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Journal of Appropriate Technology

RAIN

Volume VI No.3
DECEMBER 1979
\$1.50 No Advertising



Hard Look at How-To

Children Plan the Future

Women and Solar

R A I N D R O P S



Ancil Nance

But Mark's not the only new face from the East. We have a new intern, Kiko Denzer, from Hampshire College. Kiko is the magician who worked with Jill and Debra to transform the boxes of periodicals piled in our back room into an honest-to-goodness library. Now he's starting in on our files, many of them dating back five or six years. Thank you, Hampshire College!

It's not all good news, though. *RAIN* is losing good energy, too. Yale, who came first as an intern and stayed to shepherd the magazine through this summer, is returning to Massachusetts and Debra is going home also. Debra began the process that Kiko's now assuming, of organizing *RAIN*'s resource library, but even more important were her insights into women's health, nutrition, and the politics of change that contributed to *RAIN*'s *Access* over the summer. We'll miss them both.

And then there's Del. Our ability to brag last month that we were finally solvent was due in no small measure to Del Greenfield. She came on board to job-share the business manager's position with Pauline and brought with her wisdom, order and balance (real world as well as checkbook). Her moving on leaves *RAIN* in desperate need of another kindred spirit (see *RUSH*).

Last month I managed to speak at a conference back home in Minnesota, providing me with three days of Minnesota-style winter. It turned out to be just enough. The grass is greener in Oregon! —CC

I came to *RAIN* somewhat less directly than Carlotta did, taking about four months and 15,000 miles to get here from New England. It had never occurred to me that I might end up in Portland (especially when I found out Portland wasn't on the coast!). I heard that *RAIN* needed another editor just as I was heading back east. I thought about it, kept going, thought about it some more, went further and then, when I was all the way across the Rockies in Colorado, decided to turn around and head back to Portland. As I said, it wasn't the most direct route, but I'm really glad to be here.

Working at *RAIN*, though I've only been here a month, is an experience in itself. The hours are long and demanding, but they're spent with good people doing, as the late E.F. Schumacher put it, "good work." There's a special kind of satisfaction that comes from good work, and it's hard to find in other places. I feel lucky to have come upon it.

I was told that it "greys" a lot in Oregon, which seems to be true. However, if I get another glimpse or two of the snowy-white shoulders of Mr. St. Helens or Mt. Hood fading into the night sky before year's end it will be a very wonderful holiday season. Seeing them in their awesome massiveness hovering over the city like great clouds is a far better gift than any store-bought-present-in-non-recyclable-packaging could ever be. —MR

Last month we snuck Mark by you without introducing him. The fact is he dropped in one day during the frenzy of copy deadline, pulled out a proofing pen, and was drafted into service. Which is not to say that he fell out of the sky. Before his summer migration (he'll explain below) he was teaching social ecology at the College of Science in Society at Wesleyan University in Connecticut. Is it *serendipity* which brings together unlikely but fortunate combinations? I hope so. I've been wanting to use that word all month.

RAIN

Journal of Appropriate Technology

RAIN is a national information access journal making connections for people seeking more simple and satisfying lifestyles, working to make their communities and regions economically self-reliant, building a society that is durable, just and ecologically sound.

RAIN STAFF Carlotta Collette Yale Lansky
Mark Roseland Debra Whitelaw
Pauline Deppen Kiko Denzer
Jill Stapleton—Layout

CONTRIBUTORS Tom Bender
Fred Lorish Phil Conti
Lane deMoll Steven Ames

Typesetting: Irish Setter
Printing: Times Litho
Cover: Ancil Nance

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ENERGY

Energy-Efficient Community Planning, James Ridgeway, 1979, 218 pp., \$9.95 from:

The JG Press
Box 351
Emmaus, PA 18049

Long-time RAIN readers will already be familiar with many of the experiments described in this book, such as the ordinances of Davis, California promoting energy conservation, the Clayton, New Mexico, wind turbine generator, Seattle's source separation recycling program and the policies of Hartford, Connecticut in assisting the development of an urban food production system. If you don't recognize those projects then the book will be a good introduction to many of the innovative energy conservation programs being implemented on the local level. The municipal documents (e.g. Davis housing code, Hartford's "Community Energy Corporation") at the end of each chapter are a useful tool for anyone attempting to draft similar policies. Now what we need is a critical analysis of these programs to determine if they are living up to their expectations. —PC

Energy, Jobs and the Economy, Richard Grossman and Gail Dancker, 1979, 116 pp., \$3.45 from:

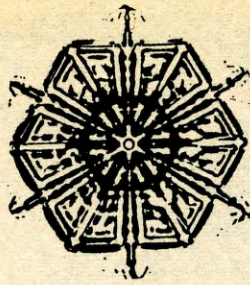
Carrier Pigeon
75 Kneeland St., Room 309
Boston, MA 02111

The book is an updated version (e.g. cites Rodberg's *Solar Transition*) of the *Jobs and Energy Study* by Environmentalists for Full Employment (RAIN, May 1977) plus excerpts from Senator Kennedy's *Creating Jobs through Energy* hearings in March of 1978. The information, which is easily digestible, is still valuable reading. Buy a copy for an unemployed friend. —PC

Creating Jobs Through Energy: A Guide to Resources for Decisionmakers, U.S. Department of Energy, \$6.00, 1979, 105-plus pp., from

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
Stock No. 061-000-00329-1

Although the expression "energy creates jobs" is somewhat clichéd among solar activists, the DOE has finally come out with a handbook which focuses on the employment effects of energy development at the local, state and national level. Lots of charts, numbers and equations make *Creating Jobs Through Energy* an item for those "decisionmakers" who want the technical, bare, economic facts about energy and employment. —DW



RAIN ACCESS

"Paying for Power," 10/10/79 *In These Times*, \$1.00 from:

In These Times
1509 N. Milwaukee Ave.
Chicago, IL 60622

In this article David Moberg reviews four of the leading books on the current energy crisis and their proposals for the future. The books are:

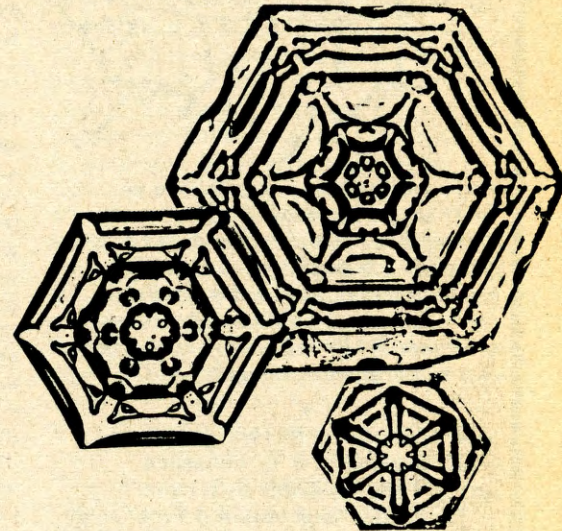
The Politics of Energy, by Barry Commoner, Alfred A. Knopf, \$4.95.

Energy in America's Future: The Choices Before Us (a study prepared for the Resources for the Future National Energy Strategies Project). Sam H. Schurr, Project Director. The Johns Hopkins University Press, \$10.95.

Energy Future: Report of the Energy Project at the Harvard Business School, edited by Robert Stobaugh and Daniel Yergin, Random House, \$12.95.

Energy: The Next Twenty Years (a report sponsored by the Ford Foundation), Hans H. Landsberg, Study Group Chairman, Ballinger Publishing Co., \$9.95.

The way we envision and plan our energy future is not simply a problem of technical engineering but raises many sticky political questions... "not only about energy but also about much of the the country's production of goods and values—such as equality, fairness, or safety." Moberg writes that the studies by Resources for the Future and the Ford Foundation have an easy answer: leave it all to the market. The Harvard Business School professors share that basic faith but temper their view with some healthy skepticism and a somewhat more global perspective. (Note: others contend that this book is more radical than Moberg would have us believe.) Commoner (see RAIN VI:1:3, Oct. '79) is the heretic, arguing for "social governance" of the economy to improve the market and even for supplanting the market, in many cases, with conscious coordination. Ultimately, Moberg concludes, we should "combine the best features of the market with the best features of planning. Our energy future is too important to leave to powerful megacorporations and the roughshod adjustments wrought by uncontrolled price increases." —MR



"Energy for a New Society: Visions of a People's Energy Future," \$1.10 (\$6.00/100) from:

Movement for a New Society
4722 Baltimore Ave., Box A
Philadelphia, PA 19143

Is nuke fighting melting you down? Are you spending all your energy trying to save energy? If so, then this little tabloid may be just what you need. This special issue of the MNS *Dandelion* is printed as a four-page newspaper for easy reading and distribution. It emerged from "the stated need of anti-nuclear and safe-energy activists at the grassroots level to find a way to articulate a coherent long-term energy vision which people joining the struggle can understand."

The energy situation is explained in the context of the decline of the modern industrial era and is posed for comparison against a vision of the future complete with diversity, self-reliance, and appropriate social/productive technologies. There is also a good section on the transition to a renewable energy future, and the entire issue is laid out nicely with several charts and graphics. I think this would be a handy tool for all of us working on the grassroots level to distribute at conferences, when we canvass, and in our communities and workplaces. As the authors point out: "In the end, the energy 'crisis' is really a crisis of *human energy*, a test of our ability as a society to change and grow as loving human beings, to use our best creativity to build a just and humane social order." —MR

Homing In

from Solar G.H.
Workshop Manual



There's a tradition in agriculture of "over the garden fence" information sharing. It's a tradition based on regionalism, on neighborhoods (and neighborliness), and on doers telling other doers how it's done. Three books came into RAIN this month that bring that verbal tradition to print. —CC

Solar Greenhouse Workshop Manual
(draft copy only; to be published spring, 1980) available then from:
Center for Neighborhood Technology
570 W. Randolph St.
Chicago, IL 60606

Recognizing that there are several excellent greenhouse books on the market this handbook focusses itself on filling the gaps left by the others.

The biggest need I've spotted is that for specific regional data. Drawing a line around "the midwest climatic region . . . an area defined by eastern Nebraska and Kansas on the west; northern Illinois, Indiana and Ohio in the center; and portions of Pennsylvania, Massachusetts and Rhode Island on the east; (those eastern states portions are included because of the overall meteorological similarity to the Midwest)," the folks at C.N.T. describe first the climate of that region, then the design criteria to suit that climate.

But the handbook doesn't stop with the design of greenhouse structures. There are good fat sections on both the horticultural and economic management of solar greenhouses with a dual focus on private as well as community scales.

Perhaps the most valuable section of the book is the last, ironically, the section on planning. "The design and horticulture sections precede the one on planning only because it is a good idea to know what something is and how it works before implementing it." I've seen a lot of solar greenhouses over the past few years and I'm disheartened by the number of them that stand empty and unused. All too frequently the focus is on the construction of the structure and no care is taken to insure its ongoing usefulness. CNT's history of "co-developing solar greenhouses with neighborhood organizations in the Chicago area" is explored through reprints from *The Neighborhood Works* (published bi-weekly by CNT, same address, \$25 per year for individuals and non-profits, \$40 per year for institutions, governments, libraries, and \$60 per year for for-profit organizations) as well as a critique of their own experience. "In theory the steering committee model may sound like a good way to oversee a community greenhouse project, but our experience with the Sun Project has shown that things don't always work out as planned."

Not only should every community greenhouse project read this handbook carefully, but some qualified people in each climatic region should develop their own and you-know-who should come up with the scratch to foot the bill. We need it *now!*



Solplan 3, Solar Greenhouses for Canada, by Richard Kadulski, Eswyn Lyster and Terry Lyster; 60 pp., Oct. 1979, \$4.50 (plus \$.50 postage) from:

The Drawing Room Graphic Services
Ltd.

Box 86627

North Vancouver, BC V7L4L2

Solplan 3 is another regionally focussed simple guide to solar greenhousing, this one specific to the Northern tier but—and here's the rub—the cover is a sad lesson in exploitation, mis-advertising,

energy cont.

Citizens' Energy Directory, Jan Simpson with Ken Bossong, 195 pp., \$10.00 for non-profit, \$15.00 for profit makers from:

Citizens' Energy Project
1110 6th St., N.W.
Washington, DC 20001

Approximately one year after its first printing, an updated second edition of the *Citizens' Energy Directory* has been printed by the Citizens' Energy Project. This edition includes over 600 entries of individuals and groups in the U.S. who are active in the field of appropriate/alternative technologies. The state-by-state format has remained the same (listing contact person, organization type and size, purpose and goals, interests, activities, services and publications)

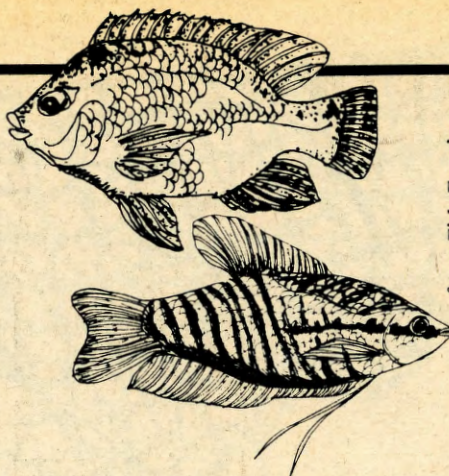
but 100 or so additions have been included. Within the growing field of "a.t." this updated *Citizens' Energy Directory* is a wise purchase for all who wish to grow with the tide. —DW

Periodicals of Public Interest Organizations: A Citizen's Guide, compiled and published by the Commission for the Advancement of Public Interest Organizations, 47 pp., \$4.00 for public interest groups, \$5.00 for individuals from:

Commission for the Advancement of
Public Interest Organizations
1875 Connecticut Ave., N.W.,
No. 1013
Washington, DC 20009

and distortion. We decided to print the cover to discourage people from trying to find or order the book just to look at it. It's not difficult to imagine where the authors' heads are at when they subtitle a book with its price (that's right, folks, the big 4.50 there is dollars and cents!). But lemon trees, potted palms, and bikinis by the pool have little to do with the facts of life in an energy-starved era, in Canada, of all places!

