines the treatment. Since acupuncture makes no distinction between physical and psychological causes, it can also treat psychological conditions (addiction to smoking or drugs, for example).

Statistical studies undertaken in clinical settings have revealed that on the average, 70% to 75% of the cases treated with acupuncture respond well. A short list of conditions that acupuncture treatments have cured or helped includes allergies, migraines, arthritis, sinusitis, lumbago, sciatica, gastric ulcer, angina pectoris, skin diseases, appendicitis, asthma, colitis, neuralgia, rheumatism, poor circulation, nervousness, general fatigue, hepatitis, anxiety, and depression.

As in any ecological situation, the variables are so numerous in health and sickness that each case must be judged individually. Acupuncturists are certified or registered by state licensing boards, in most states. —

TK

immediately withdraws it, moving quickly to the next point. By the end of an hour-long treatment, he may have made 25 to 50 insertions. In addition, Dr. Wong uses moxibustion, a related technique that applies heat from herbs—principally mugwort—to those acupuncture points.

Dr. Wong's manner is loving, concerned, reassuring. "I have a patient who said that her doctor frightened her," he tells me. "Now how can anyone be cured by someone who frightens them? There must be trust between doctors and their patients." Dr. Wong is 72 years old. ("Seventy-four in the Chinese way of calculation," he laughs). He learned acupuncture in China

from his grandfather, and he had the opportunity to study in many different places.

In addition to being a recognized master of the arts of herbal medicine and acupuncture—he served on the California Board of Acupuncture Examiners and was one of the first licensed acupuncturists in that state—Dr. Wong has practiced the ch'i arts (martial arts and t'ai chi), taught yoga in Hong Kong for 25 years, and is a Taoist priest.

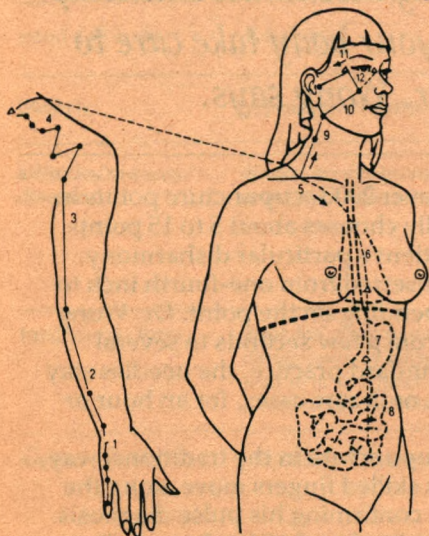
Going to him for acupuncture has been far more than a series of physical treatments. It has been a precious experience in learning about integration and balance in all aspects of life. □ □

ACCESS: Acupuncture

***Celestial Lancets: A History and Rationale of Acupuncture and Moxa*, by Lu Gwei-djen and Joseph Needham, 1980, 427 pp., \$105 cloth from: Cambridge University Press 32 East 57th Street New York, NY 10022**

Authoritative, scholarly, thorough. This book gives a cogent and reliable discussion of the history and working of acupuncture, but you'll need to have a medical dictionary at hand as you read. *Celestial Lancets* is part of the "Science and Civilization in China" series of volumes, a massive scholarly undertaking that encompasses the whole of the Chinese scientific tradition. As historians of science, Lu and Needham discuss what the Chinese acupuncturists thought they were doing and how they used theory to complement practice. Then, as scientists, they go on to discuss plausible explanations for acupuncture in terms of Western medicine.

The authors exhibit a remarkable depth



The Small Intestine channel
FROM: *The Web That Has No Weaver*

and breadth of knowledge. They bring in cross-cultural examples to reveal parallels between Chinese science and Western science. Furthermore, their discussions of biological clocks—their place in the ancient Chinese corpus and their rediscovery in modern Western science—and of the neurophysiology of pain perception are fascinating.

The bibliography, which runs to 60 pages, provides probably the most complete reference to both English and Chinese writings on acupuncture. —TK

***The Web That Has No Weaver: Understanding Chinese Medicine*, by Ted Kaptchuk, 1983, 402 pp., \$9.95 from: Congdon & Weed 298 Fifth Avenue New York, NY 10001**

The first premise of this book is that you cannot begin to understand Chinese medicine in the context of Western medicine. The two systems of healing exist simultaneously, each having grown from its own world views. They are utterly different. Each can be considered as what it is, and what it can do; how the two can in a larger sense complement and critique one another can be seen. But comparisons won't work here.

Ted Kaptchuk is a Westerner who studied Chinese medicine in China. His introduction expresses some of the difficulty in explaining Chinese concepts with a Western vocabulary, but his chapters clearly explain the basics. Some of the discussion, well illustrated with examples, includes the fundamental substances, the organs, the meridians, examinations and diagnosis, and patterns of yin and yang. He also discusses herbalism.

Detailed notes follow each chapter. The last 130 pages consist of appendices of tables and notes that supplement the chapter discussions, a selected bibliography, and an index. —Nancy Cosper

***Acupuncture: The Ancient Chinese Art of Healing and How It Works Scientifically*, by Felix Mann, revised edition, 1971, 234 pp., \$1.95 from: Random House 201 East 50th Street New York, NY 10022**

A fairly reliable discussion of acupuncture. What sets this book apart is Mann's liberal use of case histories, taken from his practice, to illustrate his points.

Mann's (half-dozen or so) books on acupuncture, along with works by Manfred Porkert (*The Theoretical Foundations of Chinese Medicine*, 1974, MIT Press; and a more recent book on Chinese diagnostics), comprise the most reliable popular works in English, besides the books by Kaptchuk and Lu and Needham reviewed above.

For more detailed information, consult Chinese sources translated into English. Two notable texts are *Essentials of Chinese Acupuncture* (compiled by the Beijing College of Traditional Chinese Medicine, Shanghai College of Traditional Chinese Medicine, Nanjing College of Traditional Chinese Medicine, and The Acupuncture Institute of the Academy of Traditional Chinese Medicine, 1980, 432 pp., \$29.95 cloth from: Foreign Languages Press, 24 Baiwanzhuang Road, Beijing, China), and *Acupuncture: A Comprehensive Text* (by the Shanghai College of Traditional Chinese Medicine, translated and edited by John O'Connor and Dan Bensky, 1981, 741 pp., \$55 cloth from: Eastland Press, PO Box 4910, Chicago, IL 60680). Both of these books have excellent introductions (particularly the latter), which explain Chinese medicine clearly and concisely. The American College of Traditional Chinese Medicine (2400 Geary Boulevard, San Francisco, CA 94115) publishes a quarterly journal on Chinese medicine. —TK

ACCESS: Peace

Bike for Peace

John Dowlin, Linda Knapp
PO Box 8194
Philadelphia, PA 19101
215/222-1253

Bike for Peace '83 was a small, magical event involving American, Scandinavian, and Soviet bicyclists who pedaled 1200 miles through five countries, from Moscow to Washington, DC, in July 1983. The "peace champions," as they were called, averaged 55 miles a day for about four weeks, bicycling for an end to the arms race and for friendlier relations among nations. I was one of 10 North Americans who participated. None of us were prepared for the lifetime friendships that developed. Despite language barriers, we became an incredibly close family, determined to meet and ride again.

Given the low ebb of U.S.-Soviet relations, the Norwegian organizers hope to initiate a Bike for Peace ride on an annual basis, involving as many participants as possible, particularly Americans and Soviets. Tore Naerland, the "biking Viking" largely responsible for the 1983 peaceride, is tentatively planning Bike for

Peace '84, which would begin on May 11 in Malmo, Sweden, and proceed through East Germany, Czechoslovakia, Austria, and Italy, ending in Rome on June 13. Contact Tore c/o Bike for Peace Norway, Asdalsveien 3A, Oslo 11, Norway.

We hope to have a Washington to Moscow return trip in 1985, and Bike for Peace USA has already met with the Soviet Peace Committee to discuss the route (via Toronto, Oslo, Berlin, and Minsk), as well as the planting of peace gardens in Washington, Oslo, and Moscow. Those interested in participating in Bike for Peace '85, as well as in the BFP '83 Slide Show, should contact me at the address above.

Although Bike for Peace '83 made national television in all five countries and was written up in more than 300 newspapers and magazines, it was still not a "media event." For a sampling of articles, see the Fall 1983 *Bicycling News Canada*, the November 1983 *American Wheelmen*, the January 1984 *Soviet Life*, and the April-May 1984 *Bike Report*, available at most libraries, if not at your bike shop. —John Dowlin

***Gandhi as a Political Strategist: With Essays on Ethics and Politics*, by Gene Sharp, 1979, 357 pp., \$7.95 from:**

Porter Sargent Publishers
11 Beacon Street
Boston, MA 02108

With interest in Gandhi and his creed of nonviolence sparked by the recent biographical movie and by the growing antinuclear movement, this is a timely book. Thirteen essays in two major groupings, plus an extensive appendix, make up this collection. There is much here: the history and theory of Gandhi's works, analyses of his influence, reviews of other scholarly works, recommendations for course usage, and a glossary. As a casual admirer of Gandhi and as one of many who daily struggle to make nonviolence an active part of life, I found these essays interesting and easy to read for background on the man and the movement. But there is much more. Sharp's thesis is that Gandhi was an extraordinary political strategist whose contributions to nonviolent social change need to be considered and taken seriously. He was not a saint, not a unique product of Hindu culture or religion, not a radical who was fortunate to be agitating under a benign colonial power, and not someone "ahead of his time." In fact, Coretta Scott King argues in the introduction that

Gandhi and Martin Luther King, Jr., were rare individuals not because they were ahead of but because they *caught up with* their times.

This collection is significant because it deals with the hard questions and issues that surround principled nonviolence today. Both advocates and detractors of this movement fall into the same trap over and over again: One is either a hawk or a dove, an advocate of violence or of cowardice. Gandhi's response to the "pacifism/passivism" debate make members of the peace movement uncomfortable. He codified the principle of *satyagraha*, which had been used by principled resisters of violence before but had never been made into a movement. Implying "nonviolent direct action," "militant nonviolence," or "war without violence," *satyagraha* brings to nonviolence the same qualities of self-sacrifice, discipline, and personal bravery that we extol only in the armed services today.

It is too easy to immunize ourselves against taking Gandhi seriously by making him either a saint or a naive dreamer. Sharp has given us the antidote in this book, and we in the peace movement need to take it. —Bruce Borquist

Bruce Borquist works as a community coordinator for a small-business assistance center.

***"Judy Garland and the Global Death Wish or, How to Stop Worrying and Love Stolichnaya,"* by Tom Robbins, *Fellowship*, January/February 1984, \$1.25 from:**

Fellowship of Reconciliation
Box 271
Nyack, NY 10960

Let us then dispense with political differences, says Tom Robbins, because "technological advances have rendered our existing political, economic, and social institutions dangerously obsolete." There are delightful quirks in this piece (as you might guess from the title), wherein Robbins tells us to ignore the politicians and love the Russians, "and in so doing escape the pull of the puppet-masters, and quit contributing to their deadly game." What he says rings true.

By the way, this entire issue of *Fellowship* focuses on U.S./USSR relations "in the hope that demythologizing the 'enemy' can strengthen the human connection and lead to reconciliation." As usual, the articles are insightful and convey a sense of how to practice peace in daily life. —TK



ACCESS: Urban Neighborhoods

Street Signs Chicago: Neighborhood and Other Illusions of Big City Life, by Charles Bowden and Lew Kreinberg, 1981, 198 pp., \$7.95 from:

Chicago Review Press
820 North Franklin
Chicago, IL 60610

Street Signs Chicago is a book you could give to your Uncle Bernie or your mom, and they'd enjoy reading it and find it hard to put down—quite an accomplishment for a book that holds up a mirror to the past so we can comprehend the present with sobriety.

Studs Terkel said, "This book has the eloquence of a fine hot-to-the-touch novel." Every anecdote in this book is enlightening as well as entertaining. Centering on Chicago's history and present from an immigrant, working-class perspective, it takes the view of the underdog, and thus preaches without being prissy. It comes off as a gutsy exploration of what the truth of an American city is and what being an American city resident is. It talks about the myth of big-city neighborhoods and the reality of our mobility and commitment to self and upward mobility above commitment to place and community. The authors clearly outline how we got ourselves into this predicament called big-city life—without getting us depressed in the process. Better yet, they hint at a future we can live with, while poking fun at purveyors of Clivus Multrum toilets. —Carolyn McKay

Carolyn McKay is a student of human studies at Marylhurst College in Portland.

City as Classroom: Understanding Language and Media, by Marshall McLuhan, Kathryn Hutchon, and Eric McLuhan, 1977, 184 pp., inquire for price from:

The Book Society of Canada Ltd.
Box 200
Agincourt, Ontario M1S 3B6
Canada

"To what extent has the community taken over the function of schools?" This question, among others in the book's introduction, begins the writers' unveiling of the community as learning center. The terms *figure* and *ground*, first described by Danish psychologist Edgar Rubin in 1915, are used throughout the book to visually define parts of a situation. Figure is that which we consciously note, and ground is everything else. It is

through the interaction of these two elements that we perceive our surroundings.

Once we've mastered these analytical tools and have fine-tuned our perception, we notice that the set changes depending on whether the figure is the furniture and the ground is the backdrop, or vice versa. The subject and its circumstances are mutually dependent—they define each other.

The authors ask provocative questions that encourage us to analyze language and media. Exercises follow to provide practice in perception training: figure and ground exchange roles or are eliminated so that we can study their effects on a particular medium. These exercises often appear voluminous and time- and equipment-intensive, and therefore serve best as guidelines for which you can devise your own abridged versions. The final set of exercises asks us to imagine life without telephones, automobiles, or money. Plastic money has all but replaced paper money; why not use the barter system to replace credit?

This analysis is written to challenge students—who have been raised on Walkman, Pac-Man, and "Wow, man!"—to examine their world; but if you need the morning paper to make it through

breakfast, read this book! —Penny Fearon

Penny Fearon, a former RAIN intern, is traveling in the South Seas.

New City-States, by David Morris, 1982, 76 pp., \$6.95 from:

Institute for Local Self-Reliance
1717 18th Street, NW
Washington, DC 20009

New City-States is a companion to Morris' *Self-Reliant Cities*. It is jam-packed with examples, models, and statistics, and it is probably the best political analysis since *Neighborhood Power*. It is, in fact, the next logical step—from neighborhood empowerment to city or urban empowerment.

In a few easy-to-read pages, Morris has pulled together the basis for discussing one of the most difficult questions facing radical-agrarian-decentralist and centralist-conservative alike: how to live with cities, those immense social and physical systems that we have created with only partial attention to working details. Anyone interested in the role cities can play in forming reasonable public policy should read this book. —SJ



ACCESS: Environment and Learning

Do It with the Sun: A Multidisciplinary Curriculum on Energy with Emphasis on Solar Energy, by Edith Shedd and Alan Shedd, 1982, 207 pp., inquire for price from:

Integrated Energy Systems
Route 2, Box 61A1
Monroe, GA 30655

This solar energy curriculum consists of seven units: Solar Energy: Today's Technology, History of the Use of Solar Energy, Mythology of the Sun, Astronomy, The Physics of Energy, Energy Alternatives, and The Problems of Energy. The curriculum is designed so that teachers can start and end with any unit they like. Units consist of a student information section and text, a glossary, activities, and a teacher's guide.

The teacher's guide provides the teacher with objectives, additional suggestions for activities, and a cross-reference of activities indexed by subject area and by the cognitive and affective skills they reinforce.

The technical information presented in the student sections provides students with a working knowledge of solar energy. Several activities have students apply what they have learned by considering solar designs and applications to the classroom and school, as well as developing crossword puzzles, flash cards, and the like. The text seems to be written for upper-junior-high-school or high-school students, whereas the activities seem to be designed for fifth- and sixth-grade students. These units would be best used by high-school students, with the teacher upgrading the activities.



My major concern with the *Do It with the Sun* curriculum involves the historical account of the use of solar energy and the mythology of the sun. The historical accounts consider invention and use only by Greek, Roman, Italian, German, French, and American cultures. They give minor attention to Third World countries' use of solar energy. If the curriculum would provide students with more information about cultures already neglected in historical accounts, it could develop a much-needed awareness and deeper respect for other cultures.

My second concern with the curriculum is the poor representation of women as participants in the development of religious ceremonies, customs, culture, and technology. Both genders must be introduced and referred to; read the following statements and think of the first images that come to mind: "his need to have answers" or "part of his culture" versus "the people had a need for answers" and "part of their culture." Many educational projects are successfully addressing both genders in text and illustration. This lack is a major weakness of *Do It with the Sun*.

