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# RAIN

OUR NINTH YEAR!

Wendell Berry on Agricultural Excellence  
Tom Bender on True National Security  
Pacific Northwest Bioregion Report



VOLUME IX, NO. 1



# RAIN: Journal of Appropriate Technology

Volume IX, Number 1  
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RAIN Magazine publishes information which can help people lead more simple and satisfying lives, make their communities and regions more economically self-reliant, and build a society that is durable, just, and ecologically sound.

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### ATTENTION SUBSCRIBERS!

Up to now, we have published a 24-page RAIN 10 times a year. With this issue (Vol. IX, No. 1), we begin publication of a 40-page RAIN 6 times a year. Our volume year will run: OCT/NOV, DEC/JAN, FEB/MAR, APR/MAY, JUN/JUL, AUG/SEP. You'll continue to receive the same total number of pages over the course of a year and your subscription will expire at approximately the same time as it would have under the old schedule. If,

for example, your subscription was originally set to expire with the April 1983 issue (Vol. IX, No. 6 under the old schedule) it will now expire with our bimonthly April/May 1983 issue (Vol. IX, No. 4 under the new schedule). The new expiration code is indicated on your address label. If you have any questions about these changes, please write: Circulation Department, RAIN, 2270 NW Irving, Portland, OR 97210.

# LETTERS

Dear RAIN,

A.T. is easier to promote here when people see that there are concerned people in the affluent U.S.A. We appreciate your work. Thanks.

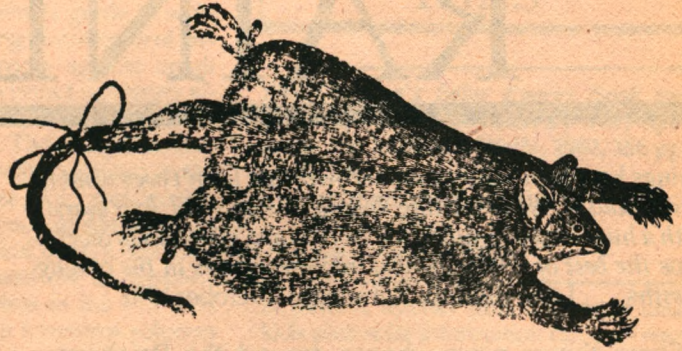
Sincerely,  
Paul Warpeha  
The Appropriate Technology  
Development Institute  
Lae, Papua New Guinea

Dear RAIN,

I thought your article "Faith Into Action" (Rain VIII:7) was very good. People are starting to read all of the Bible, not just the parts they think justify their comfortable lifestyles. Unfortunately, your list of Christian based volunteer services omitted one of the largest and most successful, the Jesuit Volunteer Corps. JVC was started 25 years ago (be-



## AND MORE LETTERS...



fore Peace Corps or VISTA) and now has over 300 volunteers a year and 5 regional offices. JVC is similar to the other volunteer services in stressing Social Justice, Simple Lifestyle and living in Christian Community. Those interested should contact:

Jesuit Volunteer Corps: Northwest  
P.O. Box 3928  
Portland, OR 97208

Sincerely,  
Dave Kinloch  
Louisville, KY

Dear RAIN,

After reading Patrick Mazza's article on the Okanogan, I feel compelled to respond.

While he never purported to be doing a comprehensive look at the "counter-culture" in NE Washington, I feel his article to be far too "rose-colored."

I lived in the area (actually Ferry County) from 1974 to 1980 and am still a member of an intentional community there, though I choose to live currently in Eugene.

I found the area's "new-comers," though good-hearted, to be not very "alternative."

Basically these urban refugees fit into two categories: 1) white, suburban, pseudo-Indians (though the vogue now is pseudo-Rastafarians) who have established hippie sub-divisions consisting of PRIVATELY-owned, male-dominated adjacent parcels based on the serial-monogamy nuclear family model. This individualist, sexist, racist (yes, ask real Native Americans what they think of young whites ripping-off their culture) model can hardly be called an alternative social structure; and, 2) The other model does consist of professional & semi-professional types who, by and large, are more active in politics. (I, myself, once ran for County Commissioner.) This group, organizing around Food Co-ops, wilderness issues, and alternative energy has opted for an elitist, hierarchical (patri-

archal) model of organization not unlike the "old-boy" network that runs the establishment politics. Once again, not a very alternative social structure.

Like Murray Bookchin says in his "Open Letter to the Ecology Movement," they have become an alternative (?) bureaucracy.

I think it is crucial for RAIN as the "Journal of Ecotopia" to use more careful analysis before conferring alternative status to any segment of the populace, especially within the parameters of the "counter-culture."

A sexist, hierarchical, elitist, individualist element need not be given status merely because it can build a solar mousetrap.

Sincerely,  
Michael Donnelly  
Eugene, OR

*I have several responses to Michael Donnelly's letter:*

A) There are sexists and elitists among the newcomers to Okanogan and Ferry Counties. There are also feminists and cooperative interactors. To say that virtually all the newcomers fall into the sexist-hierarchical categories is grossly unfair. In the time I lived in Okanogan County, I found a number of women and men who reflected a highly developed feminist and cooperative consciousness.

B) I was writing about Okanogan County, not Ferry County. Though the two places have similarities, they are different. Among the professional and semi-professional groups in Okanogan County, there are women leaders. Some of the most prominent wilderness and ecological advocates in the county are women. Women are also leaders in the local movement for peace and in the Democratic Party Central Committee. For sure, women have problems dealing with the Okanogan old-boy establishment, but they are accepted and heard as leaders among the newcomers.

C) That said, I would agree that there are cultural problems relating to the overall emergence of women, not just in Okanogan and Ferry Counties, but in many rural areas with a strong back-to-the-land population.

*One friend of mine, a feminist male, theorizes that with many people, the move to a rural area is more a male than female priority. And, to be honest, there are many extremely strong male egos among Okanogan County back-to-the-landers. Clearly, there is consciousness raising work to be done, but I would not underrate the capacity of the culture for change.*

D) Finally, I am disturbed by a "more-alternative-than-thou" tone in Donnelly's letter. This is a kind of elitism in itself, I feel. This elitism is, I believe, one of the most profound cultural problems we face. It is a reality in so many alternative movements (including those in Okanogan and Ferry Counties). We are all a long way from purity. The development of our culture and consciousness is in process, and we have much to learn. To me, "alternative" is not a status to be conferred, but a number of paths with a common direction. Different people and groups develop at different rates and with varying emphases. Some are farther along than others, especially on the issue of hierarchy. In our criticism of each other, let us keep sight of our commonalities and greet each other as sisters and brothers. Otherwise, all we are going to be is a bunch of in-trips with our own exclusive criteria for membership in comfortable little denominations. I have no desire for that, and I doubt that Michael Donnelly does either. — Patrick Mazza

### CORRECTION

In the William Appleman Williams interview that appeared in our last issue (Vol. VIII, No. 10) we erroneously attributed the following sentence to Professor Williams: "I think of the empire mostly in terms of the Western Hemisphere, Southeast Asia, Japan, Western Europe and parts of the Mideast." This comment was actually made by the RAIN interviewer rather than by Williams. We regret the error.



# RAINDROPS

*Things have been so hectic around here that I don't even want to write about it. We're starting Volume IV (look, Ma, four years!) with a huge load of visitors, phone calls and materials to cover. I hope the best of it sifts its way into these pages in the coming months . . . Lane deMoll, Raindrops, October 1977*

Some things never change around the Rainhouse, Lane! We're still greeting the visitors, enriching the phone company and trying to keep up with the information load. But we're celebrating our anniversary this year with a change which may, at long last, make our lives a *bit* less hectic. We'll be publishing 40-page, bimonthly RAINs from now on (see subscriber information on page 2), and with four fewer issues to deal with each year, we'll have more time, freer from deadline pressures, to plow lovingly through our latest layers of books, pamphlets, periodicals and computer output in search of the very best items for mention in RAIN. We'll have more opportunity to think, individually and collectively, about the significance of the new ideas, trends and models-for-change we're constantly encountering, and with 40 pages at our disposal, we'll be able to report our discoveries to you in considerable detail.

By expanding our format we've also made room for additional features. With this anniversary issue we are introducing both a regular 4-page "Pacific Northwest Bioregion Report" and a "Rain Checks" column to track changes among the people and projects described in previous issues. We are also reviving a column which last appeared in RAIN in 1976: "Touch & Go" is indescrib-

able, so check it out for yourself.

Even with all the information which regularly flows (or rather, floods) through the Rainhouse, we still depend on you, our readers, to provide us with tips on good books, innovative community projects and upcoming events. And during the coming months as we continue to experiment with our new format, your comments, both critical and complimentary, will be extremely important to us. So please — let us hear from you! — John Ferrell

## RAIN CHECKS

The self-help village development in Northern Ghana described in "Everybody Needs Amasaachina" (RAIN VIII:9) made great strides this year thanks to the efforts of Peace Corps volunteers Jeff Strang and Joe Davis and the Amasaachina leaders. Villages raised money for and dug several drinking-water dams, started a primary health clinic, and built a school building, to name only a few projects. The new dam (on the walls of which young men planted trees in the name of the local traditional ruler) held water all through the dry season, and this was the cause of much celebration since it means the village will now be self-sufficient in water year-round. Two new Peace Corps volunteers have been assigned to the district to replace Jeff (who closed service in September) so the good work can continue. — Bruce and Ann Borquist

## ACCESS

### SELF-HELP

***Safe and Alive*, by Terry Dobson with Judith Shepherd-Chow, 1981, 152 pp., \$4.95 from:**

**Houghton Mifflin Company  
2 Park Street  
Boston, MA 02107**

The message of this excellent urban survival manual is straightforward: we are much less likely to become victims of violence if we do not look, act or feel like victims. Common sense precautions designed to minimize opportunities for confrontation (always stand near the control panel in an elevator; hit all the buttons if another passenger makes a menacing move) are combined with intriguing tips on how to behave coolly if confrontation is unavoidable. Principal

author Terry Dobson, a longtime practitioner of the nonviolent Japanese martial art, Aikido, explains the use of meditative "centering" techniques to assure a calm and alert response to danger. He also describes how "blending" with the force of your assailant can be used to turn his strength to your advantage.

But *Safe and Alive* is more than just a recital of streetwise tips. The authors remind their readers that a balanced view of modern American life must take into account not only the very real dangers, but the tremendous potential for kindness and generosity from people all around us. To overlook this potential and withdraw in fear from community life is to yield to passive victimization. We must strive, say the authors, to "recognize the difference between prudence and paranoia, to be sensibly cautious while living the fullest life [we] possibly can." — John Ferrell

***Winning With Your Lawyer: What Every Client Should Know About How the Legal System Works*, by Burton Marks and Gerald Goldfarb, 1980, 242 pp., \$6.95 from:**

**McGraw-Hill  
1221 Avenue of Americas  
New York, NY 10020**

Despite the fact that none of us anticipates it, on the average every American will either sue or be sued once during his or her lifetime. And in the midst of a legal battle, we may find ourselves incredibly ignorant of how the legal system works. A recent American Bar Foundation study reports that more than half of all Americans have used a lawyer at least once and that one-third have used lawyers twice or more.

In giving us *Winning With Your Lawyer*, authors Marks and Goldfarb hope to keep the layman from being manipulated by



# KIDS

the system and, given a more realistic understanding, to create pressure to help change the system. The goal of this book is not to solve your particular legal case, but to provide a framework of knowledge from which to move when encountering problems which call for a relationship to a lawyer and the law.

Part One outlines different types of encounters with the system asking pertinent questions (Do I need a lawyer? How do I choose one? How honest am I expected to be? What kind of arrangements for fees can I make?), and pointing out opportunities and pitfalls along the way.

Part Two focuses on the most frequently encountered legal sub-systems: those that deal with crime, accidents, property, families, death, and taxes. This section can be used for guidance in specific circumstances for anyone with a legal problem.

*Winning With Your Lawyer* can tell you — before it's too late — what you need to know to help you through a legal crisis. — Nancy Cosper

The great strength of this book is its uniqueness. It is the only book I know of offering a comprehensive guide to writing and implementing a rent control law that will protect tenants against unfair costs or conditions without adversely affecting the willingness of private parties to invest in housing. The essays on writing a good law are well grounded in the actual experiences of U.S. and foreign cities and take up much of the book. In the more philosophical essays, the contributing writers reveal the dimensions of the housing problem in the U.S. and argue the need for a longterm solution that goes beyond rent control — like the removal of housing investment from the private market. Unfortunately, the writers are rather vague in their efforts to justify such a solution or demonstrate its workability.

Nevertheless, housing activists can make good use of this book. Those who do not already have a copy should get one — quick. — Scott Androes

***The Children's Solar Energy Book even Grownups can Understand*, by Tilly Spetgang and Malcolm Wells, 1982, 156 pp., \$6.95 from:**

**Sterling Publishing Co.  
2 Park Avenue  
New York, NY 10016**

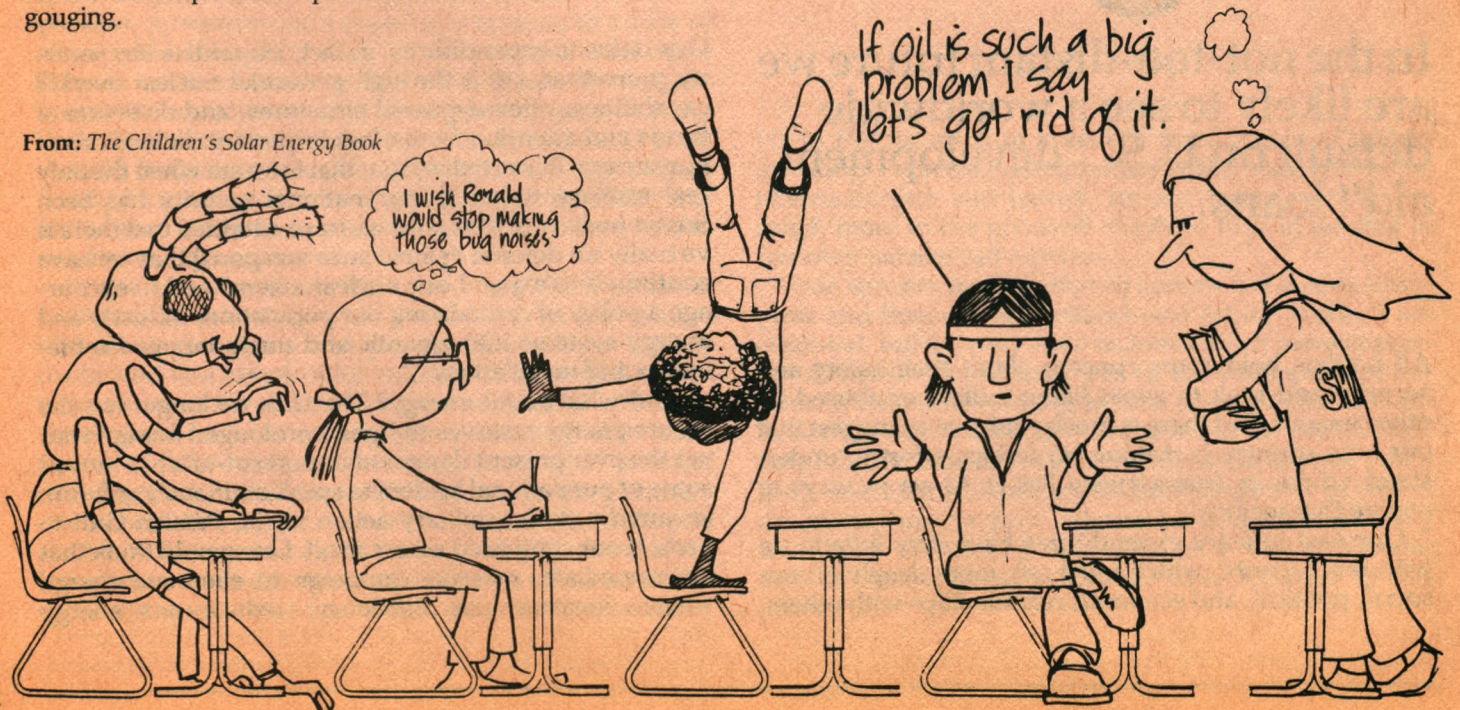
A patient teacher plus a class of crazy kids plus solar information can only equal one thing, and it did. Open this book and join Mrs. Robinson's solar energy class. You may be sitting next to a dragon, Jenny the Dog, or your friendly neighborhood python, but no matter where you sit, reading this book is a humorous and educational experience. And no matter what grades Mrs. Robinson gives her class, *The Children's Solar Energy Book* gets an A-Plus. — Darcy Cosper, age 12

***Rent Control: A Source Book*, by John Gilderbloom and Friends, 1981, 320 pp., \$9.95 from:**

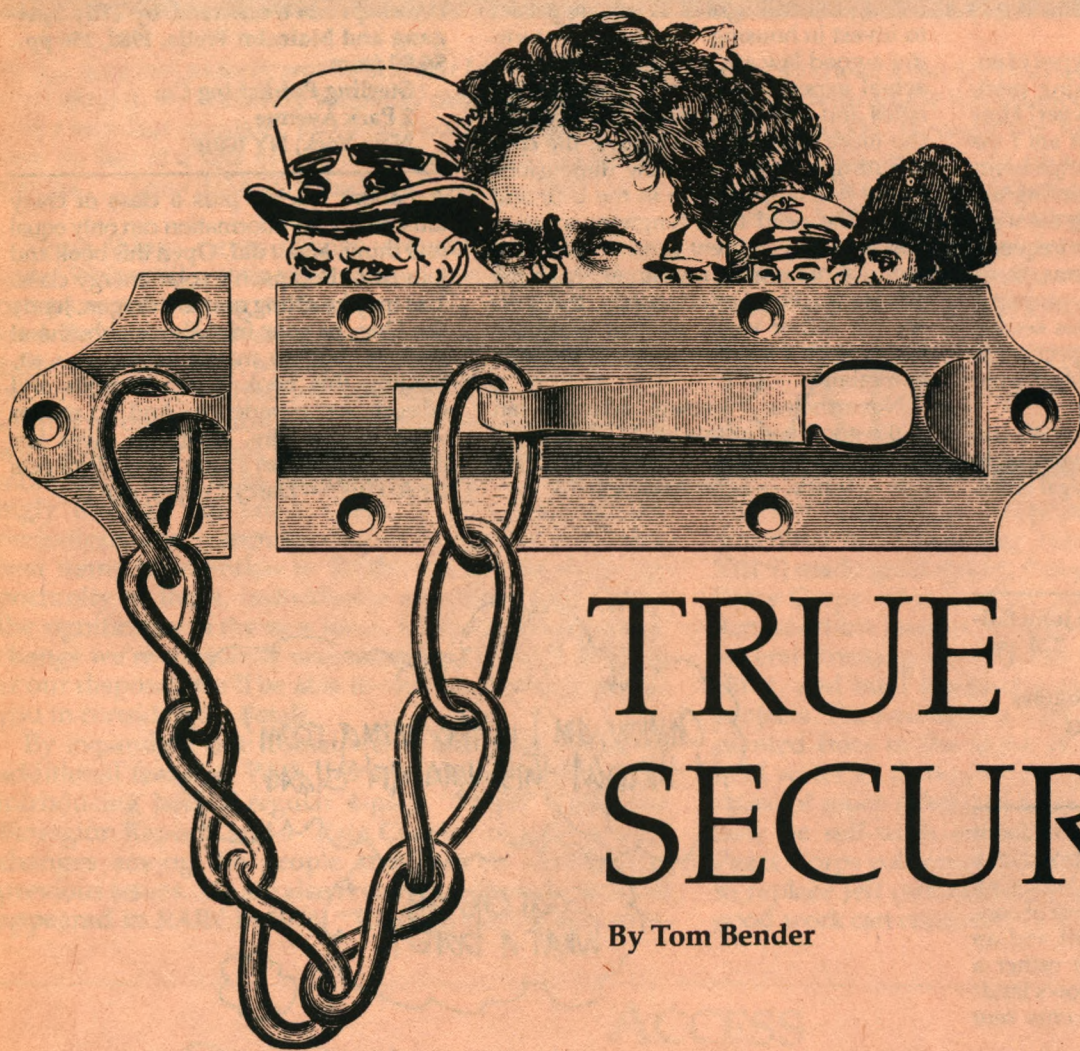
**Foundation for National Progress  
Housing Information Center  
P.O. Box 3396  
Santa Barbara, CA 93105**

This collection of short essays is about so-called "moderate" rent control. Not a freeze on rents such as New York City had during World War II (the sort of control that leads to abandonment and an end to new construction) but rather a controlled rise in rents that allows landlords a "fair" profit but prevents rent gouging.