The book itself doesn't provide us with a whole lot of new information but does include some interesting designs for several varying scale and style structures. I'm pleased that they start small with cloches ("the smallest and simplest are just protective covers for young plants which shield them from late spring frosts") and do *not* include a plan for a greenhouse with swimming pool. In fact, their descriptions of the greenhouses they do include are pretty practical and down to earth. Which leads me to believe that the cover people and the contents people may be two different groups altogether. Nonetheless, they put the book out with that cover and deserve to be criticized for it.



from Fish Farming

Fish Farming in Your Solar Greenhouse, by William Head & Jon Splane, 43 pp., June 1979, \$5.00, from:

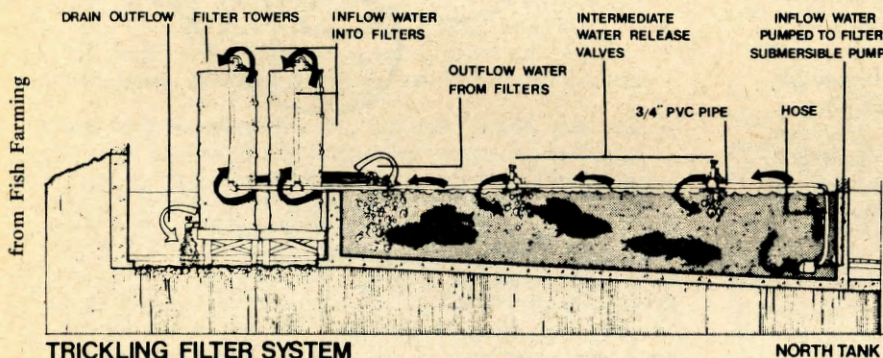
Amity Foundation
P.O. Box 7066
Eugene, OR 97401

For several years now I've been interested in learning more about aquaculture in solar greenhouses. The idea of using the large amounts of water needed to store heat to also raise high-protein fish seems pretty basic in terms of efficiency. Yet every time I've picked up a book on the subject I've been scared

off by charts, figures and molecular formulas. *Fish Farming in Your Solar Greenhouse* is hardly remedial reading, but it's not too intimidating to prohibit anyone's sitting down for an evening with it. The product of such an evening will be an understanding of how to begin to go about fish farming coupled with that good feeling of having overcome a previously mystifying body of knowledge. Bill and Jon have managed to translate a lot of technical information into person-to-person English. What chemistry you may not understand at the outset is quickly, competently and simply explained. Besides the basic procedures for designing an aquaculture system, creating a supportive environment (with proper temperature, pH, oxygen and purification of the water) and managing your fish farm, the authors have included an illustrated guide to several suitable aquaculture fish. Each listing describes the basic conditions needed for successfully raising that fish.

This is the sort of book that, like the CNT book, can be utilized by community projects, CAP agencies, and anyone with a yen to experiment.

Amity Foundation is a non-profit corporation located in Eugene, Oregon, where they provide community members with the technology they need to live more self-reliant and less energy-dependent lives. They do research and provide educational programs in the areas of alternative domestic waste treatment methods, solar design, urban agriculture, and aquaculture. They also operate a tool lending library.



from Fish Farming

With today's many pending environmental hazards, it can be a rather time-consuming task for one to pinpoint just the right citizen group for pertinent sources of information. This handy, pleasurable-to-read listing of periodicals not only offers the reader a good, concise description of the publications, but of the philosophy, techniques and goals behind the sponsoring interest group as well. *Periodicals of Public Interest Organization: A Citizen's Guide* allows the concerned citizen to transform "searching time" into learning and acting time. Emphasizing New York, California and Washington, D.C. groups and periodicals, it can be recommended for citizens everywhere. —DW

Solar Energy Technical Training Directory, George Corcoleotes, Katherine Kramer, Kevin O'Connor, 36 pp., no charge from:

National Solar Heating and Cooling
Information Center
P.O. Box 1607
Rockville, MD 20850
Order toll free 800/523-2929
or
SERI
1536 Cole Blvd.
Golden, CO 80401

Many solar enthusiasts have experienced bouts of frustration due to a lack of technical expertise in the solar technology field. Now, all you frustrated folks out there (myself included) can refer to *The Solar Energy Technical Training Directory*, which offers the reader

over 90 post-secondary institutions conducting solar energy courses in the U.S. Specifically emphasizing solar system fabrication, installation and maintenance courses, the directory's layout is clear and straightforward (really like a college catalog, i.e. giving credits earned, instructor, course coverage, etc.). The technical directory is a "subset of the *National Solar Energy Education Directory* released by SERI, which contains information on all solar-related courses and programs." This directory is available at \$4.95 from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
Stock No. 061-000-00210-3

Both directories are a good resource for the "solar student." —DW

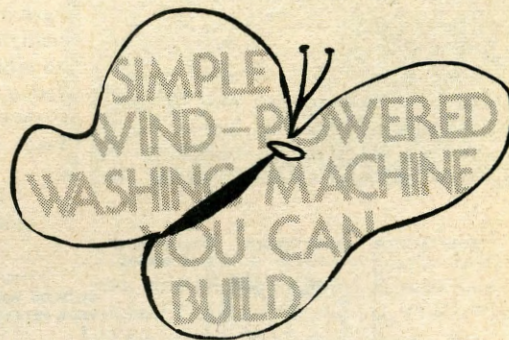
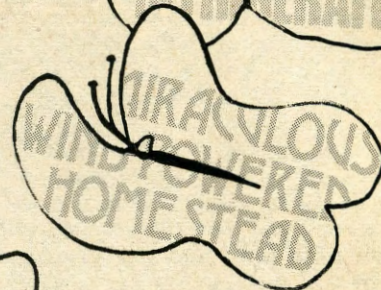
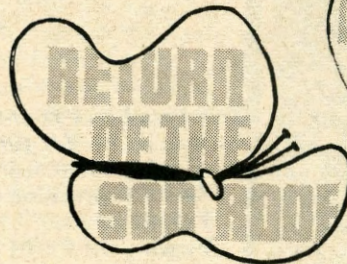
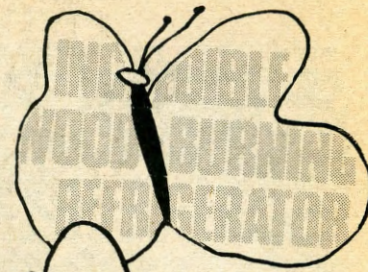
A HARD LOOK AT HOW-TO

by Lloyd Kahn

Time for a good stiff shot of criticism. Who's to deny that most of us in this hopeful business are occasionally guilty of a.t. cheerleading? It's hard not to sometimes. But people who go around pushing good dreams have a responsibility to make sure that big headaches (or little nightmares) don't result. The following article by Lloyd Kahn, experienced owner-builder and editor of Shelter and Shelter II, grew out of a series of conversations we've had in the last few months. Drawing on his own learning experiences, and casting a critical eye on the technological evangelism and misinformation that abounds, Lloyd argues that it's time to be much more demanding of ourselves and our work. People are depending on it. Undercurrent to this piece is the familiar theme that we should go first to those alternatives that are time-tested, tried and true. . . . Here are observations bound to spark some reactions. That's the point. —SA

"What Went Wrong?" asks Bob Cooperrider in his recent article in *Tilth* on organic strawberry production. Cooperrider, a farmer, explains in detail what happened when he grew an acre and a quarter of strawberries without chemical fertilizers or herbicides in 1978-79 in Oregon's Willamette Valley. There were all kinds of problems: ". . . the first discouraging discovery. Even before we had the last plants in the ground the first planted rows were full of weeds . . . but continued hot dry weather caused the following berries to ripen much smaller . . . so finally in early November I had to run the cultivator through the patch even though the ground was already too wet. . . ." Bob gives a complete rundown of the operation, tells what went wrong (and why) and what he learned, and presents a complete cash accounting of income and expenses from the two seasons' strawberry production. The reality turned out, as is so often the case, quite a bit different from the original vision.

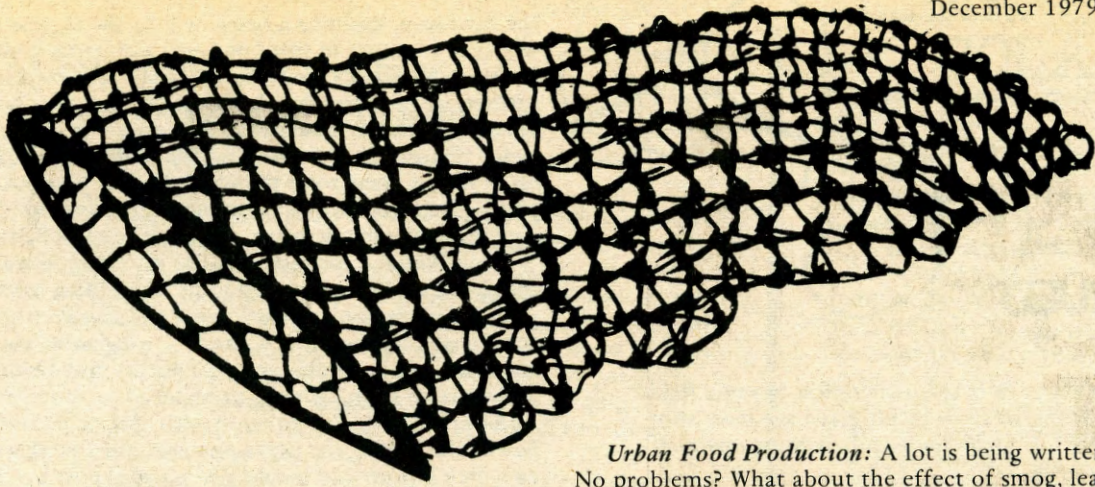
I kept thinking about the article after I read it; about why it seemed so refreshing. Amidst all the self-congratulatory how-to-do-it books and articles around these days, here's a guy admitting something went wrong. Not only that, but also how he thinks it could be done better next time. We need more honest reports like this. Conditions are more critical now, and good information is vital.



For more than a decade we have been swamped with accounts of how well things work. *How to Run a Small Dairy on an Acre. How I Built My Energy-Efficient Post & Beam House. The Complete Book of Solar Heating.* And so forth. Bookstores are loaded with glowing accounts of how to do virtually everything. No problems! My new house/organic homestead/solar heater work great and here's how I did it and you can do the same. No one seems to be asking critical questions. Has your new home design gone through five seasons? Would this solar heater work as well in other climates? Just what appliances can you power with this \$3,000 wind generator? Are you sure you can make this much growing joboba beans, year after year?

These authors usually write of their experiences while in the midst of the project, often before there's been any time for a seasoned evaluation. Reporters apparently believe what they're told and don't ask hard questions. Editors and publishers seem more interested in book and magazine sales than in providing reliable information to the public. And readers, many of whom are young and/or inexperienced and searching for something worthwhile to do, are left with a gloriously optimistic view of alternative food, shelter and energy production.

I've suspected for some time that there's a lot less solid information in the last decade's how-to-do-it literature than meets the reader's eye. Lately I've been thinking that if we're to make any progress in providing our own basics, we've got to have reliable information. We've got to know What Went Wrong, so others won't have to repeat the same mistakes. Let me give some examples of areas that I believe could use a closer look:



... there's a lot less solid information in the last decade's how-to-do-it literature than meets the reader's eye.

FOOD

It's a wonderful idea to produce food with no salt fertilizers, herbicides or insecticides. But it's not easy, especially for those who haven't tried it before. I'm no fan of Earl Butz, but there's more than a grain of truth in his question, "Which 50 million Americans are you going to pick to starve?" if we abandon agri-biz farming overnight. This isn't to say we can't work our way toward a system of food production that is healthier for humans and topsoil—perhaps America's most crucial resource in coming years. But kicking the agri-biz habit won't be simple and will probably come about only by economic necessity, such as the cost of fertilizer or oil, anyway.

Small-Scale Farming: It's very difficult. Simply put, you need enough *land* to justify the proper *equipment* to farm efficiently. Work horses are great for a very few farmers, but the others need tractors. And discs. And cultivators and seed broadcasters and weeders and harvesting equipment and so on.

In farming, as in building and the other *practical* crafts, I've found that if something isn't being done, there's probably a pretty good reason. A few years ago several of us didn't see any reason why we couldn't grow grains here in our coastal climate just north of San Francisco, even though no one was doing it. So we tried it. Wheat, oats, rye, triticale, millet, even rice. Sure, it worked okay on a garden scale, with a lot of labor and watchfulness. But when we then planted larger areas, we found that along with the initial problems of birds and drought years, it takes an immense amount of time to get the grain harvested, dried, threshed, winnowed and ready to grind without an expensive harvesting combine. And that was if we were lucky enough to have it dry properly in the fields without going moldy in the summer fog. Experience taught us why they grow potatoes and artichokes, not wheat and millet, here.

Many, *many* would-be organic farmers have found, as did we, and as did Bob Cooperrider, that it's a lot tougher than the visionary organic literature would have you believe. It may take years to get soil in condition for growing healthy crops without chemicals (if you are lucky enough to have the land in the first place); prices for organic produce are depressingly low compared to labor and energy expended; seasonal variations and fluctuating demand are factors unlike those encountered in other jobs. Small-scale organic farming can succeed, but it's going to take time, patience, dedication, more hard work than most people would believe, the right land, and luck.

Urban Food Production: A lot is being written about it. No problems? What about the effect of smog, lead, air impurities on urban vegetables? Chickens in the city? They are noisy, even without a rooster, and it might be a good idea to consult neighbors first (and perhaps let them participate by getting eggs in exchange for the noise). Backyard bees? Maybe, *if* the beekeeper is experienced and understands how to handle bees in that situation. Even if you start with gentle Italian bees, they can cross with drones from more aggressive colonies and become meaner.

BACK-TO-THE-LAND

It's a shame no one sees fit to write about the pitfalls of rural living. Instead, we have a host of books praising life on the homestead, often written prematurely, before the authors have been through enough seasons to know their stuff. Many homesteader-writers make a good part of their living writing about this kind of a life, and are not as dependent upon food and craft income as will be those inspired by their published work.