In reading the historical accounts, I began to question not this curriculum but appropriate technology: How will we represent the history of A.T.? Although A.T. may empower people with a technology that will give them more "self-reliance," if we ignore contributions and misrepresent the past, we will be cutting people off from the power of their heritage. —SL

Settling Things, by Allan R. Talbot, 1983, 101 pp., \$10.50 ppd. from:
The Conservation Foundation
1717 Massachusetts Avenue, NW
Washington, DC 20036

Settling Things provides a rare glimpse at how mediation was used to resolve six volatile environmental disputes.

- In the Hudson Highlands of upstate New York, environmentalists, sport fishermen, public agencies, and utility companies waged a 20-year battle over plans to build a hydroelectric power station at Storm King Mountain.
- In a small town in Wisconsin, residents were up in arms over a decision to locate a neighboring town's garbage-disposal site in their backyards.
- In Port Townsend, Washington, old-timers and new residents fought over the proposed site of a ferry terminal.
- A small Maine coastal community

battled a small-hydro entrepreneur over how to regulate the water levels of the lake that it was dependent upon.

- The city of Bellingham, Washington, was involved in a dispute over access to proposed park property through the Lummi Indian Reservation.
- On the east side of Seattle, three communities disputed the location and uses of a new interstate highway.

In each case, a mediator met, first separately and then jointly, with the contending parties, helped each side to understand the other's point of view, and worked with them to negotiate a compromise that all sides could live with.

Talbot's study was commissioned by the Ford Foundation, which for many years encouraged the use of third-party mediation to resolve various environmental, social, institutional, and community conflicts. Since 1974, the foundation has granted some \$2.2 million for efforts to apply the mediator process to environmental disputes. To institutionalize mediation as a way of handling such conflicts, the foundation helped to establish the Institute for Environmental Mediation in Seattle and the New England Environmental Mediation Center in Boston.

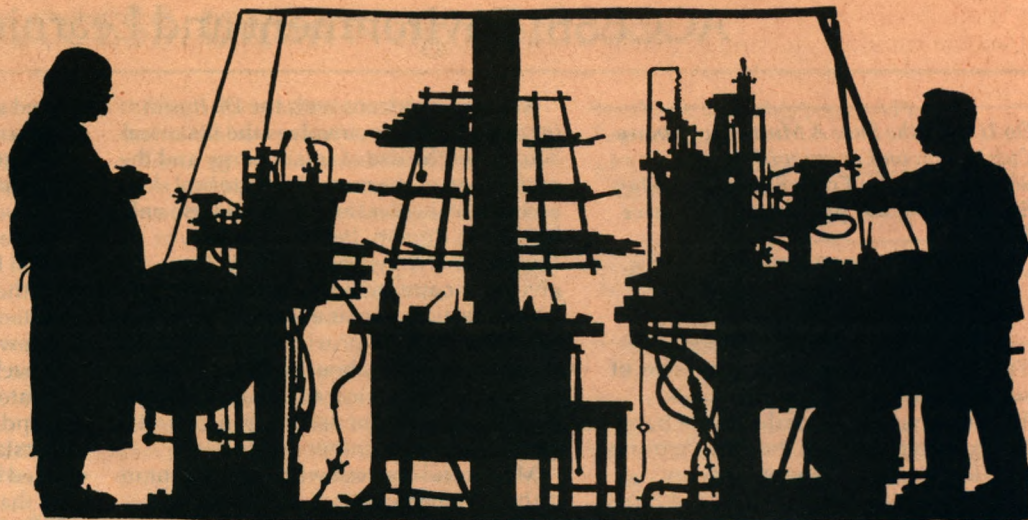
This fine report not only clearly and concisely documents the events of each dispute, it also describes the strategies used and the many problems encountered in each case. —TJ

Than James, who lives in Maine, was a RAIN intern in fall 1983.

The City of Hermits, by Gina Covina, 1983, 219 pp., \$7.75 from:
Barn Owl Books
1101 Keeler Avenue
Berkeley, CA 94708

I've read many boring pontifications that say that to survive we humans must rediscover nature religions and perceive other species as being as valuable as we are. This book presents those truths not as ideas but as experiences, and it isn't boring at all.

It's friendly and funny, easy to read, extremely well written, playful, and has some good sex. It also has horses and redwoods and ferns and a hermit who really knows how to kiss and the Curls and Swirls Beauty Salon and a great big earthquake. I like *The City of Hermits* a lot and think everybody in the world should read it, especially you. —Anne Herbert
Anne Herbert, who lives in California, writes the Rising Sun Neighborhood Newsletter.



Dragons of Democracy (in Spain?): Lessons from Mondragon Co-ops

The movement for worker-owned and -controlled business dates back at least to the principles set down by English weavers in the 1840s. Despite some 140 years of trying out various designs of cooperative enterprise, we have few working models in the U.S. that show how an integrated cooperative economy might work. The best model, perhaps, has been developing in the Basque region of northern Spain for 28 years. Scott Androes, a RAIN intern in summer 1981 and an economics graduate of Harvard, sketches below the socio-economic innovations of these co-ops. —KN

by Scott Androes

In Spain there is a region where much of the economy is run by cooperatives. One of these (employing nearly 4,000 workers) builds household appliances that are sold in all parts of Spain. It is the largest manufacturer of consumer durables in Spain. A large foundry and a large electronics firm, also cooperatives, provide parts to the appliance maker. Cooperative schools—with over 30,000 students—are governed democratically by a combination of staff, parents, and students. There are 14 housing cooperatives with 1,200 apartments. There is one large consumer cooperative with over 40 branches that is operated jointly and, of course, democratically, by its employees and the consumers.

To coordinate all these cooperatives, a central cooperative bank—besides being the nerve center of the cooperative movement—functions as an ordinary consumer savings bank. It has more than half a million customers at 120 branches and is the 26th largest bank in Spain. It uses its huge assets, rich experience, and central posi-

tion in the local economy to act as a sort of democratic venture-capital firm by financing and coaching the development of new cooperative companies. So far it has had 83 successful cooperatives and one failure. The cooperatives look to the bank for business and organizational guidance—and for money.

Collectively, these cooperatives are known as the Mondragon co-ops. They are named after the town of Mondragon, in Guizpacoa, where the first cooperative was founded in 1956 and where the headquarters of the movement resides today. As businesses, they are an impressive example of coordinated development, utilizing multiple interlinkages to create the optimum environment for shared growth. As cooperatives, with a proven commitment to local, democratic control, they are an inspiration to advocates of a democratic society around the world.

In the last five years, they have caught the attention of American progressives. In that time, news of the Mondragon model has spread like a brush fire through American colleges and universities and wherever else social activists gather to try to chart the avenues of change. Many good essays and magazine articles and an occasional book have resulted from the considerable attention paid to the cooperatives. There is little need to add to the thorough studies already available (see access).

Most of those studies assume there are valuable lessons to be learned from the Mondragon experience. That assumption has withstood close study of the federation. Admittedly, the Mondragon cooperatives are not perfect. They don't involve shop-floor workers as much as may be possible. They are just beginning to consider

the effects of technological choices on democratic forms. Nonetheless, what they have built is impressive. Their democratic model guarantees that all people will have a voice. By clearly separating rights of ownership from rights of membership, they have ensured that unequal distribution of ownership among workers (every worker must be an owner to some degree) will never lead to unequal rights of participation in the governing of the firm. One person, one vote is the rule.

Many observers have highlighted three aspects of the Mondragon co-ops that point out the main differences between Mondragon and less successful cooperative experiments. First, the Mondragon cooperatives have succeeded by some combination of sound intuition and simple luck in fashioning a structure in which every worker can be an equal member without necessarily being an equal owner. The form they developed is called "internal capital accounts." Rather than go into a lengthy explanation of these here, I refer readers to the excellent report by David Ellerman (see access). Ellerman explains how this seemingly innocent structural innovation was highly important for the expansion and dynamism of the cooperatives.

Second, members of the Mondragon cooperatives unabashedly embrace technological and market sophistication. The Mondragon cooperatives have succeeded not by holding to the correct beliefs but because they produce excellent dishwashers, refrigerators, electronic machinery, machining tools, pipes and valves, even bathroom fixtures. It would be a mistake to see Mondragon members as social militants who got lucky in the marketplace. They are devoted engineers and business-people who also happen to believe strongly in the primacy of labor over other factors of production. That combination is a new one for American social activists.

Third, the federation makes wise use of dynamic linkages. Mondragon includes more than factories. It

also includes one of Spain's best-regarded technical universities. It includes a venture capital-cum-consulting firm with 116 employees, whose expertise includes marketing, engineering, finance, product development, and personnel policies, as well as real-estate and industrial-building development. It includes a social-security and medical cooperative to serve those needs of the federation's members. And over all is the bank, with which each cooperative must sign a contract of association that assures mutual support as well as uniform adherence to democratic principles throughout the federation.

With all these institutions under one banner, Mondragon has vastly increased its ability to exploit whatever opportunities present themselves. And the ubiquitous democratic forms are the best guarantee that these large, interconnected institutions will remain flexible and dynamic.

There may be other lessons to be found in the 30-year history of the Mondragon co-ops. More important than any list of lessons, though, is the *challenge* that Mondragon presents to progressives. That challenge is to recognize that whoever controls the production of goods and services controls social life on a large scale, because the satisfaction of needs is always the first order of life. The challenge also implies that if progressives want to have a say in how production for needs will be organized, then they have to be willing to get involved in production itself. The Mondragon cooperatives may not be a perfectly realized democracy, but it is clear they are committed to pursuing that goal—clear not just by their words but by their deeds. (A good example is the three-to-one ceiling on the ratio of highest to lowest wages.) If others know a better way for people to cooperate in producing their livelihood, then let them try. The Mondragon challenge demands simply that we do try. □ □

ACCESS: Cooperative Ownership

The Socialization of Entrepreneurship: The Empresarial Division of the Caja Laboral Popular, by David P. Ellerman, 1982, 51 pp., \$6 from:

Industrial Cooperative Association
249 Elm Street
Somerville, MA 02144

The Industrial Cooperative Association (ICA) is one of the oldest, and best, of the groups promoting Mondragon-style cooperatives in the U.S. Since 1978, it has helped a handful of American firms structure themselves around the Mondragon model. Last year the ICA turned its attention to Mondragon itself and produced a fine study of the federation of cooperatives, with the emphasis on the activities of the Caja Laboral Popular, the federation's central bank. Two ICA members visited Mondragon in summer 1982 with several other representatives of

the American cooperative movement. The report is based on their extensive interviews with the leaders of the Mondragon movement.

David Ellerman, author of the study and a cofounder of the ICA, has also written several excellent essays on the theoretical and legal background for workers' cooperatives. He has a subtle understanding of economic democracy, and he writes clearly and with force. Most importantly, he is good at exploring the political aspect of cooperatives without distorting the facts. He is factual and opinionated at the same time.

Socialization of Entrepreneurship has all these qualities, as well as a sizable chunk of useful insights into the history and current workings of the Mondragon network. The emphasis, as the title suggests, is on the system's highly successful program for starting new industrial cooperatives. Ellerman claims

this entrepreneurial success is especially significant because the Mondragon federation is neither a conventional private corporation nor a government bureaucracy. Instead, it is a "labor-based democratic social institution." So different is this from traditional private or public bureaucracies, says Ellerman, that the example's success should allow progressives in the U.S. finally to "get beyond the poverty of the traditional public/private debate."

What then? No doubt, Ellerman would have us begin the hard work of building an American Mondragon-style cooperative movement. This book, and the other activities of the ICA, will certainly aid in that process. Write to ICA for the latest news of its million-dollar loan fund, and its consulting projects with worker cooperatives, and for a list of its excellent pamphlets and essays. —Scott Androes

"Adventures of a Socialist Entrepreneur," by Peter Barnes, *The Washington Monthly*, October 1983, \$2 from:

The Washington Monthly
2712 Ontario Road, NW
Washington, DC 20009

"Seven years ago, at the age of 34, I decided to become a socialist entrepreneur." So begins this entertaining account of the history of the Solar Center, a San Francisco company that has been owned and run by its workers since its founding in 1976 and is today a successful installer of large-scale solar heating systems with over 40 owner/workers.

The author, Peter Barnes, was a writer before he helped found the Solar Center, and he is also a man of ideas. Consequently, his account of the company's history is both colorful and thought-provoking. It is full of insight into the nitty-gritty of building a successful democratic firm in the U.S. today. —Scott Androes

"Lessons from the Mondragon Coops," by Bob Milbrath, *Science for the People*, May/June 1983, from:
Science for the People
897 Main Street
Cambridge, MA 02139

"Mondragon: The Remarkable Achievement," by Robert Gilman, *In Context*, Spring 1983, \$4 from:
In Context
PO Box 30782
Seattle, WA 98103

Here are two fine introductory articles on Mondragon. The Milbrath article is longer and goes into more detail, but what makes both articles worthwhile is their analyses. —Scott Androes

Mondragon: An Economic Analysis, by Henk Thomas and Chris Logan, 1982, 201 pp., inquire for price from:
George, Allen & Unwin
9 Winchester Terrace
Winchester, MA 01890

A comprehensive, scholarly study of the Mondragon cooperatives, with hardly a single relevant fact left out. This is the most authoritative English language study of Mondragon—the next best thing to being there. —Scott Androes

Association for Workplace Democracy
1747 Connecticut Avenue, NW
Washington, DC 20009

AWD publishes a newsletter on workplace democracy and sponsors regional councils for volunteers interested in the movement. The term *workplace democracy* includes quality circles and work enrichment as well as worker ownership. AWD also markets a good selection of publications. —Scott Androes



"Union Experiences with Worker Ownership: Legal and Practical Issues Raised by ESOPs, TRASOPs, Stock Purchases and Cooperatives," by Deborah Groban Olson, *Wisconsin Law Review*, 1982, No. 3, \$6 from:
Dennis & Company
251 Main Street
Buffalo, NY 14203

You might not know it by reading your local newspaper or watching the nightly news, but there has been a flurry of activity surrounding the establishment of worker-owned firms in this country in the last 10 years. Groban Olson's long (nearly 100 pages), fact-filled article is a truly useful introduction to those efforts. She has collected significant details of many experiments in employee ownership of the last 15 years and wrapped them all up in an excellent discussion of what this means, legally speaking, for unions and workers as a whole.

All the noteworthy cases are here—or at least most—including the Rath pork-packing plant in Iowa, the Vermont Asbestos Group, South Bend Lathe in Indiana, Hyatt-Clark Industries (a former General Motors bearing factory that was sold to its employees), and the Chrysler ESOP. (You didn't know that Chrysler workers own 15% of their company?)

The emphasis throughout is on hard facts: What happened? Who paid how much for what? What laws were relevant? What was the contract wording? What is the likely future of a particular agreement structure? Because of that emphasis, this is an excellent article for serious practitioners as well as for neophytes looking for a comprehensive survey of the movement.

One caveat, though: This article is primarily about Employee Stock Ownership Plans (ESOPs), a particular type of employee-owned firm that receives favorable tax treatment in the federal laws but that often has been used more in the interests of management than of workers. Despite its past history, though, the ESOP model still attracts considerable attention from the co-op side of the worker-ownership movement. —Scott Androes

National Center for Employee Ownership
1611 South Walter Reed Drive #109
Arlington, VA 22204

The NCEO is an information clearinghouse and an advocacy group for the employee-ownership movement. It publishes bibliographies and resource guides, sponsors case-study research of existing firms, and provides a clipping service that brings you all the employee-ownership news that's important, and even some that isn't, from the nation's newspapers and magazines. —Scott Androes

Philadelphia Association for Cooperative Enterprise
1321 Arch Street, 8th floor
Philadelphia, PA 19107

PACE promotes Mondragon-style cooperatives, with separation of ownership and membership rights. Its best accomplishment has been to help employees of A&P grocery stores in the Philadelphia area buy two stores that were closed by the A&P chain and reopen them as cooperatives.

