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RAIN: Journal of Appropriate Technology

RAIN

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# RAIN: Appropriate Technology, Recycling, Video, Community, Energy, Wind, Solar, Land Use, Energy Conserving Lifestyles

ECO-NET

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# RAIN

Appropriate Technology · Recycling · Video · Community · Energy · Wind · Solar · Land Use · Energy Conserving Lifestyles

DECEMBER, 1975

VOLUME II, NO. 3

75 CENTS



## INSIDE:

P. 4 Wood Heat Stove Buyers Guide

P. 9 Thinking About Land E. F. Schumacher

P. 11 Solar Water Heater Plans

*RAIN* is supported by your subscriptions and a grant from the N.W. Area Foundation, administered through the Oregon Museum of Science and Industry.

For subscription prices, see subscription blank on next-to-last page. This blank can also be used to send us change of address messages.

*RAIN*'s office is at 2270 N.W. Irving, Portland, OR 97210. Phone 503-227-5110.

*RAIN / Full Circle Staff*

- Tom Bender
- Lane de Moll
- Lee Johnson
- Steve Johnson
- Nancy Lee
- Anne McLaughlin
- Mary Wells

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# RAIN DROPS

## WHY THERE IS FREE RAIN SOMETIMES

If you have no idea why this copy of *RAIN* came to you in the mail, what probably happened is that a friend sent us your name and asked that we send you a couple of copies. Since any friend of theirs is a friend of ours, here's your sample *RAIN*. (Hint: There's a subscription blank inside the back cover.)

If, on the other hand, you expected *RAIN* to come to you free for the asking, you would have been right last year. We then had support money from HEW as *RAIN* was a part of Portland State University's Environmental Education Center. The EEC exists no more, but *RAIN* does and is struggling to continue. Part of our struggle is charging for subscriptions, while last year *RAIN* was sent free to anyone who requested it. So, if you wrote asking to be put on our free mailing list, we're sending you this copy as a sample and asking that you subscribe if you'd like to stay on the list.

when someone wants an excerpt badly enough to pay 25¢/page for us to copy and mail it. Issues 7, 8 and 9 are available at 75¢ apiece. The yellow flyer is just about gone. (It was a reminder to subscribe and noted our change of address to Irving Street from PSU. It didn't really include any of *RAIN*'s usual meaty stuff.) Last year's *RAIN*s between February and June were wrapped around some essay-suggestion-how-to sheets called Roughdrafts. These were 4-6 pages, each on a particular topic. Here are what they were about and what they would cost you (again at 25¢/page) if you'd like some.

- No. 1, Brainstorming (\$1)
- No. 2, Funding (\$1.25)
- No. 3, Centers (\$1.25)
- No. 4, Networking (\$1)
- No. 5, Creative Instability (\$1.50)

We're now into Volume II, consisting of Issue No. 1 for September/October, Issue No. 2 for November, and the one you're reading. They're all available

## WHAT TO DO WHEN YOU MOVE

Let us know ahead of time, or else you lose a copy of *RAIN* and *RAIN* loses 10¢, and maybe a copy of *RAIN* too. Last month's issue explains why, if you'd like to know. The Post Office eats them is the short version of the explanation.

## WHAT ABOUT BACK ISSUES?

For you who are wondering what past issues exist and how to get them, *RAIN*'s first volume consisted of Issues 1-9, plus a four-page flyer. We are out of issues 1-6, except for a couple of precious copies. We use these copies as masters

The deadline for material is approximately the 28th of each month.

We are selling *RAIN* through retail outlets. If you have some suggestions, please send them along. Maybe you could distribute in your area?

## Corrections to last month's RAIN:

Joyce Schowalter's address in the letters section should have been P.O. Box 172, Ellensburg, WA 98926.

The Family Energy Watch Calendar is available for 75¢, not \$2.95, from the Dept. of Energy, 528 Cottage St., N.W., Salem, OR 97310.