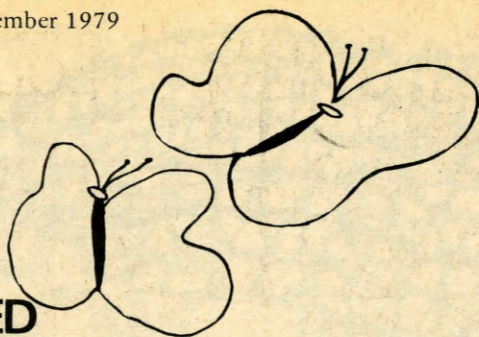
Country living is a lot more difficult and less romantic than most of those who dream about homesteading would believe. Many people find this out the hard way, often being driven back to the city by the rigors of the first winter. Others aren't ready for the hard work or haven't developed the skills needed for growing food or caring for animals. Still others, who get things working well, find they're not happy away from a community of neighbors and intellectual companionship. George and Nell Abernathy, who built a home on 40 acres of forested land in 1959 and now, 20 years later, are moving back into the city, explained: "... sanctuaries are one thing, but complete satisfaction for all your needs may not be found in a sanctuary. You can only take so big a dose of contemplative life."¹

WASTE

The Composting Privy: Another great idea—saving five gallons of water, returning composted excreta to the soil, etc. But wait a minute: There are reports, either getting less media coverage or appearing in smaller print, of tropical parasites surviving, of fruit fly infestations, of insufficient aeration or too much moisture for complete decomposition. In theory privies and Clivuses sound good and we want them to work, but in practice they work only in special situations and require alert and conscientious tending. How many people can be trusted to deal safely with their own shit?

Waste Water: What they don't tell you in most of the simple schemes for running grey water out into the garden is that your kitchen sink water becomes evil-smelling when it percolates slowly through a pipe into the garden, tends to block up with scum in surprisingly short order, or, if a filter is used, it must be changed frequently. It can be done, with care, but takes a lot of time to make it work properly.

A HARD LOOK CONTINUED



SHELTER

Bad information abounds in the owner-built housing field these days. This is the area I've investigated the most thoroughly, and where I've made some embarrassing mistakes myself.

Domes: After helping to build 17 domes at Pacific High School in the '60s, publishing two dome-building books,² and corresponding with dome-builders all over the country, I finally concluded that domes were totally unsatisfactory shelters. Without going into detail here, domes have unique and specific drawbacks which make them, in my opinion, less efficient and practical than conventional stud construction. I ended up writing rather extensively about why they don't work,³ and have tried to show what went wrong, even though a lot of people apparently don't want to hear about it. Shelter Publications still gets letters and phone calls every day, asking for *Domebook 2*, which has been out of print for five years.

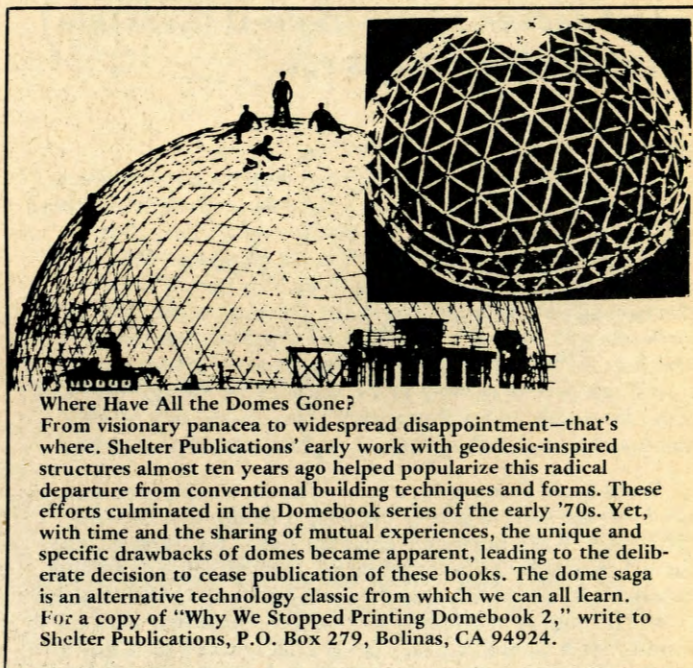
The Post & Beam or Mortise and Tenon House: There are many books and accounts that advocate this type of construction over stud-frame, stating that it is "... cheaper and quicker to build than conventional houses."⁴ Nonsense, as any experienced, practical builder can tell you. Post and beam was superseded over 100 years ago by the stud-frame method for good reasons: The new system was a lighter, more practical, cheaper way to build. I realized one aspect of this several years ago in the midst of building a post and beam house. After the building was framed and I was about to put my walls on, I began thinking: Here are these posts, 8 feet apart and I'll have to build a stud wall in between them to put my sheathing on. Why do I need these big posts? I could have just built stud walls in the first place, properly braced, instead of fooling around with heavy timbers. Of course, the posts and beams *looked* good. There are also problems of insulation with exposed ceilings: You need two layers of roof sheathing, or must settle for less efficient insulation than putting fiberglass between the rafters as in conventional construction.

Underground Housing: This one I can't believe! To advocate that people actually build underground is risky enough, but to publish explicit plans and how-to-do-it drawings seems highly dangerous. One such book has sold 50,000 copies.⁵ As I found with *Domebook 2*, you can't depend upon people to follow instructions safely. Novice builders will add their own interpretations or cut corners, or quite often simply do not have the skills to build well. When you've got 15 tons of wet earth on your roof, things become a lot more critical. It's also expensive to build a roof strong enough for such loads. And if you develop a small leak, you've got to remove all the earth to get to it. What do we know of the effects on people of living underground for years? Isn't it only done in countries where there are hardly any building materials and the climate is dry? How about earthquakes? How good an insulator is wet dirt?

The "Flash" House Design: A sculpture, a nine-sided tower, a logarithmic-spiral shaped home, etc. Using an abstract idea for house design instead of tried and tested methods has caused much wastage of time and materials, and often bitter disappointment. Many a builder has learned his lessons

the hard way. Building a house will be the biggest thing you will ever attempt—in sheer physical size, money invested, hours spent, energy exerted. You can't afford for it to take forever, to get hurt while building, or to end up with an expressive or artistic assemblage that promises nothing but continual discomfort, compromise and maintenance. The house-as-art makes great color photographs, but you can't live in a photograph, and with something as large as a building, unlike a painting or ceramic piece, the mistake can't be thrown away.

Used Wood: Especially close to my heart, since most of the materials I've used in 20 years of building have been recycled. I love the look of used wood and enjoy utilizing something that's not brand new. *But . . .* roughsawn used wood on walls can give you splinters and collects dirt. Ceilings, even after careful washing, drop particles of dirt forever. Used wood takes far longer to work with, due to imperfections: Sawblades hitting the occasional nail must be sharpened, dry two-inch lumber can bend nails, powder post beetles and wood rot can infest your new building. Anyone who has worked with it knows these and other disadvantages.



Where Have All the Domes Gone?

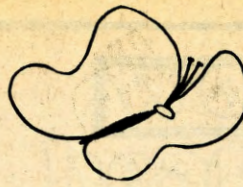
From visionary panacea to widespread disappointment—that's where. Shelter Publications' early work with geodesic-inspired structures almost ten years ago helped popularize this radical departure from conventional building techniques and forms. These efforts culminated in the *Domebook* series of the early '70s. Yet, with time and the sharing of mutual experiences, the unique and specific drawbacks of domes became apparent, leading to the deliberate decision to cease publication of these books. The dome saga is an alternative technology classic from which we can all learn. For a copy of "Why We Stopped Printing *Domebook 2*," write to Shelter Publications, P.O. Box 279, Bolinas, CA 94924.

ENERGY

The magic words: solar heating, wind electricity, methane digesters, fish tanks. . . . Some useful information on solar heating, etc., has been developed in the past ten to fifteen years, but much of it is decades old and is being re-invented. (Miro-mit solar water heaters have been operating for over 30 years in Israel.) There have been new ideas that are useful, even inspiring. But in the field of devices for producing energy or heat, we need more objective analysis and full disclosure by inventors and promoters, and a more watchful eye on the part of the public. It could well do more harm than good for people to believe and invest in devices purported to save fossil fuels or conserve electrical energy, only to find that the devices fail to perform as expected, or there are hidden costs or high maintenance requirements. *Caveat emptor!*

Active Solar Space Heating: Usually expensive and permanent, often requires two heating systems. In many cases, building a small house, remodeling, landscaping, insulation, window alterations, weatherstripping, or wearing warmer clothes indoors could save more energy than installing new, expensive hardware. Solar space heating offers much promise for the future, but it is very difficult right now for builders or homeowners to know which of the many systems will provide economical and trouble-free service over a period of time.

We want to keep alive that creative spark . . . but we want to go into new ventures with our eyes open . . .



Wind Generators: Work well in some situations, but are expensive, high maintenance machines that produce very small amounts of power in proportion to their cost. For example, a 200-watt Winco generator with a 10-foot tower costs roughly \$600, batteries \$200; in a relatively windy area you can run a few lights and a radio—the equivalent of about \$10 worth of electricity from a power company per year. Further you cannot just plug in your lamps or radio. You must set up an expensive converter or buy all new direct current (DC) appliances.

Methane Digesters: Require a lot of manure; sludge handling is often a problem; they often show a net energy loss and have been known to explode. Methane digesters tend to work for large farming operations, or sewage plants, but do not seem to be a feasible backyard or homestead source of generating energy.

“Alternative energy” is a phrase that has always troubled me. As if we were going to have clean sources such as sun and wind for continued high American energy consumption. Perhaps the emphasis should be on *less* rather than *alternative* energy. Much can be done in improving on what exists, such as using heavy drapes in doorways and windows in the winter, employing natural ventilation rather than air conditioning in the summer, using a water-saving shower head, insulating hot water heaters, or using the sun and wind to dry clothes instead of electric dryers. If we begin to improve in areas such as these, the useful devices and new inventions will sort themselves out as the years pass. The good ones will be obvious, and the useless ones will drop by the wayside.

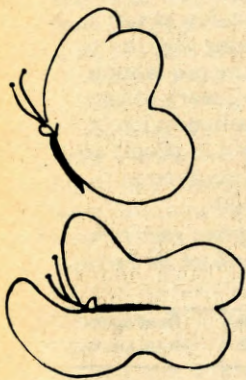
What is the point of all this? Do I conclude that all of the how-to literature on alternative food/shelter/energy is untrustworthy? Or that organic farming won't work, compost privies lead to disease, and solar heating is a sham? Not at all. It's not that I think you shouldn't work with used materials. Or move to the country, or save the kitchen sink water. But I do think inexperienced people need to know what they're up against, and not hyped along into undertaking ventures based on incomplete information. As we enter an era of diminishing resources and escalating prices we need the best possible information if we are to make any real progress in providing for ourselves.

In retrospect, the '60s may have been a time of awakening, of communication of new concepts, and the '70s the years of testing and reflection. The 1980s could be the time when we begin to apply what we have learned. We want to keep alive that creative spark that led so many of us to try domes, solar heaters, or organic farming. But we want to go into new ventures with our eyes open, with the benefit of past experience and what others have learned. We can profit from honest disclosure of past mistakes. We are going to need sharper reporting, better editing, and more responsible publishing to produce the good information we need now more than ever.

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Notes:

1. *Shelter II*, 1978, pp. 170-71.
2. *Domebook One*, 1970; *Domebook 2*, 1971. (Both out of print.)
3. For details see *Shelter*, 1973, pp. 108-109, 112-14, 118-19, 136; and *Shelter II*, pp. 200-205.
4. *30 Energy-Efficient Houses*, 1977, Wade & Ewenstein, Rodale Press, p. xii.
5. *Earth Sheltered Housing Design*, Underground Space Center, University of Minnesota, 1979.



SOLAR

Protecting Solar Access for Residential Development, The American Planning Association, 1979, 154 pp., free from:
National Solar Heating and Cooling Information Center
P.O. Box 1607
Rockville, MD 20850

When I first picked up this guidebook I thought the text would probably put me to sleep. However the clear presentation and well organized format complete with boxed checklists and instructive diagrams made the material both understandable and easy to read. The manual explains techniques for protecting solar access through the use of zoning ordinances, subdivision regulations, private agreements and tree planting and vegetation control. Individuals, particularly planners and attorneys, working with development land use issues, will find this pamphlet a valuable tool. Model legislation and local ordinances and information on shading patterns and shadow calculation are also included. —PC

HEALTH

A Visual Encyclopedia of Unconventional Medicine—A Health Manual for the Whole Person, edited by Ann Hill, 1978, 240 pp., \$6.95 from:
Crown Publishers Inc.,
One Park Ave.
New York, NY 10016

It is refreshing and unique to find a comprehensive reference to the natural Healing Arts that is authored by European practitioners. *A Visual Encyclopedia* is just such a book. Over 120 therapies and diagnostic approaches are presented by chiropractic, osteopathic and naturopathic physicians, as well as nutritionists, acupuncturists and lay healers. The book is laid out under major sections: Physical Therapies, Nutrition, Plant-Based Therapies, Mind and Spirit Therapies, etc., under which there are many smaller topic headings. Photos, drawings and charts are found on nearly every page. From Homeopathy to Nutrition, from Acupuncture to Herbalism, and from Aromatherapy to Bioenergetics, one finds history and philosophy as well as practical information. There is hardly an esoteric or unconventional therapy that is not included in *A Visual Encyclopedia*. This may be the only flaw in the text: that it attempts to cover too much material. The reader is left asking for more on any one topic. Recommended for anyone interested in Natural Therapeutics—practitioner or lay person. —Steve Dubey/YL

FOOD

from Amaranth



Amaranth from the Past for the Future, by John N. Cole, 311 pp., 1979, \$8.95 from:

Rodale Press, Inc.
33 E. Minor St.
Emmaus, PA 19049

Picture Cortez and his Spanish warriors trampling over the precious earth which fostered the growth of the amaranth plant—a plant which was a chief contributor to the health, vitality and survival of the Spanish-conquered Aztec culture. In his quest to annihilate the Aztec people Cortez called for complete destruction of amaranth. Although he succeeded in eliminating their civilization, the life of amaranth was perpetuated. And today this ancient plant of the Aztecs is becoming an increasingly promising crop to help feed a hungry world.