The Institute for Community Economics is also doing innovative work with cooperatives—mostly housing co-ops (see RAIN X:2 page 24). Its Revolving Loan Fund is placing numerous loans with land trusts, housing co-ops, worker-owned businesses, and community service groups in 11 states. For details, contact the Institute for Community Economics, 151 Montague City Road, Greenfield, MA 01301; 413/774-5933. —Scott Androes

ACCESS: Sustainable Agriculture

The Annals of Earth Stewardship, quarterly, available with membership donation of \$10 or more to:

Ocean Arks International
10 Shanks Pond Road
Falmouth, MA 02540

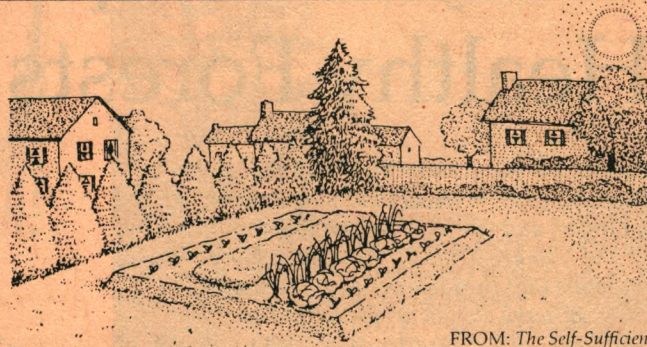
Where do Nancy Jack Todd and John Todd get their energy? You'd think running the New Alchemy Institute would be enough to keep anyone busy, but here they are, launching yet more projects designed to help humans fit in better with our world! The introductory issue of *Annals* came out in late 1983, and it looks like another success for the Todds. Published by Ocean Arks International, a spin-off of New Alchemy formed in 1982 to "disseminate the ideas and practice of biotechnology and ecological sustainability throughout the world," *Annals* serves this purpose through the written word.

The heart of *Annals* 1:1 is an enthralling series of articles on Ocean Arks' Ocean Pickup project. The Ocean Pickup is a one-ton, wind-powered trimaran designed especially for Ocean Arks as an appropriate boat, both in construction and in use, for ocean fisherpeople in the Third World. After the boat was first launched off Martha's Vineyard last year, an Ocean Arks crew set off for Guyana to see whether the Pickup could fill a niche in Guyana's fishing industry. We'll have to wait until Issue 2 to find out how the Pickup was received; Issue 1 covers its conception and birth, along with background information on Guyana. Other interesting articles in this issue are "Four Cultural Ecologies" by William Irwin Thompson, "Planetary Healing" by John Todd, and reports from Ocean Arks' correspondents in Costa Rica and El Salvador. *Annals* is another bright sign that New Alchemy is fulfilling its promise "to restore the lands, protect the seas, and inform the Earth's stewards." —JS

Plenty, monthly, available with membership donation to:

Plenty
156 Drakes Lane
Summertown, TN 38483

Plenty is the journal of Plenty, a nonprofit international development corporation founded in 1974 by members of The Farm in Tennessee. Among Plenty's projects are free ambulance service and EMT (emergency medical technician) training in the South Bronx, reforestation and



FROM: *The Self-Sufficient Suburban Garden*

alternative technologies in Lesotho, soyfoods development in the Caribbean islands, and a fund to aid Guatemalan refugees living in camps in Chiapas, Mexico.

The December 1983 issue of *Plenty* reports mainly on Plenty's Caribbean Project. In 1983, Plenty volunteers visited the eastern Caribbean islands in the *Fri*, a 105-foot sailing ship, distributing donated tools, supplies, and equipment to local groups on St. Vincent, St. Lucia, Dominica, Antigua, and Haiti. They also dropped off a group of farmers and soy technicians on Dominica to begin working on Plenty's second agricultural project in the Caribbean (the first is on Jamaica). The Caribbean Project Report is a fascinating account of the islands visited and Plenty's activities in the region. In addition, this issue of *Plenty* contains news on activities of the Natural Rights Center, an advocacy organization protecting fundamental human rights, and the Clinica del Pueblo, a newly organized, free, bilingual health-care clinic serving the poor, rapidly growing Latin American population of Washington, DC. Excellent reading. —JS

Manna, bimonthly, available with membership donation to:

IASA
1701 University Avenue SE, Room 202
Minneapolis, MN 55414

Manna is the newsletter of the International Association of Sustainable Agriculture (IASA), a nonprofit organization promoting "economically viable, ecologically sound, socially just and humane agricultural systems around the world." The inaugural issue of *Manna*, "January/Febrero 1984," contains articles on the founding of IASA, the Rodale Research Center's Resource-Efficient Farming Methods workshops in Tanzania, sustainable agriculture in the Philippines, book and periodical reviews, and a calendar. Professionally done and well worth reading. —JS

HortIdeas, monthly, \$10/year from:

Hort Ideas
Route One
Gravel Switch, KY 40328

We recently received the first issue of this 10-page beauty, dated January 1984. *HortIdeas'* format is the main reason for my enthusiasm—short, information-packed pieces that Greg and Pat Williams, family farmers, glean from going through current technical journals in the Agricultural Library at the University of Kentucky. It's not at all as dry as it sounds—Greg and Pat do a wonderful job of packaging the info into digestible (down-right tasty, even!) chunks. They've also included a couple reviews of recent important horticultural books. *HortIdeas* is a boon to us information-overloaded gardeners who nonetheless want to keep on top of recent developments and discoveries. —JS

The Self-Sufficient Suburban Garden, by Jeff Ball, 1983, 236 pp., \$14.95 from:

Rodale Press
33 East Minor Street
Emmaus, PA 18049

This book is written for those who feel self-sufficiency and organic gardening are a little too "homesteady." The intent is to make self-sufficiency respectable by using technical management names, profit/loss statements, and a structured five-year plan to build toward self-sufficiency. Technically sound, this book is for basic gardeners who want to expand. The book contains good ideas on planning, which is the key to good gardening; however, garden *lovers* may not care for the approach. There is not much here for the advanced gardener. The title best describes for whom the book is written. —Collette Gardiner

A Timely Prescription for Healthy Forests

As we go to press, the big news in the Northwest is that a federal judge has banned all herbicide spraying on national forest lands in Oregon and Washington and told top officials of the Bureau of Land Management (BLM) and the Forest Service in no uncertain terms that they had better get serious about citizen concerns over herbicide safety or he will make them "spend their spring in jail." The order comes as a result of a lawsuit filed by the Northwest Coalition for Alternatives to Pesticides, the Oregon Environmental Council, and the Audubon Society of Portland.

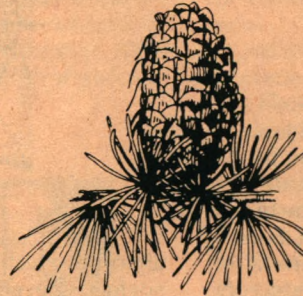
The ruling took the BLM, the Forest Service, and the timber industry by surprise. They're looking around desperately for something to tell the judge (about how they're going to manage the forests without those nasty chemicals) and for something to tell the wood-products industries (about how they're still going to be able to harvest trees without those precious chemicals). They're churning out statements about reduced harvests, lost revenues, even wasted research—they're afraid that their new "genetically superior" conifer trees won't make it without herbicides to keep down competing species. They're also doing their best to scare the public into believing that herbicides are God's gift to the forest economy.

Not long ago, these tactics might have worked. Not any more. Herbicide opponents and others concerned with sustainable forestry have been searching for years for a simple, logical, economical, and ecological approach to forest management. Now, when even the timber industry has been forced to ask the right questions, a book with answers on sustainable forestry has just been published. It's called *The Forest Farmer's Handbook: A Guide to Natural Selection Forest Management* (by Orville Camp, 1984, 72pp., \$6.95 from: Sky River Press, 236 East Main, Ashland, OR 97520; 503/488-0645).

Camp's Forest Farm in Selma, Oregon, has become a model of successful "all-age, all-species" management. Working with former RAIN editor Mark Roseland, Camp has written a book oriented toward small woodland owners everywhere who want to make a living from their forest land, and so it addresses both the needs of the forest and the needs of the forest farmer. It's the kind of book you can enjoy reading by the woodstove in the evening, then pack along with your chainsaw in the morning. Filled with photographs and practical information, it covers everything from access roads and equipment to taxes and land-use planning. The following excerpt describes natural selection harvesting and addresses the implications of practicing Natural Selection Forest Management on public lands. Let's hope it gets to the judge. —Mark Roseland

by Orville Camp

The key to Natural Selection Forest Management is *natural selection harvesting*. Natural selection harvesting is the continuous process of thinning and removing the



Alpine Larch



Sitka Spruce

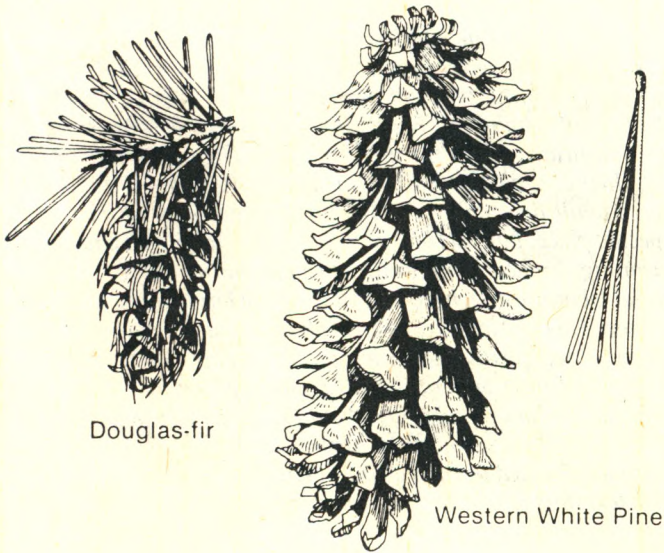
weaker members of a population—as selected by nature—to allow adequate territories for the roots and crowns of the stronger dominants. The dominant members are left to survive and reproduce. When the dominants reach the end of their natural life, they will then become the weaker members and so in turn will be replaced by a new generation of dominants. Sometimes the canopy can be opened some to produce a climate suitable for seedlings. And so the cycle is repeated. . . .

If Natural Selection Forest Management were widely adopted it could change our society's concepts of forests and forest management. We could learn to "see the forest through the trees."

The diversity of the forest ecosystem is the key to the stability of the forest and could be the key to the stability of the timber industry as well.

The implications of natural selection harvesting and other ecological methods of forest farming go beyond one's private business. Our public forests are in need of better management practices than those that industrial and public foresters have used in the past. Many of those forestry methods still common with the Bureau of Land Management and the U.S. Forest Service are destructive to the forest environment and therefore to an economy centered around timber and the forests. Some of these practices along with their objections and remedies are listed below:

- (1) Monoculturally based operations treat the forest as a tree farm, following an agricultural model. At harvest, the trees may be cut down like a crop of hay. By the time the area is replanted, a year or more of growing time has been lost, and many more years will pass before it can produce its potential yield of fibre per acre. However, we know that there is less



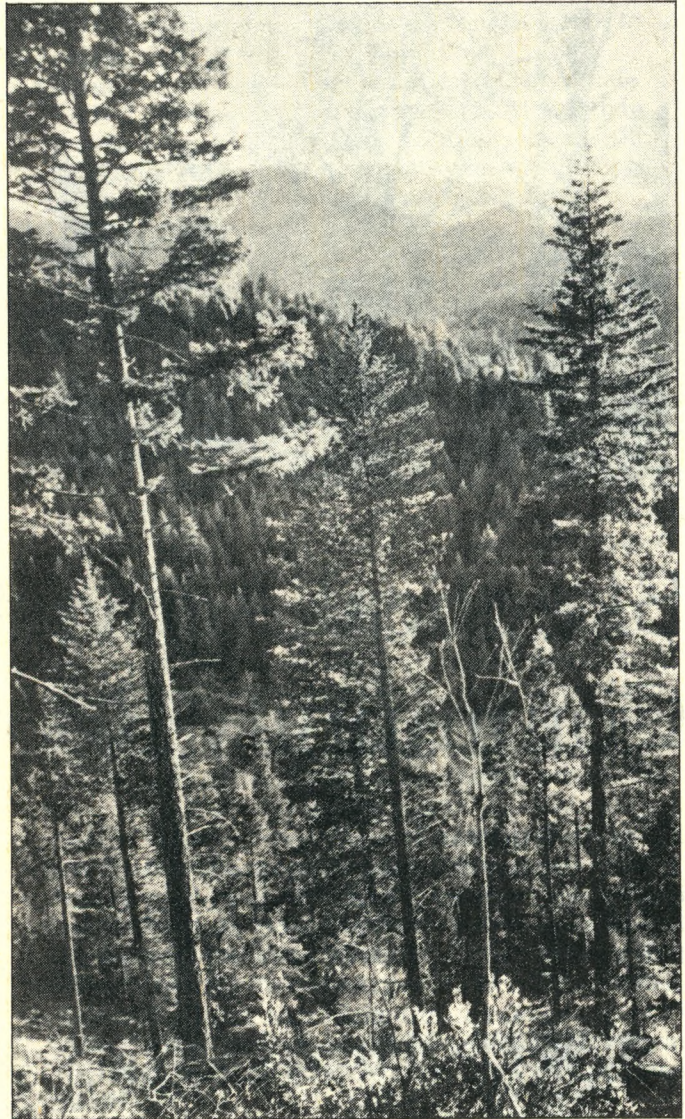
Douglas-fir

Western White Pine

FROM: *A Field Guide to the Cascades and Olympics* (see page 35).

competition in any given area between trees of different species than there is between trees of the same species. A natural forest, where different species are growing, will therefore produce more gross fibre than the same area planted as a monocultural operation. I believe that on the average, Natural Selection Forest Management could easily achieve twice the yield of a standard monocultural operation.

- (2) Slash-burning is the most usual method for removing the debris left in the wake of logging operations from the forest floor and for minimizing fire hazard. Not only does this cost time and money, but much material usable by the forest or as sellable products is lost. With Natural Selection Forest Management we remove slash down to 2" for firewood or other useful purposes. Any remaining slash the decomposers on the forest floor remove for us. This improves the soil and eliminates both the expense of burning and the hazard of fire.
- (3) The massive use of herbicides and pesticides in our forests is costly and dangerous not only to the forest but to human health as well. When we consider the forest as an ecosystem, we can see that herbicides and pesticides have no place there. If a forest is healthy and has been properly harvested using natural selection management techniques, it should not require any herbicides or pesticides, as nature keeps an adequate system of checks and balances.
- (4) Reforestation costs in public forests are enormous. According to the National Forest Service, the cost of reforestation in Washington and Oregon is \$382 per acre. In some regions of the country, it runs as high as \$893. In addition, reforestation is often not successful on land that has been severely damaged, such as clear-cut areas. Natural Selection Forest Management, by keeping an all-age stand, lets Nature plant the seedlings.
- (5) Many conventional forest management tools cause severe environmental damage, which could be greatly reduced by the methods outlined in this book. For instance, small-scale harvesting equipment



FROM: *The Forest Farmer's Handbook*

can cause less erosion and stream pollution than large-scale equipment, and thus can more easily maintain the forest's ability to function as a healthy organism. Natural selection management practices could eliminate these thorns in the side of public foresters. The diversity of the forest ecosystem is the key to the stability of the forest and could be the key to the stability of the timber industry as well. The reduction or elimination of management costs for reforestation and the use of chemicals would reduce the budget (our tax money) and free up the money for hiring people to fill jobs created by increased product diversity and the methods of Natural Selection Forest Management. If natural selection harvesting practices and other methods of forest farming were to reach into our public forests as well as our own, our total forest ecosystem could become healthy as well as productive. □ □

[Reprinted by permission of the publisher]

Good news spreads fast! Based on the Oregon decision, a federal judge has banned the use of herbicides on all Forest Service lands indefinitely.



MIMI MADURO

Chinook

Once upon a time, spiritual or intentional rural communities were places where people went to commune with nature, self, and divinity. News of the world outside was unwelcome. Well, that's changing. Now, community members are actively communicating with the world outside. They are still expressing their core values of attunement to spirit and service to the earth while developing deeply rooted connections with a specific place, but "service to the earth" is taking on a wider meaning. In fact, communities like Findhorn and Chinook are social laboratories where we can test new forms of social organization. Their visions are to create harmonious blends of community life, spiritual sensitivity, ecological integrity, global responsibility, economic viability, and appropriate technology.