Corrections to "Northwest Energy Map," p. 17:

1) O. J. Lougheed is also part of TILTH, Olympia, Washington, working mainly with Mark Musick on the research, writing and editing of the *TILTH Newsletter*.

2) Bill Kingrey, Carol Costello, Larry Diamond of the Washington State Energy Office in Olympia got separated from their address. Oddly enough, even fortuitously, they were placed under Keith Sherman, their new director and one of our hardest workers at the Soap Lake Solar Workshop (see "Connect Pipe Assembly" photo, pg. 12).

3) Bob Benson, a local cartographer, did the excellent map, which we will also use to display other networks.

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

4. The table shows the increase in technological sounds and the decrease in natural sounds throughout human history. It is based on the study of many accounts in art, literature and anthropology of the kinds of sounds heard during different historical periods.

## AGRICULTURE·FOOD

### *Survival Journal*

53 West Angelo  
Salt Lake City, UT 84115

\$6/yr. The *Journal* is a pretty sensible balance of pessimism and preparedness. Articles and source listings on food storage, food preparation, outdoor survival skills, organic gardening. Some coverage, with a mild tone of "Plain Truth," of why there's good reason to be prepared (coming Dark Ages, fall of Rome parallels, etc.). But lots of good, useful information for urban or rural homesteaders interested in getting out of the everyday-to-the-store routine. They are also connected with distributors of survival hardware. The Great Northern Distributing Co., 325 W. Pierpont Ave., Salt Lake City, UT 84101. Ask for products list.

### **Abundant Life Seed Foundation** 3826 Eastern Ave. N. Seattle, WA 98103

Forest Glen Roth has been traveling around since the 1974 Alternative Agriculture conference giving good workshops on seed growing, based on his experience with starting the Abundant Life Seed Company—and now he and Karl Gaskill are trying to raise money to buy some land of a departed friend in order to expand their seed propagation research. They are asking for donations through memberships in the foundation. For details write to them. And, while you're at it, send a dollar for the mushroom-shaped seed catalog.

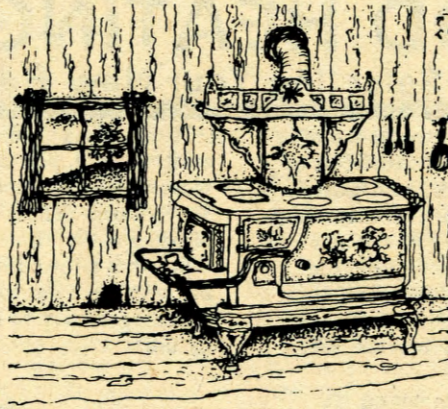
### **International Food Storage Association** 5806 114th Ave. N.E. Kirkland WA 98033

We mentioned their initial package, which is now expanded and has some other general shortages/survival information. Free if you send self-addressed, stamped envelope, 4x9. Or join the association for \$2/year.

### *The Cultivator*

Federation of Cooperatives, Inc.  
Box 107  
15 Central Street  
Hallowell, ME 04347

Another regional co-op magazine, this one for Maine. Articles on individual co-ops, the New England Co-Op Loan Fund, recipes, cartoons and a diagram for building an inexpensive storage cellar. The group now sends a truck once a week to Boston to bring back produce for most of the co-ops in South-eastern Maine. Looks good. (Couldn't find any price on it.)

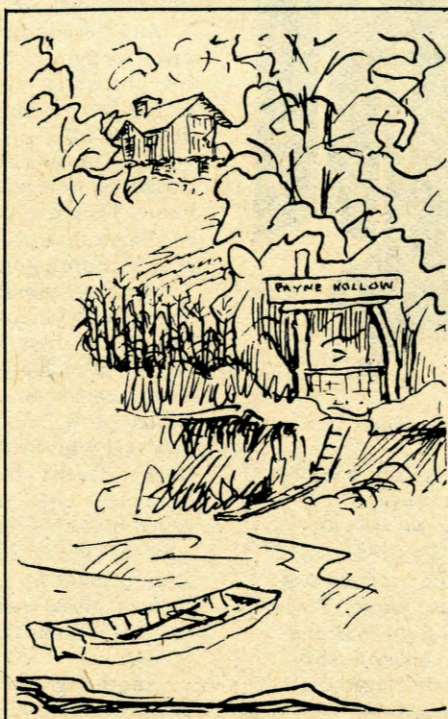


### ***Should Trees Have Standing: Towards Legal Rights for Natural Objects*, by Christopher Stone, Avon Paperback, 1973, \$1.50.**