Amaranth from the Past for the Future is a potpourri of history, anthropology, science, nutrition and politics of the amaranth plant—from early times to the days of fast foods. Cole is an amaranth advocate, but the plant nearly speaks for itself, as:

- The leaves can be eaten as a green vegetable.
- It has a high calcium and fiber content.
- It is resistant to drought and is a vigorous grower (ideal for many developing countries).
- It uses a C₄ pathway for fixing carbon and building up its tissue (this is more efficient than the C₃ pathway used by most plants).
- It has a high quality starch but is low in fat (i.e., it's low in calories but high in energy).
- It comes closer to attaining protein perfection than any other grain.

This last point is amaranth's most appealing virtue. Unlike the deficiency that exists with most cereals (a lack of the amino acid lysine) and with vegetables (which lack the sulphur-containing amino acids), amaranth contains a combination of both the lysine and sulphur amino acids. Although this combination is not 100 percent "protein efficiency," it does do a particularly good job of balancing aminos. Plus, when mixed with soy or wheat flour, amaranth becomes a source of 100 percent perfect protein. Good news for the diet of a protein deficient planet.

For those who are more active in the palate than the politic, *Amaranth from the Past for the Future* offers a selection of recipes from such culinary treats as Amaranth Fruit Cookies to Marinated Amaranth Salad. Also included are sections on how to grow amaranth; a botanical presentation of the various amaranth species; informative nutritional charts on amaranth; an extensive bibliography and lots more!

I encourage you all to investigate this fascinating plant. The dictionary defines amaranth as an "imaginary flower that never fades." Imagination aside—Viva la amaranth! —DW

For more information:

Organic Gardening Magazine
33 E. Minor St.
Emmaus, PA 18049

Science News, Vol. 116, No. 10, September 8, 1979, pp. 168-9.

Tofu & Soymilk Production: The Book of Tofu, Vol. II, William Shurtleff and Akiko Aoyagi, 336 pp., 1979, \$17.95, from:

New-Age Foods Study Center
P.O. Box 234
Lafayette, CA 94549

When Bill and Akiko came by recently to introduce the RAIN staff to their companion volume to *The Book of Tofu*, they emphasized tofu production as a pioneer form of service to the community and the world. They articulated a philosophy of fine craftsmanship and a sense of work as spiritual practice. Their book is an excellent example of this sensibility. Undoubtedly it is the most comprehensive and authoritative work on its subject.

The book is printed in large format and includes numerous detailed illustrations by Akiko as well as appendices, recipes, a bibliography and an index. Various steps are outlined for planning a tofu business and estimating the local market for tofu, how to determine the scale of the shop and how to choose a good location. Throughout the book Bill and Akiko argue persuasively for their conviction that "making tofu and soymilk is not only a rewarding ancient/futuristic craft and source of right livelihood, it offers a practical yet revolutionary approach to meeting the world's critical food requirements."

From its initial discussion of tofu production at the planning stage to its in-depth discussion of the production process, Bill and Akiko's work offers valuable assistance. It will most likely serve as a tremendous aid to people attempting to make tofu production widespread. —Pat McNabb

Pat McNabb is starting her own tofu manufacturing business here in Portland.

Table. 1.1 The Seven Basic Types of Tofu Shops & Soy Dairies (1979 data)

Type	beans/day (lb., dry)	tofu/day (lb.)	soymilk/day (gallons)	eqpt. cost (\$)	total cost (\$)	no. production workers/shift	floor space (total sq. ft.)
Community	3-12	9-45	3-10	50-200	75-400	1-2	80-200
Traditional caldron	50-100	160-400	40-80	2000-5000	3500-10,000	1-2	180-1000
Steam cooker	70-250	200-875	60-200	3500-7000	5000-12,000	2-5	200-2000
Pressure cooker	160-1400	400-3700	130-1120	8000-25,000	15,000-45,000	3-8	400-4000
Soy dairy	160-1400	400-3700	130-1120	9000-40,000	16,000-60,000	3-9	600-6000
Automatic steam cooker	400-2100	1200-6600	320-1680	30,000-60,000	40,000-70,000	2-5	600-4000
Modern factory	2000-30,000	6000-90,000	1600-24,000	55,000 up	\$100,000 up	4-10	2000-30,000

Soycraft, Journal of the Soyrafter's Association of North America, quarterly, \$15/yr. from:

Soycrafters Assoc. of North America
158 Main St., No. 3
Greenfield, MA 01301
413/774-5480

It is refreshing to come across a new publication which actually fills a need and provides useful information as well as enjoyable reading. *Soycraft* is one such publication. Written by the folks of the Soycrafters Association of North America, this quarterly journal provides the burgeoning soyfoods industry with valuable information on marketing techniques, new soy shops, problems and solutions in manufacturing processes, information on farming activities of soybean growers, and enlightening articles on innovative approaches to this new and exciting industry. With acceptance of soy products growing by leaps and bounds in this country, *Soycraft* should prove to be an invaluable tool to the producers as well as to the consumer. —YL



from Tofu & Soy milk

Whole Foods Natural Foods Guide: What Happens to Natural Food Products from Farm to Consumer, compiled from the pages of *Whole Foods* magazine, 301 pp., \$8.95 from:

And/Or Press
P.O. Box 2246
Berkeley, CA 94702

From the shelves of processed and refined food comes the dawning of organicism. But how natural/organic is that store-bought herbal hair rinse, sprouted salad, or millet muffin? The *Whole Foods Natural Foods Guide* attempts to give a consumer oriented discussion of the contemporary natural foods industry so the above questions, and more, can be answered. This guide does not advocate a "dietary philosophy," rather it is a representation of the whole make-up and production of natural foods so that anyone, not just chemists, can comprehend what they are purchasing. For the conscientious shopper, this is a helpful aid to avoid such items as fraudulent alfalfa. —DW

wood heating news

By Bill Day

For some time, many readers have questioned my lack of interest in woodlot management. The reason for not writing about woodlot care is that so many other better qualified people have already done so. So I've put together a short bibliography of information sources. For a copy of the list send a self-addressed stamped envelope to RAIN and we'll send it to you.

I'm happy to report the new address and phone number of the Wood Energy Institute, which is:
Wood Energy Institute
1101 Connecticut Ave., N.W.
Suite 700
Washington, DC 20036
202/857-1100

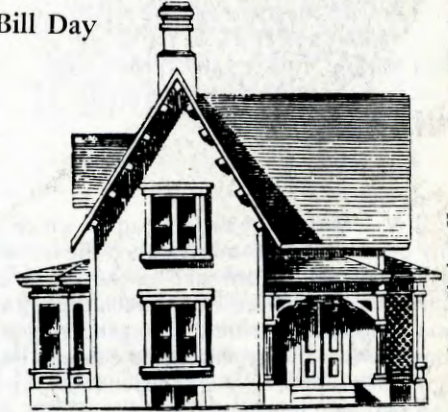
The positive outlook of this organization is likely to be enhanced by the enthusiasm shown by the current active Board of Directors. It is possible that some staff positions may be open at this time.

Wood as an Energy Resource, by David A. Tillman, 1978, \$13.50, from:
Academic Press
Harcourt Brace Publishers
111 Fifth Ave.
New York, NY 10003

Mr. Tillman has assembled in this book a most comprehensive guide to the present and future use of wood energy. I read Mr. Tillman's book because a friend quietly asked for an opinion on it. I found it to be the finest publication I've read in some time.

Subjects such as the history of and present use of wood fuels are approached with the same competence as are potential future supplies and uses. Numerous graphs and tables encourage the reader to achieve a greater understanding than might otherwise be possible.

This is a useful reference book for wood energy enthusiasts of all types. Consumer oriented (domestic home heating) as well as commercial-industrial trends and uses are discussed with equal thoroughness. This is a work of tremendous foresight and achievement, and I recommend it highly.



from Shelter II

Wood Heat Safety, by Jay Shelton, 1979, \$7.95, from:
Garden Way Publishing
Carlotte, VT 05445

At last, we have a comprehensive reference which addresses the potential hazards created by the use of wood-burning appliances. From 1950 to 1973 very few solid fuel appliances were relied upon; consequently, little attention was paid to safety problems generated by their operation. In recent years there has been a return to wood and coal stoves and furnaces. Their increased use, plus the significant new manufacturing innovations and installation standards (Mr. Shelton suggests alternatives to outmoded ones) has generated a need for the quality information compiled in this book.

Homeowners Guide to Wood Stoves, by the Editors of Sunset Books, 1979, \$5.59, from:
Lane Publishing Co.
Willow & Middlefield Rds., Menlo Park, CA 94205

The Homeowners Guide to Wood Stoves sports the Sunset style, with a large selection of color photos. Those unaccustomed to the wide variety of available products will find high quality, durable stoves alongside less desirable short-lived ones on these pages. However, no attempt is made to qualify them according to style, type, or brand. There is an 18-page section devoted to installation and maintenance safety which is carefully written and illustrated. Relative heating values of West Coast native woods are featured in the "Wood-chopper's Guide." Do-it-yourself home decorators and woodburning neophytes are encouraged to read and enjoy this decor-oriented book.

This is an excerpt from "an invitation written with the approval and assistance of the elders and chiefs of the Onondaga Nation" to a council at the Longhouse on the Onondaga Reservation held this past summer.

It is clear that the dialectic upon which is hinged the destiny of all peoples is not between the left and the right. All futures emerging from such a polarization point a path to serfdom. The real dialectic is between the big and the small, between monolithic structures engendering politically anemic consumerism and decentralized councils engendering sovereign citizenship, regional independence, and planetary culture. There are two movements which together indicate a way whereby people can be more than effects of events. One is the emergence of nongovernmental coalitions which address the issues affecting our lives and our world. And the other is the emergence of decentralized communities as focal points of an emerging planetary culture. These major movements, or trendings, interpenetrate and indicate the primary need of our time: an effective means for facilitating the interface of planetary awareness and regional sovereignty so that future generations may enjoy a birthright of life, liberation, and well-being on this planet. It must be understood that unless people can reach a clear consensus on fundamental principles transcending personal interests, all discussion of particular issues is a vain weaving of wind. Without principle, the people are blown in many directions and become puppets with no will to act.

It is, therefore, both a challenge and a responsibility to insure that certain principles be agreed upon through consensus. These are principles which guarantee the responsible sovereignty of individuals, communities, regions, and nations, and through incorporation into the emerging coalitions and communities can insure that our combined actions will preserve and protect all life for the seventh generation to come. The principles of which we speak include the following and are offered for the consideration of the council:

1. That there is a universal spiritual principle that transcends race, creed and ideology, and that this guiding principle is the common denominator of all historically viable cultures.
2. That individuals, insofar as they become attuned to this principle, are instruments for the implementation of the purposes of the same and thus enter into responsible life.
3. That the house of polity and the house of worship are one and the same.
4. That women embody the principle of the preservation of life and thus must be coequally included in decision-making.
5. That men embody the principle of the protection of life and that protection means addressing oneself to the needs of the people.
6. That local self-determination or sovereignty be guaranteed. This includes the precept that all information is available to all of the people all of the time.
7. That if or when a crisis such as encroachment upon local sovereignty (nuclear plants, strip mining, etc.) confronts any community, regional or tribal council, such councils may ask for and expect the support of the whole council network.

Last spring RAIN carried an article of Steve's ("Drawing the Circle Wider," Vol. V, No. 5, p. 14) in which he wrote that social change groups would be far more effective if they analyzed and acted not only on their own problem areas, but on the *interrelatedness* of their problems and, as such, a more comprehensive approach to potential solutions. In this issue we are printing two pieces which came to us from altogether different sources but which we consider fundamentally related. We print them together because the process of uniting people from very different heritages to bring about common goals is

PULLING



8. That all legislative decision and effective action follow a consideration for the well-being of the seventh generation to come.

9. That leaders are servants who place the interests of their people before self-interests.

10. That all life forms are interdependent and the survival of the human species necessitates the survival of all species.

11. That if any individual community, region, or nation aspires to survive, the survival of all individuals, communities, regions, and nations must be equally considered.

From the vantage point of consideration of these principles we can begin to form a consensus regarding actions that will benefit the vast majority of "stakeholders" and not simply an elite minority of "stockholders." We see and experience the cultures of the world being reformulated. We know the true political scientists and economic theorists are not the Kissingers and Keynes of the world for "by their fruits you shall know them," and we have seen their fruits. We can look at the council as a resource for those who wish to assume co-creative responsibility for the emerging world order.

When we speak of communities, it is not in reference to the Utopian fantasies of those who fled the ravages of the Industrial Revolution of the past one hundred years, for there is now no place of refuge on this earth. We speak to those emerging and existing viable communities that relate to the realities of our time. These communities do not function in isolation to the surrounding social ambience, but as regional

not one that happens magically, but requires deliberate, concentrated and often plodding effort.

We do indeed have very real conflicts between us that stem from centuries of class and cultural divisions which we can't pretend to ignore. But our conflicts should encourage argument aimed at helping us join forces to create a future in which we control our resources and livelihood rather than splinter us further into factions. We must, as Gerri says, "redefine in all that we do the relation of people to people and people to earth." —CC



TOGETHER

Gerri's piece is from her presentation to the Women and Solar workshop at the Center for Renewable Resources "Citizen's Energy Conference—Towards a Solar America," August, 1979, in Boulder, Colorado.

Once upon a time, about fifteen years ago, there wasn't a women's movement. The media hadn't coined the sneer phrase, "women's lib." Women got unequal pay for equal work and didn't protest. Corporate annual reports did not brag that their companies had affirmative action programs for minorities and women. Jack Parr (remember him?—he was before Johnny Carson) could comment about the size of a woman's breasts without a peep from his audience. Housewives who ran for public office were an oddity. And even in burgeoning radical nooks across the country, "the girls can do the typing" was often heard.