From: *The Children's Solar Energy Book*







# TRUE SECURITY

By Tom Bender

In the not-too-distant future we are likely to see a worldwide default on U.S. "development aid" loans.

All nations hold some concern about their safety and security and seek to avoid being bullied or abused by other nations. But there is much evidence to suggest that our own country is making no serious effort to understand where its true security lies or to act in ways to ensure that security.

Our vast military expenditures have very little to do with real security, which must rely more deeply on our social, political, and economic relationships with others.

Our defense expenditures, in fact, jeopardize our security more than aid it through genocidal nuclear overkill capabilities, offense-g geared structures, and diversion of funds and attention from other important dimensions of our society. It is peculiar, too, that in an era when the only real military threat to our national security has been Soviet nuclear ICBMs (and we have admitted that there is virtually no defense against such weapons) that we have continued to expand our nuclear arsenal and to encourage a policy of centralizing our population, industry and energy systems into gigantic and easily-targeted settlements and installations.

And what about energy? The U.S. no longer has the secure energy reserves to fight a prolonged foreign war, yet the ever present danger of import cut-offs has moved some of our national leaders to speak ominously of future (assuredly futile) military action in the Persian Gulf to protect our continued access to oil. One would think that an immediate, massive campaign to eliminate energy waste, increase use efficiency, reduce our energy



demands and convert to renewable sources would be indicated, but our present national administration continues its retreat from support of conservation and renewables.

The move of our industrial base outside of the U.S. by multinational corporations presents another, largely unchallenged, threat to our security. A large proportion of "American" automobiles, radios, tape recorders and televisions are now assembled in other countries. Thirty-three percent of the assets of our chemical and pharmaceutical industries, 40% of our consumer goods industry, and 75% of our electronics industry have been moved outside of the country. Between 1945 and 1970, U.S. firms established more than 8,000 subsidiaries abroad, with an employment growth rate of 3.5 times domestic employment. Today, one out of three employees of U.S. firms is located outside of the U.S. while jobless rates at home continue to climb. Would such vulnerability to our industrial base seem wise from the standpoint of national security?

Government support of business interests resulting in direct conflict with our national security occurs in the area of nuclear proliferation. We have supported the export of nuclear technologies, reactors and fuel to other countries — ostensibly for "peaceful" purposes. Yet we know that already, Israel, India, Pakistan and South Africa have used our exports in nuclear weapons programs.

A wealthy and powerful society like ours is complex, and oddly, very vulnerable to sabotage and terrorism. A single shot can shut down an entire electrical distribution grid. A single handful of plutonium scattered from an office building window can threaten the lives of hundreds of thousands of people. A single anti-tank rocket fired at an LNG storage tank can create another Hiroshima. A single kidnapping can ransom an empire. Our vulnerability to such acts is already apparent to others and it underlines the importance of our voluntary and willing adjustment to new global conditions, values and aspirations. Regardless of how much overt military power we possess, terrorism could eventually escalate to a state of siege within the U.S. itself if our relations with other nations continue to deteriorate. Combined with our government's curious assistance in nuclear proliferation, such conditions could mean that within the next 15 years we will find ourselves either blown off the map or held hostage for a new economic and social world order. It is better that we learn our lesson from OPEC and initiate needed changes ourselves.

In the not-too-distant future we are likely to see a world-wide default on U.S. "development aid" loans. Unless we anticipate and prepare carefully for this, it could lead to a catastrophic collapse in the world monetary system. We need to face the reality that such loans were given more to expand the markets of U.S. companies and to create indebtedness to us than to assist development in the interests of people in the countries concerned. These loans — which represent but a drop in the bucket compared to the expropriated profits that we have taken from developing countries as a result of the economic system that the "aid" has been instrumental in

setting up — should justifiably be written off.

We are also likely to see drastically lowered ceilings on oil and raw material exports to the U.S., and correspondingly higher prices, as countries realize the bargaining power and dollar value of their now limited resources and strive to stretch out their availability. It will be essential for us to develop high levels of materials reuse and recycling — the sooner seriously undertaken, the better.

Nationalization of U.S.-owned, foreign-located industries could also spread, based on the argument that U.S. investors have already been more than amply repaid their investments through excessive profit conditions imposed on other countries and that the industrial plants themselves represent but partial repayment for past exploitation.

It is also likely that other countries will demand that we make order-of-magnitude improvements in our energy use and the protein and energy efficiency of our food system, in order to escape further sanctions. Many countries are already outraged at having to support our wasteful habits, gross inefficiencies and per-capita domination of world resources.

It is important that we fully understand our changing role in the world, realize the gross injustices that lie behind our present patterns of interaction with other countries, and put our efforts into helping, rather than hindering, the transition to more equitable, fair and humane international relationships. We would be better

**Our future security lies much more in the goodwill of others than in tending to our own narrow self-interest.**

off in the future with at least a small legacy of understanding, respect and helpfulness rather than bitterness, obstructionism and hatred, for our future security lies much more in the goodwill of others than in tending to our own narrow self-interest.

True security requires that all nations feel secure. Economic and financial self-reliance and equity of power are essential, but beyond these factors a much more important dimension of security lies in the willingness of nations to help other nations in time of need. That willingness comes as reciprocity — repayment for past aid and helpfulness. Nations will have real security only when they base their interactions on such reciprocity as well as on friendship, respect, admiration and love. Building that kind of security will require a vastly different attitude and approach than we have followed to this point. □□





Jim Springer

Catholic Archbishop Raymond Hunthausen addressing anti-Trident peace rally four days before arrival of U.S.S. Ohio.

For peace to take hold we must surmount the barriers to peace that exist on many levels, from our shrouded psyches to our armament industries.

## 20,000 Kilotons Under The Sea:

By Jim Springer

It was a lopsided battle in a war of nerves. A 560-foot nuclear submarine protected by 99 Coast Guard vessels against a rag-tag flotilla of small boats, many of them powered only by oars. As the Trident submarine U.S.S. Ohio approached its berth at Bangor, Washington, peace activists attempted to execute a plan months in the making. They intended to mount a "peace blockade" in the path of the behemoth submarine and force it to a stop. To deter it even slightly, or get arrested in trying, would fulfill the goal of the protesters to express their opposition to this new weapon of unimaginable potential.

Early on the morning of August 12, 1982 when word came that the Ohio was near, the blockade boats moved out from the bay where they had lain in wait for the sub's arrival. The "always ready" Coast Guard was ready now and pounced on the demonstrators, hitting them with water cannons, snagging them with grappling hooks, and threatening them with .50-caliber machine guns, M-16s and pistols. In the words of one demonstrator, the Coast Guard was "horribly efficient." Although three people managed to get their speedboat to within 100 feet of the Ohio, most of the 45 activists did not even get near the 1,000-yard security zone around the sub.

When the confrontation was over, 31 activists had been arrested and 14 of their boats had been seized. Curiously, 17 of those arrested were quickly released without being charged with any crime. The other 14, among them a Lutheran pastor and a 78-year-old former national Mother of the Year, were charged with violating a Coast Guard

security zone and failure to obey a Coast Guard order, and then were released on their own recognizance.

A week after the arrests, the government surprised those involved and dropped its charges against the 14 saying, "The cases simply do not present circumstances aggravated enough to merit felony prosecutions." An alternative explanation for the government move, offered by some of the activists, was that the government wanted to avoid a trial that would have given the anti-Trident movement more publicity and brought revelations of illegal and dangerous actions by the Coast Guard during the blockade smashing. Since the activists promise further harassment of the Trident as it moves in and out of Hood Canal, future arrests are inevitable.

The \$1.2 billion Trident submarine, and the extremely accurate missiles it will carry, is this country's newest major weapons system to go on line. It would not be an overstatement to call the destructive potential of a Trident submarine earthshaking; it might be earthbreaking. The force within the hull of one sub will be more than that used by all the world's navies in all the wars in history, according to the Navy. The sub will carry 24 H-bomb-crowned missiles with ranges of 4,600 miles. The number of independently-targetable warheads per missile is classified information but could be as many as 14. This would allow each sub (there may eventually be 20) to target 336 sites. Yield per warhead is said to be in the 100-kiloton range, about seven times the explosive force of the Hiroshima atomic bomb.



National opposition to Trident has been more subdued than opposition to MX.



Jim Springer

## Taking Offense At Trident

Opposition to Trident has been strong and well-organized in the Northwest as evidenced by a well-attended peace rally a few days prior to the Ohio's arrival. The rally, sponsored by the Ground Zero Center for Nonviolent Action (see RAIN VIII: 7, 14) and the Seattle Religious Peace Action Coalition (SERPAC), attracted about 6,000 area residents and exhibited the diversity of those opposed to the new weapon. Among the ralliers were Christians, atheists, preschoolers, retirees, socialists, communists, Republicans, educators, physicians, veterans, and loggers, — participation that cut across the political and social spectrum of society. Also in attendance at the rally were a dozen or more Japanese Buddhists who have been working closely with the Ground Zero Center while attempting to construct a peace pagoda adjacent to the submarine base.

But while Trident may be a destabilizing weapon of nearly the same proportions as the MX system, national opposition to Trident has been more subdued than opposition to MX. The reason, suggests Charles Meconis of SERPAC, is that Trident is less conspicuous, and its deployment will have a direct negative effect on fewer Americans. Though the blockade attempt at which he was arrested did not succeed in stopping the Ohio, Meconis sees some benefits nonetheless.

"We publicized this thing beyond my wildest expectations. The damn thing would have shipped in at seven a.m. with the Navy band playing and wouldn't have been noticed by anyone. [The blockade] focused opposi-

tion to nuclear arms on Trident. It was supported by most of the anti-nuclear spectrum because of its symbolic, nonviolent nature. It helped to unify the movement," he said.

The deployment of the first Trident submarine, the peace demonstrations and the acts of civil disobedience that have accompanied it, contrasts the disparate American approaches to the attainment and maintenance of peace. At opposite ends of the spectrum of beliefs are militarists and the pacifists, whose views are strongly held and not readily compromised. Communication across the gulf of misunderstanding and suspicion that separates them is often through conflict that probably serves only to strengthen the resolve of both and makes compromise more unlikely.

The military's approach to peace is familiar because we hear it frequently reiterated by defense officials. It is an indirect approach that, at least in the past, has revolved around the idea of deterrence. If we maintain the ability to annihilate any enemy, even after they have done their worst to us, they will be deterred from warring against us because they will fear retaliation. In this way, more weapons make us safer. The Trident system is a deterrent to war, says the Navy, because it will be well concealed deep in the ocean, will survive a nuclear attack on the United States, and will be able to severely punish the attacker.

But those who oppose Trident point out that with the super accuracy of its missiles, it is more than is needed for



simple deterrence. Great accuracy is not needed to hold a retaliatory threat against cities. It, and its land-based fellow, the MX, is apparently designed to destroy Soviet military targets and might be used in a first-strike against the Soviet Union. The improvements in missile guidance have given the U.S. an offensive capability that allows for a new, more aggressive approach to "defense." An American president might see fit to launch a pre-emptive nuclear strike in the name of defense and of protecting the "free world." The Defense Department has yet to publicize a rationale for the new-generation missiles that explains why we need them for anything besides a first-strike capability. The "deterrence" rationale has lost credence now, when invoked to defend the new missiles.

The peace activists who attempted to stop the Ohio

*being without hope. It is this hopelessness and helplessness, this giving up of power and submitting to domination which keeps all of us enslaved to nuclear weapons.*

Pacifist Shelley Douglass, a Ground Zero Center founder who has been often jailed for civil disobedience, also stresses the importance of looking inward. She believes that one's attitude must be correct if actions are to be successful.

*We cannot say no to Trident out of fear, though it may end the world. We cannot say no to Trident out of anger, though it impinges upon our most basic rights. We can only say no to Trident out of a commitment to life and to love, and a willingness to change, because such commitment is the only alternative to the Trident fleet. To say no to Trident in a spirit of hatred or fear is to perpetuate Trident. To say no to Trident in a spirit of compassion is to begin to end nuclear weapons.*

These statements express a more direct approach to peace; we will get peace by being peaceful ourselves. If in seeking peace we adopt violence, we will never gain peace. The intuitiveness and simplicity of this argument make it compelling. Clearly it is impossible to attain a goal by promoting its antithesis. But given that the path to take is so obvious, why didn't the killing end centuries ago? Are we destined to war until we can war no more? Is the violence within us unconquerable? Perhaps it is, but we have no choice except to assume that self-control is possible and to set about trying it. For a true and lasting peace to take hold, we must surmount the barriers to peace that exist on many levels, from our shrouded psyches to our armament industries. While pacifism will not be soon embraced by mainstream America, it is a perspective that ought to receive serious consideration in the search for security and peace.

Whatever it does embrace, mainstream America is very anxious to get out from under the shadow of nuclear war. Public opinion analyst Louis Harris, in a recent interview with *The Bulletin of the Atomic Scientists* (see access below), said he can recall nothing quite like the "urgent hunger for peace" disclosed by his recent polls. He found that 86 percent of the American people would like to see a negotiated nuclear arms reduction agreement between the United States and the Soviet Union. This indicates sentiment against the indirect bombs-for-peace approach in favor of the obvious, direct approach. Such overwhelming support for a reduction agreement makes the present an opportune time for our government to propose innovative and serious solutions to this momentous problem.

The Trident submarine threatens any attempt to reach agreement with the Soviets. It, and other new weapons suggest that the military is readying a first-strike strategy against the Soviet Union and make the Soviets, and concerned Americans, extremely wary of our intentions. These weapons should have to be fully justified to American citizens. If super-accurate missiles are truly necessary for national defense, let the military argue the case and convince Americans. The doubts and fears that first-strike weapons arouse in many Americans are warranted in the absence of any reasonable explanation for their existence. Until the military adequately explains them or ceases deploying them, it can only expect increasing resistance from Americans who abhor the thought of this country initiating the use of nuclear bombs a second time. □□



Restaurant in Poulsbo, Washington

have views that receive less exposure than the military's. A tenet espoused by the pacifistic element of the movement is that the cause of arms creation and war is rooted inside each of us rather than in our supposed enemies. Jeanne Clark, a member of Ground Zero, which helped organize the peace blockade, says we need to overcome the "Tridents within ourselves."

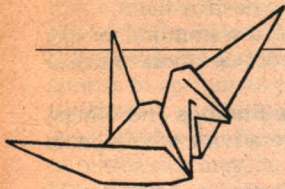
*The Trident exists outside of us because first it exists within us . . . the violence within us is hidden, hidden so deep that even we do not recognize its existence within us.*

*It exists in our inability to accept differences which leads us to a desire to control. Differences seem to us unmanageable. People are too unpredictable when they are not like me. For many of us there are only two choices: I will make you like I am, or I will destroy you . . .*

*Just as desire for power over another is a Trident within us, so is the giving of power, cooperating with those who would believe that they have power over us — giving in, giving up,*



# ACCESS



## Furusato By Ishigi Atsu © Ishigi Atsu

Dm Gm Dm A7

故里の町 焼かれ

My hometown and my family were all burned, and I

Dm A7 Dm Gm Dm Gm

日井 土 灰 焼 け け け け け け け

buried their bones deep in the black and ruined earth, Now a fragile

Dm A

花 咲 本 許 ず 丸 原 爆 大 み

pale flowers bloom. We must not allow atom bombs anymore.

Dm Gm Dm Gm Dm A7 Dm

たび 許 ず 丸 原 爆 大 わ れ の 町 に

Never, oh never atom bombs anymore, no never again in our town.

Anthem of the Japanese A-bomb victims - sung by anti-Trident peace activists, August 1982  
 1st translation, Keiko Mizutani. Final translation and poetry, Stephen Soderland.

on analyzing the federal budget, personal histories of resisters, and guidelines for conducting a seminar on war tax resistance are interesting and help to give a rounded picture of the movement, but it is in the personal "how-to" sections that the editors excel. Sample 1040 and W-4 forms, explicit directions for alternative ways of resisting, clearly-stated consequences of each method, and an explanation of the IRS collection process make this a valuable reference work.

*People Pay for Peace* will be most useful to the reader who needs a more in-depth examination of the history and philosophy behind war tax resistance and also to the resister at the other end of the spectrum who faces legal action as a result of his or her stand. Dedicated to St. Hugh, Bishop of London, who refused to pay his war tax to King Richard 1 (and won!) in 1197, the book was written by Bill Durland and reflects his wide experience in defending war tax resisters as coordinator and legal counsel for the Center on Law and Pacifism. Although chapters on IRS procedures and government legal battles with resisters are too involved for my immediate (or hopefully future) needs, they are interesting as background. A discussion of the history and philosophy of war tax resistance is presented with the same attention to detail, and is prefaced with an explanation of the book's title: instead of paying for "peace" through tax dollars, people need to start paying for real peace with "our souls, our consciences, and our bodies" by not participating in the headlong rush to nuclear holocaust.

Refusing to pay war taxes, by itself, does not pay for peace. Just as important is the positive action that must accompany it, and both books stress the donation of diverted taxes to local human service programs (many of which now lack funding due to President Reagan's strange definition of community self-help) and the creation of alternative funds. Escrow accounts are also now receiving money on behalf of the World Peace Tax Fund, which needs grassroots support from resisters and sympathizers in order to be approved by Congress.

The number of war tax resisters has tripled in the last three years, but lest we become overconfident in our new sense of power and unity, both authors remind us that there has been more witness than victory in the movement, and as long as the courts remain wedded to the government's interests and to "national defense" this will continue to be the case. They put this into perspective, though, with the reminders that the IRS is primarily a collection agency (it rarely pro-

## PEACE & WAR

**Guide to War Tax Resistance**, by the War Resisters League, 128 pp., 1981, \$6.00 plus \$1.00 postage and handling, from:

War Resisters League  
 339 Lafayette Street  
 New York, NY 10012

**People Pay for Peace**, by William Durland, 104 pp., 1982, \$4.00 plus \$1.50 postage and handling, from:

Center on Law and Pacifism  
 P.O. Box 1584  
 Colorado Springs, CO 80901

Five years ago it was nearly impossible to find comprehensive information on war tax resistance. Now it is perhaps as strong a statement as any on the growth of the resistance movement that three excellent reference works are available on the subject: a 1980 edition of the Peacemaker's *Handbook on the Nonpayment of War Taxes* and the two books covered in this review.