Steve Rudman's curiosity about Findhorn was piqued during his travels, and then Steve and Mimi Maduro visited Chinook, located in the Pacific Northwest. In the next three articles, they record their impressions of community. —TK

Skeptical Activist Explores Community Roots

by Steve Rudman

It was autumn 1982 and I was traveling in the Scottish countryside, enchanted by its history and by its lochs and hillsides covered with heather in purplish bloom. I took a good case of workaholic burnout with me for a year's vacation from Reaganomics and Portland politics. I thought a journey through Europe and the Middle East might reinspire me and maybe even provide a few answers into the wonder of it all. In a cafe in Edinburgh, I saw an announcement for a conference at the Findhorn Foundation, a "Onearth Gathering" on "Building a Planetary Village." Great buzzwords, I thought sarcastically, but I was curious and, since I was in the neighborhood, I decided to visit.

Like many community activists, I've long had my suspicions about the sincerity and (lack of) political consciousness in the various "spiritual" movements. Given the Findhorn founders' myths—communicating with angels and nature kingdoms—I fully expected to find a lot of new-age "hokey-pokey-ness."

My skepticism gradually waned as I experienced the genuineness and critical self-reflection of almost every member I met. No one seemed content just to escape into this "Garden of Eden." The Findhorn I saw is a mecca for people seriously concerned with the world's future and determined to provide sensible alternatives.

Findhorn thrives on the continual flow of guests. People who visit learn to make changes within themselves, and then they return to their communities. The foundation has been most influential as a seedbed of new ideas and community experiments internationally.

Now it's over a year later, and I'm fully involved again in Portland community-development activities and planning the future direction for the Rain Commu-

nity Resource Center. Findhorn, planetary villages, even my travel memories generally, seem a long way from the world I see in my everyday work—the stark realities of social-change and low-income community groups fighting for organizational survival and the growing concern among many more people about nuclear war and global survival.

This winter, just as it appeared my cynical community-organizer edge was beginning to dominate my perspective, I visited Chinook Learning Community, in my own bioregion, for a brief retreat. As at Findhorn, I was confronted by caring and sharing people committed to realizing a vision of ecological responsibility and spiritual peace. Something stirred within me again. I felt a strong sense that I needed to contemplate the obvious challenge of integration and to cut through the political/spiritual dichotomy of progressive movements.

How do spiritually based communities venture out of their protected cocoons to address global problems while retaining their integrity? It is ironic that both Findhorn (located adjacent to a Royal Airforce base) and Chinook (overlooking a nearby Trident nuclear-submarine base) are constantly reminded of our most critical choice: evolution or extinction. These communities have chosen the path of spiritual development and education rather than direct social action. Members of Findhorn and Chinook believe that society begins to change when people's attitudes and assumptions change; thus, we need concrete demonstrations of positive alternatives.

Both Findhorn and Chinook have made conscious decisions to focus many of their educational activities outward, to venture outside the community. They've established resource centers (similar to Rain's, with

libraries and computers) to assist interested people in making connections. Findhorn and Chinook have made inroads into appropriate-technology and ecology circles over the past few years, each culminating in planetary village gatherings within the past two years. Both communities continue their evolution toward mainstream issues by sponsoring major conferences on economics this year. The networking of pioneering intentional communities fosters much of the bridge-building work in the progressive movements.

I fully expected to find a lot of new-age 'hokey-pokey-ness.' My skepticism waned as I experienced the critical self-reflection of people.

Intentional communities represent an attempt to synthesize many approaches: environmental, ecological, civil rights, equal rights, Third World, new-age, self-help, appropriate technology, bioregional, and the like. As a Findhorn member told me, "It's like a cosmic jigsaw puzzle. We all have different pieces and are trying to find ways to put the puzzle back together. What we need to do is blend the software of the spiritual community with the hardware of appropriate technology."

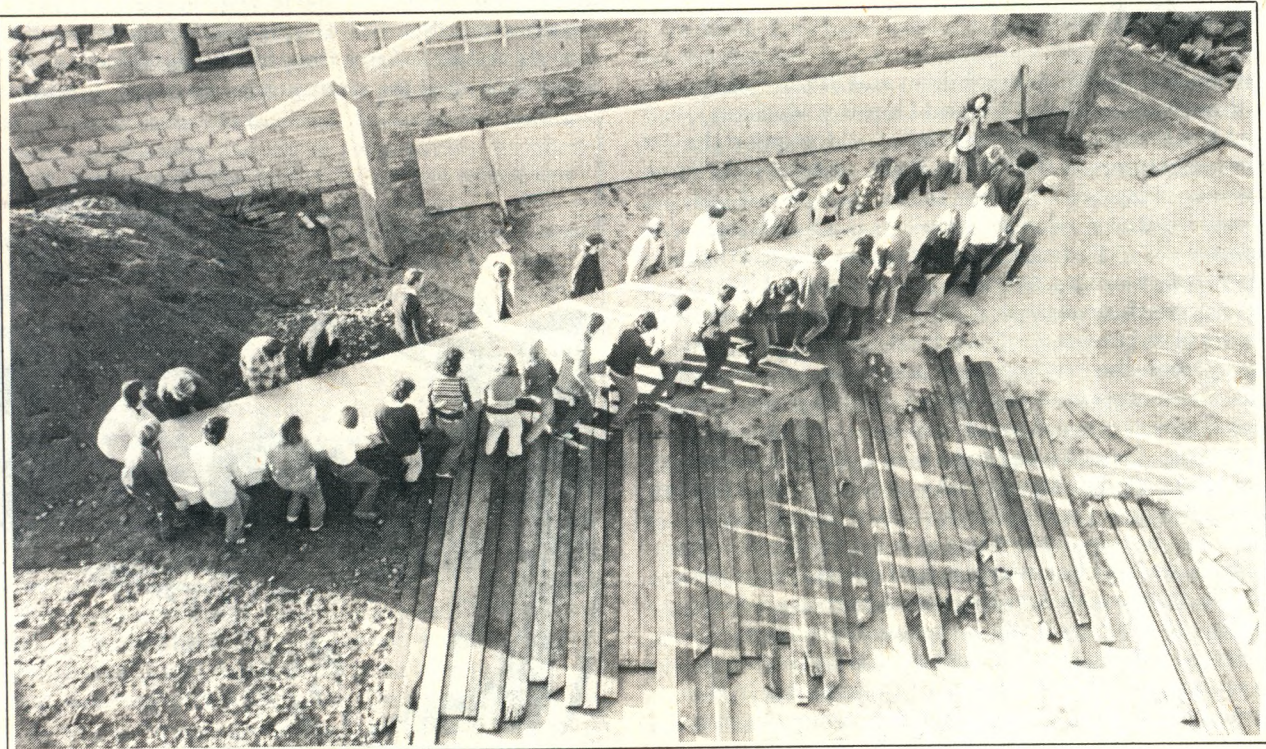
Despite the different paths taken by political-change activists and spiritual-community members, they share the same source. Both consist of deeply committed people with uncanny intrinsic motivation toward building a better world. There is little self-aggrandizement.

Almost all view their work as a service to a higher purpose—be it to the community, to the issue at hand, to the planet, or to the divinity within us all.

One aspect common to both political and spiritual camps is the preponderance of meetings. Although in recent years a good deal of progress has been made in social-change circles concerning group dynamics (such as the work of the Movement for a New Society and socialist/feminist theories), we activists can learn a lot about process from spiritually based communities. An "attunement"—a kind of group meditative focusing—begins virtually every activity at communities like Chinook and Findhorn. Group members make decisions by turning within and seeking an answer in silence; in this way they can quickly reach a consensus, or continue through discussion and further meditation until the solution is obvious to everyone. Other intentional-community techniques to enhance group cohesion and build *esprit de corps*, including frequent personal sharings and celebrations, also need to be explored and adapted for change-oriented groups.

I have no clear-cut answers, but I feel it's time to move on from the "either/or" syndrome. Since I choose to live in the city and work for community change, I accept the complexities, frustrations, and even absurdities as part of everyday urban political life. Yet I still find myself motivated to search for those elusive threads that make connections and help weave together progressive actions. We will always need imagination, bold action, and social experiments. Vanguard communities like Findhorn and Chinook are evolving into sustainable villages working with global perspectives. These models emanate from a convergence of ideas, people, tools, and technologies. I find this exciting; it helps inspire me to continue working, in my own way, for a better world. □□

FINDHORN FOUNDATION



Findhorn's Universal Hall was built solely by members and guests.

FINDHORN FOUNDATION



Aerial view of Findhorn's Universal Hall and the caravan park

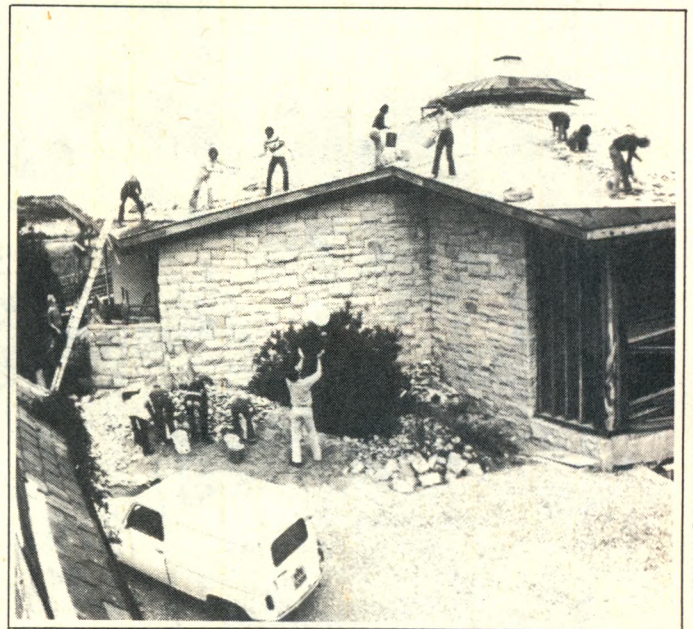
Findhorn at 21

by Steve Rudman

It all started in 1962 when Eileen and Peter Caddy, their three sons, and their friend Dorothy Maclean moved to a small caravan—or trailer—located on the windswept shores of the Moray Firth, about a mile from the fishing village of Findhorn in northeast Scotland. They were out of work and penniless, and with the “guidance of God” decided the best way to feed themselves was to plant a garden on a seedy old rubbish dump next to their caravan. Peter was the gardener, and Eileen received messages from God on where to plant things. (When the caravan grew too noisy for her meditations, God suggested that Eileen use the public toilet instead for her spiritual communings—and she did.) Furthermore, Dorothy began to hear voices in the garden she identified as Devas—the angelic presences that guard each plant species. The results of the group’s amateur gardening made news around the world—they grew 40-pound cabbages and 8-foot delphiniums on a sandy soil where only scrub grass had grown before. According to Lindsay Robb, a consultant to the Soil Association of Great Britain and the United Nations, “The vigour, health, and bloom of these plants in this garden in midwinter, on land which is almost barren, powdery sand, cannot be explained by the moderate dressing of compost. . . . nor, indeed, by the application

of any known cultural methods of organic husbandry. There are other factors, and they are vital ones.”

People from all over the world came to see the gardens. Two Americans wrote influential books about Findhorn in the 1970s. Paul Hawken’s *Magic of Findhorn* drew many young people to visit; some of them stayed for a few months. David Spangler’s *Revelations: Birth of a New Age* came to form the philosophical basis of what was evolving at the community. To many, Findhorn was



Findhorn's Universal Hall

FINDHORN FOUNDATION

chosen by the divine as a center of light, a place where the new civilization would dawn. The community's task would be to reclaim the planet with love, to cherish the things that were growing there and, by example, change the way the world thought. The gardens, with their incredible growth, were living proof that working in cooperation with nature and people made things work better.

At times, membership reached almost 400, although few stayed more than a year. Today there are fewer than 200 members, most of whom are British and American (though 20 nationalities are represented), and it seems more is getting accomplished than years ago when the workforce was double. One reason is that members are older (average age is 34) and staying longer (an average of three and one-half years). Another reason is that individuals are taking more responsibility for their own actions, which fosters an atmosphere of mutual consideration and caring. The key factor that transcends all differences of national origin, religion, or personality is some sense of spiritual cohesion that recognizes the divinity within us all.

As member Virginia Lloyd-Davies told me, "We have no religious dogma. There's no one way. Virtually everyone here believes in 'God,' but it's likely that you won't find two of us with the exact same belief. Our greatest strength is our unity, which comes from being able to work together in creative ways while accepting the diversity of our views and spiritual paths."

There are no "bosses" at Findhorn today. Peter Caddy, who relinquished his fairly authoritarian control several years ago, is no longer there. (Eileen Caddy, by the way, stopped receiving guidance on the running of the community about a decade ago.) Individual departments and groups have taken more responsibility for their own financial, personnel, and educational needs. Regular community meetings and internal newsletters ensure that communication remains open and clear. Final responsibility rests with a "core group" of about 12 members, whose role is to monitor the spiritual vision and objectives affecting the whole community. Its membership changes regularly, and its decisions reflect the climate of the community at any given time.

Besides members' contributions and donations, most of the income comes from the sale of books and tapes and from guests' tuition fees. The publications department produces a magazine, *One Earth*, and many books and tapes on Findhorn and related subjects. Members and guests do most of the design, typesetting, printing, and mailing. Each year, several thousand people visit the community, attend the "experience weeks," or enroll in one of the many educational programs offered.

It's evident that someone is listening when it comes to real estate. Although most members still live in the Findhorn Bay Caravan Park (the original site), the foundation has acquired much prime property over the years. Some members and most of the guests are accommodated at Cluny Hill College, a former four-star hotel in the neighboring town of Forres. It's a stately, old, 120-room building with a Victorian dining room (where terrific vegetarian meals are served). Nearby is Drumduan House, a Georgian mansion overlooking Findhorn

Bay that houses the community's communications center, an art gallery, and a music room. Down the road from Cluny is Newbold House, a small, Victorian, former hotel, where members run an independent bed-and-breakfast service as well as educational programs. Situated on eight acres next to the caravan park is the Cullerne Garden School, where students learn the community's organic-gardening methods. The Universal Hall, a magnificent lecture hall and performing arts center, has been using both members' and guests' skills in almost a decade of construction. The list goes on; the total value of the properties totals more than one million U.S. dollars.

Individuals are taking more responsibility for their own actions, which fosters an atmosphere of mutual consideration and caring.

Findhorn has taken many steps in the past few years in energy conservation, horticulture, and ecology. The energy bills for the caravans and drafty old mansions were enormous, but through wood-heat conversion, insulation, and passive solar installations, costs have been reduced about 30% over the past few years. Cullerne has been experimenting with several large polythene growing tunnels for food production, heated most of the year by the sun. An energy weatherization company has been in operation for over five years. The community has undertaken a comprehensive recycling effort, and is planning to retrofit many of the larger old buildings.

In 1982, Findhorn held its annual Onearth Gathering on the theme "Building Planetary Villages." The conference marked another critical phase in the community's development. Participants and speakers—including Wendell Berry, John and Nancy Todd, Sim Van der Ryn, and Gary Snyder—agreed that ecologically balanced, sustainable villages working with a planetary perspective are an important contribution to creating a better world. Perhaps more significantly than this inspirational aspect, the conference concluded with a profound shift at Findhorn toward establishing permanent roots. The members agreed to purchase the Caravan Park (the original and largest community site) and—a huge leap of faith—to raise 380,000 British pounds in one year, in time to commemorate the community's 21st birthday. This conscious step into adulthood has moved Findhorn toward building a village whose physical and cultural forms are imbued with spiritual and ecological values.

John Talbot, engineer and Findhorn member, told me, "Almost all of us agree that it's time to take a big step and apply what we've learned through the years about spiritual awareness toward some permanent physical changes around here. We want to express through our architecture and integrated ecosystems what Findhorn is all about, to truly bring our lifestyle more into balance with the earth's rhythms." □ □



Culture, Land, and Education at Chinook

by Mimi Maduro

The first days of February 1984 surprised Pacific Northwest inhabitants with spring weather that rekindled our foggy winter spirits. That's when I visited the Chinook Learning Community on Washington's Whidbey Island. On the ferry ride from Mukilteo (30 miles north of Seattle), I pondered issues that had been stirring within me for a long time. What about this notion of community? What is it, and how do we sustain our culture?

The south end of Whidbey Island is an outpost that poses new strategies for learning. The Chinook Learning Community, a center of cultural innovation, gently reminds us that resourcefulness and resilience are necessary to reweave our cultural patterns of education, learning, community, and home.

This community, though, is not an intentional one in a sense that people live there. No one lives at Chinook. The people drawn to this rural community steward the land, and for the past 11 years, they have devoted themselves to creating a learning center that explores both spiritual and environmental issues. As I talked with people connected to the community, several threads surfaced again and again: We can influence our future by living interdependently and cooperatively, and we are all here to work. As one Chinook member puts it, "Work is the reason." The members see diversity as the community's strength, and so each individual expresses what cooperation and interdependence are and decides what work is about.