Arbor Lib has reminded us of our unpardonable omission of this classic from last month's Free Tree Energy Section. A brilliant case for granting legal rights to natural objects, which has already had impact on our legal system. Resource limits require protecting our resources, and Stone develops persuasive legal reasoning for allowing groups or individuals to act as guardians for trees and other living things.

# CALENDAR

- Jan. 21-24** **Consumer Assembly.** Consumer Federation of America, 1012 14th St., N.W., Washington, DC 20005. \$50 registration. At Statler Hilton, Washington, DC.
- Jan. 24-25** **Ways of Healing, Ancient, Modern.** San Francisco. Weekend symposium. Details: Mae Ling Yee, Rm. C-135-G, University of California, San Francisco, CA 94143.
- Feb. 2-6** **NTIS Solar Seminar.** Houston, Texas. Seminar \$350, Workshop \$125, both \$475. Write New York Management Center, P.O. Box 2049, Grand Central Station, New York, NY 10017 or call 212-953-7266.
- Mar. 1-5** **NTIS Solar Seminar.** New York. (See above for address and phone.)
- Apr. 19-23** **2nd Southeastern Conference on Application of Solar Energy.** Tutorial sessions, contributed and invited papers at Hilton Inn, Baton Rouge, Louisiana. Write Dr. Ozer A. Arnas, Prof. of Mech. Engineering, General Chairman, 2nd S.C.O.A.S.E., Louisiana State University, Baton Rouge, LA 70803.



### ***Payne Hollow*, by Harlan Hubbard, The Eakins Press, 1974, \$5.95; and *Shantyboat*, same author, Dodd, 1953.**

In the late '40s, Harlan and Anna Hubbard lived on a shantyboat floating down the Ohio and Mississippi Rivers in the winter and tied up for the summer months in coves and bayous along the way. At the end of their journey they went back to one of the coves called Payne Hollow and built themselves a house along the river bank. And they live there today—"on the fringe of society"—raising almost all their own food, playing violin and cello duets and painting. They are as close to being self-sufficient as one can be. Really delightful books. The first (which I fear is out of print—I found it in the Salem library) is full of the joys and adventures of wandering, the second is peaceful and settled. Both are warmly illustrated with nice pen and ink sketches. I'm giving them to my sister, who lives on a houseboat on the Mississippi, for Christmas.