*People Pay for Peace* and the WRL *Guide to War Tax Resistance* arrived at the Rainhouse at a most opportune time for Ann and me. We withheld 50% of our income

tax this year and sent it instead to the local chapter of the Fellowship of Reconciliation, explaining to the IRS that we simply couldn't pay for nuclear holocaust and remain Christians. A series of reminders followed by the 10-day pay-up-or-else notice have since arrived, with the latest computer letter (no longer opening with "Dear Taxpayer:") informing us that a lien can now be put on our property at any time in order to recover the diverted tax money. As an otherwise conscientious, law-abiding citizen with no previous brushes with the law, I started feeling rather paranoid when these letters started arriving. It was very reassuring, therefore, to read in these books about what the IRS can and cannot do to collect the diverted tax money, and through this to get a perspective on the movement in general.

The War Resisters' *Guide* is a well-planned, easy to read manual and source book on war tax resistance that will be useful to people at all stages of involvement. After a short review of the major issues surrounding tax resistance (religious, political, etc.) the book immediately gets down to details: How do I do it, and what might happen if I do? Chapters

Cont. on next page



secutes for war tax resistance if it can get the diverted taxes in other ways), and that many resisters go unchallenged year after year. Reagan's new tax measures may make it tougher on resisters in the future, but, as Joshua told the Israelites, we need to choose whom we will follow, and "as for me and my family, we will follow the Lord." — Bruce Borquist

**"A Talk with Louis Harris,"** by Jamie Kalven, *The Bulletin of the Atomic Scientists*, Aug/Sep 1982, \$2.50 + \$.95 postage/copy from:

**Bulletin of the Atomic Scientists  
5801 South Kenwood Avenue  
Chicago, IL 60637**

Americans are "genuinely frightened" these days says pollster Louis Harris in this issue of *The Bulletin*. "Frightened in an activated way as opposed to a passive way" — by the perception that "the leaders of the Soviet Union and the leaders of the United States are heading toward a

nuclear confrontation."

As director of one of the most respected polling organizations in the country, Harris, more than most people, is in a position to tell us what Americans think. He has discovered some widely held fears and hopes among Americans concerning nuclear weapons and the threat of nuclear war. A few of his recent findings . . .

- A large majority (73 to 23 percent) would like every country that has nuclear weapons to ban the production, storage, and use of those weapons.
- An even larger majority (81 to 16 percent) wants the United States and the Soviet Union to agree not to produce any new nuclear weapons, provided both have a rough equivalence of such weapons today.
- 56 percent of the voters say they would vote against a candidate for Congress who favored escalation of the nuclear arms race, even if they agreed with him on almost every other issue.
- By 74 to 22 percent, Americans say they want all countries that have nu-

clear weapons to destroy them.

— 66 percent think it is immoral for any country to produce more nuclear weapons.

In view of these findings and others, Harris offers some advice to the peace movement:

*If you want to be effective on this issue, you must zero in on it. The movement is much stronger on a straight-forward, simple basis. I don't think it's an oversimplification simply to say: "We demand that this potential scourge of humanity be halted and finally ended." The more you diffuse the issue with a whole series of other issues, the more you weaken the movement.*

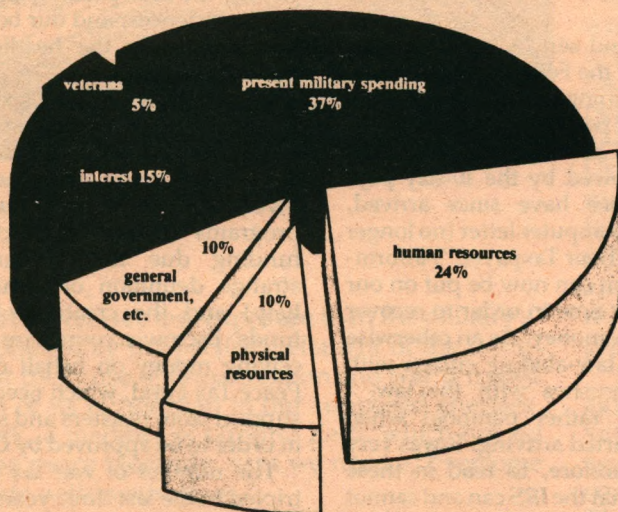
Harris's poll results, and his interpretation of them, describe a nation of people who see and fear an escalating arms race that jeopardizes our safety more each day. Nuclear freeze advocacy would appear to be a political position bringing broad support from voters in the upcoming elections. Let us hope and ensure that it is a widely discussed issue. — Jim Springer

## Federal Funds Outlays by Function (Fiscal Year 1982)

**56% TOTAL MILITARY \$284 Billion**

past military \$98 B or 19%  
veterans benefits (\$24 B)  
80% interest on debt (\$74 B)

present military \$186 or 37%  
Dept. of Defense (\$181 B)  
Dept. of Energy (military) (\$5 B)



**44% TOTAL NON-MILITARY \$222 Billion**

general government, etc. international affairs science justice general government 20% interest on debt \$49 B or 10%	physical resources and envir. agriculture commerce & housing credit transportation community & regional develop. \$51 B or 10%	human resources health income security general purpose fiscal assist. education, training, etc. \$122 B or 24%
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**100% TOTAL FEDERAL FUNDS \$506 Billion**

***The Plutonium Culture: From Hiroshima to Harrisburg***, by Jim Garrison, 1981, 224 pp., \$14.95 hardcover from:

**The Continuum Publishing Corp.  
18 East 41st Street  
New York, NY 10017**

There have been a number of books on the technology of nuclear power and weapons. Jim Garrison's book moves beyond the technical and into the psychological, moral and emotional aspects of our nuclear society: from the bomb, to power, to proliferation. The personal stories of Hiroshima's hibakusha (Japanese idiom literally meaning "explosion-affected person"), those of people in the surrounding communities of Harrisburg, and of the employees of nuclear facilities, strike a frightening chord — the Plutonium Culture is all around us.

Garrison's exploration of the psychological effects of our relatively short nuclear history, however, does not rely solely on pulling your heartstrings. He includes detailed accounts of the bombing of Hiroshima, the "event" at Three Mile Island and the death of Karen Silkwood. Also included is an in-depth explanation of the effects of high and low-level radiation, fallout, the nuclear fuel cycle and the enrichment process.

It could be, in many ways, a terrifying, depressing book. But Garrison concludes with both a chapter on soft energy alternatives and on non-violent responses to the nuclear industry. This last chapter on non-violence is particularly insightful, stressing the importance of non-cooperation with the nuclear evil and of the need for forgiveness. Drawing on Thomas Merton and Gandhi, Garrison points out



that we must develop our ability to discontinue the hatred and to liberate *both* the oppressors and the oppressed. In response to an industry that "assaults our psyches . . . damages our bodies . . . [and] erodes our freedoms," this path of non-violence may be our only hope. — Meg Roland

An energy conservation specialist, Meg is active in several Portland-area peace and community self reliance organizations.

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**Parenting for Peace and Justice**, by Kathleen and James McGinnis, 142 pp., 1981, \$4.95 from:

Orbis Books  
Maryknoll, NY 10545

With some books, it's all I can do to prop my eyelids open and keep turning the pages. This one was a joy to read both for its content and its style.

The authors, who have three children, describe their experiences in seeking to live out their faith by making social justice concerns an integral part of family life.

In chapters on stewardship/simplicity, nonviolence in the family, multiculturalizing family life, and family involvement in social action, they outline their rationale and the principles that form the basis of their action in each particular area. Following that, they give an outline for "Looking at Ourselves," which suggests ways to examine your family life, television shows, toys, the school environment, the neighborhood, etc., and evaluate those areas in terms of whether they promote or undermine social justice. Also included are ideas for activities that foster social consciousness, nonviolence, and personal affirmation.

The authors' inspiring anecdotes about their children will challenge the skepticism of readers whose own offspring may be somewhat less than angelic. On Good Friday in 1979, the McGinnis family discussed the significance of the day and then visited a neighborhood school that was soon to be demolished, delivered some favorite books to the children's hospital, and mailed tax protest letters to the president, the IRS, and to Congress members. Daughter Theresa, however, was more concerned with how to spell her name on the protest letters than with their message! On another occasion, Martin Luther King's birthday, they asked their son Tommy what he had learned in school about King. Tommy said, "We were talking about how he was working for freedom for all men." Their quick response was, "You mean freedom for all men *and women*." "No," said Tommy, "the book said *men*, and it meant *just men*." Parenting for peace and justice has its ups and downs.

I was especially impressed by the way the McGinnises have woven their faith

and social justice concerns into *every* part of their family life in a natural, comfortable way. They remind parents to incorporate these ideas slowly and comfortably, and not try to make their families models of social justice in one week or less.

This book raised some questions and gave me many ideas to ponder from my perspective as a parent-(someday)-to-be. I'd like to review it again in about 10 years. — Ann Borquist

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**War or Peace?: The Search for New Answers**, edited by Thomas A. Shannon, 1980, 255 pp., \$9.95 from:

Orbis Books  
Maryknoll, NY 10545

Pacifism used to be associated with Quakers, political radicals, and draft dodgers, or with what Gordon Zahn, a Catholic peacemaker, referred to as the "lunatic fringe." We are seeing a tremendous and encouraging shift in that focus today. I attended several activities during "Ground Zero" week and was astounded — and overjoyed! — by the diversity in the audience. It seems that some middle Americans are lining up on the lunatic fringe.

Pacifism is fast becoming a "legitimate" option for every citizen, and for the Christian, it may be a necessity. The authors of these essays deal with this issue as it relates to the just war theory (which states that war under certain conditions is justified) and suggest ways that our individual and institutional lifestyles must change. Responding to Pope Paul VI's statement that "Peace cannot be limited to a mere absence of war . . . peace is something that is built up day after day, in the pursuit of an order intended by God, which implies a more perfect form of justice among men," Catholic bishop Thomas Gumbleton writes, ". . . we are not being coaxed into considering whether we would like to do anything. We are being asked, each of us, what we intend to do. Isn't the promise of true peace something all of us are willing to sacrifice for, something precious beyond measure?"

One man who made that sacrifice wasn't mentioned in the history books I read. His name was Franz Jägerstätter and he was beheaded for refusing to serve in Hitler's army because he felt that war was unjust and evil. It is accounts like this and the short histories of the non-violent tradition in America, the involvement of Christians in war, and the emergence of the Catholic Worker community that were of special interest to me both as a Christian and as a war tax resister.

This is not light reading. In fact, I had to read some passages twice before I could translate the thesis level writing into un-

derstandable English, but it was well worth the effort. I recommend this book to those of you who are serious about exploring the basis and new direction of Christian pacifism. — Ann Borquist

## POLITICS

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**Marxism After Marx**, by David McLellan, 1979, 355 pp., \$6.95 from:

Houghton Mifflin Company  
2 Park Street  
Boston, MA 02107

Tired of waiting for the movie but still wary of tackling original Marxist tomes? Wait no longer. David McLellan, respected biographer and popularizer of Marx, has written a readable and comprehensive study of the old master's followers. Everybody who's anybody is included — from Rosa Luxemburg to Louis Althusser, and beyond.

The format is conveniently organized around individual authors, placed roughly in chronological order. McLellan begins with Engels and follows through to the present, providing substantial discussion of about 20 theorists and passing references to countless others. There are chapters on a single theorist ("Lenin"), on schools of thought ("The Frankfurt School"), and on certain theoretical trends ("Structural Marxism").

One advantage of having so many important Marxist thinkers represented in one book is that the reader is able to trace the progressive development of Marxist theories through time and across continents. The author does a good job of pointing out the connections between different theorists and how each is related to Marx himself, giving us a clear view of the evolution of ideas.

A disadvantage of the all-in-one-book style is the brevity which is required. The prose is clipped, the discussions often seem to be cut short. In only a few cases does the reader gain a clear understanding of even the essence of a particular theory. Obviously, this book is best read with a background understanding of Marxist thought, though it isn't absolutely necessary.

*Marxism After Marx* is enjoyable and informative at the same time. It gives a panoramic view of some very influential ideas which, if well understood, can provide a useful framework for observing the way our world works. Like a trip to the zoo, this book allows us to catch a glimpse of a different world, while we leave it to others to spend their lives there — Scott Androes

A former RAIN intern, Scott is a student at Harvard.



# TRYING OUT THE FUTURE

During the early seventies, when books like *Small is Beautiful* and magazines like *RAIN* were emerging to give voice to new visions of a socially just and ecologically harmonious future, activists in several parts of the world were beginning a "hands-on" search for optimal ways of integrating technology, natural systems and human living patterns. The Farallones Urban and Rural Centers in California; the Centre for Alternative Technology in Wales; and the New Alchemy Institute branches on Cape Cod and (in the early years) Prince Edward Island were among the new combination research facilities/alternative communities whose highly-visible and seemingly-exotic experiments with windmills, sustainable agriculture, small-scale fish farming, and waste recycling systems drew attention from the media, from appropriate technology pilgrims and from curious (if not always comprehending) tourists.

What have the A.T. research centers accomplished during their first decade? What successes and failures have they experienced? How have their roles changed over the years? We asked Nigel Dudley of the Centre for Alternative Technology and Laura Goldman of the Farallones Rural Center to share their perspectives. — John Ferrell

By Laura Goldman  
Farallones Rural Center

"So, what is it *really* like to live and work at the Rural Center?" This question is right at the top of the list as an all-time favorite of visitors, old friends, and on occasion, perplexed family members. It rates alongside "How many people actually live here?", "Who really runs this place?", and "What do you do about gophers?"

It's almost an impossible task to write objectively and definitively about home, which is what the Rural Center has been for me during the past nearly three years. However, I don't think the task can't be tried. It just takes having a small banner of objectivity fluttering gently as a reminder to head and heart.

First, some perspective and background on Farallones. After all this time of being involved, I am still fascinated by the kaleidoscopic concept-turned-lifestyle evolving from a vision of what is possible when we become stewards of our planetary neighborhood.

Farallones doesn't have a corner on the truth market, and is not currently involved in pretending to be perfect and lastingly appropriate. Instead, what I believe is going on is that we are heading toward some ideals, and are acting accordingly to give focus to our dreams and to manifest the resulting visions. The general theme is the rescue of the planet, a salvage operation to make it a more liveable and sustainable place to be for as long as it lasts.

Basically, we are activists. We try to act on what we believe, and we encourage others to do the same. We'd like to be more self-reliant, more creative with what is available, more inventive with limited resources, more conscious of the delicate balance and interrelationship of the earth's flora and fauna, and more aware of the importance of working with one another in families, com-

Cont. on page 16



Scott Van Osdel







### Centre for Alternative Technology *Cont. from page 15*

slick to get across and skeptics will instantly switch off scruffy presentations however good their message may be.

We also continually run into the problems of things not working. At most research sites, things *don't* work most of the time because they're being repaired, modified, serviced or simply awaiting the time and money to complete them. We don't have that option — if things don't work people want their money back. To make matters worse, if windmills aren't actually *turning* (because the wind isn't blowing, the batteries are full or whatever) people will think they're broken. In our advertising-dominated age, people expect flashing lights and whirling cogs and the real thing is seldom good enough. Strangely enough, it is the environmentalists who are our worst critics; it seems as if many of them don't like to see that the alternatives aren't completely developed.

Lastly, we've learned not to be too dogmatic. Basically, many people don't *want* AT to work — it's too new, too challenging and too unsafe. Telling people what they *should* be doing (whether it's cutting down fuel consumption or building a windmill) often provokes a negative response. Now, we try never to say "you ought" but only "we do it and it works." This way we find more visitors are pulling for us instead of pushing in the other direction.

Along with techniques of AT we're also learning about how to live and work together — often slowly and with many setbacks, but with many rewards as well. Although we're set up in a conventional pattern, with a director, answerable to our parent charity, we've tried many ways to devolve this into a more cooperative enterprise. We

have many small steering groups for specific areas, and meetings to plan work and discuss the wider aims and developments of the Centre.

Unfortunately, living as a community is made far harder by our dual function as an exhibition site. It's difficult to call somewhere home when visitors stare at us whenever we step out of our houses. Attempts have been made to separate public and private space, but most long-term staff have opted to move to nearby villages or cottages. Although this has certainly altered the original idea of a quarry community, it also means that there is far more contact with other people living in the area. This has helped us avoid some of the dangers of isolation.

Another way we can begin to enter into the local community is to employ local people whenever possible, but this means employing people who look at the Centre as a job rather than a deep commitment. But then who does subscribe to *all* the ideals of AT anyway? We think it's important to include people who just want a job, because if it only works for the dedicated it will never get very far. Likewise, staff and volunteers come from many different backgrounds and bring different ideas. Such a hodge-podge makes for a good dialectic if not always for philosophical harmony!

I hope many of you who read this will make the trip to see us at some time. You may not agree with everything you see, but I think you'll find it worth the trip. □□

**Centre for Alternative Technology**  
**Pantperthog**  
**Machynlleth, Powys, Wales**  
**United Kingdom**

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### Farallones Rural Center *Cont. from page 14*

munities and neighborhoods that criss-cross the globe. I believe that even with the inevitable frustrations and frailties, what we are doing is worth the effort.

The Farallones Institute was founded in the early 70s in response to a number of needs. There was, first and knocking loudest, the increasingly insistent energy crunch. It was clear that the only way to answer was by *doing* something. Pretending it wasn't there wouldn't make it go away. In addition, there seemed to be a gaping hole in the mainstream of American education, right where the practical skills should have been. The time was ripe for a move toward self-sufficiency, toward responsibility for making some positive changes in the quality of life.

In 1974, a dilapidated and aged house in Berkeley, California, became the center for a transformation of sorts. Gradually, it became the Integral Urban House and evolved into an example of what might be done as people moved a step closer to self-reliant living in the city. Through workshops and classes based on the premise that people learn best by doing, the Urban House was

turned into a living laboratory where alternatives to existing systems could be studied, installed, used and changed as needed. There were courses in solar heating, organic gardening, water and waste systems, animal husbandry and a variety of topics that would help people disengage from the overwhelming dependency on the big-bucks providers of services and goods. Each area taught was related to each of the other aspects of the house, and integrated so that the result would be a wholeness of systems operating with relatively little waste and a lot of recycling.

In 1975, it was proposed that a logical next step would be to try the same kind of experiment in a rural setting. That year, the Rural Center was established to follow in the philosophical footsteps of the first Farallones projects. It began with a summer residential workshop, and continued to grow as a center for education as well as research and demonstration, eventually becoming a residential community on a year-round basis.

The Rural Center is located on an old homestead in Occidental, in Sonoma County, about an hour-and-a-



half's drive north from the San Francisco Bay area. The setting really is a study in lyrical and idyllic descriptions: 80 acres of gently rolling hills and pastures and wooded magic, nestled only eight miles or so from the coast. The Center is surrounded by farmlands, redwoods and apple orchards on the fringes of wine country.