The 25 members of Chinook orchestrate its vision, develop and sponsor educational and wilderness programs, and tend to the land and the community's resources. Members meet every August to examine their commitment, reflect on the past year, and plan for the future. This gathering, called the covenant, is the basis of Chinook's organization, and each member is required to attend. In addition, nearly 300 people support Chinook as associate members. Some of these folks think Chinook is a good idea and give donations; others have transplanted themselves to south Whidbey to make their home, cultivate their livelihood, and contribute to the community's work. Living arrangements include cooperative land purchasing, shared housing, rent exchanges, owner-built homes, and cooperative housing ownership. What is forming around the Chinook nucleus is a village where people work at their local businesses and live down the footpath from neighbors and

friends who share a kindred sense that they are living in a way that lays the groundwork for a sustainable culture.

Lifestyle and workstyle options abound here, but the "living lightly" philosophy is at the core. Chinook purchased the general store in Clinton several years ago, and it now operates Warm Wind Books and Records and houses offices and a resource center there. Six members work full-time on the Chinook education department, land, buildings, and business. Salaries are around \$400 a month. Some people commute to part-time professional jobs in Seattle, and others run businesses in Clinton and surrounding towns or work out of their homes.

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The resource center, a well-lighted room filled with ideas and images, is usually the place where visitors to the community come to ask questions. This room is filled with periodicals, books, maps, displays, and two computers. Resource center organizer Tim Clark also shares information over the phone. The community uses the cooperatively owned computers for databases, mailing lists, word processing, and bookkeeping, and many Chinook members and associates are learning to use computers.

Chinook offers workshops, conferences, wilderness experiences, summer intensives, and a continuing-education program known as Core Studies. Educational programs over the past two years have included a Zen meditation retreat, a guided imagery and music workshop, a permaculture design course, kayaking in the San Juan Islands, a planetary village conference, hiking

in the Olympics, climbing Mt. Rainier, and sponsoring the Paul Winter Consort's *Missa Gaia* concert. The codirectors of the Education Department, Autumn Preble and Marilyn Strong, view their work as "bridging the separation between spirituality and nature." Many Chinook programs reflect the community members' desire to learn about ideas and concepts they need to help the community grow.

Something else abounds in the village—meetings. About a dozen committees and departments make up the organization's structure, each dedicated to one facet of community life, such as welcoming guests, financial management, bookstore planning, and gardening. The posted list of weekly meetings can overwhelm a newcomer to village life. Monday—known as Challenge Day—is the one day of the week free from meetings. (I did manage, though, to meet with a hearty Chinook member on a Monday.) Meetings operate on a decision-making model called consensus by attunement. This means that members observe silence while decisions are being made so that everyone has time to understand and participate fully in any decision.

Cross-current notions of community, village, culture, and education converge at the Chinook Learning Community. How did it begin? What is at the heart of the community, and what is the dream all about? The roots of the dream began with Chinook's cofounders, Fritz and Vivienne Hull, who in 1970 were struggling with work commitments. Working together at the University Presbyterian Church in Seattle during the 1960s made them face many issues concerning work and the future. They joined the exodus of clergy leaving conventional religious service, but instead of embarking on careers in academia or counseling, as other clergy were doing, they headed to Europe with their 18-month-old son, Timothy.

Their travels brought them to the island of Iona, off the coast of Scotland, in August 1970. Although the visit to the community on Iona (whose origins trace to a

sixth-century monastic school) was disappointing, it sparked Vivienne's research into Celtic history and into the cultural impact of Christianity in Ireland and Scotland. Vivienne was returning to her roots. She had been raised in a working-class neighborhood in Northern Ireland where she experienced a society divided by competitive religions.

As Vivienne explains, "Our research and work became a way that we tried to work with Christian history, and to say to those in a more conventional setting: The Christian story is bigger. It is not just a matter of moving forward in time to the future, it is also a matter of seeing throughout our own past what conveniently got set aside and why."

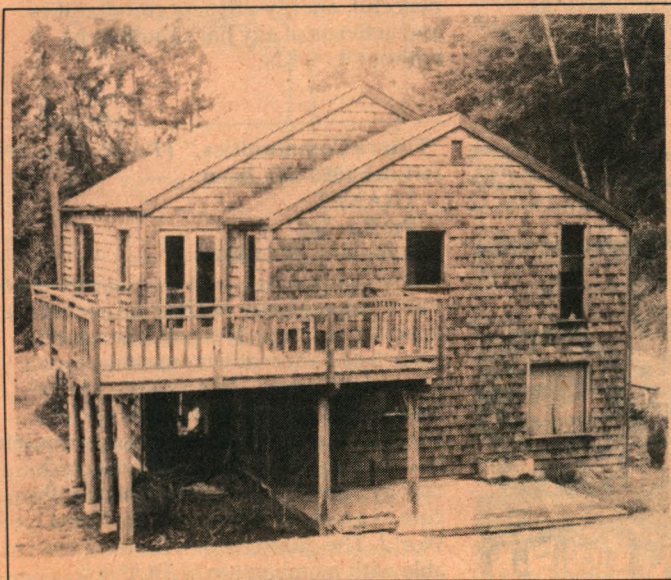
Upon returning to Washington later that year, Fritz and Vivienne decided to settle in Clinton, where Fritz's family had spent many summers. They continued to ruminate, but first they spent a few years discovering what they didn't want to do rather than what they did want to do. Some educational programs were held and some committees formed. A pivotal change occurred in 1979: The first covenant meeting was held in August 1979, marking the beginning of the commitment to membership in Chinook.

Reflecting upon Chinook's first decade, Vivienne says, "Two strong themes have been with us since the beginning. One is the sense of the fundamental shift from societies that are increasingly fragmented to a true understanding of interdependence and learning to live that way. Second is a real concern for the environment and the way in which Christianity has been a part of the problem that caused people to disregard matter and the natural order by teaching a terrible dualism."

The community and the village are growing. The nine-month residential program begins in September. The program's faculty comprises visiting scholars such as David Spangler and William Irwin Thompson, as well as Chinook members. Plans are under way to expand the community's buildings from the farmhouse, a meeting place called Granny's, a bungalow, and a shower facility to include a dining room, a large kitchen, and a student residence. Parallel to the growth of adult education programs is a commitment to children's education. As more children are born and village families grow, the issue of how to educate the next generation becomes vital. Vivienne sees the questions of how to embrace and work with a young family within the community as essential to the growth of the community and its vision.

Fritz Hull stresses that Chinook offers a resource for empowerment and learning. He says it is important for people to take matters into their own hands. Self-education and pioneering are integral to Chinook's values. "Parts of what Chinook is all about are replicable in every community," remarks Fritz. Perhaps this is the challenge: to take from this contemplative learning center called Chinook what works for us as we examine our connection to nature, land, and educational and cultural change. □ □

Mimi Maduro, a member of Rain's Board of Directors, gets absorbed by music and culture and is sometimes obsessed with technology.



MIMI MADURO

Granny's, a meeting place at Chinook

ACCESS: Community

Chinook Learning Community
PO Box 57
Clinton, WA 98236
206/321-1884

Write to Chinook for information on upcoming workshops. The next major event at Chinook is a conference on "Creating a New Economy: Work, Money, and Identity," which will be held May 9-13 on Whidbey Island, just north of Seattle. Major presenters include Paul Hawken, Robert Schwartz, Terry Mollner, John Graham, Shann Turnbull, and Patricia Mische. Regional resource people from business, government, banking institutions and co-ops will also attend. Attendees will gain skills and learn strategies to use in the working world, and also in the community and at home, to create a new economy. —TK

Findhorn Foundation
The Park
Forres IV 36 OTZ
Scotland

Write to Findhorn to find out about the guest programs, including experience weeks, workshops, and a conference on "The New Economic Agenda: A Sharing of Perspectives," October 13-20. The foundation also publishes the bimonthly journal *One Earth*, available for U.S. \$12 surface rate, \$18 airmail. —TK

Earth Community: Living Experiments in Cultural Transformation, by Susan Campbell, 1983, 242 pp., \$8.95 from:
Evolutionary Press
2418 Clement Street
San Francisco, CA 94121

This book is both a resource guide and a study of over 30 intentional communities on the West Coast. Examining the values and issues communities are dealing with—vision, leadership, sharing power, work and economics, inner development, and health—Campbell sketches for us a scheme of the many different approaches to these issues in these communities. Several chapters draw parallels between the relationships of communities and individuals with the earth and interpersonal relationships within communities. The resource guide lists books, periodicals, projects, and organizations under each of the issues described in the earlier chapters. For those wanting an overview of the "earth community network" on the

West Coast and access to learning more about it, this book is an important first step. (By the way, to find out about one of the communities in the earth community network, see "Sometimes the Magic Works: Alpha Farm Ten Years Later," by Caroline C. Estes, RAIN VIII:8.) —Mimi Maduro

Communities: Journal of Cooperative Living, 5 issues/year, \$10/year individuals, \$15/year institutions from:
Communities Publications
Cooperative
Box 426
Louisa, VA 23093

This is the place to find information on intentional communities in the U.S. *Communities* publishes articles about living in community and cooperatives in general, as well as an annual guide to cooperative alternatives. —TK

EarthBank Association
PO Box 87
Clinton, WA 98236

The EarthBank was organized to assist in creating socially responsible banking and financial institutions. These institutions will make capital available within a region and loan it to members for ecologically sound uses. The EarthBank ethic supports individual, community, and regional self-reliance and cooperative enterprises. Membership (\$5) provides you with information on credit unions, finance companies, commercial and savings banks, community development funds, and socially responsible investments. —Mimi Maduro



"Being a Planetary Villager," special issue of *In Context*, no. 1, winter 1983, quarterly, \$14/year from:
In Context
PO Box 30782
Seattle, WA 98103

Variations on the theme of community: 19 articles that explore the experience of community and being a planetary villager. *In Context* regularly publishes these issues. —TK

Community Dreams, by Bill Berkowitz, 1984, 255 pp., \$8.95 from:
Impact Publishers
PO Box 1094
San Luis Obispo, CA 93406

What we imagine, we create. A society that spends more time visualizing a nuclear holocaust, nuclear cloud, or the like than visualizing optimistic images of the future has a way of setting up the expectation, if not giving the initial go-ahead, to make it happen.

Community Dreams, a collection of both the possible and the actual, ought to be a text for every high-school civics course in the country. It postulates realistic ideas for making our cities and neighborhoods more than "livable," but actually stimulating, joyful places to grow and work: from universities of the sidewalk and neighborhood yearbooks to community dream banks and pizza shop/youth recreation centers. It's a written version of Diane Schatz's posters, depicting ecological, peaceful, energy-efficient communities, and activists of any hat shouldn't be without it. —KN

"Future Communities," *TRANET*, no. 29 (winter 1983-84), from:
TRANET
PO Box 567
Rangeley, ME 04970

Each 16-page issue of *TRANET* includes a special four-page directory; the winter issue listed alternative communities around the world. *TRANET* stands for transnational network for appropriate/alternative technologies. The organization has been giving away appropriate technology libraries—100 best books for the core of a technical library in the Third World. The quarterly newsletter is available with membership in *TRANET* (individuals \$15, libraries \$25, organizations \$100). —TK

ACCESS: Computers and Communication

Computer-Based Conferencing Systems for Developing Countries, compiled and edited by David Balson et al., 1983, 43 pp., inquire for price from:

International Development Research Centre
PO Box 8500
Ottawa K1G 3H9
Canada

This is a report of a workshop held in Ottawa, Canada, October 26-30, 1981. It explores the present development of computer-based conferencing systems (and like beasts) and their possible uses, potentials, and drawbacks for developing countries. Several groups' work is explained, including the Intergovernmental Bureau of Informatics, the International Telecommunication Union, and the International Federation of Information Processing. Specific computer-conferencing systems are also described, including the Electronic Information Exchange System (EIES), Infomedia Corporation, the Computerized Conferencing System (Stockholm), Sams Club (System of Automatic Message Switching for Communicating Lucidly with Brevity). Other proposed systems included are the Development Information Network and Global Links for International Action (GLIA). —SJ



New Technology Resource Center
Museum of Science and Industry
57th & Lake Shore Drive
Chicago, IL 60637
312/684-1414

The purpose of the center is to provide information and facilitate cooperative activities that will improve the likelihood that nonprofit groups can make effective use of electronic information-processing equipment, with an emphasis on telecommunications, microcomputers, and video. —SJ

Linkup: Communications and the Small Computer, monthly, \$19.83/year from:

Linkup
6531 Cambridge Street
Minneapolis, MN 55426

It's about time. I'd been waiting for someone to come out with a somewhat glossy computer magazine devoted to small computers as communication devices. Look into *Linkup* if you want to keep track of information utilities, phone modems, communication software, communication protocols, phone modem taxes, connecting mainframes, computer networks, online human sexuality, electronic yellow pages, MCI, online financial services, PC-Talk III, or Doubletalk and Doublecom—which happens to be software to deal with overload through Chat on The Source (a kind of CB-radio space on this popular information utility). Well, depending on how many of these words mean anything to you, you may be interested in this new periodical. —SJ

Benton Foundation
1776 K Street, NW, Suite 900
Washington, DC 20006
202/857-1768

The Benton Foundation is a private grant-making institution that supports work in the area of public understanding and use of traditional and emerging communications media. It supports projects that explore the short- and long-term effects of communications policy options and that facilitate the implementation of policies that promote the goals of access and diversity. It also supports projects designed to increase understanding of the role and effects of communications media in the political process. It seeks projects that strive to raise public awareness of the nature and uses of communications and information technologies and that ensure their benefits will be available to all.

The Benton Foundation recently published *Communicating in the 80's, New Options for the Nonprofit Community* (available for \$5), an introduction to the communications process and to alternative technologies, including satellites, videotex, microcomputers, personal video, and telephones. —SJ

Telecommunications Cooperative Network

370 Lexington Avenue, Suite 715
New York, NY 10017
212/680-1321

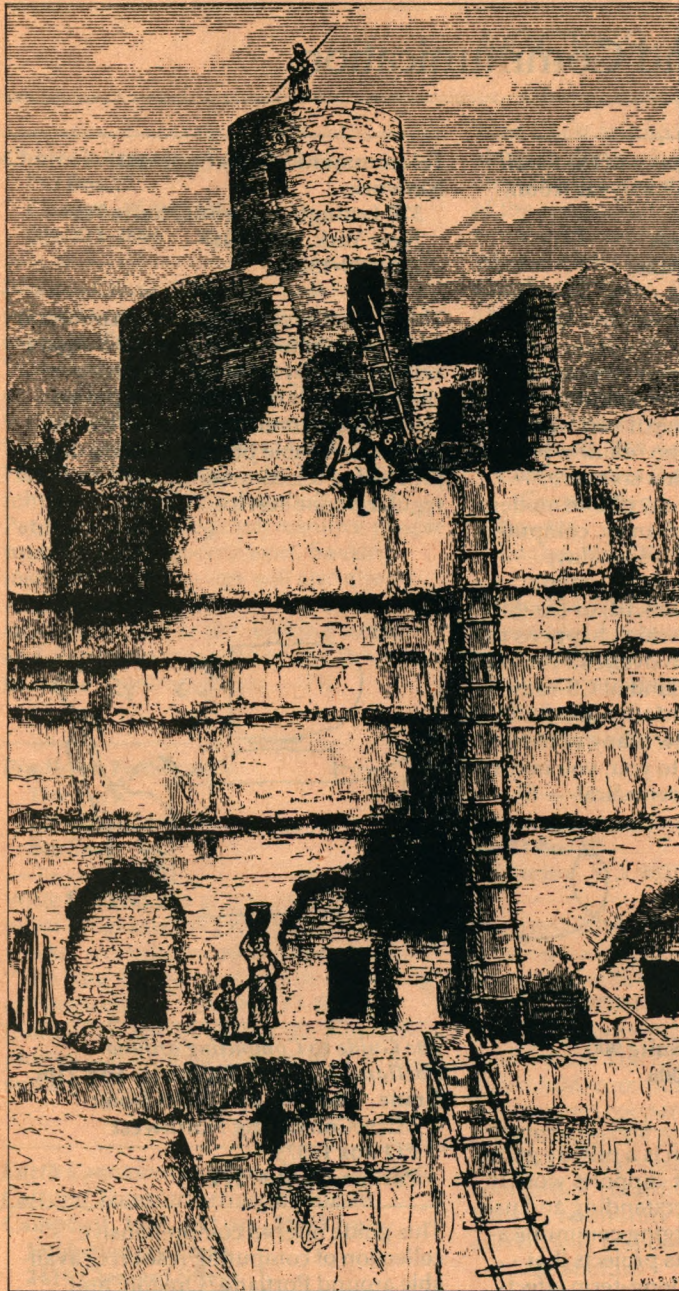
This cooperative evaluates the communication requirements of nonprofit organizations, and by pooling collective purchasing power of member nonprofits, purchases communication services for the best available price, including data-processing telecommunications and regular phone service. —SJ



The Guide to Computing around Portland, by Hank Bannister and Tim Crane, 1983, 165 pp., \$8.95 from:
MicroConsulting Northwest
PO Box 15075
Portland, OR 97214

This guide offers a comprehensive collection of computing resources available around Portland, Oregon, and Vancouver, Washington. It is an invaluable tool for seeking local computer access and education. The book describes educational programs and classes offered by schools, school districts, colleges, universities, educational service districts, special projects, and research institutions. Each citation includes address, phone, contact person, program description, and equipment available.