And we as women merely received provided services. We were the consummate consumers. We did not participate actively in the theorizing nor in the creation of possible alternative futures. We did not even perceive ourselves as a viable constituency that early a.t. theorists would address. "Women in Solar?" Such a panel was inconceivable. What has happened over these fifteen years? Why has our self-concept changed? I think it is important to understand why and how we got from there to here. It is particularly important to see how our individual political history relates to gaining the self-confidence necessary to carry out the things we need to do.

During the '60s, a few of us became a part of the anti-imperialist radical counter-culture—now called the male left. Then, our heroes were all who defied the establishment—from Abbie Hoffman to Dr. Spock, from the Weathermen to the Black Panthers and Young Lords, from Julian Bond to Mark Rudd. We sailed with the Venceremos Brigade, defied police in Chicago, extolled Ho Chi Minh, carried the red flag of revolution. We wore our jeans and army shirts defiantly and marched and chanted down barricaded streets. And, funny thing, within this subculture, we still typed, and cooked, and wiped the noses of our children.

I lived a very schizophrenic life back then, sophisticated New York professional by day, aspiring revolutionary by night. The contradictions were overwhelming. During involvement in a CR group for more than a year, these contradictions became more and more apparent, and more and more unlivable. While other women had already joined and confronted each other within NOW, or engaged in more militant actions, I stayed within the security of my male-left spawned CR group. I was not ready, able or willing to give up certain of the privileges that I had fought so hard for.

Certain realities, however, could not be ignored. I had no more status as a woman within the male left subculture than I had within my family, my traditional job, or my relationships with men. I sat on my hands during interminable political meetings just as I sat on my hands at professional meetings. If I ever got the nerve to speak, I wasn't listened to within our political group in the same way that I wasn't listened to by

training bases, as points of transformation where people can learn new ways of humanhood, learn cultural values, and learn new forms of right livelihood that deal with the production of essential goods and services which are more labor intensive and less energy consumptive. If we abdicate responsibility to the high-rise decision-makers who are dissociated from the needs of the people, we may expect to be absorbed into the massive demoralization of all citizenry, and to be passively contributing toward the entrenchment of an energy police state.

We are witnessing the devolution of centralization in two directions: evolution toward the global village on the one hand, and devolution toward the local community on the other—an interface with both ends of the synergistic spectrum without intermediaries. The exchange of commodities, information, cultural wisdom and skills not locally available will constitute the new free trade, maximize the cultural and economic evolution of all concerned and eliminate the world trade imbalance. . . . This will enhance the probability of world peace.

We close on this note of peace and pray that our efforts will contribute to its achievement. May the Great Spirit guide your steps.

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any man with whom I had a relationship. My CR group made possible my dawning awareness of those political realities that I, as had so many women, ignored, avoided, or felt helpless to deal with. CR enabled me to confront myself and challenge the way I lived my life.

I left New York then, eventually came to Washington, was one of the founders of *Quest: A Feminist Quarterly*. I still work with *Quest*. I still am a women's movement activist and organizer. I haven't burned out . . . yet. But something has shifted in my priorities since I began working with NCAT more than two years ago. I am also a part of the a.t. movement, a part of the environmental movement. I'm an organizer of the Feminist Anti-Nuclear Task Force. We wrote a paper prior to the May 6th March on Washington on why nuclear power is a feminist issue. Nuclear power, solar, conservation . . . all are feminist issues. I come from a position that feminism is a world view, a world view that embraces ideas from other movements but is not limited to those ideas. I see myself as a global feminist and have been working the last couple of years to develop a theory of feminist politics that is global.

Much of my energy these days has gone towards talking and writing and working towards pulling our movements together, looking at what we share politically rather than looking at what appears to divide us. It goes without saying that all of us—as feminists, as solar practitioners, as appropriate technologists—struggle against the oppression and exploitation of the many by the few, of the public by the private.

I believe that we are convinced that we exist against a culture more in love with death than life. In her recent book, *Gyn/Ecology*, Mary Daly makes the shattering observation that the English language has a word for death-love—necrophilia—but none for life-love. She recommends biophilia. Our means for expressing biophilia are different, fortunately, because we all need to attack on many fronts. But all of our movements know that people are linked to each other and to our environment in a delicate, two-way balance, and that our survival depends on nurturing it.

I also believe that we agree that it is vital for us to reverse

the deadly competitive ethic in which we live. We recognize, maybe intuitively at this point, that our thought and social processes are dominated by a two-sided view of things—me/you, flesh/spirit, body/mind, female/male, human/earth, rich/poor, black/white. We have begun to sense that these dichotomies are misleading, and to realize that they are essential in a competitive, exploitative ethic. They are essential to see things in a zero/sum way, where your loss is my gain.

Finally, I believe that each of our movements recognizes that our health depends on control over our own lives, on reclaiming our capacities to observe, think, theorize and act. We recognize that expropriating this control is the single most important reason that we face global annihilation.

Many of these ideas were expressed by a fellow *Quest* worker, Sidney Oliver, in a presentation she made at ACT '79. To her, the bottom line is that the opposite of exploitation and domination is empowerment. We've been conditioned to think of power in just one way—as power-over, as a limited commodity, where more for you means less for me, and where the more I have, the better off I am. The object of power-over is to control and to exploit. Power-to, on the other hand, is giving power as we use it. Empowerment is basic to life-love. Women, who've been the caretakers for centuries, know that the basic ingredient in nurturing is enriching rather than depleting. We know that the more we regenerate and recycle, the less there'll be to clean up. Empowerment is pretty scarce in a competitive culture. In fact, it contradicts the competitive ideal that makes more of differences than it does of similarities: it is hard to give power to the other.

Appropriate technologists stress technologies that regenerate energy as they employ it, and that empower through fostering local self-reliance. Environmentalists stress our need to empower earth by caring for her, and to give power to ourselves by pooling rather than opposing our energies. Feminists stress that replacing the dominating, competitive and dichotomous point of view with power-to, is really the only viable act.

The issue is not whether to have technology or not. The issue is not whether to have solar or not. The issue is the



TRAVEL

The Art and Adventure of Traveling Cheaply, Rick Berg, 1979, \$4.95 from: And/Or Press
Book People
2940 Seventh St.
Berkeley, CA 94710

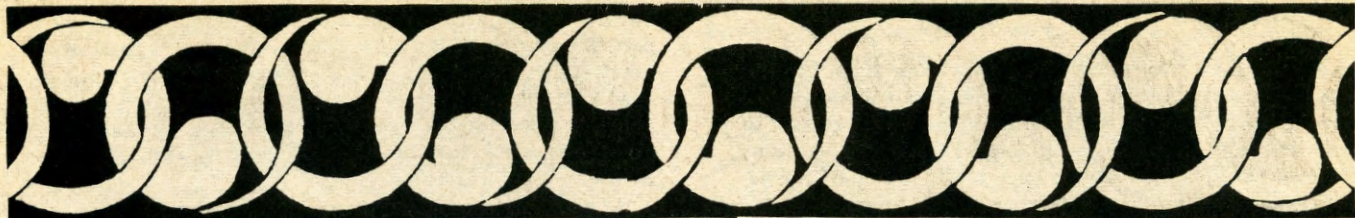
Traveling well—not leaving sloppy footprints and bad feelings, really getting into the culture one is visiting—is another form of living lightly. This book doesn't tell you the best out of the way

places to go (then they wouldn't be the best places anymore), but it does give you hints as to how to sniff out your own—also how to change money at the best rates, avoid border hassles and climb coconut palms. Enjoyable reading. I'll pick it up again when I'm ready to leave the mountain. —LdeM

The Bed and Breakfast League
20 Nassau St.
Princeton, NJ 08540

We've long promoted guest houses as a mechanism to meet travelers' needs at

low cost, with wise use of resources, and on a more rewardingly personal basis. Finally someone is putting together a network of people across the country who are willing to offer overnight lodging and simple breakfasts in their homes. Originally being set up in 15 major metropolitan areas, the founders hope to soon expand it to other areas. Costs to guests are expected to be less than half that of normal motel/hotel accommodations. Write for information on how to become a host! —TB



values that shape technology, that shape solar and determine its costs at both the production and consumption ends of the cycle. The solution is in altering the present values of death-love.

At one of the "Women and Technology" workshops at the ACT Fair in Washington last spring, one of the panelists was a woman named Hadley Ann Smith, from the Mississippi R&D Center. I would like to share some of what she said. "We must be concerned as much about the forms of our communication as the content. . . . It's about process, it's about expansionism, it's about simplifying our lives, it's about issues of cooperation at all costs instead of competition at all costs, not more materialism and acquisition as expression of wealth and well-being, not by a controlling elite, where you have top-down management, with the people at the top calling the shots and the people at the bottom doing the work. It's about comprehensive planning, holistic thinking, shared cooperation. We must not only apply these things to our immediate needs but to our environment as well.

"While we have the capacity, however, I am very concerned that we do not have the will to make these changes in our values, to give up the push-button luxuries that we have learned to need. Unless our values change, it doesn't matter. It doesn't matter how powerful or alternative our vision is if we continue to jacket it in a top-down management format. "The bullies will always bully and the timid will always capitulate; both are parasitic to process thinking. The timid are just as guilty as those who bully."

Technology does not exist outside of human values, and using the phrase human values tends to erase the fact that dominant values are male rather than generic. Do we dare forget that the reason for both technology and male megemony has been power-over and exploitation? Do we dare forget that anthropology—defined as the study of *man*—is precisely that, and that the course of history reveals no valid distinction between the development of man and the development of technology? Do we dare suppress the shock of recognition we feel as women, hearing the twin litany, "mother earth/earth

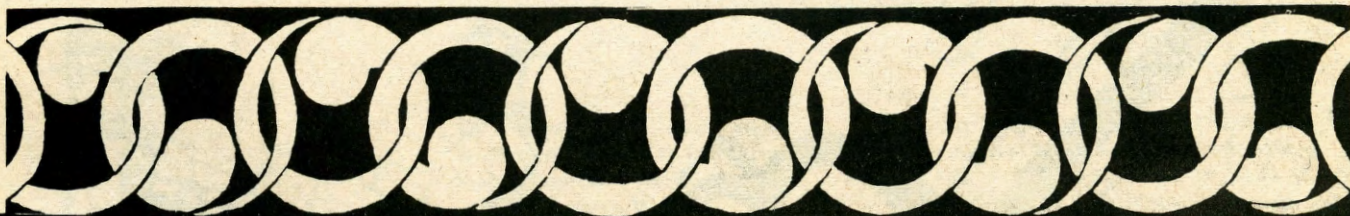
mother?" and witnessing our common exploitation and rape? Or do we ignore the meaning in the origins of the words "ecology" and "technology." Ecology, from the Greek *oikos*, household. Technology, from the Greek *Teknikos*, or man-made. Such memories, I think, may make the connections among our movements a little clearer.

To bring all of this to some kind of conclusion, I believe that the business of appropriate technology, the business of environmentalism, the business of feminism is ultimately to change the dominant worldview, to shift ourselves from death-oriented mastery and exploitation, to life-oriented empowerment and reciprocity. I believe that our movements completely and profoundly challenge the existing worldview. Together we question the motive force under which we live, the network of assumptions and values that govern our collective existence.

A worldview is best known by its actions. And the worldview, or motive force, we live under, and which connects us linearly to the past and laterally to most other cultures, is the ethic of domination and exploitation. Begun in what I believe to be the first dichotomy—male/rational vs. female/natural—this values heritage will not alter until we find new and positive definitions for the fundamental links between women and nature, until men are compelled to recognize and affirm their place within the ecological cycle, and relinquish their cosmic separatism.

At any rate, the historical motif has been domination and exploitation. Our business as women in solar, as women in appropriate technology, is to change all that. Not to do away with technologies, but to redefine and reorient them. Not to replace the power-over political struggle with another, changing only its gender, but to redefine in all that we do the relation of people to people and people to earth.

Quest: a feminist quarterly is devoting an upcoming issue to the politics of Women and Energy. Interested writers may query *Quest* for an outline of the questions and subject areas it hopes to address. Write to *Quest*, 2000 "P" St., N.W., Suite 308, Washington, DC 20036.



BUILDING

Preservation and Conservation: Principles and Practices, National Trust for Historic Preservation, 1976, \$15 from:

The Preservation Press
1729 H Street N.W., Suite 300
Washington, DC 20006

Fine Woodworking, bimonthly, \$12/year, single copy \$2.50, from:

Tauton Press
P.O. Box 355
Newtown, CT 06470

Valuing permanence in construction

means that deterioration of the materials themselves become limiting factors in a building's life and usefulness. Dealing with these problems and building wisely in respect to them requires that we know what really causes the failures. That requires 10 parts physics, 10 parts archeology, 10 parts construction experience, and 20 parts common sense. These two sources are the best I've found for the inner workings of good building. *Preservation and Conservation* is the result of an outstanding international conference of archeologists,

preservationists, historians, architects, building restorers, and material technologists. It's a goldmine of information on how brick, stone, paint, copper, wood and other materials deteriorate and practical techniques to preserve, conserve and restore them. *Fine Woodworking* deals centrally with the making of high quality furniture, but contains excellent technical articles, letters and comments on sawmilling, working heavy timbers, finishing materials, etc.—all of course dealing with wood.