There are around three acres of organically grown gardens, in addition to little oases of fruit trees and other edibles dotted here and there in the approximately 10 acres of developed land. In what is called the core area, there is also a surprising but somehow graceful and fitting variety of structures, most of them built by staff and workshopers over the years, using primarily recycled materials and a lot of hard, often learn-as-you-go labor. There's a huge barn, a wonder of nail-less construction, with an attached greenhouse/honey extraction area; a ceramic studio, and shops for metalwork, carpentry and automechanics; a library and visitors' center; an office (with a largely undocumented history as a former chicken coop); a real chicken run and house for the local layers and cluckers; six solar cabins for staff housing and one for community needs and occasional overnight guests; a solar bathhouse; a kitchen and spacious new dining area; a dormitory and attached greenhouse/plant propagation area; and a number of composting privies scattered discreetly about the landscape.

What does go on at the Rural Center is an incredible smorgasbord of activities, projects and programs coupled with a large dollop of daily work and maintenance chores that keep the place running. Every once in a while there is a hiatus in the whirl of busyness, usually on a Sunday when the Center is closed to the public, or during the winter months when most people are holed up against the cold and the rain, but for most of the year, the norm is a dazzling array of stimuli, all vying for attention.

When all is nearly quiet, there are around 15 people living at the Rural Center. There are usually 10 or so staff members, along with a few residents (people who receive no salary, but work in a specific area in exchange for room and board), and some interns (people who pay to be at the Rural Center, in exchange for an education that includes individual instruction in one or more areas, and that requires a certain amount of labor related to the field of study). However, during the workshop season (April-October) the population can swell to 35 or more.

Traditionally, staff and others involved in the day-to-day life at the Rural Center have lived there as community members, with the exception of occasional office employees or contractual workers. It is becoming more common for people to live elsewhere and be at the Rural Center during the day only. This change is a gradual and healthy one, and has begun to broaden the base from which the community and staff work.

The business side of the Rural Center is administered in a more or less equal manner by the staff members, called area coordinators. The community side is run by all long-term members. When decisions are made, they are almost always by consensus. This is sometimes a lengthy process that can be as frustrating as it is rewarding, depending on the issues at hand, the people involved, the degree of divergent opinions, the perception of who has what kind of influence or power, and the amount of time people are willing and able to give toward working things through. It is not an easy task, but with practice, the administration of both the business and

community aspects of Farallones is getting smoother.

Since the Rural Center is a residential community as well as a non-profit corporation, there are two levels of life that go on simultaneously. Everyone who lives at Farallones is encouraged to attend the once-weekly community meetings. If you're around on a Friday, you are expected to do group work and clean-up, to spiff up the site and take care of the never-ending jobs that require a little extra attention. Longer-term community members alternate cooking duties and lead Saturday public tours. Often life is full of overlapping business/community issues and responsibilities, which demand skillful juggling just to keep the balls in the air and away from knocking you on the head.

At the same time, a primary purpose of Farallones is to be a resource center and an educational facility. Some people come to learn more about solar energy or gardening or water and waste systems, or community work. Others drop by to check out what seems to be a quaint tourist attraction on the edge of a town known mainly for its three Italian restaurants. Still others come out of curiosity, as much to see a living, breathing, working community as to gaze at solar buildings and experimental devices and beautiful gardens. We try to emphasize that it is important to live with the technologies and toys and experiments to find out if they are workable and compatible with different lifestyles. There are mistakes and snags and failures, and we tell people (and ourselves) that these are as valuable as are the successes and breakthroughs that are all part of what Farallones is about.

For the most part, we seem to provide some inspiration and motivation for people to improve the quality of their lives by showing them some alternatives that are attainable. We also provide data on the research that has gone on at the Institute, but it is balanced with the human side of the picture. It is all too easy to fall into a holier-than-the-rest-of-you attitude, and it is important not to do so.

Much of what we are learning is similar to what Nigel Dudley says is being learned at the Centre for Alternative Technology: a sense of wonder and satisfaction in being able to provide for many of our basic needs; a realization that it is important to communicate what we are about in ways that are not dogmatic or pompous; and an understanding of why it is essential to live and work in camaraderie rather than in competition with one another.

We are also learning that we can grow a lot of our own food, conserve energy and local resources, and live a little more lightly than is considered normal for mainstream America. We are finding out how to use our brains and hearts and muscles instead of just looking for someone else to do it for us. I think we are learning about our ability to take charge of our creativity and do something with it to help save the planet. It was touch-and-go for a while, but it seems that there is a light that has burst through the doom and gloom to shine the way with a bit of comic relief every now and again. It's about time.

And we've started to find out how to keep the gophers from the gardens. One solution may be in burying fish scraps. It sounds so simple; maybe that's why it seems to be working. After all, if it does work, it may be one of the more important discoveries made at the Rural Center. □□

**Farallones Rural Center**  
15290 Coleman Valley Road  
Occidental, CA 95465



## ACCESS

## FUTURES

***They'd Rather Be Right*, by Mark Clifton and Frank Riley, 1981, 173 pp., \$4.95 from: The Donning Company Publishers 5659 Virginia Beach Blvd. Norfolk, VA 23502**

This sci-fi novel was first published as a 1950s magazine serial, but only recently came out as a book after resolution of copyright problems. A winner of the Hugo Award, the book has some very interesting concepts going for it. In essence, a group of scientists has invented a super-computer that can make people immortal by reprogramming their minds. The only catch is that you can't hold on to your old concepts. You have to let them go and let "Bossy" (the computer) program away. For this reason, the process works better on bums than college professors. Anyone with strongly held preconceived notions cannot gain immortality or the many powers that Bossy offers.

Tracing disease and death to patterns of thought is an important concept. Recognizing that giving up frozen and rigid ideas is necessary to growth and health is likewise important. Coming out of the McCarthy Era, these themes are flat amazing. But the idea of hooking yourself up to a computer and having it reprogram you makes me nervous. Anything humans make will reflect human preconceptions. Computers are useful tools. As gods, they are far from adequate. If we're going to find immortality, I suspect it will not be through technological development, but through an entirely different kind of inner growth. *They'd Rather Be Right* has some very interesting philosophical content and good perspectives on the relativity of truth. But it's also 1950s sci-fi with that era's own preconceived notion — that science and technology could save us from ourselves. — Patrick Mazza

***An End to Ordinary History*, by Michael Murphy, 1982, 213 pp., \$11.95, from: J.P. Tarcher Inc. 9110 Sunset Blvd. Los Angeles, CA 90069**

Michael Murphy's latest novel, while in the thriller genre, has a number of elements that make it highly unusual and valuable. Among them are a view of life in the Soviet Union that you just don't get in the American media, psychic net-

works and psychic warfare, and intimations of a mass transformation of humanity.

Murphy, a cofounder of Esalen Institute, takes us on a journey through a Soviet Union where "the Mysteries have not died." The spiritual and mystic elements of that country play a prominent role in the book. Representing these elements is Kirov, a KGB agent, an initiate of a mystic school in Central Asia, and the Soviet Union's leading expert on parapsychology. Much of the book is devoted to Kirov's Byzantine maneuverings to have research into the materialist accepted by a materialist bureaucracy.

The view of Soviet life is rich and deep. Without downplaying the negative elements, Murphy (who has travelled extensively there) creates a picture of the Soviet Union as a kindred nation to the United States, complex and holding tremendous positive potential. Murphy sees the two nations as capable of leading humanity towards a transformation that will eliminate the threat of nuclear war hanging over both. In the novel, Murphy hints at cooperating networks of psychics in both countries moving towards that goal.

If you want entertaining reading and some very interesting ideas and perspectives, try this book. — Patrick Mazza

***Future Survey Annual, 1980-81*, edited by Michael Marien, 1982, 268pp., \$25.00 from:**

**World Future Society  
4916 St. Elmo Avenue  
Bethesda, MD 20814**

From Herman Kahn to Hazel Henderson, from William F. Buckley to Richard Barnet, and from Edward Teller to Amory Lovins: this massive survey of future-oriented thinking covers the gamut of proposed solutions to problems of world energy supplies, arms control, resource exploitation, social justice, education — and much more. Michael Marien has produced excellent abstracts of nearly 1500 recent books, articles and reports (principally by American authors) to provide, in his own words, "a neutral forum that crosses barriers between academic disciplines and professions; between specialized scholars and 'popular' writers . . . and between 'establishment' and 'non-establishment' viewpoints." *Future Survey Annual* is a guide which will be indispensable for anyone seeking to understand both the problems facing our world in the coming decades and the full range of strategies — wise and foolish,

credible and incredible — being proposed to resolve those problems and move us toward some vision of an ideal future. — John Ferrell

## GOOD THINGS

***Never Kiss a Goat on the Lips, The Adventures of a Suburban Homesteader* by Vic Sussman, 1981, 272 pp., \$8.95, from:**

**Rodale Press  
Organic Park  
Emmaus, PA 18049**

Vic Sussman is too sentimental, a tad self-righteous, and maybe a little late to be out selling simple living. To hear him tell it, life on the "farm" (2 acres, 20 miles from D.C.) is everything we thought it would be including the setbacks that build character and cement relationships. If only cute little suburban spreads didn't cost the better part of a fortune nowadays.

But even this dose of economic reality hasn't prevented my going out on weekends to look for my own perfect spot. And I'm still convinced that the old-gardener - who's-been-maintaining-it-for-half-a-century-but-is-moving-now-to-live-with-her-kids-who-have-made-it will recognize in me a kindred soul and give me a 1960s deal. In other words, I'm the perfect target for Sussman's book and you may be too. He does get a little heavy on the rhetoric, and his bad news is generally too funny to be taken as fair warning, so don't anticipate "how-to" instructions. There is some of that, even some recipes, but the gist of this book seems to be that even klutzes like us can live relatively clean, wholesome lives in the almost country if we can spend every waking hour at it. "From late July until the first frost is apple picking time. Notice how neatly it overlaps tomato-and-everything-else picking time, canning time, freezing time, and firewood cutting time?" One suggestion he makes is to trade in your TV for some of that "prime time." He even suggests the best test I've heard of to get yourself off the tube. "Keep a monthly diary of every single TV program you watch. Write down the name of the program, the time elapsed, a synopsis of the content, and then — most importantly — write a brief description of *what you got out of the hour or more you spent viewing*. At the end of the month, read back, out loud, if you dare, your notes." Only one of many bits of "good life" advice tucked away in this journal of sorts. — Carlotta Collette





Team of Belgian mares.

From: *Small Farmer's Journal*

Nancy Roberts

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***Small Farmer's Journal***, quarterly,  
\$12.50/yr. Available from:  
P.O. Box 2805  
Eugene, OR 97402

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The *Small Farmer's Journal* has, since 1976, been a consistent and persuasive voice for sensible, sustainable stewardship of the land. It reaches out to people who value traditional farming and the heritage of small farms in America. Articles, many of which are contributed by readers with long farm experience, cover the multitude of topics that a small-scale, diversified farmer cares about. Topics range from soil fertility, weed control, livestock health and innovative equipment design to fish rearing, Chinese water use, wild bee hunting, and love stories (man and mule).

But the strongest emphasis is on animal power on the farm — particularly horse power. *Journal* writers draw frequently on historical experience with draft animals, but their concern extends far beyond nostalgia for the pre-tractor era. Horse farming is advocated as a viable, intelligent alternative to machine-

intensive, petroleum-dependent agriculture.

High and growing demand for draft horses and a *Journal* circulation of about 20,000 are two indicators of horse farming's renewed popularity. Another indicator: brisk sales of SFJ editor Lynn Miller's recent book, the *Work Horse Handbook* (\$14.45 ppd. from Mill Press, Inc., Route 4, Box 68, Reedsport, OR 97467). The *Handbook* is Miller's attempt to fill a near vacuum of current published information about the art of teamstering. The 224-page book is a thorough and amply illustrated introduction to that demanding art and Miller intends to follow it with other volumes that will cover specific applications of horse and mule power in greater detail.

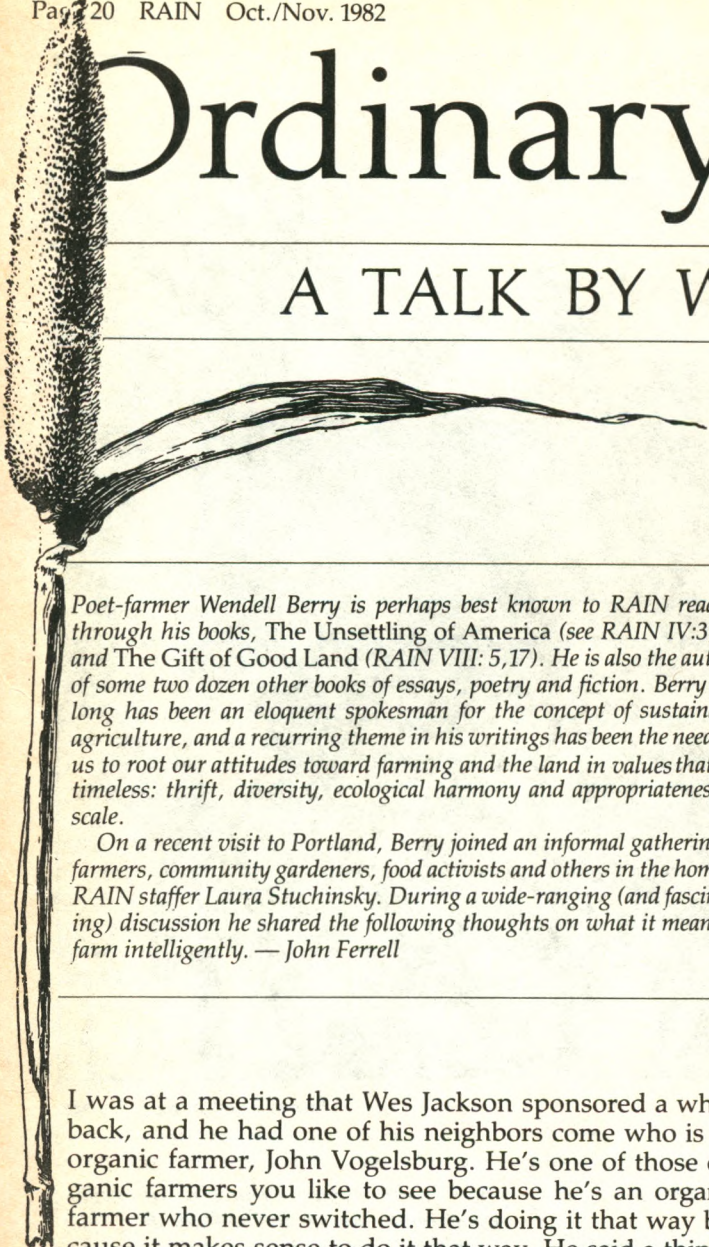
In the *Journal*, Lynn Miller states the case for horse-farming, and for human-scale farming, in hard-hitting, cogent commentaries that clearly define his views of right and wrong, sense and non-sense, with regard to today's agriculture.

*They used to apologize for us small farmers by explaining to the general public that none of us could ever return to the good old days without mankind having to pay a terrible*

*price. That propaganda approach was equally unfortunate, stupid and self-defeating. No "thinking" proponent of "sanity and humanity" in agriculture ever suggested that a return to a bygone era would be possible and healing. What has been suggested time and time again is that if we do not heed the lessons of our own successes and failures (be they distant or near) we guarantee a higher risk of failure.*

The *Small Farmer's Journal* is a unique, and often fun-to-read forum for the sharing of farming experience and knowledge, and for small farm advocacy. It strives to be a "community gathering place and a different sort of tool." While foremost it is a farmer's friend and guide, it has much to offer non-farmers too. Anybody with any "country" in them at all, or a desire to become more self-reliant, will enjoy this reading and be heartened that such a publication exists. As you see more and more pictures of working horses, and accompanying discussion, that initial feeling you're seeing an anachronism will be replaced with a realization that the principles embodied in horse-farming are ones that are essential to an enduring agriculture. — Jim Springer





# Ordinary Excellence

## A TALK BY WENDELL BERRY

Poet-farmer Wendell Berry is perhaps best known to RAIN readers through his books, *The Unsettling of America* (see RAIN IV:3,14) and *The Gift of Good Land* (RAIN VIII: 5,17). He is also the author of some two dozen other books of essays, poetry and fiction. Berry has long been an eloquent spokesman for the concept of sustainable agriculture, and a recurring theme in his writings has been the need for us to root our attitudes toward farming and the land in values that are timeless: thrift, diversity, ecological harmony and appropriateness of scale.

On a recent visit to Portland, Berry joined an informal gathering of farmers, community gardeners, food activists and others in the home of RAIN staffer Laura Stuchinsky. During a wide-ranging (and fascinating) discussion he shared the following thoughts on what it means to farm intelligently. — John Ferrell

I was at a meeting that Wes Jackson sponsored a while back, and he had one of his neighbors come who is an organic farmer, John Vogelsburg. He's one of those organic farmers you like to see because he's an organic farmer who never switched. He's doing it that way because it makes sense to do it that way. He said a thing I can't forget. He said, "The farmer today doesn't use his own head. He uses his head to advertise products." He was talking about those caps from the agribusiness corporations. You'd think that people would understand that advertising space can be sold, and would get a modest income for rental of their foreheads, but they actually buy the caps!

That got me started thinking about the atmosphere of off-the-farm advice that now surrounds farmers. It's a sort of advertising world surrounding the farmer, which implies that farmers' problems are simple and are readily solvable by this or that device or substance that can be bought. There's never the least implication that these substances or devices might not work or that they might not fit local conditions or personal economies. We know that agricultural journalism generally goes along with this and the agricultural extension service generally goes along with it, never recommending solutions that don't cost money, and never implying that you need more brains to farm than you need to take advice — which is not too many brains! And we all understand, I think, how this fits in with the much older convention of deni-

gration of farmers as clowns or hicks or yokels. And we know what people have paid to escape that category. All this makes you wonder what it's like when a farmer uses his head (or hers).

I was on an Amish farm recently that struck me as a really good one. The farmer is a Belgian horse breeder who, I suppose, is right at the top of the line. I don't know any higher star in Belgian horse breeding. My son and I were up there and we looked first at his place and then at his nephew's place and we must have seen 75 or 80 horses one after another — good ones. He knew bloodlines way back and he knew what was behind those bloodlines. He knew the horses, how their faces were marked, what color they were, how they were made, what their good points were. But unlike the hobby breeders that you find among the non-Amish, he was always telling you how the horses *worked*. He had about a dozen brood mares and he was working every one of them. He had harness for them, he had jobs for them. And of course people who work brood mares have high conception rates and a high percentage of live foals because the mares are tough and well-conditioned and not excessively fat. They do a good job as breeding animals.