Most listings add comments and suggestions for further exploration. Additional sections list users' groups, retailers, consultants, and business and industry resources. The guide also incorporates a newsy appendix of computer classes, periodicals, and assorted local manufacturers and distributors. Attention to detail is evident throughout this guide. —Mimi Maduro



A Bioregional Vision

Kirk Sale's words last graced the pages of RAIN two years ago (RAIN VIII:6), when we interviewed him about the subject of his book *Human Scale*. These days he's working on a new book on American regionalism. Last fall, he delivered one of the two Schumacher Lectures at the third annual meeting of the E. F. Schumacher Society (Box 76, RD3, Great Barrington, MA 01230). That speech, entitled "Great Mother of Us All: An Introduction to Bioregionalism," is excerpted here. —TK

by Kirkpatrick Sale

"If all wisdom was acquired from without, it might be politic to make our culture cosmopolitan. But I believe our best wisdom does not come from without, but arises in the soul and is an emanation of the earth-spirit, a voice speaking directly to us as dwellers in the land."
—AE, in *The Interpreters*

To become "dwellers in the land," to regain the spirit of the Greeks, to fully and honestly come to know the earth, the crucial and perhaps only and all-encompassing task is to understand the place, the immediate, specific earth, whereon we live. It must mean something that the early human societies which occupied the world for our first 50,000 years or so regarded the sacredness of the earth as a truth so profound that it could be accurately described as almost innate; it must have significance that in most subsequent societies until quite recently the earth and its behavior formed the basis of all folk knowledge, not merely in matters of agriculture and nutrition but in medicine, religion, art, and even government. So, too, for us: "In the question of how we treat the land," as Schumacher says, "our entire way of life is involved." We must somehow live as close to it as possible, be in touch with its particular soils, its waters, its winds, we must learn its ways, its capacities, its limits, we must make its rhythms our patterns, its laws our guide, its fruits our bounty.

That, in essence, is the bioregional vision.

What the bioregional vision suggests is a way of living that not merely can take us away from the calamities of the present, the diseases of our quotidian lives, but can provide its own indwelling enrichments and satisfactions, a widening of human possibilities.

Imagine, if you will, the joy of knowing, as we can imagine from the scholarly record, what the American Indians knew: the meaning of the changes of wind on a summer afternoon; the ameliorative properties of everyday plants; the comfort of tribal, clannic, and community ties throughout life; the satisfaction of being rooted in history, in lore, in place; the excitement of a culture understandable because it is imminent in the simple realities of the surroundings.

Imagine a life primarily of contemplation and leisure, where work takes up only a few hours a day—an average of less than four, according to the studies of nonliterate societies—where conversation and making love and play become the common rituals of the afternoon, and there is no scramble for the necessities of life because they are provided regularly, equally, joyfully, and without charge.

Imagine a life—and here I am paraphrasing an anthropologist's description of a California Indian tribe—where people feel themselves to be something other than independent, autonomous individuals . . . deeply bound together with other people and with the surrounding nonhuman forms of life in a complex interconnected web of being, a true community in which all creatures and all things can be felt almost as brothers and sisters . . . and where the principle of nonexploitation, of respect and reverence for all creatures, all living things, is as much a part of life as breathing.

But I think, however enchanting that image might be, the bioregional vision is even more important in that it actually has an air of the practical, the doable, the achievable: it has the smell of reality about it.

Bioregionalism joins—or at least has the potential to join—right and left (or, perhaps more precisely, it ignores right and left), and thus unite the communitarian with the NRA hunter, the homesteader and the conservationist, the antinuclear activist and the antipowerline farmer. The concern for place, for the preservation of nature, the return to such traditional American values as self-reliance, local control, town-meeting democracy—these things can ally many different kinds of political people, in fact they have a way of blunting and diminishing other and less important political differences.

The bioregional vision suggests a way of living that not merely can take us away from the calamities of the present, but can enhance human possibilities.

Bioregionalism also has the virtue of gradualism, in that it suggests that the processes of change—of organizing, educating, energizing a following and a reshaping, refashioning, recreating a continent—are, like the overarching processes of Gaia herself, not revolutionary

and cataclysmic but, like the drift of the continents on their tectonic plates, steady, slow, continuous, regular, and inevitable. One does not imagine a bioregional civilization taking place by revolutionary decree—no matter whose revolution—or even, in truth, by legislative or administrative fiat. If one had to dictate or legislate the bioregional future it would never happen, because it would be resisted and sabotaged as crazy and utopian and impractical and un-American; it is only by the long and steady tenor of evolution that people will ease themselves into such a society as the alternative futures gradually come to seem senseless and the bioregional prospect becomes the only sane choice.

And finally, the bioregional vision does not demand elaborate wrenchings of either physical or human realities. It does not posit, on the one hand, the violent interference with nature that so many of the scientific technofix visions of the future do—those, for example, that ask for icebergs to be floated into deserts, or the Great Plains to be given over to concentrated nuclear power plants, or rockets full of people to be fired millions of miles away into space colonies around the sun. And it does not imagine, on the other, the creation of some kind of unlikely and never-before-encountered superbeings as do so many of the reformist and radical visions of the future—those, for example, that promise “a new socialist man” without motives of greed or self-interest, or that plan by education or religion or therapy to create a populace living in aquarian harmony without human vices. On the contrary, bioregionalism insists on taking the world as it is—if anything, making it more “as it is”—and people as they are. □ □

TOUCH & GO

Even elephants enjoy heat pumps!

Elephants, tigers, primates, and other Southeast Asian animals at Tacoma's Point Defiance Zoo are all feeling a little more at home, thanks to the installation of an energy-efficient heat-recovery system. The recovery system pumps approximately 50°F water from an underground well to heat pumps within the buildings. The system extracts heat from the water and vents it into the Mammal House and other buildings. The rejected water is then used to water lawns and for recirculation needs at the zoo and aquarium. (From: *Washington State Energy Office Newsletter*)

Business (as usual?): The solar-powered calculator market is becoming so competitive that more companies are rushing into the field with superthin models. A few months ago, Casio jumped in with a version it boasts is “exactly the same size as a credit card,” down to the 0.8mm thickness. At this rate, it won't be long before these companies introduce the solar-powered business card. Such a business tool might conceivably be held

in the light to reveal the standard business-card message. It could even contain a chip for an artificial voice to read out the same message, adding, “Don't put me in your pocket, it's too dark in there.” (From: *Solar Energy Intelligence Report*)

Biomass conversion, American-style:

Thanks to a drought-induced shortage of corn and grain, some of America's pigs and cows have had their diets “upgraded”—changed, anyway.

Missouri Farmer Walter Yoder keeps his 35 head of cattle on a diet of Wonder bread, honey buns and Ding Dongs (which they eat with the wrappers still on). “When I holler ‘come and git it,’ these steers come running,” Yoder says. “They like it more than the tall, lush grass in springtime. Even when the bread is moldy, they like it just fine.” Ted Thoreson, another Missouri cattleman, offers his steers spent Lipton tea leaves and contaminated flour. Says Thoreson, “The truth is that cows can actually convert most any kind of waste into food.” (From: *Time* magazine)



Dragonfly aerodynamics: Scientists at the University of Colorado have discovered an amazing new science of aerodynamics that may revolutionize aircraft. The discovery was made by studying the dragonfly, which has been around for only 250 million years. It can hover, fly backwards and to one side—as well as forward—and move with considerable speed. It uses its wings to stir up air, thus creating what is known as “controlled turbulence.” Furthermore, a dragonfly can lift 15 times its own weight. In fact, the airplane of the future may copy the dragonfly by creating turbulence above the wing by means of a strip that can be moved up and down. (From: *The Washington Spectator*)

VOICES OF REINHABITATION

Reinhabitory—refers to the tiny number of persons who come out of the industrial societies . . . and then start to turn back to the land, to place. This comes for some with the rational and scientific realization of inter-connectedness and planetary limits. But the actual demands of a life committed to a place, and living somewhat by the sunshine green plant energy that is concentrating in that spot, are so physically and intellectually intense, that it is a moral and spiritual choice as well. —Gary Snyder

Bioregion—a continuous geographic area seen in terms of similarities of plant and animal life and climatic and geological characteristics . . . and a terrain of consciousness—a place and the ideas that have developed about how to live in that place. —Peter Berg

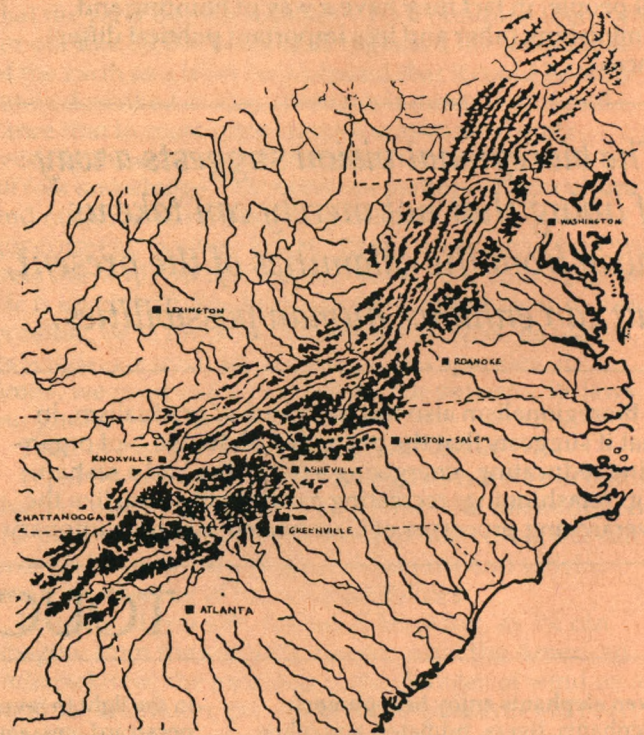
Southern Appalachia

*Translating the bioregional vision from a good idea to working systems is a long-term challenge. Part of the process entails offering clear information and proposals to the people and institutions charged with cultural house-keeping and improvement—educators; local, state, and national public servants (elected and appointed); planners and engineers; and financial managers, including bankers. In the southern Appalachians, more and more people are being treated to such information. We asked Marnie Muller and the staff (David Wheeler, Thomas Rain Crowe, and others) of *Katúah: Bioregional Journal of the Southern Appalachians* to treat us to their bioregion's voices of reinhabitation. (Let us know if you would like to share yours.) —KN*

The Appalachians stretch from the southern mountains in northern Georgia and northern Alabama all the way up into eastern Pennsylvania. Geologically, the chain picks up again to the north as the Catskills and Adirondack Mountains in New York and the Green Mountains and White Mountains in New England.

The *Katúah* bioregional province defines its boundaries along the lines of the area geologically known as "Old Appalachia"—the Blue Ridge Mountains, the Unaka Range, and the transverse ranges between them. The Appalachian chain was formed in two distinct stages. The "Great Appalachian Valley" (comprising the Tennessee and Shenandoah river valleys) divides Old Appalachia from New Appalachia—the Alleghenies and the Cumberland Mountains, younger ranges that contain the massive coal deposits so characteristic of Appalachia in many people's minds.

Old Appalachia coincides with the original area of Cherokee settlement in pre-Columbian times. For this reason, and in hopes of reawakening the spiritual identity this area had in the past, we have chosen to call this area by the Cherokee name *Katúah*. The name *Katúah* (pronounced ka-TOO-ah), which appeared in various phonetic spellings in historical texts, referred to the Cherokee village located just below the junction of the Tuckaseegee and Oconoluftee rivers in what is now called Swain County, North Carolina. This village dominated the "middle towns" of the Cherokee nation, those villages lying along the Tuckaseegee and the upper part of the Little Tennes-



Appalachian spring rain comes and brings with it promises of lushness and green, once again, for the whole undercover of the Appalachian region.

see River, and that area was frequently referred to as *Katúah*. The name *Katúah* was used with deep respect and, according to historian James Mooney, was "frequently extended to include the whole tribe," as in "people of *Katúah*." On the map, the *Katúah* village site is the geographical center of the Cherokee territory as well as the energy center for the eastern half of the Turtle Island continent.

In order to celebrate and show gratitude for the beauty of our region and to work toward ensuring its sustainability, we have begun *Katúah: Bioregional Journal of the Southern Appalachians*. We hope this quarterly journal will be a way of exploring the vision of reinhabitation in our region and that it will also be a forum for the people of the area to begin looking at the issues of sustainability. Some of the issues we need to study are: (1) development and over-population in the mountains; (2) forestry practices (see

Katúah, Issue #3, Spring 1984); (3) oil and gas leasing (see *Katúah*, Issue #2, Winter 1983-84); (4) stream protection (*Katúah*, Issue #2); (5) agricultural practices (*Katúah*, Issue #3); and (6) acid rain.

Several organizations and individuals in the bioregion are working on specific aspects of sustainability. In *agriculture and gardening*: the Tennessee Organic Growers Association; the Carolina Farm Stewardship Association and the Carolinas Center for Bio-Agricultural Husbandry. In *environmental defense*: the Streamwatch programs, the Georgia Conservancy, the Conservation Council of North Carolina, Carolinians

The Katúah village site is the geographical center of the Cherokee territory as well as the energy center for the eastern half of the Turtle Island Continent.

for Clean Energy, the Sierra Club chapters, the Western North Carolina Alliance, and others. In *social concerns*: The Highlander Center, Rural Southern Voice for Peace, Hunger Awareness Group of Asheville, Habitat for Humanity, and others. In *self-sufficiency skills building*: the New Homestead School, Long Branch Environmental Education Center, Arthur Morgan School, and others. In *cultural preservation*: several schools and universities have programs, exhibits, and libraries on Southern Appalachian history. This is a partial listing of issues and organizations; no comprehensive list exists yet. As we move closer to a "Katúah Council," perhaps we can collectively compile such a list. □ □



Katúah Bioregional Activities

Concerns and issues for Southern Appalachia make the most sense when viewed in a bioregional context. "What's a bioregion?" people ask when they hear the word; when we explain the concept, they say, "Oh yes, of course, that's the kind of planning and understanding we need here in the mountains—a view of the region as a *whole*, not just by state boundaries." Employment, banking practices, zoning, land taxation, energy use, transportation, farming, housing, environmental protection and healing, citizen action: We can see all these issues in light of Southern Appalachia as a whole, natural-boundaried, region.

The Katúah journal, for us, has been a first step in saying the word *bioregion* here. It is a tangible way of saying, "Here is what we are feeling about our region—what are *you* feeling?" In issue #1, we stated,

"The journal is a 'talking tool,' to help initiate dialogue." Eventually, it may encourage local groups to form in each county or city to talk about bioregional issues in general and to study their local habitat in particular.

So far, we have had a Fall Gathering this past October and will have a Spring Gathering this year at the end of April. These are informal gatherings where we have a morning meeting to bring ourselves up-to-date on the bioregional effort and to discuss ways to share more fully with others what it means to be "inhabitants;" then, in the afternoon, we have a potluck picnic, music, and games.