—TB

by Vicki Barnett

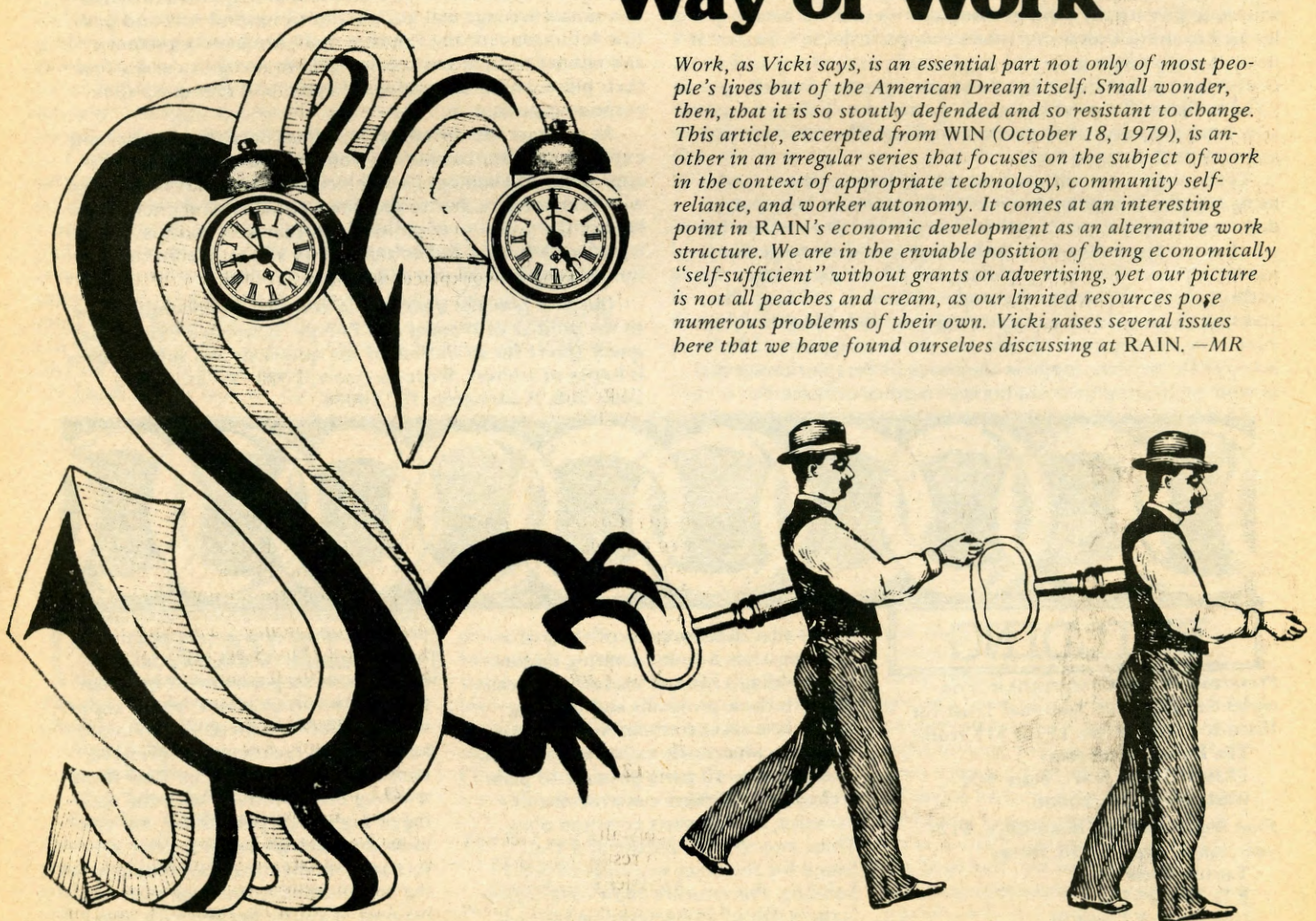
The ironies of the American way of work run deep. Perhaps the most profound one is that our ideas about work have become bound up not just with the amorphous "Protestant work ethic," but with the inner machinery of the entire economy. American workers have always been at the mercy of the national economy; as workplaces become even more centralized, this is truer than ever. Economics laws governing workers and their jobs are accepted as hard truths, as immutable as the laws of gravity and the expanding universe. Workers are led to believe that not much can be done to change their situation or the structures under which they must work. In times of recession and stagflation, jobs are inflationary. So are increased budgets for social services which would ease the financial pressures both for unemployed and employed. Military spending, for some reason, is not inflationary.

The resultant frustration among workers has been well-documented in Studs Terkel's book *Working*. For the most part, the system seems to be able to absorb this frustration fairly easily. It is not so tolerant when workers attempt to deal with the situation by changing their role. An example of both the potential for alternative work structures and the resistance they meet from business and governmental leaders can be found in Youngstown, Ohio.

In September 1977, Youngstown Sheet and Tube was closed down by its parent conglomerate, the Lykes Corporation. Five thousand workers lost their jobs; the effects of the closing soon hit the entire community. Lykes' expectation was that most of the workers would receive public assistance and eventually relocate. But the Youngstown workers, supported by a coalition of religious leaders, experts from the Institute for Policy Studies, the Exploratory Project on Economic Alternatives and the Ohio Public Interest Campaign, opted for another course. They formed a community corporation which sought to buy the plant from Lykes, and began to explore the possibility of operating a steel plant under worker/community ownership. After intensive feasibility studies had

Changing the American Way of Work

Work, as Vicki says, is an essential part not only of most people's lives but of the American Dream itself. Small wonder, then, that it is so stoutly defended and so resistant to change. This article, excerpted from WIN (October 18, 1979), is another in an irregular series that focuses on the subject of work in the context of appropriate technology, community self-reliance, and worker autonomy. It comes at an interesting point in RAIN's economic development as an alternative work structure. We are in the enviable position of being economically "self-sufficient" without grants or advertising, yet our picture is not all peaches and cream, as our limited resources pose numerous problems of their own. Vicki raises several issues here that we have found ourselves discussing at RAIN. —MR



examined how the project could benefit the community both economically and environmentally, a government loan was requested. Although studies indicated that plant operations and expected profits would have enabled the corporation to repay the loan and maintain operations, the government insisted that the local group match the federal money. Essentially, the loan application was denied. The purported reason: that a community-owned and operated corporation was not economically viable enough to warrant federal investment. But many suspected that the real reason was nervousness at the spectre of a major worker-controlled corporation.

... alternative work groups find the experiment worthwhile because it promises to improve not only the quality of work, but also the quality of life ...

The workers at Youngstown are an example of a growing movement which is exploring alternatives to working patterns in the U.S. To some, their attempts to gain control of their community economies might seem to be isolated incidents. But the research of an organization in New York City called Project Work indicates that such movements are springing up around the country and are demonstrating that different work structures and ways of working are possible. Itself an alternative workplace, Project Work has become a strong advocate of what could be called "working alternatives."

Their own attempts to create a different kind of working situation, and to obtain the funding to support it, illustrate the difficulties that all such organizations encounter, from local day care centers to the Youngstown Coalition. The major obstacle, of course, is that the concept of alternative work is widely misunderstood. Changes in work patterns are seen as limited to small-scale reforms such as job-sharing or self-set hours. But these options can lead to more far-reaching changes in work attitudes and structures.

Many large corporations are now accepting job-sharing, flexible hours, and worker-determined salaries on a small, experimental scale. However, such changes are not widely implemented or accepted. They tend to be viewed within the busi-

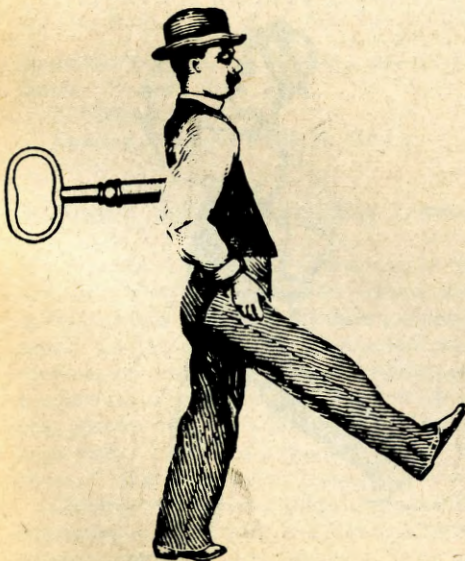
ness world as concessions which must be made to accommodate the growing number of women and two-career couples in the work force; they are sometimes introduced to make unions less attractive to corporate workers.

The kinds of work alternatives which alternative work groups advocate tend to be viewed as unrealistic and utopian: useful, perhaps, for students, young parents, or political fringe groups, but not viable for "real" businesses. But Project Work has conducted an extensive survey of almost 100 groups in the New York metropolitan area which covered working alternatives in organizations as varied as bakeries, legal and health services, community technology, churches, filmmakers, book and magazine publishers, and schools.

What constitutes a "working alternative" and why do some organizations try it? An important issue that arose in Youngstown is that of community self-determination. The economies of most communities are now controlled by corporations whose headquarters, and interests, lie elsewhere. Smaller, locally based organizations clearly offer more potential for community decision-making about priorities and needs. Advocates of alternative work tend to measure the value of work not by the margin of financial profit, but by the well-being of workers and the contribution to the community at large. Alternative groups are smaller and self-managing, so that workers make the decisions. Frequently, they not only are structured differently, but also provide an alternative service. Examples of such groups are food co-ops, sweat equity housing programs, and day care centers.

The efforts of the Youngstown workers indicate that alternative work has even broader potential. Laid off, moved about, shuttled endlessly by the national economy, workers are willing to help create a system more responsive to human needs. Many of the groups in the Project Work survey are not significantly helped by either existing public jobs programs or corporate reforms. Blacks, Puerto Ricans, ex-offenders, and battered women, for example, are offered limited and/or future relief by existing programs, but they continue to be at the mercy of the economy. They have been the objects of numerous social programs, most of which are neither designed nor implemented by the recipients themselves. Thus, some alternative groups do not necessarily set out to be models of a new type of workplace, but simply find that a different kind of structure is the best means of satisfying their staff and constituency.

Such groups are frequently discouraged by the difficulties in getting funding. Project Work's struggles in this respect are typical. Staff members draw salaries according to need, but during the initial months of organization, funds were so lim-



The People's Guide to a Community Work Center: how to start one and run it cooperatively, from:
New Ways to Work
457 Kingsley Ave.
Palo Alto, CA 94301

Alternative Work in New York City,
\$2.00 from:
Project Work
339 Lafayette St.
New York, NY 10012
212/866-2221

Project Work offers consulting services to groups who wish to restructure or who encounter difficulties in working alternatively. They also act as a clearing-house for such groups from around the country. Last year they sponsored a

day-long conference on alternative work with workshops designed to explore solutions to the difficulties in obtaining funding and restructuring workplaces.

Worker Community Ownership at Youngstown? by Staughton Lynd,
\$.40 ea., \$.20/10 or more, 11/16/78,
pp. 4-8 from:
WIN Magazine
503 Atlantic Ave., 5th floor
Brooklyn, NY 11217
212/624-8337

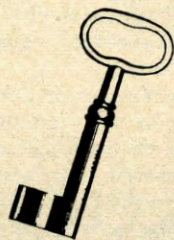
A comprehensive history and analysis of events after the layoff of 5000 workers by Youngstown Sheet and Tube. Staughton Lynd is general counsel for the Youngstown Ecumenical Coalition, formed to gain worker/community control.

ited that the entire staff worked without pay. While some groups may be fortunate enough to obtain a single grant large enough to pay both salaries and operating costs, most get by combining smaller grants. As funding is often given for only a limited time, much staff time is taken with writing grant proposals.

Project Work competes for the same grants as other alternative groups. While their staff makes a practice of passing on funding information to other groups who might be able to use it, many organizations are reluctant to do so because funding is so tight. The constant struggle to guarantee salaries and to assure staff members that a long-range commitment to the organization is possible is a source of tension within many groups.

Advocates of new working structures must be well aware of the difficulties in creating them. While members of an organization may be open to new ways of working, most carry with them traditional notions of *how* to work. "It's very hard to make an alternative setting work," recognizes Sidney Brown of Project Work. In addition to long hours and low or uncertain pay, workers regularly deal with the problems of group decision-making and operations. While staff members may be committed to a non-hierarchical model, it's hard to shake old work habits which operated well in a hierarchy but are detrimental to a collective. . . .

good work access



"From Alternative to Big Business,"
November 1979, \$1.50 from:

New Age
32 Station St.
Brookline Village, MA 02146
Alternative Food Workers Alliance
1825 Curtis St.
Berkeley, CA 94702
415/549-3387

As alternative enterprises become successful and grow, new problems heretofore undreamed of arise. More and more we hear grumblings from workers in these businesses about management resistance to worker participation, better wages and benefits, etc. In this article, Richard Elvers details a case in point—the story behind Erewhon Trading Company's recent unionization—which we can all learn from. Erewhon, one of the largest natural food producers and distributors in the country, has long been considered a "New Age" business.

Erewhon's management regards the unionization move as a sign of failure which began when the company first hired "outsiders," people not totally committed to macrobiotics and thus unwilling to work long hours for little pay. However, according to the Alter-

New methods of decision-making, job rotations, and shared or rotated chair positions are partial solutions to such problems. It is easier to make an alternative workplace function smoothly if staff members keep each other abreast of changing expectations and priorities.

For all the difficulties in changing traditional expectations and practices, alternative work groups find the experiment worthwhile because it promises to improve not only the quality of work, but also the quality of *life* in many communities which were slowly dying. The purpose of work in this country has become twofold: to keep the national economy going, whatever the cost, and to provide most of the citizenry with a living wage. Work structures which would benefit society and work which is meaningful, enjoyable and accomplished cooperatively is regarded, at best, as a luxury for the few who can afford it. For many, such a definition of work is simply a contradiction in terms.

Perhaps this is why working alternatives around the country are so impressive. They demonstrate not only that things can change, but also that they are already changing. It may be impossible to resurrect the old American Dream, but a new one is coming to life: dignity in a time of demoralization, job security in a time of uncertainty. Such things have always been the promises of newly elected presidents and desperate incumbents. Yet if there is one thing to be learned from the American way of work, it is that the people at the bottom are often the first signs of hope and the arbiters of change.

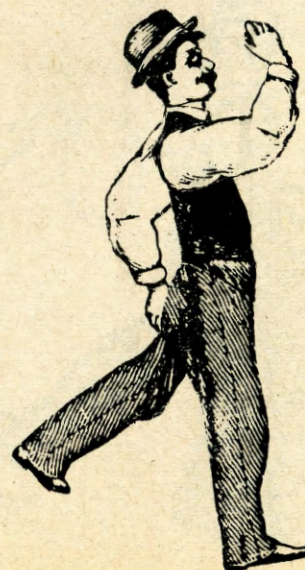
native Food Workers Alliance (AFWA) in Berkeley, which unionized Westbrae Foods there three years ago, "ours is an industry in which companies have capitalized their fantastic growth rates with substandard wages, wooing workers' loyalties with a hypocritical anti-establishment or alternative image or, even worse, with a quasi-spiritual view of right livelihood that seems to create the feeling, with no substantial basis in reality, of a family business."