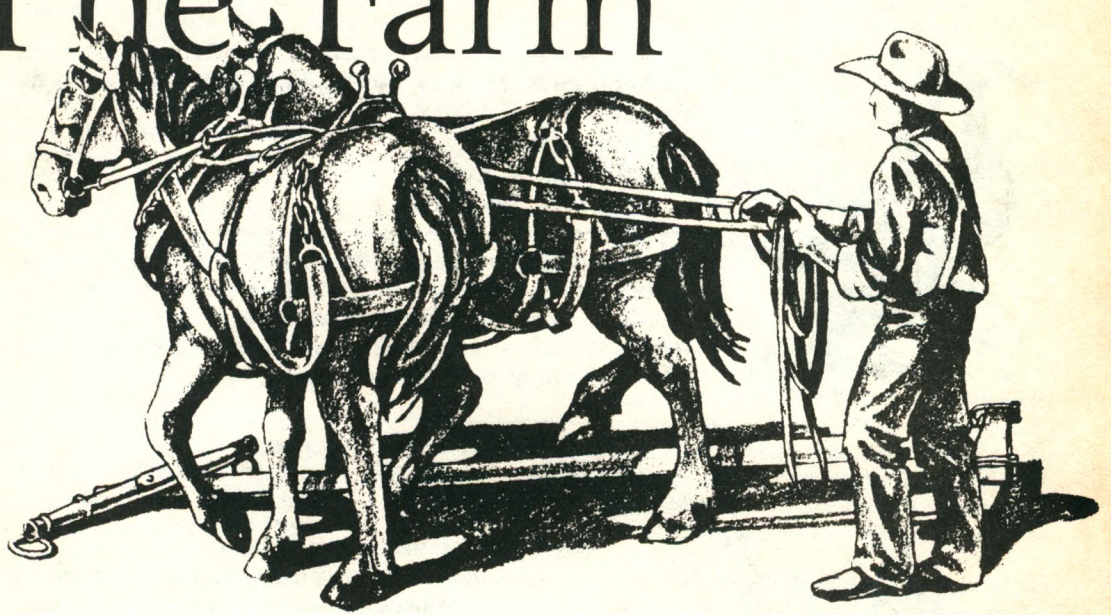
He had another thing there that interested me. He had a new 336 John Deere hay baler that, because of the religious restrictions that the Amish work under, he couldn't pull with a tractor. He'd taken a bullwheel off of an old John Deere corn binder and put it on one side of the baler and he'd found a machine shop that would help him work out the gear ratios and put a chain drive from the bullwheel up to the flywheel on the baler. He worked out a clutch or ratchet so that when the baler stopped, the flywheel and the baler mechanism would continue on its own momentum. He was pulling that with a forecart and eight horses. Those horses could pull the baler and a wagon loaded with one hundred 55 pound bales. It was an elegant, simple piece of engineering. The worry about pulling hay balers with horses has always been the push and shove that the plunger would communicate to the horses' collars. The clutch on the flywheel eliminates that. It worked like a top! I've never seen anything that pleased me any more.

The farmer said there are some disadvantages to it. If the ground is really soft, for instance, the bullwheel will tend to scoot. On the other hand, he'd eliminated the oil business from the business of baling with a pickup baler — and had eliminated hundreds of working parts.

About the quality of his farming, I need only tell you that he showed me his oat field that he'd just taken a crop from, and the stand of alfalfa coming under it was excellent. That, of course, is one of the places to look if you want to know what kind of farming is going on and the



# On The Farm



From: *Small Farmer's Journal*

quality of it and the quality of the head doing the farming: look at the new seedings of legumes in the grain crops.

He was also milking eleven young Holstein cows — and they were excellent cows. To hear him talk about them was a good deal like hearing him talk about his horses. He talked not just about their milk producing ability, but about the quality of their legs and feet and their ability to endure and withstand use. I believe he kept about 50 head of Holsteins and 40 head of horses. That was an 80 acre farm with 15 rented acres. His whole family, girls and boys, were out there leading and driving horses.

The reason I'm so fascinated with this is that it's an example of fine intelligence modestly applied — applied on a modest scale. There are several good marks of intelligence on it. The main one is that this farmer hasn't specialized. I don't know whether you all know anything about the Belgians, but his herd sire is Constnico, and Constnico's sons and daughters have won the get-of-sire class at the Royal Winter Fair in Toronto for seven years straight. Now, if a lot of horse breeders should hit that kind of pace they wouldn't be any account for anything else. They'd feel like they had to concentrate on what was bringing in the money and getting the attention. But this man hadn't yielded to that all. He knew all about horse breeding and was fascinated with it. But there were those cows and all the rest of it going on.

Well, the thing I think about is that it's possible to have excellent work that's common, that's ordinary. That sounds like a paradox or a contradiction in terms to us — the idea of an ordinary excellence. But it's possible. Let me give you another instance.

I heard on what I assume to be good authority that the British Isles developed more breeds of sheep than all the rest of the world put together. These breeds are regional products — Suffolk, Cheviot, Southdown, Shropshire and so on. Such an accomplishment doesn't mean sim-

ply that the British Isles had the good fortune to produce a handful of crossbreeding geniuses. This couldn't have been done on the star system. There's such a thing as a livestock breeding genius, I don't have any doubt about that, and you'd have to have had your share of them to produce that many breeds of sheep in such a small area. But the geniuses couldn't have worked all by themselves. Each of these breeds of sheep had to come from a region pretty well populated with breeders and shepherds of sound judgement, good sound intelligence and a highly developed sensitivity to local weather conditions, local soils and forages, and local economies. Now what a priceless thing it would be to have that going on in this country! Here we have a country many times the size of England and all our sheep, virtually, are Suffolks and Hampshires. All our milk cows, virtually, are Holsteins. What a commentary that is on our intelligence!

So that, I think, is what we want: the best intelligence applying itself locally at a modest scale. And I think great things can come of it. But you've got to get rid of the star system and this leftover, rundown notion of aristocracy that we have. To have intelligence applied that way you've got to have people who think well of themselves even though they have their hands on animals and clods and that sort of thing.

To understand how that kind of intelligence works is a lifetime project for us all. We can't gather up too many examples of it, because it's fading away. If we want to know about it, we've got to be alert for the survivors and find out what they know, and find out *how* they know it (which is more important). You see, this notion that we'll pull ourselves out of the mess we're in by information is just malarkey. Most of the great work in farming has been done by people who had comparatively little information. It's a structural matter. It's a formal matter like art. It's not how much you know about farming, it's how you put together what you know. □□



# ACCESS



*Letters from the Country*, by Carol Bly, 1982, 184 pp., \$4.95 from:

Penguin Books  
625 Madison Avenue  
New York, NY 10022

*Here's an important voice, witty and perceptive, bringing news about farming and values from a small town in western Minnesota. Carol Bly has been there watching for 25 years and her reports on habits, hopes and hardships among her neighbors offer a wide range of perceptive insights. — George Resch*



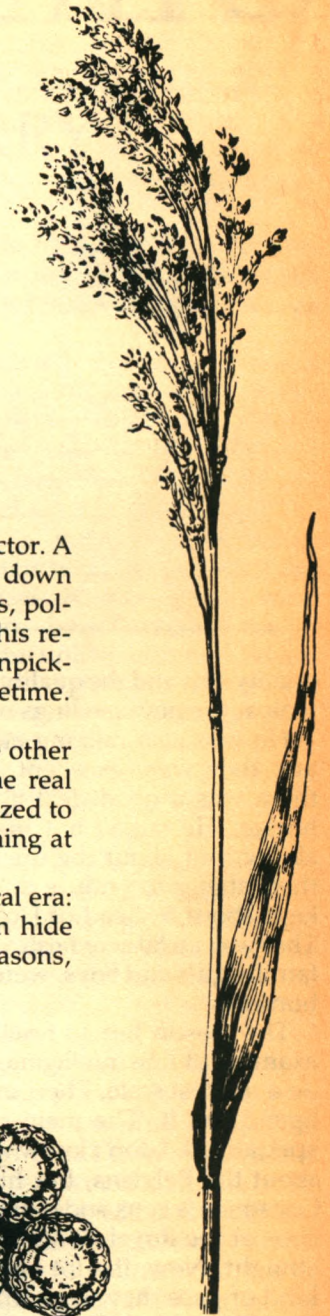
From: *Small Farmer's Journal*

### On open tractors vs. combines:

... One gets too many impressions on the open tractor. A thousand impressions enter as you work up and down the rows: nature's beauty or nature's stubbornness, politics, exhaustion, but mainly the feeling that all this repetition — last year's cornpicking, this year's cornpicking, next year's cornpicking — is taking up your lifetime. The mere repetition reveals your eventual death.

When you sit inside a modern combine, on the other hand, you are so isolated from field, sky, all the real world, that the brain is dulled. You are not sensitized to your own mortality. You aren't sensitive to anything at all.

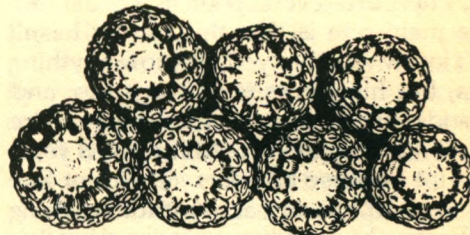
This must be a common choice of our mechanical era: to hide from life inside our machinery. If we can hide from life in there, some idiotic part of the psyche reasons, we can hide from death in there as well.



### On "monkeying":

Monkeying, in city life, is what little boys do to clocks so they never run again. In farming it has two quite different meanings. The first is small side projects. You monkey with poultry, unless you're a major egg handler. Or you monkey with ducks or geese. If you have a very small milk herd, and finally decide that prices plus state regulations don't make your few Holsteins worthwhile, you "quit monkeying with them." There is a hidden dignity in this word: it precludes mention of money. It lets the wife of a very marginal farmer have a conversation with a woman who may be helping her husband run fifteen hundred acres. "How you coming with those geese?" "Oh, we've been real disgusted. We're thinking of quitting monkeying with them." It saves her having to say, "We lost our shirts on those darn geese."

The other meaning of monkeying is wrestling with and maintaining machinery, such as changing heads from combining to cornpicking. Farmers who cornpick the old way, in which the corn isn't shelled automatically during picking in the field but must be elevated to the top of a pile by belt and then shelled, put up with some monkeying.



### On confronting dragons:

... Much of the alternate-life-style living going on in the Minnesota countryside right now does not mean engaging any very serious dragons. If we are throwing clay we are not lobbying for environmental hope. If we are living with little cash turnover by doing a lot of canning and dry preserving (which take time), we are not in Minneapolis organizing planning retreats on the cash economy. Generally, Minnesota farmers do little to influence the legislature for justice outside their own farm-marketing interests; the new artistic or intellectual element also do very little. The air full of cold and snow informs each day with beauty; if one is here enjoying it, one does not think very much about Steve Biko's comrades. . . .



# ENERGY

***A Golden Thread: 2500 Years of Solar Architecture and Technology*, audiovisual presentation based upon the book by Ken Butti and John Perlin, 80-35mm slides, \$90; 80-frame filmstrip, \$38 (both with printed narration). Audio narration on cassette, \$7. Available from:**

**Butti/Perlin and Associates  
511A Strand Street  
Santa Monica, CA 90405**

Solar homes in ancient Greece, solar greenhouses in eighteenth century Europe and a thriving solar water heater industry in pre-World War I California: these are just a few of the surprises from the past described in Ken Butti and John Perlin's fascinating book, *A Golden Thread*, first published in 1980. As we noted in our RAIN review (VII:3:5) the book provides plenty of lessons to ponder as we go about building a solar society: "energy short-sightedness has been a recurring disease and solar fascination has always proved fickle; the sun has repeatedly gained ascendancy when traditional energy sources . . . have been in short supply, and it has been repeatedly forgotten when more convenient sources . . . have come on the scene."

Public awareness of solar's rich past and public enthusiasm for the promise of a sunpowered future may be vital in assuring that we do not once again fall into the patterns of our ancestors. Schools, community groups, extension services and solar businesses now have an excellent opportunity to spread the word with this new audiovisual version of *A Golden Thread*.

Authors Butti and Perlin are also making available two more-specialized audiovisual programs based upon their research: *Solar Water Heating: The Last 100 Years* and *Solar Architecture: The Last 6000 Years*. Each of these programs is available from the address above in a set of 50-35mm slides for \$58 or a 50-frame filmstrip for \$29 (printed narration included for each program; audio narration cassette \$7 additional). — John Ferrell

***Solid-Fuel Furnaces and Boilers*, by John W. Bartok, Jr., 1982, 216 pp., \$8.95 from:  
Garden Way Publishing  
Charlotte, VT 05445**

Wood and coal fired heating systems have started coming back into use because of the high fuel bills associated with gas and oil fired units. As with any new trend, the American publishing industry is spewing forth information on the new heating options as fast as it can be typeset.

This is the third book on the topic we've reviewed in less than a year (see *Heating With Coal*, RAIN VIII:4,21 and *Central Heating With Wood and Coal*, RAIN VIII:6,19). All of these books talk about fuel, equipment, installation and operations of solid-fuel fired equipment. All have some valuable information not detailed elsewhere. However, *Central Heating With Wood and Coal*, written by Larry Gay, is far and away the best single source among the three. Gay not only gives you checklists to evaluate equipment and insure a safe installation — he also does an excellent job of explaining the reasoning behind the lists. — Gail Katz

**"Special Energy Policy Issue," *Sun Times*, May/June 1982, single copies \$1.00 ppd. from:**

**Solar Lobby  
1001 Connecticut Ave. N.W., Suite 510  
Washington, DC 20036**

Sun Day, May 3, 1978: a celebration of maturing energy technologies, growing

public acceptance and a seemingly bright future. We were hardly on the verge of creating Solar Camelot, but looking back, in this second year of a national administration whose energy policy consists largely of reactors and reaction, it's easy to remember things that way.

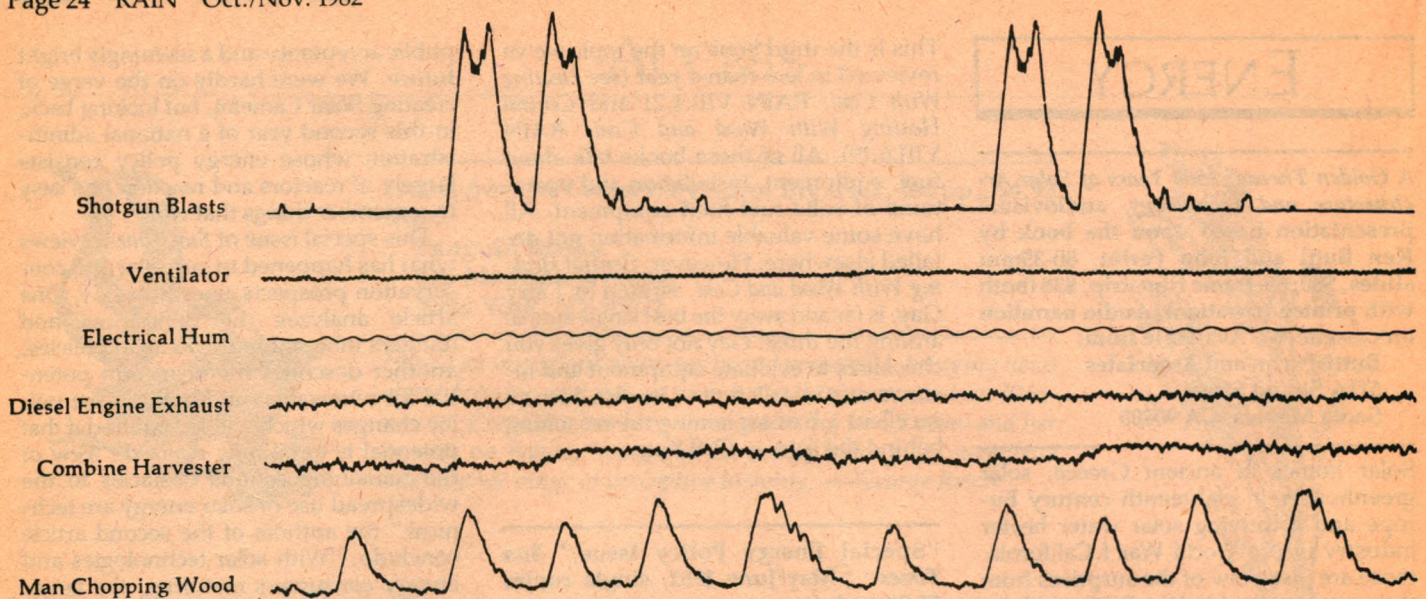
This special issue of *Sun Times* reviews what has happened to our solar and conservation prospects since Sun Day. One article analyzes the deficiencies and dangers inherent in the Reagan policies, another describes the near-term potential for renewables and outlines the policy changes which will be required if that potential is to be fully realized. "Few of the remaining serious obstacles to the widespread use of solar energy are technical," the authors of the second article conclude. "With solar technologies and energy consumers maturing, the larger questions now surround the availability of capital, access to information and political support."

For those of us involved in disseminating solar information or in lobbying for policy change, this is an excellent handbook. — John Ferrell



*This Pomona Valley, California family had a Day and Night solar water heater on the roof of their house in 1911.*





From: *The Tuning of the World*

# THE SOUND ENVIRONMENT

By Steve Johnson

I've attempted to write this article at least a half-dozen times over the last five years. Noise, and the seemingly God-given, or constitutionally-granted right of individuals to intrude on my private acoustic space has long been a pet peeve, but whenever I attempted to write about noise, or take my indignation about noise pollution to the citizen involvement level, I lost interest. With the entire biosphere threatened and nuclear war being proposed as a sane measure to protect our national or multinational corporate interests, noise pollution seemed a rather second-rate, unglamorous issue.

We could probably all agree that noise is reaching alarming intensities and that excessive noise is one of the least pleasant aspects of city life. But isn't that, after all, just a matter of secondary effects? For example, if the internal combustion engine is the symbolic and dominant sound of our culture, then a more harmonic environment could grow out of finding transportation alternatives which, as a secondary achievement, reduced urban noise levels.

As I thought about our attitude toward sound and how to describe it, I had this nagging sense that there was something deeper here, something we didn't fully understand or acknowledge. It wasn't until I became familiar with the works of Murray Schafer, author of *The Tuning of the World* (New York: Alfred A. Knopf, Inc., 1977) that I began to put my finger on it. We've been going at it all wrong. Separating noise out from the other stuff of the world makes it seem like a frivolous issue. I realized that noise is a way of drawing attention to an unsightly blemish. The blemish indicates something is amiss. Noise is a symptom, and, as with certain narrow medical practices, if we only look at the symptom without considering the entire body, we cannot expect to cure the problem. We need, as Schafer says, an "acoustic ecology," a way of studying sounds as they reflect on an entire level of reality.

## NATURAL SOUNDSCAPE

Sounds fill the space we call home — a thin ribbon of land, air and sea that covers a rocky planet hurtling through space. Within this thin shell of life, the biosphere, sounds are orchestrated by the harmonious and disharmonious interactions of human, animal and other natural elements.

The sound environment, or soundscape, can be observed and classified along with other qualities that distinguish one ecology or region from another.