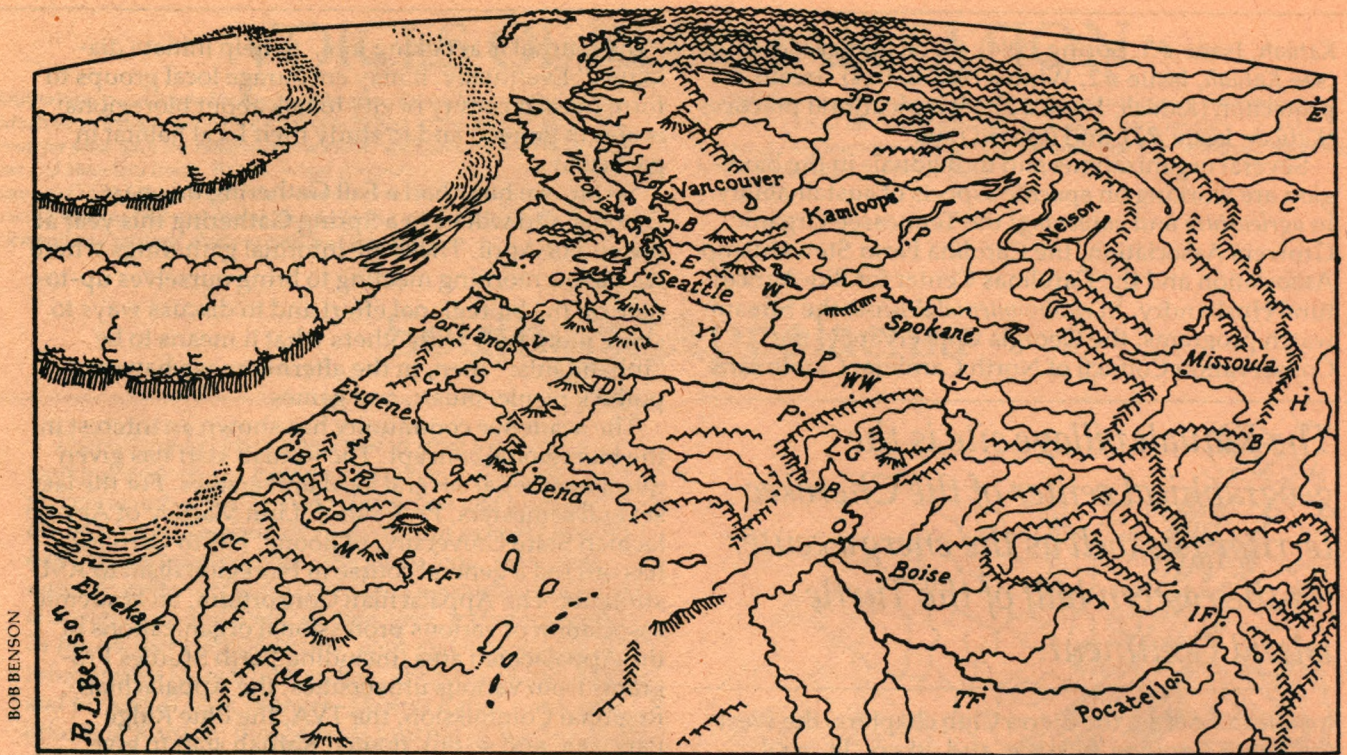
The academic community has shown an interest in the bioregional concept. The Katúah staff has given guest lectures at several local universities. For the last several semesters, Professor J. Linn Mackey of Appalachian State University, of Boone, North Carolina, has offered a general course in bioregionalism to ASU students. The Appalachian Consortium, an academic association of various professional organizations in the Appalachian area (including Earth Studies Programs from various universities, the Appalachian Regional Commission, the TVA, the Blue Ridge Parkway, and so on), invited Katúah staff to give presentations at their annual conference, the Appalachian Studies Conference in March. Katúah members gave the following presentations: Robert Zahner, Professor of Forestry at Clemson University, spoke on forestry and the bioregion; J. Linn Mackey, Professor at Appalachian State University, spoke on bioregionalism and the nation-state; Chuck Marsh spoke on bioregional economics; and Thomas Rain Crowe presented poetry of the bioregion.

We are also in the process of developing a watershed map for our region. The headwaters of several rivers are in the Katúah region, including the Tennessee, Little Tennessee, Chattahoochee, French Broad, Holston, Cumberland, New, Nolichucky, Roanoke, and Pigeon rivers. We look forward to sharing this map and other materials through displays on bioregionalism at local libraries in the region.

Katúah members also hope to share bioregional ideas and materials at many spring and summer festivals in the region—music festivals, craft shows, and town fairs would be ripe for a bioregional booth.

We also hope to spend time this year "networking" with the various organizations and people in this area who already know how critical it is that we work toward and nurture sustainability of our bioregion. We hope all our efforts combined will encourage a Katúah Council to form, where all of life can be reflected and represented at Council Meetings. Ho.

For more information, contact Katúah, Box 873, Cullowhee, NC 28723, and see *Appalachian Wilderness*, by Edward Abbey and Eliot Porter, 1970, E. P. Dutton & Company; *The Appalachians*, by Morris Brooks (natural history textbook); *The Southern Appalachians*, by Jerome Doolittle, 1975, Time-Life Books; and *The Southern Highlander and his Homeland*, by John Campbell, University of Kentucky Press. □ □



Pacific Northwest Bioregion Report

Energy Efficient Homes

The Oregon Department of Energy (ODOE) and the Bonneville Power Administration (BPA) have recently launched a program to promote construction of several hundred energy-efficient homes in Oregon by this fall. As a part of their home demonstration program, the two agencies will offer cash incentives of \$3,800 to \$6,900 (depending on the size of the home) to homebuilders to help defray the costs of energy-saving features such as higher levels of insulation in ceilings, walls, and floors; double- and triple-glazed windows; air-infiltration barriers; and passive solar design, where practical.

ODOE and BPA hope the homes will demonstrate the energy savings of building standards developed by the Northwest Power Planning Council and specified in the Northwest Power Act of 1980. (They predict that energy use in the demonstration homes will be less than one-third that of a new home built to Oregon's current building code.)

Based on the program's findings, energy-efficient measures that are cost-effective may be incorporated into recommended changes to Oregon's building code in 1985. In addition, BPA-supplied utilities not imple-

menting the tighter construction standards by 1986 may face surcharges on the electricity they use. You can obtain more detailed information by calling ODOE at 800/221-8035.



Conservation and Jobs

Although the BPA has been instrumental in creating the energy-efficient-home demonstration program, many Northwesterners are disappointed with BPA's role in the implementation of certain measures of the Pacific Northwest Power Planning and Conservation Act. It has been just a year since the Northwest Power Planning Council adopted, as a part of the Power Act, an energy plan called the Pacific Northwest Conservation and Electric Power Plan. It emphasizes conservation and renewables, instead of nuclear, coal, and other traditional energy sources. Pointing to the current surplus of power in the Northwest,

however, BPA and other utilities claim that implementation of this plan would contribute to the surplus and seriously strain the region's economy.

The Northwest Conservation Act Coalition (NCAC) disagrees with that rationale, reminding us that much of the Northwest's economic woes can be traced to misguided energy policies of the last decade. (According to NCAC, \$600 million per year comes out of our pockets to pay interest payments on nuclear power plants in the Northwest.)

In response to the threat to the plan, NCAC has mounted a campaign to support the plan and generate awareness in the public sector as to the benefits of such a plan to the region's economy. Its Conservation and Jobs Proposal, which details the basis for its new campaign, asserts, contrary to BPA's claim, that the present power surplus is *not* an obstacle to implementation of the Power Planning Council's regional conservation plan. NCAC believes the conservation plan would generate jobs and resuscitate the ailing Northwest economy. For a copy of the proposal and additional information, contact Mark Sullivan at the Northwest Conservation Act Coalition, PO Box 20458, Seattle, WA 98102; 206/624-2875.

Restless Mountain

Did you know that during the month of February 1984, Mount St. Helens experienced an average 15–20 seismic events a day? The high for February was 275 earthquakes in one day. Also during this time, an estimated four million cubic meters of magma (molten rock) was added to the dome forming in the volcano's crater. The dome now towers 800 feet above the crater floor, making it 195 feet taller than the Space Needle in Seattle.

Permaculture NW

Formed after the May 1981 Permaculture Conference in Portland, the Maritime Permaculture Institute consists of northwesterners who have taken permaculture design courses. This summer and fall, they have lined up a string of seminars and workshops: "Critical Perspectives on Permaculture and Prospects for a Permanent Agriculture" is a four-day symposium at The Evergreen State College in Olympia, July 25–28; "Plant Tissue Culture and Microbe Propagation" is a course to be held in Centralia, Washington, August 6–17; an edible landscaping conference is set for August 1–5 at Breitenbush Retreat Center; and the First Northwest Chestnut Congress is planned for mid-November. Get the fine points from Mike Maki, Maritime Permaculture Institute, PO Box 6138, Olympia, WA 98502; 206/866-9362.

The Evergreen State College is also sponsoring related seminars. "The Resources of Southern Puget Sound," July 10–14, will explore the potential of mariculture and include aquatic field trips. "Mushrooms: Wild and Cultivated," September 7–12, is an intensive course in mushroom identification and culture. Contact Summer Programs, TESC, Olympia, WA 98505; 206/866-6000.

Neighborhood Coalition

Last fall, Portland's neighborhood associations found themselves vying for extremely limited funds from the city's budget. After all the needs assessments were in, a few realized that the process could have come closer to an all-win ending. Neighborhood coordinators met and decided to initiate a City-wide Neighborhood Coalition (CNC) to share information on issues of interest to all the associations. As an adjunct to the city's Office of Neighborhood Associations, CNC will act as an advocacy group for

strong neighborhood associations, land-use matters, transportation, and district-wide school issues. The coalition officially began operation March 29. For more inspiration, contact John Wernicken, 2055 NW Kearney, Portland, OR 97209.

Funding Change

McKenzie River Gathering (MRG) has supported almost 700 social-change projects with well over \$1 million in aid since it began as an alternative foundation for the Northwest in 1976. This summer, MRG is completing its second successful year as an Oregon tax-exempt foundation. (In 1982, the MRG Seattle office became the Common Wealth Fund, a separate Washington Foundation.)

Several hundred people give money to MRG each year, ranging from donors with inherited wealth (traditional philanthropists) to those who are not wealthy and contribute from their salaries and personal savings. MRG continues to play a major role in the growing movement for progressive change in Oregon by funding community-based groups working for economic, political, ecological, and social justice. For more information, contact MRG, 454 Willamette, Eugene, OR 97401; 503/485-2790.



Rainbow Gathering in NW

From July 1 to 7, in the mountains of northern California, there is going to be a gathering for all people—worldwide. The invitation reads, "We, who are brothers and sisters, friends of nature and of all people, children of God, families of life on earth, children of humankind calling ourselves Rainbow Family Tribe, humbly invite: All races, peoples, tribes, communities, men, women, children, individuals—out of love. All nations and national leaders—out of respect. All religions and religious leaders—out of faith. All politicians—out of charity. All ecologists, ecotopians, evolutionaries, revelationaries, revolutionaries, and visionaries—in solidarity—to join with us in gathering together for the purpose of expressing our sincere desire that there shall be peace on earth and justice and harmony

among all people . . . on the fourth day of July at noon, to ask that there be a meditative contemplative silence wherein we, the invited people of the world, may consider and give honor and respect to anyone or anything that has aided in the positive evolution of humankind and nature upon this, our most beloved and beautiful world—asking blessing upon we people of this world and hope that we people can effectively proceed to evolve, expand, and live in harmony and peace." For those who wish to help in preparation or share in the vision, contact Bobcat and Julie Norman, 14894 Galice Road, Merlin, OR 97532, or the Rainbow Family Tribal Council, Box 2157, Chico, CA 95927.

Radioactive Waste Disposal

With just two months left before the petition deadline, Forelaws on Board, an activist organization based in Oregon that has been working on nuclear and environmental problems since 1973, is sponsoring a state-wide initiative petition that would change the radioactive-waste-disposal laws in Oregon.

The changes proposed in this measure "would add to existing disposal requirements by requiring the Oregon Energy Facility Siting Council to find, before approving a site for the disposal of wastes containing naturally occurring radioactive isotopes, that the site is not subject to water erosion, earthquakes, volcanoes, or landslides; that there is no safer choice for such disposal; and that there will be no radioactive release from the waste."

Among other things, these amendments would regulate the disposal of tailings from uranium mines throughout the state. They would also regulate the disposal of radioactive chemical sludge produced by Teledyne Wah Chang of Albany, Oregon, a company involved in removing metals such as zirconium from Australian sand through a metallurgical reduction process: The sand processed at Wah Chang contains elevated levels of naturally occurring radioactive isotopes that are reconcentrated in liquid waste during processing and transported by pipeline to unlined disposal ponds 400 feet from the Willamette River. A slide show available from Forelaws on Board illustrates the problems surrounding Wah Chang's waste site.

Through the initiative process, Oregonians can effect changes in matters of vital concern to us all. To

place this measure on the November ballot so that the people of Oregon can make these changes, Forelaws on Board and friends must collect 62,000 signatures before July 1, 1984. If you'd like to help get signatures or just want to know more about this measure or the history of radioactive waste disposal in Oregon, contact Lloyd Marbet, 19142 South Bakers Ferry Road, Boring, OR 97009; 503/637-3549.

Producer-Retailer Matching

Since we reported on the "Buy Oregon First" project last winter (see RAIN IX:3, page 32), the project's first-year success is providing encouraging prospects for 1984. The Neighborhood Economic Development Corporation (NEDCO) received a \$35,000 grant from U.S. Bank's "Are You With Us?" program to diversify Oregon's economy.

Using the idea that preventing "leakage" of capital outside Lane County can create jobs and new local business ties, NEDCO made a 1,830% to 5,392% return on each dollar spent in developing the program. That translates to new capital investment by local business worth \$1.58 to 1.68 million and the creation of 60 to 92 jobs. NEDCO figures a meager \$378 to \$578 was spent per new job. (Typically, set-up costs for a new job amount to the one-year salary that would be paid for the job.) One match is developing that will allow a local manufacturer to purchase parts locally instead of from Taiwan. Not only will one to two jobs be created, but the manufacturer will

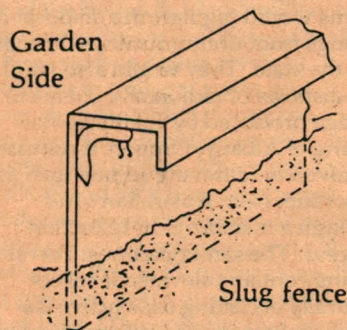
not have to wait 60 days to fill orders. Better yet, the outlay for parts will be recycled many more times through other producers, retailers, residents, and banks.

On a larger scale, Chef Francisco has been buying chickens out-of-state for its cooked chicken parts, but expects to begin purchasing them locally from Willamette Poultry. Willamette Poultry was not prepared for such a market, so it is building a new plant that will employ 60 to 90 people. Last year, the program received 66% public financing. This year, NEDCO is seeking private funds to support a program it feels has benefits for the entire state. For information, contact NEDCO, 341 Van Buren, Eugene, OR 97402; 503/343-7712.

Greening of B.C.

The British Columbia Green Party met in Victoria, February 25-26, and the 130 participants developed policies and political objectives for the upcoming federal election. Dr. Wilhelm Knabe, cofounder of the West German Green Party, told the convention, "Our wilderness and wildlife in Europe have disappeared. Yet you in BC have priceless jewels such as Meares Island, South Moresby, and the Stein which aren't even protected, and you slaughter your wolves."

The party members elected Adriane Carr, professor of geography at Vancouver Community College, as president. She noted that "every vote cast for the Greens is a message to the other parties that we all must place peace, the earth's ecology, and a conserver economy first in our priorities." The convention ended with a commitment to ongoing participation in local communities and the upcoming federal election. The Greens hope to enter about 17 candidates in the races. Get the finer points from the Green Party of British Columbia, 214-1956 West Broadway, Vancouver, BC V6J 1Z2, Canada; 604/733-9009.



FROM: *Winter Gardening in the Maritime Northwest*

NW Publications

Winter Gardening in the Maritime Northwest, by Binda Colebrook, 1984, 170 pp., \$9.50 (WA tax .71) from:
Maritime Publications
 PO Box 527
 Everson, WA 98247

Pacific Northwest gardeners will be excited to hear that Binda Colebrook has put out a second edition of *Winter Gardening in the Maritime Northwest*. It is about 95% new copy and is definitely one of the best experiential year-round gardening books I've seen. An extremely informative section on climate, soils, seeds, and diseases is followed by an extensive section covering usual and unusual vegetables in great detail. She has even included a section on cold frames and cloches, which is quite comprehensive; surprisingly, however, some of the types she dismisses are those that some groups have found to be ideal.