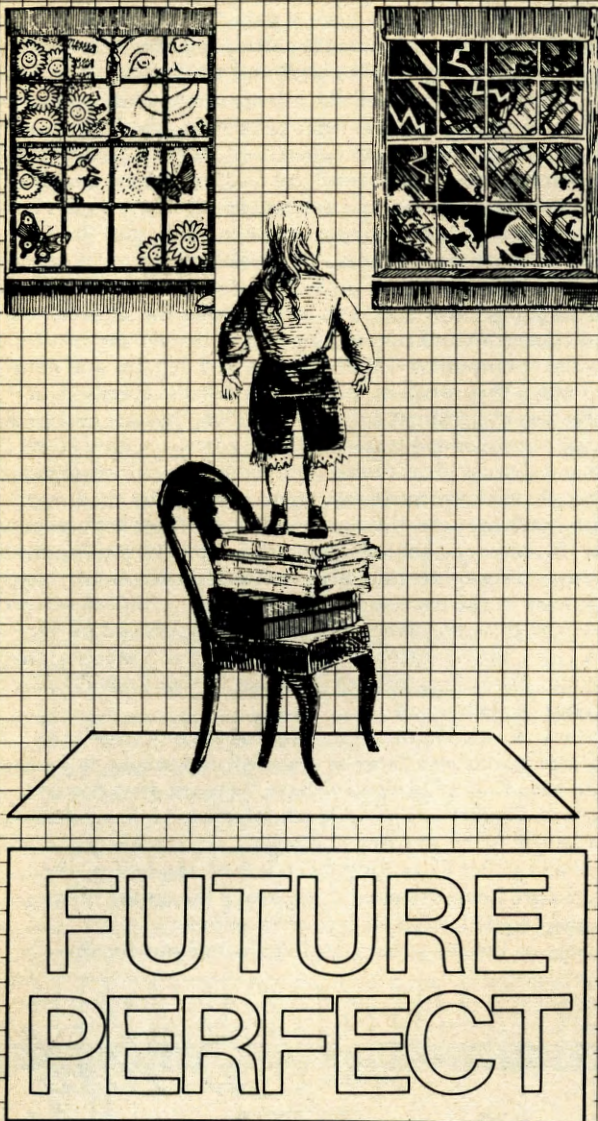
The good news, though, is that the AFWA does exist and could become a prototype for alternative unions in a variety of industries. Their purpose in becoming a national labor organization for the natural foods industry is to make this industry a real alternative both in natural foods production and distribution and in "the way that work is structured so as to empower workers to make decisions affecting their livelihood and to optimize individual creativity in the workplace." —MR

**Communities No. 40, Oct./Nov. 1979,
\$1.50 from:**
Box 426
Louisa, VA 23903

I found Ann Waterhouse's article on the West Bank CDC in Minneapolis to be the highlight of this special issue on worker-owned businesses. Ann discusses how this community development corporation is turning around the resources in its community and making good work available. She notes that it is imperative to establish a democratically controlled CDC if the CDC is to remain in the con-

trol of community residents and cautions against allowing sources of financial support to dictate too much of a CDC's program, again bypassing effective community involvement. In the final analysis, what it's all about is "getting more and more people involved once again in controlling the economic decisions of this country, of channeling the profits to the "little people," of helping to direct decision-making so that some of our community's needs are taken care of instead of lining the pockets of a few"—this is *community-based* economic development. —MR





The primary focus of my last job was teaching social ecology to undergraduates. Since social ecology is the study of human as well as natural ecosystems, of the relations between people that affect the relationships of society with nature, a substantial portion of each course was devoted to visions and strategies for creating an ecological society. In light of the subject at hand, and due to my own preference for egalitarian modes of learning, I structured my courses to be as democratic as the students would have them, given the external constraints (which unfortunately were significant, e.g., competitive grading) imposed by the university administration and the general employment situation.

Although I was relatively successful in introducing both new ideas and new ways of learning, I often found myself, especially at the beginning of a term, frustrated by the resistance of many students (who, having chosen and lobbied to get into these courses, were for the most part genuinely interested in and sympathetic to the concepts involved) to take advantage of this too rare opportunity to actively participate in their own educational process. While some circumstantial factors certainly contributed to their hesitation, I became aware that years of conditioning had hammered the idea into their heads that learning is a passive, top-down process. As such, despite their enthusiasm, many found it initially quite difficult to assume as much freedom (and responsibility) as they imagined they wanted, though they developed this ability over a period of several weeks.

It always strikes me as sad that most people haven't ever been exposed to participatory learning modes, so I was quite pleased recently to see a special issue of *Undercurrents* (sort of a sister publication to *RAIN*, out of the U.K.) on "Children and the Environment." Compiled to commemorate the International Year of the Child, the issue includes a special pull-out comic supplement for kids' activities, a resource and book review section for schoolteachers and hometeachers, plus news from schools and community groups.

In this excerpt from "Children and the Environment" Simon Nicholson and Ray Lorenzo discuss working with children in Oxford and Naples as they develop their own ideas of the future. Once outside the school, they believe, children are capable of radically redesigning the environment. The implications of such an approach are exciting to contemplate. As *Undercurrents* observes, "schools procreate and manifest our ailing and fragmented society. A healthy, flowing society is one which is integrated without institutions. Education should be the process of living within an environment which in itself is nourishing and creative." —MR

Undercurrents No. 36: *Children and the Environment*, \$1.25 from:

27 Clerkenwell Close
London, England E.C.R.R. OAT

by Simon Nicholson and Ray Lorenzo

The principal and teacher of a school in Napoli attempted to explain to the "gruppo futuro" why several of their futures collages (made on photos of their community) should be censored. "Certain reactionary forces will try to manipulate the presence of several nudes in the collages as an indication of the pornographic nature of the new attitudes toward school, (e.g. *gruppo futuro*). You understand but your parents perhaps don't." One of the children stated, "We'll explain it to them. . . that's what it's all about."

Children 9-11 years old in the *gruppo futuro* project were scheduled to participate in a community meeting at their school concerning "green spaces." They prepared a short slide/tape about play and play spaces and a series of interviews

for the politicians who were to be present. Scheduled to start at 5:30 p.m., the "politicos" still hadn't arrived at 6:30 p.m. While the adults sat passively waiting for the "keynote speakers" the children expressed their criticism of the delay to the principal (who was awaiting the politicians' limousine outside the school) and taped her reactions on audio cassette. The meeting immediately began (without the bureaucrats) with the audio playback in public of the children's ideas and criticisms.

These words recount a few of many incidents that have occurred during the encounters of the *Children's Participation in Futures*, *Progettazione del Futuro* de parte dei Bambini (now called the *Gruppo Futuro*) in Napoli and Oxford (with affiliated schools in Glasgow and Toronto) during 1978-79. Our intention was to try to create a procedure (process) in which children could actively experiment with as many media as possible in order to express, propose, question and build alternative futures with minimal interference/domination from adults (especially those likely to specialize and profess).

As the project grew our role became that of providing an initial spark of an idea that change and different futures are possible. We found that most of the children already knew this but that schooling prohibited thoughts about many kinds of change, especially any change not of a scientific or technological nature. We became not only facilitators but intervened in the school setting.

This "intervention" consisted of handing over communication tools to the children, including drawing equipment, slide/tape, audiocassette/radio, video, photocopier and the facilities for printing, binding and mailing their own futures books (all of which cost less than buildings, asphalt, administrators and staff).

It has been proposed that doctors cause illness, lawyers crime, architects ghettos, technologists death, and teachers ignorance . . .

It is difficult to describe our process of intervention: it does not replace experts with ourselves as "replacement experts" but instead *the children are the experts*. This is an inversion of what we normally know as schooling and has implications for the political basis of future society. It has been proposed that doctors cause illness, lawyers crime, architects ghettos, technologists death, and teachers ignorance, but we found that we may optimistically propose that children with adults of all ages (instead of "adult experts" only) can enjoy working in harmony toward creating a better world—nearer utopias than can presently be entertained—and that the intervention process involves simply approaching human activities with the future in mind as well as the past. This is an activity in which all can share.

By a natural process the futures project involved children with great freedom compared to that normally provided by

schools. For example, greater freedom to ask questions, research, experiment and to play and mix activities of the body and mind that hitherto had been separated. The children changed the way we thought: they developed their own literacies (words and images), standards and aesthetics.

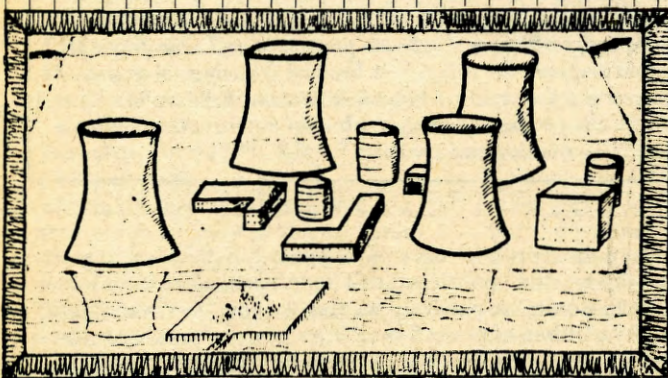
Schools normally control the expression of ideas and accomplish this in three ways: first, rules as to *which* ideas can be expressed, through a curriculum and one-way communication, "teacher" to child; second, by limiting *how* these ideas can be expressed, through a marking system and a media hierarchy (e.g., words and numbers before images); and third, by defining with *whom* the ideas can be communicated—closed classrooms, closed schools.

The children's free access to media broke the artificial barriers of classroom and timetabling and "carried" the futures out to the community. Children organized debates and exhibitions when they wished; they often used the corridors of the school as experiment areas by attaching posters and questions and they decided when to go outside the school to research and discuss ideas (using tape recorders, for example) with people in the community. In most instances there were conflicts with the school structure. The conflicts were positive in that the nature of schooling and the opposing philosophy of the futures project were openly confronted with children as protagonists in the discussions. For example, children refused to take part in a conference exhibit being organized by the Napoli city administration after discovering at a meeting that they could neither participate in the conference nor decide the layout of their work.

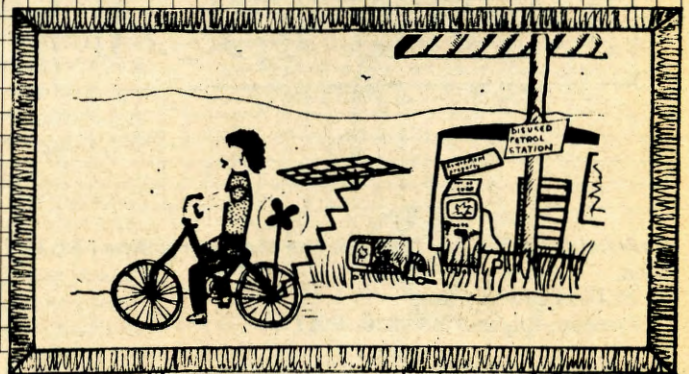
In the U.K. the children identified as "sub-normal" are largely segregated into "special schools" and taught to be passive and thus find a "place in society." On the first day of the Futures Project in one such school it was realized that after a half-hour no drawing had begun, since packages of crayons and paper had simply been left on the tables: the children were unaccustomed to choosing the colors themselves and awaited our distribution of colors.

Change or variety were considered dangerous for these

From Forty Futures by Tuuala (age 15) and Simon Nichola



Harrisburg Ancient Monument, Pennsylvania, 1989



The Solar Bicycle

***Children of the Yukon*, Ted Harrison, 1977**

**Tundra Books of Northern New York
Plattsburgh, NY 12901**

This book excites me. I'm not certain if it is the book itself or the publisher. Guess it's both. This is a children's book that isn't; an art book that is something more. Ted Harrison is a teacher and artist who lives in the Yukon Territory. His paintings that grace the pages of this

book are simple, vibrant expressions of Yukon life. There is no story, as such; just brief captions that add detail to the painting. My first reaction was that kids would be bored with it, since there is no exciting plot to hold their attention. But they were captivated by the pictures of another world, and seemed to thoroughly enjoy the easily understood travlogue.

Tundra Books publishes (it seems) a large number of Canadian children's stories. Other books in the series are equally as impressive as this. They are

gorgeous books. I'd strongly recommend writing for their catalogue. If only there were more books like this, then . . . —FL

"One other aspect of nature impressed me more in the Yukon than elsewhere—the skies. They are big and there is always something going on in them: northern lights, midnight suns, strange colored moons, stars that look handset in the night sky, spectacular dawns and sunsets. Even simple things surprise, like the way smoke rises straight upward on a very cold winter's day. And the surprises never stop."

children—the hymn *Our Great Unchanging Friend* was sung often—yet their images and ideas expressed capacity to understand change, and cope with it. Throughout the duration of the *gruppo futuro*, films, slide-tapes, videotapes, poems, etc. made by “sub-normal” or “difficult” children revealed the same creative change as those made by “normal” children.

These projects serve to dismantle myths which are commonly held concerning the capacities of “privileged” or “disadvantaged” children. Most “futures projects” with children tend to select “gifted children” as participants (seen as potential leaders, only these children are *allowed* to propose alternatives). This practice, like the segregation of “subnormal” children into “special schools” is the antithesis of participation in futures, which should be continuous, integrated into real-life situations and inclusive of everyone, not just an “elite.”

If children’s participation in alternative futures could be a part of life and not confined to projects like *gruppo futuro* and similar interventions, then what transformations would occur politically—socially—culturally?

First, in an atmosphere of greater free expression and cooperation, children’s ideas and images of futures are radically different than those of adults. Children in *gruppo futuro* have proposed, discussed, designed, projected with slide/tape such projects as:

- “instead of TV, a theater 50 km wide in which everyone acts;
- the possibility of civil war and the subsequent destruction of all food sources except the roots. We should go into the country to talk with farmers today about it;
- to repopulate the countryside (rural areas);
- children and old people working together;
- hot air balloons, pocket size (rechargeable) flying saucers, horses, cable cars as transport;
- communication by multi-way TV or drums.”