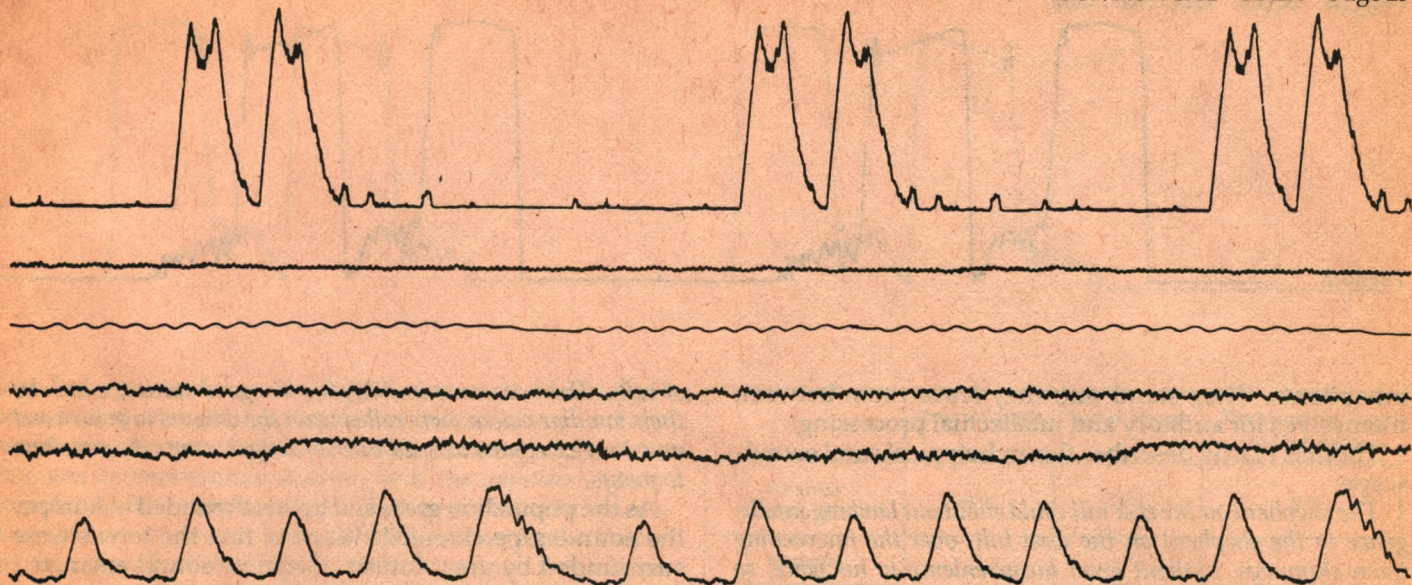
With fewer and fewer "natural" places on the planet it is difficult to observe the natural soundscape without consideration of human interferences. We have changed the sounds of rivers with our dams and encompassed the earth with electronically produced sounds. Even in remote regions of the earth our wonderful flying machines acoustically mow down the sounds unique to those regions.

Traditionally, the natural sounds of a region defined for the inhabitants their sense of place as much as, or in some places and cultures, more than, the visual environment. The sounds of a place were learned and incorporated into the rituals and rhythms of life.

Streams of the world speak their own languages. An old river flowing along a valley floor is nearly still, content to fill its soundscape with gentle lapping and the sounds of waterfowl and other animals. Thoreau described the Merrimack River as "whirling and sucking, and lapsing downward, kissing the shore as it went." The streams that rush down mountain sides, on the other hand, shout out youthful declarations about life in the fast lane, unaware of the slow and quiet life in store for them on the valley floor. Only the quickest animals dare call the environs of such streams home; the streams, like human highways, dominate the soundscape making it difficult to pick out important danger signals.

The rains of different regions each have their own





characteristic sounds. In the Midwest, thunderstorms build up and roll across the flat land, bringing rains that can nearly drown out the sounds of a city. In the Maritime Northwest, on the other hand, the rains fall continuously in the winter in a manner described by the natives as drizzle or mist, and the loudest noise created by rainfall may be from a defective drainspout.

The winds, which are themselves without content acoustically, blow across land and sea creating songs from geographic instruments they encounter — through forests, up against rocky headlands, through narrow passages and across wide deserts. In the prairies, the

**Traditionally, the natural sounds of a region defined for the inhabitants their sense of place as much as, or more than, the visual environment.**

wind is an enormous wind harp as portrayed in this description from Saskatchewan:

*The wind could be heard in a more persistent song now, and out along the road separating the town from the prairie it fluted gently along the wires that ran down the highway . . . the night wind had two voices; one that keened along the pulsing wires, [and] the prairie one that throated long and deep.*

In each region the sounds change with the seasons, as the streams swell and shrink with rains and melting snows, as leaves fill out the trees and then die, as the earth tilts and the wind directions shift, sections of the orchestra wake up on cue, like hibernating animals, to contribute their part.

During winter, 30 to 50 percent of the surface of the earth is covered by snow and ice for a length of time and this brings a dramatic change in the soundscape. In some regions where the winter is modified by air coming from

off the sea, the snow that falls is wet; it may fall quietly to the ground, silencing the earth. In drier and colder climates the earth may find itself pelted with stinging "corn" snow. If one walks in wet snow, it squeaks; in dry snow and ice the sound is a crunch. In *Doctor Zhivago*, Boris Pasternak described a walk in a Russian winter: "The snow screeched angrily at each step."

The forests of the earth each have their own soundscape. The rustling noise of deciduous forests is quite different from the tall and silent old-growth fir forests of western North America, described by Canadian poet Emily Carr:

*The silence of our western forests was so profound that our ears could scarcely comprehend it. If you spoke your voice came back to you as your face is thrown back to you in a mirror. It seemed as if the forest was so full of silence that there was no room for sounds. The birds who lived there were birds of prey — eagles, hawks, owls. Had a bird loosed his throat the others would have pounced.*

As natives in a region we are enveloped in that region's soundscape. Transplanted to another soundscape, even if it is basically natural and "peaceful," we may be disturbed by sounds as our auditory system responds to new information. In the jungles of Burma, Somerset Maugham discovered a raucous, teeming life that was difficult to adjust to: ". . . the noise of the crickets and frogs and the cries of birds produced a tremendous din so that till you become accustomed to it you may find it hard to sleep." He concluded, ". . . there is no silence in the east."

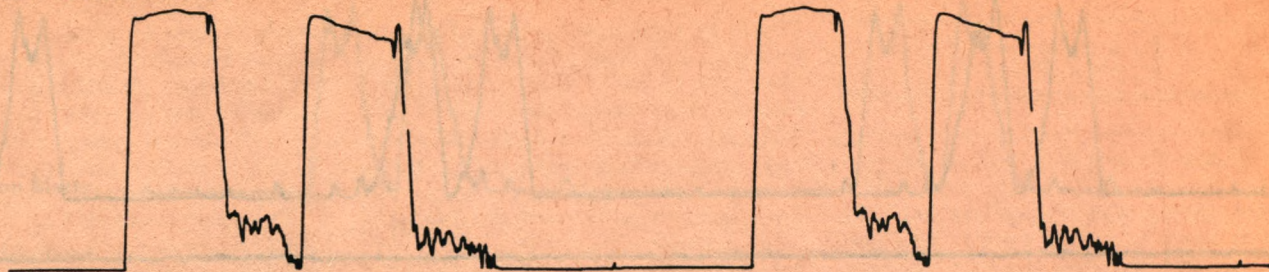
### RURAL SOUNDSCAPES

While many of us seek out places where we can be surrounded by the natural soundscape, most of us would not like to live in such places permanently. Instead, we might seek — or even just long for — a pastoral environment where the soundscape is filled with the sounds of nature *and* the more familiar and meaningful sounds of human activity.

The distinct quality of the pastoral and rural sound environment is that sounds are discrete and interrupted. The "keynote" sounds, as they are referred to by acoustic designers, are sounds that define a soundscape for its



Foghorn



inhabitants. They stand out; they leave room between themselves for auditory and intellectual processing.

Thomas Hardy describes the archetypal rural soundscape:

*The shepherd on the east hill could shout out lambing intelligence to the shepherd on the west hill, over the intervening town chimneys, without great inconvenience to his voice, so nearly did the steep pastures encroach upon the burghers' backyards. And at night it was possible to stand in the very midst of the town and hear from their native paddocks on the lower levels of greensward the mild lowing of the farmer's heifers, and the profound, warm blowings of breath in which these creatures indulge.*

Before the industrial era, sounds could more easily be used as forms of communication. For many years in Europe a keynote sound was the post horn, which announced the coming of the mail. It used a precise code of signals to indicate different types of mail — packages, letters, etc.

## In European towns of the preindustrial era, the church bell was the acoustic symbol of community.

The powerful difference between pre-industrial/rural soundscapes and industrial/electronic soundscapes of today lies in the ability of an individual to make sense of the sounds. People working and playing together in the rural soundscape can literally and metaphorically rise above other sounds — a feat that can only be duplicated in modern urban soundscapes during amplified hard-rock concerts and heated athletic events. In rural and village areas, the human voice can, with simple musical instruments, in song and dance, rise above the background sounds and become one with the soundscape — a powerful experience in community unity.

### THE SOUNDSCAPE OF TOWNS

In European towns of the preindustrial era the predominant symbol was the church, its steeple rising far above other buildings. The church created one of the keynote sounds that endured for centuries, the church bell. The bell was the acoustic symbol for community as described by Huizinga in his book, *Waning of the Middle Ages*:

*One sound rose ceaselessly above the noises of busy life and lifted all things unto a sphere of order and serenity: the sound*

*of bells. The bells were in daily life like good spirits, which by their familiar voices, now called upon the citizens to mourn and now to rejoice, now warned them of danger, now exhorted them to piety.*

As the population grew and towns expanded in Europe, the soundscape changed. When at first the towns were surrounded by great forests a keynote sound emanated from wood, which was used as planking on streets and as a basic building material. But with the coming of the industrial era the forests were depleted as wood was used for the smelting and forging of metals. The sound of wood was replaced with the sound of stone and metal.

By the 18th century the soundscape was a far cry from that in earlier towns and at least some people were aware of "noise pollution." The sound of brass-bound wheels on cobblestone and other sounds began to build up into a louder and more random symphony. Arthur Schopenhauer described the scene with some anger:

*The creaking of wheels is indescribable. It is like no sound ever heard in your life, and makes your blood run cold. To hear a thousand of these wheels all groaning and creaking at one time is a sound never to be forgotten — it is simply hellish.*

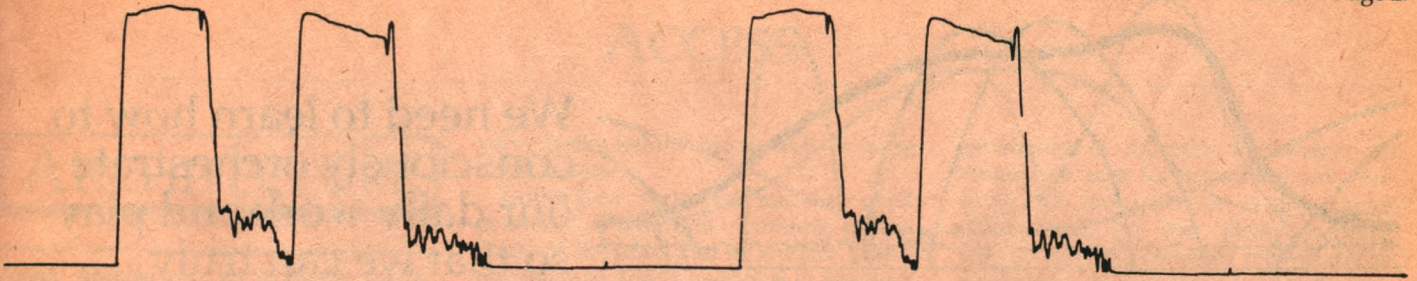
### THE INDUSTRIAL SOUNDSCAPE

We must have all seen it somewhere or another: Hollywood images of European and American towns clanking their way into the industrial revolution. Towns grew into cities and the distinct sounds of the rural and small town environments were drowned out by the sounds of the industrial revolution. One noisy invention after another added layer upon layer to the soundscape: the sewing machine (1711), air cylinders (1761), steam engine (1781-1786), power loom (1785), threshing machine (1788). As they were adapted in farming and manufacturing, each new invention changed the soundscape and the social compacts between people in a community. In the preindustrial soundscape, sounds had distinct lives; they were not melded on to one another, but were meaningful sounds that could be "read" by listeners much like the plot of a community-conducted novel. The industrial revolution raised the level of background noise to the point where sounds were blurred, one into another, forcing people to develop means to ignore, filter out, and protect themselves from "noise."

The soundscape of the industrial revolution and today's industrial and electronic soundscape is characterized by Schafer as "flatline." The noise of those new industrial inventions, unlike natural and small-town/rural sounds, tended to not have distinct births and deaths; if charted on a graph, the sound of industrial machinery is flat:

*The flatline in sound emerges as a result of an increased desire for speed. Rhythmic impulses plus speed equals pitch. Whenever*





impulses are speeded up beyond 20 occurrences of cycles per second, they are fused together and are perceived as a continuous contour. Increased efficiency in manufacturing, transportation and communication systems fused the impulses of older sounds into new sound energies of flatline pitched noise. Man's foot sped up to produce the automobile drone; horses hooves sped up to produce the railway and aircraft whine; the quill pen sped up to produce the radio carrier wave, and the abacus sped up to produce the whirr of computer peripherals.

As the agricultural base changed the cities grew, drawing people in for employment, creating strangers and a place where communication was difficult. Nowhere was this more poignant than in the development of the working class, melded to the new machinery. Whereas before the sounds of people working was a blending of machinery (hand tools), natural sounds and human sounds, in the industrial revolution the sounds of people were increasingly lost. As Lewis Mumford notes in *Technics and Civilization*: "Labor was orchestrated by the number of revolutions per minute, rather than the rhythm of song or chant or tattoo."

The keynote sound of the church bell, and the visual symbol of unity in town and countryside, the church steeple, were replaced by the sound of machinery and the factory. Loud noises, associated in the past with the power of the universe (thunder, volcanic eruptions, etc.), could now be produced by factory owners. It is interesting to speculate whether the development of a working class and the imperialistic spread of the western industrial political power would have been possible without such noise. By control of the soundscape a few people were able to control workers; unity among workers was difficult to achieve. Working 16 or more hours a day, swallowed up in the sounds of industry, workers were isolated from one another and, in effect, frightened into submission by control of what Schafer calls "sacred sounds" — sounds that previously had only been manifested in war or through awesome natural events.

### THE MODERN SOUNDSCAPE

One keynote of the modern soundscape can be heard in the internal combustion engine. Other keynotes, more subtle but equally pervasive, sound forth from electric current and electronic media.

Although the sounds of industrialization continue, the modern soundscape is as much characterized by the random actions of millions of individuals as it is by the sounds of industry. Since about the time of the invention of the automobile we have, as individuals, been granted more and more noise-producing devices that have increased our ability to intrude on one another's private space.

With the invention of the telephone, radio and televi-

	Natural Sounds	Human Sounds	The Sounds of Tools and Technology
Primitive Cultures	69 %	26 %	5 %
Medieval, Renaissance and Pre-Industrial Cultures	34 %	52 %	14 %
Post-Industrial Cultures	9 %	25 %	66 %
Today	6 %	26 %	68 %

From: THE MUSIC OF THE ENVIRONMENT

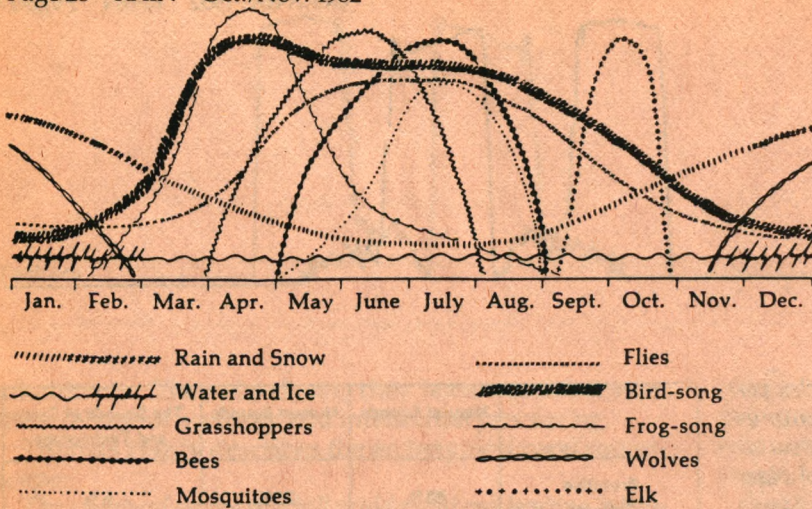
sion, sound was no longer tied to its original point in space, and with that change came industrial societies' increased capacity to dominate local cultures. We can now instantaneously create prepackaged mobile sound environments as well as electronically reproduced sounds. Indigenous cultures and their soundscapes are swallowed up by the displaced realities of "I Love Lucy" reruns or recorded reminders of the current musical fads of western cultural centers. It forces one to wonder about the wisdom of Marshall McLuhan's concept of the "global village."

The bombardment of "meaningless" sounds (i.e., sounds unrelated to us personally) is masked by adding new layers of noise. In modern architectural design, this new layer — called "white" noise — is considered essential, and the drone of radio and television serves as the poor-man's version of the same phenomenon. Rather than seeking new definitions of acoustic space rights, we have trapped ourselves in corners, isolated from each other, by manufacturing our soundscape without regard for the harmony of our actions.

However much the din of a modern city is representative of the sorry state of the modern soundscape, it is at the edges of the city that the sound is most painful to endure. On the front line of growth and development one faces the incongruous blending of natural, rural and city soundscapes. The roar of the city has not evolved completely in such environments, so, while sounds are still distinguishable, they are often lacking in meaning and difficult to filter out.

There is probably no more appropriate illustration of our modern soundscape than the person whizzing down an interstate glideway in an internal-combustion-powered vehicle wearing earphones and enveloped in a soundscape that has been lifted and transported electronically, freeing him from any specific sense of the place he happens to be passing through.





From: *The Tuning of the World*

We need to learn how to consciously orchestrate our daily work and play so that we can truly harmonize.

*The cycles of the natural soundscape of the west coast of British Columbia showing the relative volume of sounds.*

**CARETAKERS OF THE SOUNDSCAPE**

**Noise Abatement Regulations** We are up against a sonic wall. It has been suggested that in order to keep up with the increasing noise levels in the urban environment, our basic community alert signals — for fire, police and other emergency vehicles — may have to be amplified to levels that border on, or even surpass, the pain threshold just to gain attention. Even though they represent mere Band-Aid solutions, noise abatement regulations are essential if we are to hold together basic community life.

**Health and Economics** It is important to call attention to the economic and individual health consequences of our sound environment. The World Health Organization has reported that noise pollution in the U.S. accounts for industrial absenteeism, inefficiency and indemnity payments that add up to around four billion dollars annually. We need to develop an economic analysis that demonstrates what it really costs to mismanage our soundscape.

**Private Acoustic Space** Instead of settling for sound "envelopes" (TV, Muzak, white noise) that isolate us from one another, we may need to redefine private space needs to include the rights and responsibilities of taking care of the soundscape.

**Design of our Tools** We need to request regulations regarding the production of industrial and recreational tools that add to the racket of modern life. Beyond that we need to learn how to consciously orchestrate our daily work and play so that we can truly harmonize. This will demand the development of a new language about acoustic design akin to musical notation so that we can create what may amount to community symphonies.

**Acoustic Ecology** In *The Tuning of the World*, Murray Schafer elaborates on what he calls acoustic ecology, a way of comprehending the entire field of sound, including music:

*The best way to comprehend what I mean by acoustic design is to regard the soundscape of the world as a huge musical composition, unfolding around us ceaselessly. We are simultaneously its audience, its performers, and its composers. Which sounds do we want to preserve, encourage, multiply? When we know this, the boring or destructive sounds will become conspicuous enough and we will know why we must eliminate them.*

**Soundscaping** In the concept of permaculture — a

blending of organic or biological farming, landscape design and basic environmental caretaking — is the genesis for a more comprehensive understanding of our stewardship role on earth. We need to consider in the same breath the design of our soundscape, and in making community planning decisions ask such questions as: What existing natural sounds might be endangered? What community keynote sounds might be destroyed? Can the new development create keynote sounds of its own to help build community spirit?