Overall, a highly recommended book, one that contains pertinent info for gardeners at all levels of experience. —Collette Gardiner

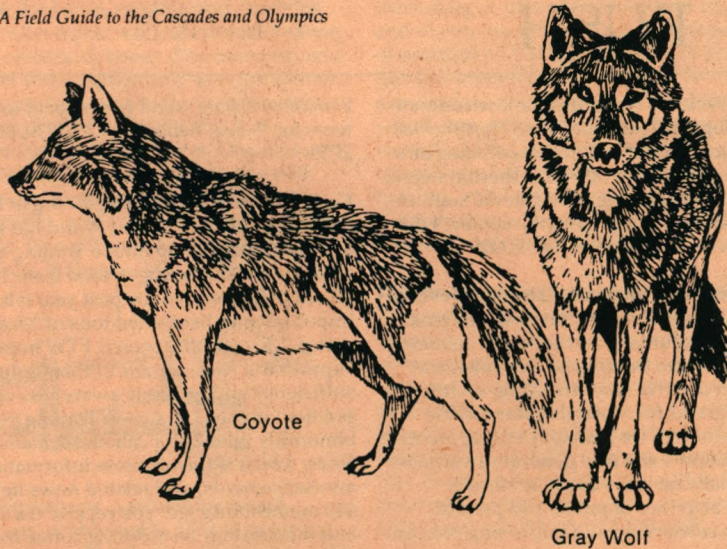
Collette Gardiner teaches gardening and landscaping classes in Portland.

Gardening Under Cover, by William Head, 1984, 104 pp., \$9.95 from:
Amity Foundation
 PO Box 11048
 Eugene, OR 97440

This is an exciting book. It's a comprehensive guide to using solar greenhouses, cold frames, and cloches in the Pacific Northwest. *Gardening Under Cover* contains basic uses as well as many designs for cold frames and cloches. Information is specifically geared to gardening in the Northwest, although much of the info would be useful anywhere. This book will enable Northwest gardeners, blessed with a mild climate, to make the most of their gardens. Head also includes a great deal of info on solar greenhouses and a section on hydroponics.

The wealth of solid information enables beginners to extend their gardening techniques, but this book also goes beyond the basics by offering good ideas for advanced gardeners. An excellent book for anyone interested in undercover gardening. — Collette Gardiner

FROM: *A Field Guide to the Cascades and Olympics*



Coyote

Gray Wolf

Water: Portland's Precious Heritage, by Casey Short and Mayor Frank Ivancie, 1983, 142 pp., \$4.95 from: The City of Portland Water Bureau 1120 SW 5th Portland, OR 97204

Portland's founders discovered the unreliability of water from wells and saw the destruction of natural stream watersheds by timber harvesting. In December 1895, Henry Failing, Chairman of the Portland Water Committee, warned that "the water system which cost the people of Portland \$3 million will be greatly impaired if not rendered useless by a few individuals for the sake of a few thousand dollars' worth of sheep, cattle, and lumber." To provide full protection of Portland's watersheds, the Trespass Act was passed by Congress in 1904.

The purpose of this book appears to be an attempt to justify the present compromise between water quality and sustained-yield timber harvesting, which began in 1958 or 1959. This book implies that some form of logging has been going on throughout the history of the Bull Run watershed, even in violation of the Trespass Act. The city of Portland had every opportunity to demand, by court order if needed, that the Forest Service enforce the act. Instead, between 1958 and 1959, the city agreed to turn management of the Bull Run watersheds over to the Forest Service. Ironically, it took a coalition of citizens' groups, *Miller v. Mallery* in 1976, to halt (temporarily) clearcut logging in our watersheds, including most of the Little Sandy, a potential supplementary water source to the Bull Run Reserve.

Public Law 95-200 was passed in 1977 to avoid compliance with the Trespass Act and the 1976 court injunction. The present Environmental Statement allows 21 million board-feet per year to be harvested in the Bull Run and 11 million board-feet per year in the Little Sandy. This year, however, the city is seriously discussing water-quality standards, and it will have to make changes in the Environmental Statement. The city has asked BRAC, the city's Bull Run Advisory Committee, to work with the Water Bureau and the Forest Service to formulate standards. (The public is invited to BRAC's monthly meetings.)

Missing from the appendix of this book is a chart of chlorine dosages, which shows: 1927-1957, 2-6 pounds per million gallons; 1958-1959, 3 1/2-18 pounds; 1960-1976, 8-18 pounds; 1977 to date, 14-18 pounds. Is our water now usable only because of chlorine treatment? Would Henry Failing be shocked? —Donald R. Cook

Don Cook is a member of the Bull Run Interest Group in Portland.

Monthly Planet, twice quarterly, inquire for price from:

The Associated Students
Environmental Center
Viking Union 113
Western Washington University
Bellingham, WA 98225

Western's Environmental Center and its *Monthly Planet* are closely connected to the Pacific Northwest's most comprehensive institution of environmental studies: Huxley College of Environmental Studies. This student-pro-

duced newsletter focuses on the politics of environmental protection, especially those of the Skagit River and Mt. Baker watersheds, but also sprinkles in environmental news and issues of Vancouver Island and southwestern British Columbia. —KN

***A Field Guide to the Cascades and Olympics*, by Stephen R. Whitney, 1983, 288 pp., \$13.95 from: The Mountaineers 715 Pike Street Seattle, WA 98101**

For the aspiring naturalist not yet ready to tackle some of the more technical field guides or botanical keys for the Northwest, this book provides an interesting and thorough introduction to the plant and animal species, as well as the geography, geology, climate, and ecology of our region's mountains.

Unlike many other field guides, Whitney's resists specialization and provides comprehensive coverage of everything from ferns to salmon to butterflies. To supplement the strictly descriptive parts of the book, the author includes a section on plant and animal distribution, which consists of a three-page primer on the principles of ecology and a detailed description of the different vegetation zones found in our region. He also introduces each chapter by remarking on interesting aspects of behavior or adaptation found among our flora and fauna. By doing so, he lends greater depth and clarity to our understanding of the natural world and its inhabitants. Another pleasant surprise is the way Whitney refers to the mountains of Oregon, Washington, and British Columbia as "our mountains." Such an approach fosters a more holistic, integrated perception of these mountains and reminds us of the geological and ecological underpinnings of our region, which transcend political boundaries.

Once you're in the field, however, this guide has its limitations. For example, even the "casual observer" (as Whitney refers to his intended audience) would feel frustrated at the ambiguous illustrations of the different species in the pine family, which could confuse rather than aid identification.

Still, the drawbacks are negligible for the "casual observer." With this book, the neophyte (and even the somnambulant veteran) will undoubtedly enrich his or her understanding of the natural areas of the Northwest. —CB

RUSH

An Alternative Commitment to the Oppressed—Pueblo to People, a nonprofit, nonsectarian organization, is working with cooperatives and peasant groups in Central America to improve conditions for the poor majority, *el pueblo*. PTP is opening up channels of equitable economic interchange between Central America and the world through the sale of various crafts made in Guatemala, Honduras and Nicaragua. For a brochure describing the crafts and PTP's approach to social change, write to Pueblo to People, 5218 Chenevert #5443, Houston, TX 77004.

National Community Garden Contest—The American Community Gardening Association and Glad Bags and Wrap are sponsoring the First Ever National Community Garden Contest. Gardens must be 10 feet by 10 feet or more and include at least 10 people who share responsibilities. Half the space must be devoted to at least four vegetable varieties. Cash prizes will be awarded to 12 gardens in each region; the national winners will receive \$15,000 and a trip to Washington, DC, for two garden representatives. For more information, contact Carol Brewster, Eugene Community Gardens, 301 North Adams, Eugene, OR 97402; 503/687-5329.

Social Graphics—Two new posters depict the social and economic woes of our country. The Nuclear Arms Race and Alternatives poster (color, 37 x 24 inches) explains the nature of nuclear weapons and how the arms race developed. The poster also depicts the alternative uses to which the money now used for maintaining and developing nuclear weapons could be put. An updated edition of Social Stratification in the U.S., a poster that documents a shifting social structure ("a shrinking middle class") in the U.S. is also available through Social Graphics, 1120 Riverside Avenue, Baltimore, MD 21230.

The Cold Facts—The Center for Environmental Physiology has just published *Hypothermia: The Cold Facts*, a publication that contains new information about hypothermia thermometers and an expanded listing of additional sources of information. It is free from the center, 1151 K Street, NW, Washington, DC 20005.

Environment and Integrated Human Development—The Declaration of San Jose de Ocoa, signed by 35 voluntary development agencies in February in the Dominican Republic, was the product of a five-day workshop on Integration of Programs for Managing Renewable Natural Resources for Human Development. The declaration's aim is to generate awareness internationally on ways to integrate and coordinate activities of public and private agencies in conserving and improving renewable natural resources (water, soil, and forests) while meeting the needs of people. The document stressed the critical condition of natural resources throughout the Caribbean region and advised that in order for such responsible, integrated development to take place, not only do the people who inhabit and work the land need to be included in the decision-making processes, but certain social and structural changes might be necessary for just and equitable access to and protection of natural and cultural resources. For additional information or documents, contact Helen L. Vukosin, CODEL Environment and Development Program, 79 Madison Avenue, New York, NY 10016; 212/685-2030.

Peace through Citizen Exchange and Community Service—Volunteers for Peace hosts over 1000 workcamps designed to promote peace by meeting human needs in the U.S., in North Africa, and in Western and Eastern Europe. The workcamps, for which there is a minimal fee, take place during the summer for two to four weeks. To obtain the 1984 VFP International

Workcamp Listing, send \$5 postpaid to Volunteers for Peace, Belmont, VT 05730; 802/259-2759.

Cooperative Trading—Beginning in February 1983, Friends of the Third World has sponsored a project called Cooperative Trading to help facilitate the importing of food from Third World producers. In the past year it has imported and distributed tons of Nicaraguan coffee. Through the project FTW hopes to both support the Nicaraguans in their fight for self-sufficiency and generate awareness of "coffee politics" in the U.S. Co-op Trading publishes a bimonthly newsletter called *Alternative Trading News*, which is full of access information, announcements, and related news items. For a \$10 membership fee, you receive the newsletter and information on ordering coffee from Nicaragua and Tanzania. Write Cooperative Trading, 611 West Wayne Street, Fort Wayne, IN 46802; 219/422-6821.

Food and Development—*What's Cooking?* presents food and nutrition as problems linked to all the fundamental, interacting problems of development—poverty, injustice, and ignorance, to mention a few. This resource material is designed to stimulate debate and action based on the following objectives: (1) to encourage a spirit of self-reliance in the Third World; (2) to provide a basis of knowledge for initiating and supporting systems of fairer food production, consumption, and distribution; (3) to give consumers a means to build up their knowledge and self-confidence through consumer information; and (4) to arouse public awareness of the needs and priorities of desperately poor countries. Order for \$5 through Governmental Liaison Service, United Nations, Room DC2-103, New York, NY 10017.

CALENDAR

Gothenburg, Sweden, will be the site for the **Bioenergy 84** exhibition and world conference, June 15-24. This event will feature a special preconference two-day seminar on Bioenergy in Developing Countries, with speakers from around the world lecturing on a host of topics, including "Planting Trees for Fuel, an Example from Kenya" and "Bioenergy R&D for Developing Countries." At the conference itself, the presentations slated will cover biological, technical, economic, and political aspects of bioenergy production and use. A postconference tour to the Swedish province of Dalarna will visit a community that has replaced 90% of its oil with bioenergy. For registration information and brochures, write to Gothenburg Convention Bureau, Kungssportsplatsen 2, S-411 10 Gothenburg, Sweden.

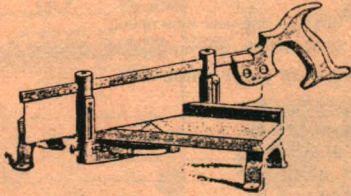
Learn how to take an active role in designing, building, and contracting an energy-efficient home at **Heartwood** owner-builder school this summer during its summer resident **Housebuilding** courses. Three-week courses provide the opportunity to explore housebuilding both in the classroom and at a construction site, covering everything from plumbing to solar orientation. There are also more specialized one-week workshops, including cabinetmaking, Russian stoves, renovation, practical skills for living in the country. The courses begin in May. Heartwood School, Johnson Road, Washington, MA 01235.

A **renewable energy expert from the People's Republic of China** will be a guest lecturer through June 8 at The Farallones Institute Rural Center. Li Nuanguo, known for his

publications on biomass and biogas, as well as solar and geothermal energy in China, will spend the spring at Farallones and lecture for a course on Appropriate Technology and International Development Strategies. His visit is an important step in a continuing effort by U.S.-based "soft path" organizations to exchange information with China on viable alternatives to traditional Western energy-development patterns. Contact the Farallones Institute Rural Center, 15290 Coleman Valley Road, Occidental, CA 95472; 707/874-2441.

June 10 to 16 is **Future Week** in Washington, DC. To highlight this special week, the World Future Society has organized **World View 84**: A Global Assessment of Problems and Opportunities, to be held from June 10 to 14 at the Washington Hilton in Washington, DC. The

conference promises to present an interdisciplinary look at the forces shaping and changing society. Session topics will include automation, work, and careers; defense, disarmament, and world order; food, agriculture, and population; and energy, resources, and the environment. Fritjof Capra, Lester R. Brown and B. F. Skinner are among the speakers. Displays and opportunities for hands-on experience with such varied technologies as computers, solar energy, robotics, and alternative fuels, will also be available. World Future Society, 4916 St. Elmo Avenue, Bethesda, MD 20814.



Country Workshops, a school for woodworkers, was established in 1978 to meet the needs of those wishing to pursue an interest in traditionally oriented crafts. Each summer, teachers who are masters of their field are invited to share their knowledge and skills

with small groups of students during intensive, week-long workshops. Hands-on experience and theory are brought together in the teaching of practical and versatile skills that promote the development of self-reliance and high standards of craftsmanship. The 1984 schedule, which runs from July to October, includes workshops in Greenwoodworking, Cooperage, Japanese Woodworking, Chairmaking, and Toolmaking for Woodworkers. Country Workshops, Route 3, Box 262, Marshall, NC 28753; 704/656-2280.

War Resisters League Organizer's Training Program is a program to train organizers in nonviolent techniques. Through discussions with experienced resource people and personal sharing, the program will explore political philosophy, current issues, and techniques of organizing. The application deadline is June 1, 1984, the cost is \$220, and the program runs July 21-30. To receive an application and brochure, contact WRL, 339 Lafayette Street, New York, NY 10012; 212/228-0450.

A first Northeast conference on **Food and Energy: Paths to Self-Sufficiency** is planned for May 19 at Ramapo College in Mahwah,

New Jersey. Designed for all who have an active interest in growing, eating, and distributing food, the all-day program will provide workable alternatives to the present petroleum-dependent food system, which consumes over 16% of our total energy. Topics include cutting energy costs, developing local and renewable energy sources, backyard gardening, organic approaches, solar greenhouses, safe pest management and breaking the supermarket chain. The conference is sponsored by Metropolitan Solar Energy Society, Mid-Hudson Renewable Energy Association, and Ramapo College. For further information, contact Jon Naar, 230 East 50th Street, New York, NY 10022; 212/752-4625.

Earth Stewardship 1984, a seminar slated for June 8-10, will examine the roots of a benevolent ethic of the environment, articulate a personal stewarding responsibility to the earth, and point the way to a healing of the earth through remembrance by her people of their roots in God. The cost of this seminar is \$76, meals and lodging included. For further information, contact Earth Stewardship 1984, The Eleventh Commandment Fellowship, PO Box 14727, San Francisco, CA 94114.

ADVERTISING

THE BABY DECISION, an excellent, objective book that helps one explore this important life decision. Principles can be applied to other areas of life. 300 pages at special price. Send \$3.85 (including shipping). Also available, a full line of non-prescription contraceptives at discount prices. Write for free descriptive brochure. Non-profit. 2PG-Seattle, Dept. R, 4426 Burke North, Seattle, WA 98103.

BAMBOO FLUTES, shakuhachis, recordings. Niemi, Box 273, Mountainview, HI 96771.

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On the first day of spring, friends of Nancy Cosper gathered to celebrate her life. Nancy, a long-time Rainiac, passed away March 15 in Hawaii.

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