These futures are at present limited; that is, they are ideas that most adults think “cute” and unrealizable. Nevertheless, the extension of futures participation in space and time implies

a great change in adults’ perceptions of children. Children become cultural innovators and protagonists in a society in which their voices, words and images are as valid as those of adults. Learning and cultural flow become no longer one-way from adult to child but instead are multi-directional: the young can “teach” the middle-aged, the very old and the young, and so forth in infinite directions and combinations.

The outward nature of children’s participation in futures seems to indicate the slow dissolution of the school as the fundamental center for learning and “information,” and its replacement by the community. Learning thus becomes integrated with living and theory with practice.

Learning and cultural flow become multi-directional: the young can “teach” the middle-aged, the very old the young, and so forth . . .

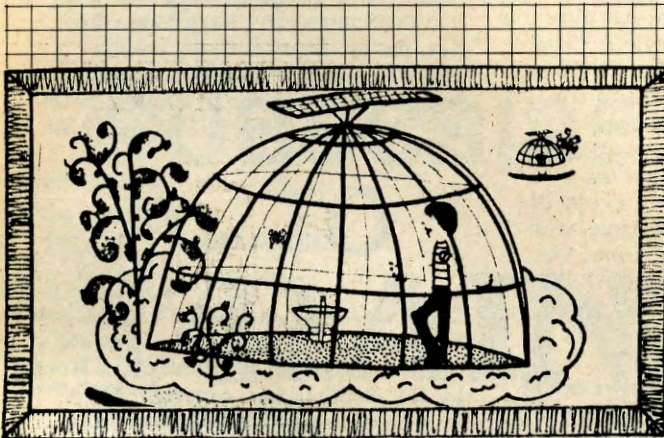
Finally, the process of participation in futures expands critical consciousness, awareness, and (subsequently) real choices and changes. Changes are seen as possible through working together: everyone participates in envisioning and building new futures, utopias which are desired and worked towards and which themselves transform continually in the process. This supposes a new conception of politics (i.e., political consciousness) which is contrary to all the present proposals by major political parties in Italy and the U.K. That is, their manifestos are out of date.

Would children invent a Harrisburg?

“Utopia—non subire il ricatto del dato, del non realistico, slargare il concetto di possibile fino al limite del nostro desiderio di esistere.”

(Utopia—not submitting to the blackmail of a ‘given’, or a non-reality, expand the concept of the possible to the very limit of our wish to exist.)

—Valeria Frescura

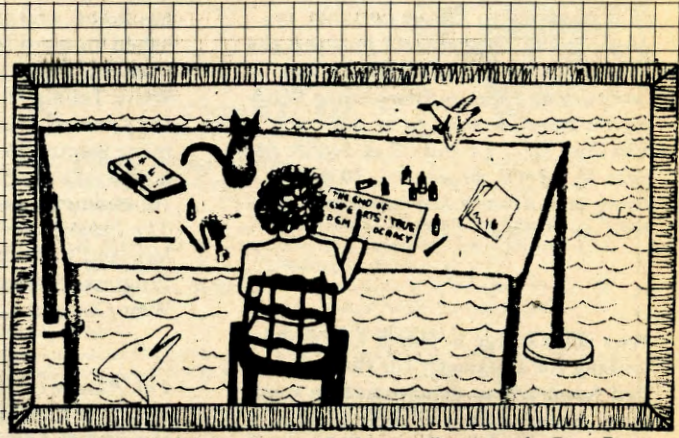


Teachers’ Seminars on Children’s Thinking: A Progress Report, Bill Hull, 56 pp., \$2.00 plus \$.50 handling from: North Dakota Study Group Box 8039 University of North Dakota Grand Forks, ND 58202

If my memory serves me well, Bill Hull’s name appeared often in John Holt’s early books. Here he reappears as both an astute observer of children and a seminar organizer for small groups of teachers. The purpose: “to study children’s thinking in the classroom by sharing specific instances provided by

Utopia—Everyone Has Her Own Cloud

the teachers. What a Pandora’s box this is! There is an entire educational industry based upon what *adults* think children think, and now here are small groups of teachers who are using techniques of observation, recording and sharing to go beyond the usual determinations. The results could easily be an honest and real understanding of children’s intellectual growth . . . and that could mean a complete rethinking of schools and classrooms and teachers. . . . It is an exciting prospect, and :



The End of Experts: Everybody contributes to the Past, Present, and Future—with other species.

though this monograph doesn’t begin to detail the results (and perhaps they needn’t be detailed since the desired changes in the way teachers view children can only come through their direct involvement with children), it outlines a method. An interesting beginning, and one that deserves to be watched. When teachers begin to have more trust and understanding of their talents and those of the children they work with, we will all gain immensely . . . especially the children. —FL

**RAINPAPER No. 1,
CONSUMER GUIDE TO WOODSTOVES**

Bill Day

16 pp., Revised Jan., 1979, \$2.00

No matter how you split it, wood is re-emerging as an important factor in home heating. To help insure the wood energy transition is one committed to safety and efficiency, wood stove consumerist Bill Day has closely monitored the availability and reliability of these products. His newly-revised and expanded *Consumer Guide* is a compilation of his articles in *RAIN*, covering the selection, installation and repair of woodstoves, wood cookstoves and wood furnaces. Included are helpful notes on fireplace retrofits and chimney maintenance. Essential reading for those of you interested in this revitalized energy alternative.



URBAN ECOTOPIA POSTER

Diane Schatz
22"x33", 1976, \$3.00

SUBURBAN ECOTOPIA POSTER

Diane Schatz
22"x30", 1976, \$3.00



The first exciting glimpses of an Ecotopian vision. . . . Chances are you've already seen Diane Schatz's *Urban Ecotopia Poster*—on the cover of *Rainbook*, reprinted in countless numbers of books and publications, or on a friend's wall. Its city street scene gives literal expression to the idea of urban self-reliance—where cottage industries, cooperative institutions and appropriate technologies combine to make the city a habitable and happy place to be. . . . If your concern is reinvigorating the suburbs, you should visit Diane's *Suburban Ecotopia*, where the same potential can be seen in gardens, solar greenhouses and windmills. Both of these line-drawn posters are rich in detail and perfect for coloring.



STEPPING STONES:

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Edited by Lane deMoll and Gigi Coe

208 pp., 1978, \$7.95

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RAINBOOK:

RESOURCES FOR APPROPRIATE TECHNOLOGY

Editors of RAIN

256 pp., 1977, \$7.95



This is the book that has turned so many heads around. Drawing together such diverse concerns as economics, energy, health, agriculture and communications into a larger picture, *Rainbook* opens up new doors for those of us seeking the ways and means to change our communities and our lives. Essentially the Best *RAIN Magazine* through early 1977, *Rainbook* is as comprehensive a primer/resource book as you will ever find, with thousands of listings on groups, contacts, literature and further sources of information. If you have a question about appropriate technology, *Rainbook* probably has the answer—or it can tell you where to get it. Fully indexed and profusely illustrated. (Updated via monthly issues of *RAIN*.)

STEPPING STONES POSTER

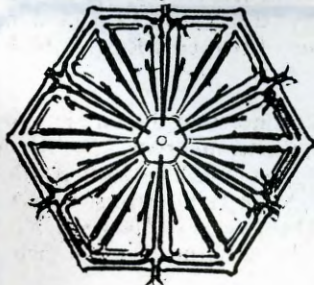
Diane Schatz

21"x24", 1978, \$3.00

Spinning images that excite the imagination, Diane Schatz's latest artwork for *RAIN* is truly new alchemy. Her elaborate, bio-regional landscape which graces the cover of the New *Stepping Stones* reader is now available as a large poster for those of you to whom a picture is worth a thousand words—or more! This urban/rural scenario vividly details local economies and energies at work and play. Renewable and renewing! If you are trying to envision just how all our new ideas and new tools come together, this little bit of wizardry will help you get there



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PLANTS

Profiles of Northwest Plants, Peggy Robinson, 1979 174 pp., \$5.95 from: Far West Book Service 3513 NE Hassalo Portland, OR 97232

Peggy Robinson's book offers just what the title suggests: profiles on 90 of the most-found plants in the Northwest parks and backyards, intended to be an introduction to each plant and summary of how it has been historically used. Not offering extensive insights into medicinal uses, nor best used as an identification guide, this book's strongest element is its legends associated with each plant. Knowing the plant already, if someone says on your next walk, "Oh, I wonder what that pretty little plant is?", you can tell them the name and throw in the perfect plant anecdote concerning charms, prophecies, its association with fairies and witches, as well as historical significance. Learning something about the plants growing around us can help bridge the gap between the natural world and the artificial environment that tends to creep up on us. *Profiles of Northwest Plants* is a gem.

Health Secrets of Plants and Herbs, Maurice Mességué, 1979, 336 pp., \$9.95, \$17.95 hardcover, from: William Morrow and Company, Inc. 105 Madison Ave. New York, NY 10016

If I were to write a clear, concise, functional reference book about medicinal herbs and plants, I would model it after *Health Secrets of Plants and Herbs*. In no uncertain terms this is a great book. The 68 line drawings and 32 color plates show each plant's flower, leaf, stem, fruit, and root structure, making it exceptional for identification purposes. The entries introduce medicinal herbs, their preparation and uses, in a personal way, adequately defining medicinal terms. The whole medicinal quality of

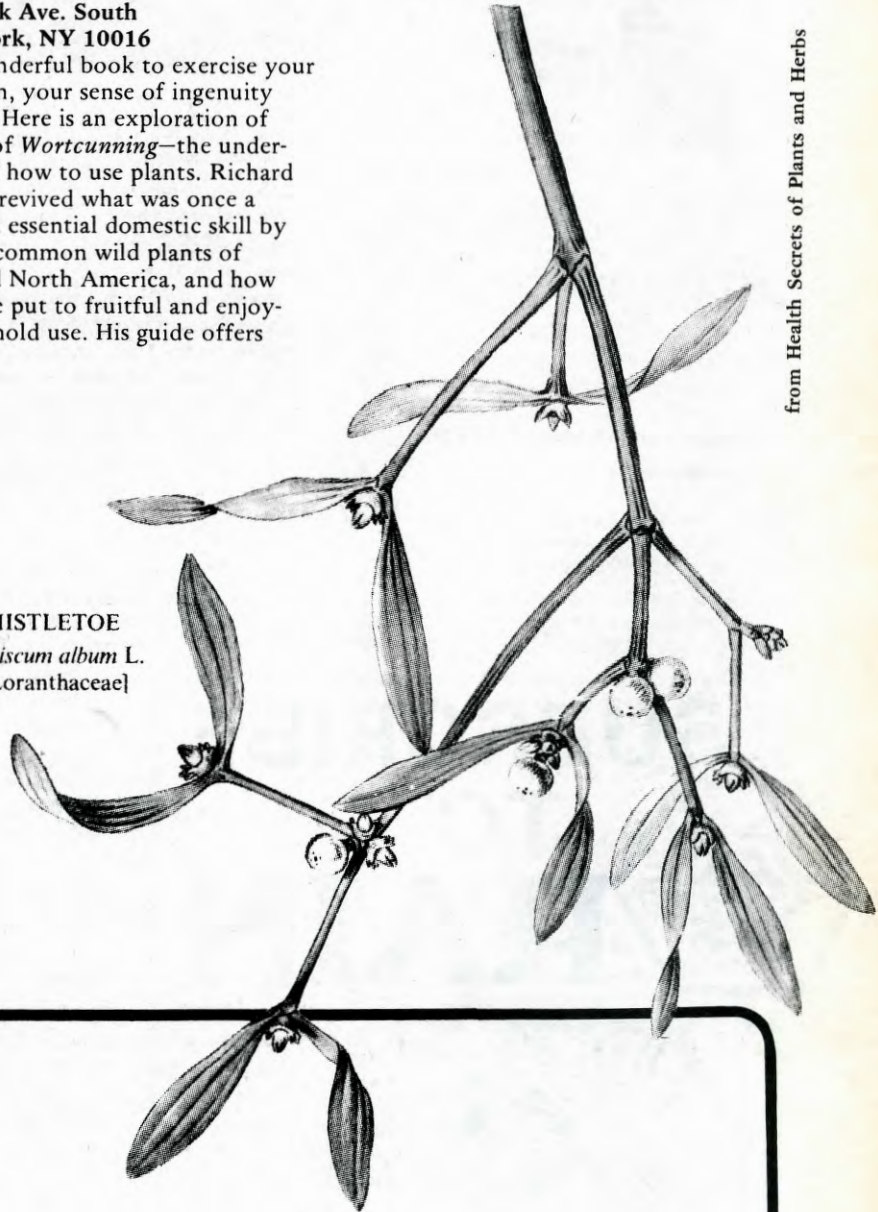
an herb can depend on when it is gathered. A special section is designated to this vital aspect so many herb books fail to mention. Mességué is an herbalist in every sense of the word. Even though he passes over many of the standards like comfrey and lobelia, he includes other plants close to home: apple, asparagus, oak and more. And when he makes reference to an application his Aunt Sophie used to use—you can't help but believe in his credibility!

Plantcraft: A Guide to Everyday Use of Wild Plants, Richard Maybe, 1978 174 pp., \$5.95 from:

**Universe Books
381 Park Ave. South
New York, NY 10016**

What a wonderful book to exercise your imagination, your sense of ingenuity and thrift! Here is an exploration of the virtue of *Wortcunning*—the understanding of how to use plants. Richard Maybe has revived what was once a natural and essential domestic skill by describing common wild plants of Europe and North America, and how they can be put to fruitful and enjoyable household use. His guide offers

suggestions on how to press, carve, bunch, stuff, whittle and weave such plants into service as brambles into twine, birch into brooms, walnut oil into furniture polish, reeds into baskets, poppy petals into ink, and teasel into a hairbrush. With only an estimated 4 percent of some 300,000 plant species having been investigated for useful purpose, one can see how *Plantcraft* inspires the imagination with its entries. Plants are models for self-sufficiency. Nature is of necessity efficient in its use and recycling of raw material. This thoughtfully written book suggests you do the same! —Nandie Szabo



MISTLETOE
Viscum album L.
[Loranthaceae]

from Health Secrets of Plants and Herbs

2270 NW Irving, Portland, OR 97210

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