**Acoustic Studies** Murray Schafer and his associates at the Sonic Research Center at Simon Fraser University have gone a long way in developing a means to classify sounds as well as survey methods for determining individual perception of the sound environment and techniques for educating people about sounds. There should be more support for such studies and the public education system should develop curriculums that expand musical studies to include the entire sound environment.

**Figures of Regulation in the Soundscape** In *The Republic*, Plato defines the ideal community as containing 5,040 people — the number that could be easily addressed by a single orator. We have created a soundscape today where even a community much smaller is acoustically too large because each person's internal-combustion and electronic slaves can drown out even a chorus of orators.

In planning new communities or revitalizing old ones we can take into account the positive, community-building qualities of a purposefully managed sound environment where elements of the soundscape are used to add levels of knowledge about the interrelationships between human and natural activities. The soundscape can serve to remind individuals of their compacts with each other.

**Fear of Silence** Silence reminds us of the smallness of an individual life in the context of a larger process that hums, as an old Beatle's song says, "within you and without you." Until we are more willing to face the essential loneliness that is learned through silence we may not be capable of creating appropriate soundscapes that reflect the joy of "returning" to our social selves, as members of a community, lost as one instrument in the orchestra, but belonging to the harmonic whole. □□



## ACCESS

## ARCHITECTURE

***Gentle Architecture*, by Malcolm Wells, 1981, 178 pp., \$22.50 hardcover from: McGraw-Hill Book Company 1221 Avenue of the Americas New York, NY 10020**

No doubt many RAIN readers share in a philosophical/emotional belief that the modern world is heading hell-bent toward destruction and that humanity must move its values in the direction of greater harmony with nature. Malcolm Wells applies this philosophy to the practice of architecture. He starts with the basic premise that new buildings can no longer be allowed to rape the land where they rest. Buildings and landscaping should, he believes, be designed to repair and revive a damaged, eroded environment. Wells talks about appropriate materials for different applications and he illustrates the use of energy conservation, daylighting and alternative energy systems. He has, over the years, developed a sufficiently holistic approach to architecture to consider landscaping for water conservation and recycling of building materials during construction to be integral components of the design/construction process.

This is a good book, both for architects and for students of architecture. — Gail Katz

## ENVIRONMENT

***Antarctica: Wilderness at risk*, by Barney Brewster, 1982, 125 pp., \$14.95 from: Friends of the Earth Books 1045 Sansome Street San Francisco, CA 94111**

With numerous environmental worries close to home, concern for Antarctic ecology probably has a low priority for most people. Antarctica is easy to ignore since it is half a world away and what goes on there has little apparent effect on us. But *Antarctica: Wilderness at risk*, in describing both the wonder of Antarctic life forms and the fragility of Antarctic ecosystems, gives us good reasons to direct some attention to this part of the world. Part of the book's message is that humans have already damaged this once-pristine continent, but its most important theme is that Antarctica presents an opportunity for us to act wisely to protect a

very special habitat before more serious harm is done.

In the past, Antarctica has been used primarily as a natural laboratory for the study of the earth and its wildlife. International scientific cooperation in Antarctic research is unparalleled anywhere else in the world, according to author Barney Brewster, and the scientific freedom is much cherished by those working there. But recently several countries have been deemphasizing "pure" science in favor of more practical-benefit oriented research, such as exploratory drilling for petroleum deposits. The search for energy in the form of petroleum deposits and food in the form of swarming krill create the most pressing threats to the Antarctic environment. Petroleum drilling under the extreme Antarctic conditions could lead to a disastrous, difficult-to-control pipeline rupture or tanker spill that would cause the deaths of many marine animals. Overharvesting of krill, the foundation of the Antarctic food web, would place stress on nearly every Antarctic animal population, including the nearly extinct blue whales.

The Antarctic Treaty, the present international agreement for stewardship of Antarctica, is not formally equipped to deal with resource questions. Conservation and management regimes have been set up outside the legal structure of the Treaty, but do not offer strong protection. The Marine Living Resources Convention, for instance, is really far more oriented toward fishing than toward protection and conservation, says Brewster. A minerals regime that will establish a system for assessing the ac-

ceptability of minerals exploitation in Antarctica, and for governing any ventures that are approved is now under deliberation by the Treaty nations. Agreement on a minerals regime will be extremely difficult considering the sovereignty disputes that have been more or less overlooked until recently (the Falkland Islands war was a related dispute). It is a complex situation and takes a book to fully sort out.

*Antarctica: Wilderness at risk* does a fine job of describing the conflicts surrounding Antarctica, as well as some of its history, splendor and awesomeness. It is a complete introduction to Antarctic affairs and serves the important role of raising our Antarctic-awareness, which may help us prevent the continent's despoliation. — Jim Springer

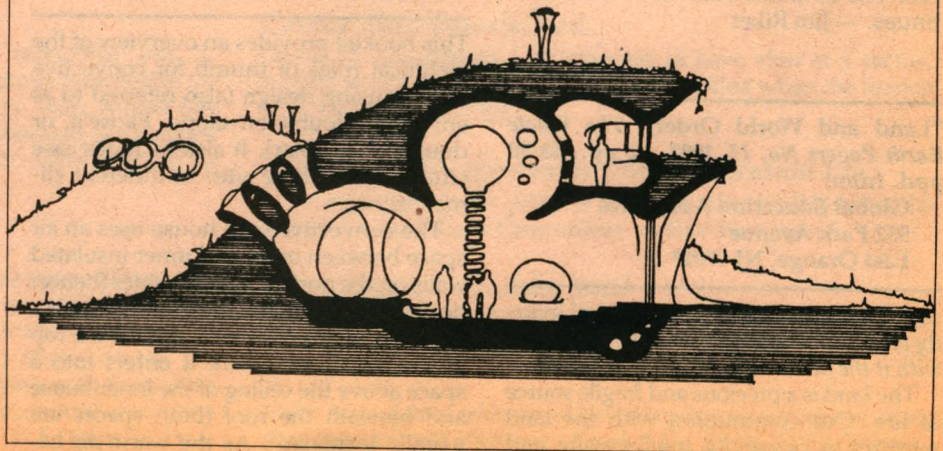
***U.S. Carrying Capacity: An Introduction* by Judith Jacobsen and Maryla Webb, 1982, 79pp., \$3.00 first copy (\$2.50 each additional copy) from:**

**Carrying Capacity  
1735 DeSales St., NW, Eighth Floor  
Washington, DC 20036**

This work is a must for anyone who is concerned about the future. It presents the concept of "carrying capacity" by examining the natural resource future of the United States in a solid, well-researched manner. Simply stated "carrying capacity is the number of organisms that an area's resources can support indefinitely without degradation." When this concept is applied to the human population of the

*Cont. on next page*

An underground building design by  
Thomas Sullivan of Missouri



From: *Gentle Architecture*



United States, it becomes apparent that future demands placed upon natural systems such as fisheries, forests, watersheds, agricultural croplands and rangelands will not be met without diminishing the ultimate carrying capacity of the nation.

It is a thought-provoking book for the uninitiated as well as for those well versed in the forecasts of the *Global 2000 Report*. The approach is especially refreshing, as it clearly recognizes and conveys the interrelated nature and dynamics of ecological systems and subsequent human impact. Thus, it steps beyond conventional analysis which considers the physical material flows required to meet future U.S. demand for food or energy, for example, and instead asks: "what size population, at what level of affluence, can the ecosystem support on a sustained basis?"

*U.S. Carrying Capacity* presents an overview of the trends that characterize U.S. use of natural resources and the implications they spell for the future. A concise examination of fisheries, forests, agricultural croplands, rangelands, and energy resources reveals that these basic life-support resources will not maintain us as they have in the past. This is particularly true as ecosystems are eroded and lose their regenerative capacity. The authors cogently argue that carrying capacity limitations require that conservation measures and population control work hand-in-hand to ensure a sustainable future. Whether one agrees with all the conclusions of *U.S. Carrying Capacity* or not, the questions that it raises are of vital importance.

This work represents a decisive turning point in examining our resource priorities as a nation and in becoming individually responsible for creating a sustainable future. It asks each of us in unambiguous terms to envision a future that respects the limits of our natural resources. Ultimately, it provides a clear context in which to gauge where we are as a nation today and what we must do to realize a sustainable world for our children. Let us make sure such work continues. — Jim Riker

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**"Land and World Order," *The Whole Earth Papers* No. 17, 1982, 62 pp., \$3.50 ppd. from:**

Global Education Associates  
552 Park Avenue  
East Orange, NJ 07017

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*... The relationship between national security and land is destroying the land itself, and with it the fundamental basis of all security.*

The land is a precious and fragile source of life. Our communion with the land nurtures us physically, intellectually, and spiritually. To subtly alter or ignore this

dynamic relationship with the land is to impair our very existence. With this thought clearly in mind, the authors of "Land and World Order" eloquently challenge us with refreshing insights on how to create an enduring global order.

"Land and World Order" speaks passionately of the need to preserve the land's carrying capacity and ecological well-being, and with it the integrity of our communities. It speaks of power, seeing land as a "central tool of national security policy," which is eroded and degraded by the nation-state intended to protect it. Rather than viewing U.S. agriculture as a nurturing world force, food becomes a weapon, an instrument of foreign policy with all of its subsequent effects diminishing the quality of the land. In a very real sense, "security" has become synonymous with control of the land and its resources. Threaded throughout each chapter is a questioning yet supportive dialogue about creating a more constructive and sound relationship with the land. An articulate account is given of the destructive forces with adverse impacts upon the land, such as agricultural chemicals and practices, industrial products and wastes, and most significantly, the nuclear and military arms buildup. Alternative ways of living with the land are offered including community land trusts, organic farming and conceptual frameworks for guiding our relationship with the land. "Land and World Order" is a realistic and valuable source for envisioning and establishing a more humane world order. — Jim Riker

## BUILDING

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***Convective Loop Housing: Our Architectural Future*, by Jim Berk, 1980, 40 pp., \$6.00 ppd., from:**

Solar Clime Designs  
Box 9955  
Stanford, CA 974305

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This booklet provides an overview of the technical rules of thumb for convective loop housing design (also referred to as envelope, double envelope, Ekose'a, or double shell solar). It also includes case studies from three sites in different climate zones.

The convective loop house uses an air space between outer and inner insulated walls on the north and south sides (hence, double shell). On the south side there is a large sunspace. Warm air rises to the top of the sunspace where it enters into a space above the ceiling of the inner house and beneath the roof (both spaces are usually insulated). As the warm air becomes cooler, it moves down the north

side of the building between the inner and outer walls and into a crawl space where any residual heat may be stored. Vents from the crawl space allow the cooled air to enter the south-facing sunspace and begin the loop again.

At least that's how convection loop advocates describe the process. Not everyone is in agreement about what actually takes place. The convection loop concept has been controversial since Lee Porter Butler first began marketing the Ekose'a design several years ago (see "What Make's Ekose'a Run?" RAIN VI:1:20). The dispute centers around the fact that it is difficult to scientifically prove that the air really moves in the loop or that any heat is stored in the crawl space. William Shurcliff, for one, makes a strong argument that the design is actually a super-insulated house concept. However, Jim Berk and other convection loop advocates point to studies backing their own claims.

Berk leads the field in promoting communication between designers involved with convective loop housing. He also publishes *Design Manual, Convective Loop Housing*, a subscription service (\$30.00/yr.) and *Convection Loops*, an excellent monthly newsletter for exchange of dialogue and information in the field (\$10.00/yr. individuals; \$25.00/yr. institutions). Both are available from the address above. Since the Passive Division of the American Section of the International Solar Energy Society has chosen not to specifically include convection loop concepts in its national conferences for 1981 and 1982, it is important to acknowledge the work done by Jim Berk and others in continuing the dialogue. — Jane Peters

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***Occupational Hazards of Construction*, by Janet Bertinuson and Sidney Weinstein, 1978, \$9.00 for individuals, \$12.00 for institutions, from:**

Labor Occupational Health Program  
2521 Channing Way  
Berkeley, CA 94720

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A well cross-referenced guide to health and safety hazards of building trades and building materials. Penta preservatives contain the same ingredients as Agent Orange. Arsenic fungicides in silicone sealants have caused arsenic poisoning in some applications. Certain paint solvents can destroy bone marrow. Sandblasting bricks can lead to silicosis (similar to asbestiosis or black or brown lung). With this guide you can start with symptoms, materials or occupations, and find problems, their causes and significance. More information than your doctor is likely to have, and a good guide to health and peace of mind. With the ingredients likely in modern building materials, this is an invaluable reference to have at hand. — Tom Bender



# NUKES

***Nuclear California: An Investigative Report***, edited by David E. Kaplan, 1982, 144 pp., \$6.95 ppd, from:

Greenpeace/Center for Investigative Reporting  
Building E.  
Fort Mason  
San Francisco, CA 94123

*We have been convinced that the government is trying to regulate the unregulatable, limit the unlimitable. The simple truth is: nuclear technology is out of control. Any sane government policy must be founded on that central fact.*

More than 30 years after the advent of nuclear technology, the time to inventory the nuclear materials around us has come.

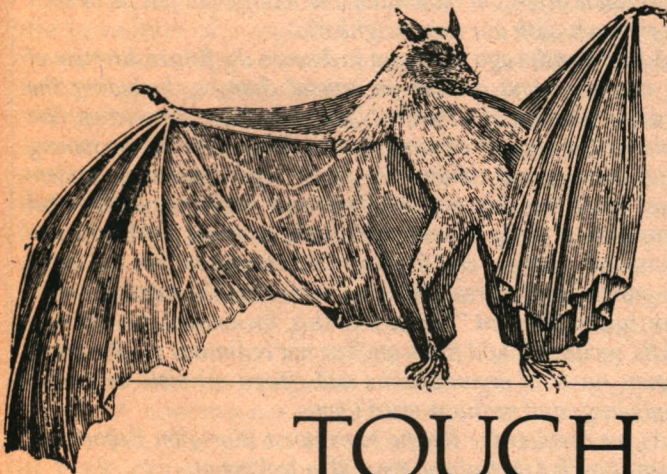
*Nuclear California* is the first work to trace the flows of all known nuclear materials into and out of California. Discussions of the mining, transportation and dumping of radioactive materials vividly illustrate how these substances permeate the California economy.

But the book has relevance outside of California, too. It challenges each of us to consider the structure and future that nuclear technology presents for our society as a whole. The many authors seriously question whether a safe and healthy environment, a stable economy and social freedoms can be preserved given the increasing presence of nuclear technology in our communities.

*Nuclear California* describes important events that have gone virtually unreported: a commercial reactor meltdown in Los Angeles in 1959, several suspected nuclear terrorist alerts, and instances of

potentially dangerous siting, transporting and handling of nuclear materials.

The authors emphasize that we know less about the safety of our communities than we should, while trusting those who deal with these materials to behave responsibly. Whether or not we have radioactive wastes or nuclear arms in our communities does not depend solely upon our elected officials. It depends also on how much responsibility each of us is willing to accept in creating a healthy, living community. *Nuclear California* reinforces the idea that we must reject an economy increasingly based on national defense expenditures, an environment subjected to irreparable deterioration due to radioactive wastes, and community health and democratic freedoms eroded and sacrificed for nuclear development. It is our choice. — Jim Riker



## TOUCH AND GO

### ERA and the Atomic Bomb

Phyllis Schlafly, fresh from her triumph over the Equal Rights Amendment, has other comforts too. "The atomic bomb," she says, "is a marvelous gift that was given to our country by a wise God." — *The Progressive*

### Long Term Investments

According to University of Minnesota economist Joel B. Slemrod, the public's fear of nuclear war may be responsible for our sagging economy. In response to this, Marc Ringel has suggested we may need to create new investment possibilities such as bonds that mature in 100,000 years — long enough to outlast the radiation. — *Mother Jones*

### Paperwork Reduction Act Notice

The paperwork reduction act of 1980 says we must tell you why we are collecting this information, how we will use it, and whether you have to give it to us. We ask for the information to carry out the Internal Revenue laws of the United States. We need it to ensure that taxpayers are complying with these laws and to allow us to figure and collect the right amount of tax. You are required to give us this information. — U.S. Dept. of Treasury Memo, 11/81

### Japanese Bureaucracy

The entire Japanese government has but 506,000 employees. Thus, a nation with a population half the size of ours manages to make do with a bureaucracy that is less than one-fifth the size of our own. — *Washington Monthly*

### Cactus Shot/Man Killed

David M. Grundman was reported to have shot at a cactus, hitting one of its large branches. He was killed when the branch struck him. — *New Age*

### Pigeons in the Electronic Communication Era

Lockheed uses carrier pigeons for inter-office mail between its Sunnyside and Santa Cruz offices. — *East-West Journal*

### What Animal repulses You?

Least favorite animals according to a U.S. Fish and Wildlife Service survey are: rats, cockroaches, mosquitos, wasps, rattlesnakes and bats.

*If you know of items which would be appropriate for this column, please send (together with citation) to: Touch & Go, RAIN, 2270 NW Irving, Portland, OR 97210.*



# Pacific Northwest Bioregion Report



Patrick Mazza

When RAIN began eight years ago, a principal goal was to enhance communication among members of the emerging environmental movement in the Pacific Northwest. However, because of the scarcity of good information available at the time in the areas of appropriate technology, community self-reliance and renewable energy development, the magazine soon began to cover those areas as well. It was not long before it gained national and international recognition for the quality of its coverage. Although RAIN's roots remained firmly fixed in Northwest soil its scope and its readership became truly global.

Events during the past two years have brought us, in several

important ways, closer to home. In 1980 the Rain Umbrella merged with the Portland Community Resource Center and the resulting hybrid, the Rain Community Resource Center (RCRC) not only set about organizing and computerizing our vast information resources but also took on a host of locally-focused activities like energy conference planning, community self-reliance forums and educational programs which made us feel more a part of our own region. In 1981 we published *Knowing Home: Studies for a Possible Portland* — our attempt to define the issues and the possible strategies involved in creating a socially equitable and self-reliant community. The book received wide attention nationally and locally and put us in even closer touch with our near neighbors.

A few months ago we began to discuss the future direction of the magazine and decided on several changes, including the regular inclusion of a Pacific Northwest Bioregion section. We explored the state of communication flow in the region among social change and community-based organizations to understand what role this new RAIN feature might play. We noted there were already several periodicals covering regional environmental, energy, and food/agriculture issues, but one obvious gap lay in the area which we, very roughly, labelled "community development." Because of this, we decided that the new RAIN section should focus on, but not be limited to, the information needs of organizations and citizen activists in the region's large and medium-sized towns.

As we develop the Pacific Northwest Bioregion Report as a continuing RAIN feature, we will be looking at:

- cooperative efforts (coalitions, consortiums) among community-based organizations;
- model community projects that represent strategies for dealing with social and economic crises in urban areas;
- organizations which provide technical assistance, funding and support for community-based organizations;
- other community development news, on such topics as innovative uses of block grant monies, citizen involvement, neighborhood economic enterprises, urban agriculture, and community energy planning;
- government policies that affect the entire Northwest on energy, environmental, agricultural and social justice issues.

We will also be including resource lists and directories of organizations working in key areas, with a special focus on community development organizations.

We hope that our Pacific Northwest readers will consider assisting us in developing this much needed regional communication vehicle; news tips and written contributions from our ecotopian neighbors will be crucial in helping to make the Bioregion Report a success. We hope, too, that our national and international readers will enjoy and benefit from reading about the many innovative developments taking place in our corner of the world. — Steve Johnson and John Ferrell



## Study Looks at Portland's Future

In early August, Portland's Ad Hoc Futures Committee celebrated the release of "Critical Choices for Greater Portland," its major report examining the long range future of the Portland Metropolitan area. The report summarizes major planning efforts of the last ten years, analyzes forecast data for the next twenty and explores alternative social futures, criticizes the region's leadership and warns that Greater Portland stands to lose much more than its highly-touted livability in the coming decade of increasing uncertainty. The alternative, it says, is to actively promote wider public involvement in creating a positive direction for the city.

The report specifically proposes the formation of a regional "futures project," including several major task forces to grapple with issues of overriding concern to the region, as well as scores of local futures discussion groups to carry this dialogue into local communities and neighborhoods. The idea is to create a "constituency for the future."

The Futures Committee, an independent citizens study group formed last year, is now spearheading the formation of a futures project with a series of conferences to begin in November. The group is interested in networking with similar efforts elsewhere. For more information, contact me in care of RAIN. — Steven Ames

## New Publications

The Washington State Energy Office (WSEO) published *Energy Conservation Resource Directory* (WAOENG-82-06) listing 500 energy conservation contacts around the state. Copies are free while supply lasts from: Ginger Alexander, WSEO, 400 E. Union, Olympia, WA 98504. WSEO is also compiling information for their *Current Research and Development in Washington state*. Contact Kevin Ferris-Hanson, at 206/754-1369 for more information.

The Solar Oregon Lobby recently published *The Energy Book: A Resource Guide for Oregon*, which includes articles on key energy development is-

suces in Oregon and the Northwest as well as listing organizations and government programs in energy conservation and development. Copies are \$4.00 from: Fred Heutte, 2914 SE Taylor, Portland, OR 97214.

*The Eugene-Springfield Solar Report* was completed by Oregon Appropriate Technology. The study found that solar energy in existing housing stock within the limits of the two cities could displace the equivalent of 293 million kilowatt hours per year. More information and executive summaries (50¢) available from OAT, PO Box 1525, Eugene, OR 97440.

## Oregon Places Freeze Question on Ballot

Oregon will be one of six states with a nuclear freeze initiative on the ballot this November. Freeze supporters gathered 110,000 signatures to get Initiative 5 on the ballot. If it passes, the governor would transmit the following message to the president, the secretary of defense, the secretary of state and Congress:

*The people of the State of Oregon, recognizing the safety and security of the United States must be paramount in the concerns of the American people; and further recognizing that our national security is reduced not increased by the growing danger of nuclear war between the United States and the Soviet Union which would result in millions of deaths of people in Oregon and throughout the nation; do hereby urge that the government of the United States propose to the government of the Soviet Union that both countries agree to immediately halt the testing, production, and further deployment of all nuclear weapons, missiles, and delivery systems in a way that can be checked and verified by both sides.*

For more information about Initiative 5, contact Oregon Nuclear Weapons Freeze Campaign — Yes on 5, 526 NW 24th Ave., Portland, OR 97210 (222-6211), or Box 11558, Eugene, OR 97440 (342-6323).

## County Zaps Radio Waves

Based on concerns that electromagnetic radiation created by radio and television broadcasts might harm human health, Multnomah County,

Oregon has passed the nation's first comprehensive ordinance regulating sources of radio and TV transmissions. The ordinance, passed in August, regulates siting, location and design of broadcast towers as well as intensity of transmissions.

Radio and TV waves are thought by some scientists to cause a variety of health problems. Experiments on rats and rabbits have revealed effects such as increased nervousness, lowered resistance to disease, changes in blood chemistry and cataracts. Whether broadcast transmissions have these effects on human beings is still a matter of hot scientific debate. The Environmental Protection Agency has been looking into the matter for a number of years and is reportedly about to publish a summary of 7,000 studies done on the subject.

The Multnomah County ordinance will not force any changes in the way radio and TV broadcasters currently operate. But if the ordinance applied to Portland (which is in Multnomah County but is not subject to county ordinances) a cluster of towers in the city would have to come down. The intensity of transmissions there is as much as 500 microwatts per square centimeter. For much of the broadcast band, the Multnomah ordinance limits transmissions to 200 microwatts per square centimeter. (Since different frequencies affect the body in different degrees, the limits vary with frequency.) By comparison, the standard for exposure in the Soviet Union is five microwatts per square centimeter. The Soviets have done extensive research into microwave and other types of electromagnetic radiation, though there are some questions about research methodology and whether the five-microwatt standard is enforced.

The county ordinance does have a local precedent. Several years ago, Portland did adopt a non-mandatory standard for the intensity of transmissions. The city has a relatively high level of electromagnetic radiation compared with other cities.

The new ordinance has attracted interest from around the country, according to Larry Epstein with the



county planning office. Governments in California, New York, Maine, Minnesota and Wisconsin, as well as a number of federal agencies, are examining the new law. The Massachusetts Legislature is considering its own electromagnetic radiation limitation law as well — Patrick Mazza

## Computertown USA

In Wenatchee, Washington, the Community Resource Center at Wenatchee Valley College has been selected as a Computertown USA test site, and will be provided development assistance from the Computertown USA Project in Menlo Park, California to develop local computer literacy projects. For information contact Marlene Curtis, Community Resource Center, Wenatchee Valley College, Wenatchee, WA 98801

## Living Lightly Networks

An interesting new model social organization is taking place in the Puget Sound area with the formation of living-lightly networks designed to act as information exchange vehicles for people interested in living within the biological conditions of their region. A new regional journal is in the works by some of the members of the living lightly associations. For more information contact: Cascade Living Lightly Association, 3716 274th St. SE, Issaquah, WA 98027, or North Olympia Living Lightly Association, PO Box 1073, Sequim, WA 98382.

## Divine Profit for Oregon

A recent issue of *Oregon Business* gives a startling economic profile of Rajneesh Puram, the central Oregon religious community, estimating that the group has pumped \$20 million into Oregon's economy. The group has spent \$3 million on modular homes, and spends \$15,000 per month at local dealers on tires for their fleet of vehicles. Even the local telephone company, Cascade Utility, can speak of their economic gain of \$10,000 per month from the community.

## Economics of Cool

According to *Oregon Magazine*, (Sept. 1982, a special issue about Eugene) "of the sixty cooperatives incorporated in Oregon since the late 1960s almost half are based in Eugene." The cooperatives include Starflower wholesale food distributors with 30 employees and \$3.5 million annual gross sales, and the 200 member Hoedads reforestation cooperative.



## The Underground Economy

Yet another way of viewing Oregon's economy is available by examining the University of Oregon Graduate Business School's report on the state's marijuana crop. In the study it is estimated that the annual cash value of the crop is between \$100 million and \$500 million, making it either the number one or number two cash crop in the state.

## Youth Assist Elderly / Handicapped

When most policy makers sit down to plan something involving young people, they raise the question, "What can we do for youth?" Portland Youth Advocates in Portland, Oregon rephrased the question: "What can youth do for us?" And that was the beginning of the Mobile Assistance in Nutrition Program (MAIN), a youth employment program of shopping services for the

elderly and the handicapped. It is a community self-help program bringing together the young and the old. The multi-disciplinary program, which combines learning and working, draws from the fields of sociology, geriatrics, nutrition, communication, economics and politics. The youths participate fully in the planning, decision-making and executing of the program. They develop their clientele by distributing leaflets and through personal contacts, as well as by tapping into community services for the aged and handicapped and the hospital out-patient services. Once in the field, youths aid in shopping, delivering, escorting to the grocery store and counseling in nutrition, without charge to the recipients. The youths are paid through the city CETA program and the Mayor's Get Set Program for the training and field work, while a small foundation grant and private donations finance the adult coordinators' positions.

Youth Participation programs focus on the needs, as well as the resources and abilities of youth. By developing their abilities, youth become valuable, active members of the community. The social benefits of this approach in the MAIN program can best be expressed by the youths themselves. Abby Adamski shares her experience and insight:

*I feel that I fit in better here than anywhere else I've been. Usually I am just there, but in MAIN I have a say; I can voice my opinions and give suggestions and they are acknowledged. Anywhere else I would say something, I would be either ignored or put down. . . . I also feel good about my role in the community. My job is helpful to both the elderly and handicapped, and myself. I'm doing something constructive while I'm earning money and staying out of trouble at the same time. I found that a lot of the people I shop for are really interesting. I like to hear how things were before my time, and a lot of stories about foreign countries. One problem stems from this: some of my clients can talk forever if I let them. But that is expected because so many are lonely. Besides, I feel that I'm helping them out by listening to them, because of their need to associate with other people.*

Another youth participant, Tracey Ann Haines, expresses her feelings



about the program:

*The training that I received in this project has helped me immensely in my own nutrition. I learned a lot about the food chain and eating simple foods. I also got a lot of information on chemical additives in food and what they do to you. I passed all of this information on to my mother who has used it to get the whole family to eat better. To me, that's the most impressive thing that's happened. The reason that I enjoy this job so much is that I'm helping people. By providing a means for senior and handicapped citizens to get their groceries, I'm helping them to stay out of the clutches of nursing homes. This makes me feel very important, because I'm providing a valuable service. If, for instance, I was working as a grocery delivery person out of a grocery store, I wouldn't feel half as good about my job or myself. In this job, however, not only do I deliver groceries, but I also provide companionship and information on nutrition. It's a lot more fulfilling.*

At a time when youth unemployment and crime are increasing, and isolation of the elderly and handicapped is far too common, the Mobile Assistance in Nutrition Program addresses many community needs that go unmet elsewhere. The sense of personal worth and fulfillment for both the young and the old gained through MAIN is a priceless benefit to the community.

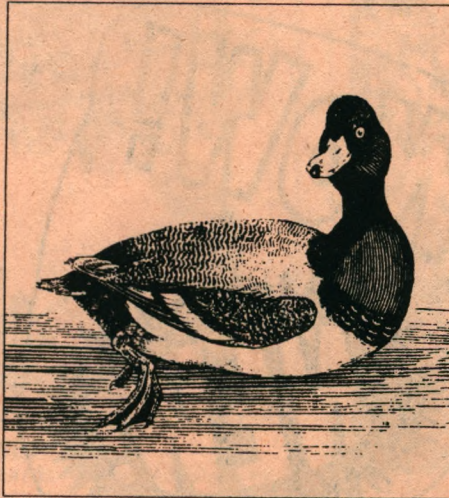
For more information on the Mobile Assistance in Nutrition Program contact: Youth Employment Planning Team c/o Dr. Jerry Blake, School of Urban Affairs, Portland State University, P.O. Box 751, Portland, OR 97207. Telephone: (503) 229-4087. — Rosalind Riker

## The State Fair and The Country Fair

Kathy Ging, and the folks at the Amity Foundation should be congratulated for a successful Energy Roundup held at this year's Oregon State Fair in Salem. The Roundup included booths and demonstrations of renewable energy development and conservation programs.

In another kind of fair setting, the Country Fair, an annual event in Lane County, Oregon since 1968, has bought the land where the fair has been held all these years. The fair is,

for the southern part of Oregon, a reunion spot, such as the mountaineers maintained in the fur trapping days. The members of intentional communities and transformational groups gather here to exchange goods and watch the passage of time.



## Urban Naturalism

The first issue of the *Urban Naturalist*, published by the Urban Naturalist Program of the Portland Audubon Society, includes a map of the Portland area that indicates the remaining wild areas. A quiz in the issue includes such questions as: How many species of slugs (native and introduced) are there? and; Using the Burnside Bridge as a starting place, where would you have to travel the least distance to see the following? a. Owls, b. Whistling swans, c. Great Blue Heron Rookery. More information from Chris Kasselman, Audubon Society, 5151 NW Cornell Rd., Portland, OR 97210.

## Rain Facilitates Self-Help Community Garden Project for Southeast Asian Refugees in Portland

Well over 100 Mien families now have community garden plots thanks to the combined efforts of their Family Association, the Multnomah County Community Action Agency (MCCAA), and Rain staffers Ann and Bruce Borquist. Originally subsistence farmers in Northern Laos

who were recruited by the CIA to be guerrilla fighters, the Mien started arriving in Portland about three years ago, literally uprooted so they wouldn't be wiped out by the victorious Laotian Communists. About 1,500 Mien now live mainly in two housing projects in urban Portland, cut off from their traditional way of life, their culture, and their land. Late last year President Reagan decided that 18 months was plenty of time for any refugee to master English and find a well-paying, stable job, so in April of this year almost 90 percent of the Mien lost their cash and medical assistance benefits along with other refugee groups and were told, in so many words, to sink or swim. Jobs in Oregon this summer were about as plentiful as sunny days are in winter.

But the Mien didn't sink. In an effort to become more self-sufficient at least in food, they requested, and were granted, a total of 4½ acres of unused land by Multnomah County in June, and set to work with a will and their short-handled hoes. The 100-plus families who have plots now report that they and their relatives are eating better, spending less on food, and feeling a new sense of hope because of the gardens.

A unique partnership made all this possible. The county assigned the land and a budget of \$5,000 to MCCAA, and Rain coordinated the refugee side of the project. Together MCCAA (a county agency) and the Rain Community Resource Center (a private non-profit community education organization) were much more effective in meeting this group's needs than they ever could have been separately.

The story won't end with this, though, for the Mien are now becoming convinced that they can control their own development. They recently requested a series of winter gardening workshops, and we have been hard at work with a local Master Gardener coordinating them. We'll keep you posted with more progress reports on this exciting project. — Ann and Bruce Borquist *Another SE Asian agricultural project has been operating in the Seattle area. For information on the project, contact Sharon Hart, Commission on Asia-American Affairs, 206/464-5820.*



# ADVERTISING



## DISPLAY ADS

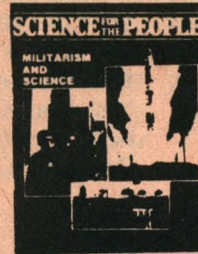
Our rates for display advertising are: full page (7-1/4 x 9-7/8), \$200; half-page (4-5/8 x 7-1/4), \$125; one-fourth page (3-1/2 x 4-5/8), \$65; one-eighth page (2-1/4 x 3-1/2), \$35. Ads must be submitted to us in camera ready form and prepayment is required. All ads are accepted at RAIN's discretion. Deadline for receipt of ad copy for the Dec/Jan issue is November 3; for the Feb/Mar issue, December 22. Contact Advertising Dept., RAIN, 2270 NW Irving, Portland, OR 97210, 503/227-5110.

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Vol. VI, No. 2

Southwest Research and Information Center

March/April, 1981

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With our next issue, RAIN will begin to run a limited amount of classified advertising in addition to our display ads. Rates will be 30¢ per word. Letter groups (as in acronyms) and number groups (as in addresses or price information) count as one word; hyphenated words count as two words. Ads must be *prepaid* and must be submitted to us in typewritten or very clearly handprinted form. All ads are accepted at RAIN's discretion. Deadline for receipt of ads to run in the Dec/Jan issue is November 3; for the Feb/Mar issue the deadline is December 21. Address all correspondence to Advertising Dept., RAIN, 2270 NW Irving, Portland, OR 97210.



"Building Self-Sufficiency: Challenge and Opportunity" is the title of the seventh annual conference called by Clearinghouse for Community Based Free Standing Educational Institutions. The October 28-30 meeting will have twin focal points: strengthening our communities and strengthening ourselves. It will be held in the Skyline Inn, South Capitol and "T" Streets, SW, Washington, D.C. Registration fee is \$35. For more information contact Conference Coordinator, Clearinghouse for CBFSEI, 1806 Vernon Street, NW, Washington, DC 20009.

**The fourth annual Alaska Alternative Energy Conference will meet January 28-31 in Anchorage. It will include workshops, technical sessions, and forums covering alternative energy technologies and public policy issues relevant to Alaskan climate and conditions. For more details, contact Judy Zinicki, Conference Coordinator, Alaska Center for the Environment, 1069 West 6th Ave., Anchorage, AK 99501, 907/227-2134.**

How better to deal with the crunch of winter than to set off on an energy tour either to Hawaii (December 2-10) or to Israel (February 17-March 1, 1983)? That's just what the folks at Jordan College (and their co-sponsors) thought and have arranged. To find out more, contact Linda Bouwkamp, Director, National and International Energy Programs, Jordan College, 360 West Pine Street, Cedar Springs, MI 49319, 616/696-1180. (And to find out details about energy courses the college offers throughout the midwest at various times, get in touch with Danette Bailey, Director, Statewide and Regional Energy Programs, at the same address and phone number.)

# RUSH

*Looking for a location in the Pacific Northwest to practice self-reliant and sustainable life centered around organic food production, children, and crafts? You might want to contact the folks at Folly Farm in the foothills of the Oregon coast range. For more information, write Jonathan Bekoff, 9380 Hebo Road, Grand Ronde, OR 97347.*

**Neighborhood organizing, crime, discrimination, housing and disarmament will be among the topics of two dozen mini-forums at the Portland Community Congress, to be held at the Northwest Service Center, 1819 NW Everett, from 8:30 to 5:00 on Saturday, October 9. Michael Rotkin, socialist mayor of Santa Cruz, California, will be the featured speaker. For details contact the Alliance for Social Change, 503/222-4479.**

*The First Biennial Conference on the Fate of the Earth will be held in New York City, October 19-21. Participants in this major gathering will include Lester Brown, David Brower, Paul Ehrlich, Amory Lovins, Winona LaDuke, Linus Pauling and Pete Seeger. They will address a wide range of issues centering around the theme of "Conservation and Security in a Sustainable Society." For details, contact Friends of Earth, 1045 Sansome Street, San Francisco, CA 94111, 415/433-7373.*

**Here's an interesting way to get to know Alaska — its beauty, its people, and its politics: the Internship Program for Alaska. A cooperative venture by a wide variety of advocacy and public interest organizations, the program provides students with opportunities to develop knowledge and job skills, with close supervision. Deadline for spring semester internship applications is December 15. For details — what internships are available, possibility of small stipends, how to arrange course credits — contact Sara Juday or Steven Kadish, Internship Program for Alaska, 1069 West 6th Ave., Anchorage, AK 99501; 907/274-3621 or 272-8734.**

*Resources '82, a conference emphasizing planning, energy policy development, and program evaluation, will be held October 20-21 in Boise, Idaho. It combines for the first time the Bonneville Power Administration/Northwest States' annual Renewable Resources Conference and the Annual Conservation Management Conference. Early registration fee is \$45. For further information call BPA toll-free at 800/452-8429 (Oregon only) or 800/547-6048 (other western states).*

*The National Public Law Training Center offers two 4-day programs, one in October and the other in November. "Law and the Elderly" (October 19-22) concentrates on ways community workers can help senior citizens defend their rights, get available assistance, and protect themselves. "Negotiation and Mediation Skills" (November 16-19) looks at how to resolve disputes — landlord and tenants', neighbors', family members', or employer and employees' — without costly and slow litigation. For more specifics, call or drop a note to Rosalyn Voige, NPLTC, 2000 "P" Street, NW, Suite 600, Washington, DC 20036, 202/872-0660.*



**These issues, as well as many earlier issues of RAIN, are available from us. See facing page for details.**

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