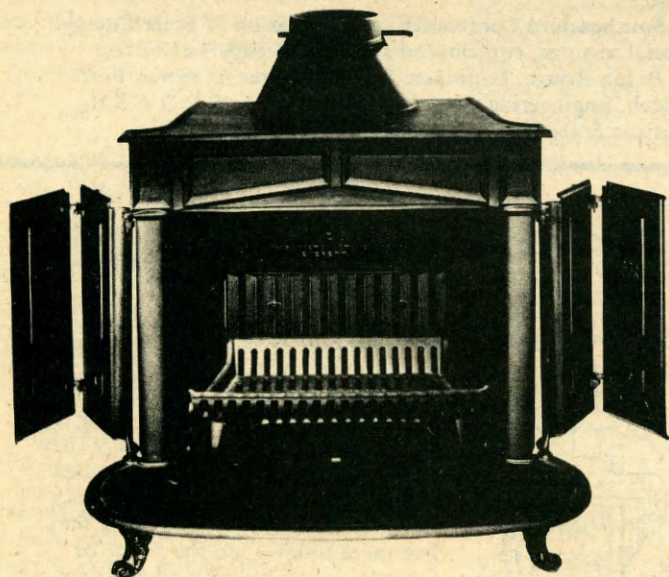
# NEW WOOD HEATING STOVES

## A Guide to Selecting Your New Heat Source

At the same time that more people are starting to use wood as a fuel, older wood heating equipment has become difficult to get. In fact, central heating furnaces are virtually non-existent. New wood stoves are being manufactured at an ever-increasing pace to keep up with the "new" demand. Many of the new stoves incorporate versions of the many efficiency oriented patents granted from 1800 to 1870 by the U.S. Patent Office. Some of these are: pre-heated air inlets, automatic drafts, and baffle arrangements inside the wood burner to increase heat transfer.

Most manufacturers tout their own stoves as having the finest design, producing the greatest combustion efficiency. In truth, there are a great many new wood stoves whose efficiency is good. There are also a great many inefficient, over-priced monstrosities being produced by inept, unknowledgeable or greedy people. It is sad that, with the huge public demand, many of these poorly designed energy-shortage expedients have been distributed so widely. Even some of the older manufacturers have decreased their quality by using cheaper door gaskets, aluminum door handles, lighter grates, painted finishes (instead of porcelain), lighter weight jackets and more spot-welding.

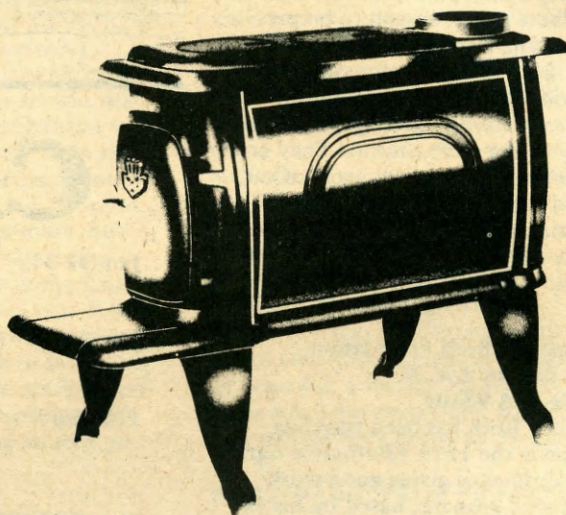
Safety should also be considered as a major factor in picking a stove. Small children are most easily injured by contact with sheet steel stoves. When an arm or hand is removed from the hot stove, some skin may be left in place. Skin is less likely to stick to cast iron. The safest stove is obviously one with a jacket extending around the firebox. A stove with an exterior jacket can also be placed closer to combustible materials, such as walls, furniture and inside woodboxes.



Franklin-style "Olympic," Washington Stove Works

In addition to efficiency and safety, there are other important considerations in the choice of your new stove. If you have an abundance of fuel, perhaps the best stove for you would be a pseudo-"Franklin" style heater. This stove is one of the least efficient styles available. Two manufacturers still produce good quality Franklins: Portland Stove Works, Portland, Maine, and Washington Stove Works, Everett, Washington. All other manufacturers produce units of lesser quality. The poorest quality Franklins are distributed by Hearthcraft Industries, Sears-Roebuck and Montgomery Ward.

If nostalgia is an important factor, but efficiency is an existing need, perhaps you might consider the cast iron parlor stoves being produced by Portland Stove Works or Washington Stove Works. These are both basically good units, having pleasing nickel ornamentation. Recently, Washington Stove Works has allowed Hearthcraft Industries to assemble some of them. This disaster likely will not be repeated, but I suggest checking closely to make sure you don't get one of these shoddy units.



Box Heater "King," Martin Industries

Another basic stove style is the box heater. As in the Franklin and parlor stoves, these stoves should be made of cast iron. Cast iron does not warp or change shape under heat as does sheet or plate. Washington Stove Works and Portland Stove Works again make the best; Martin Industries units are passable; Montgomery Ward, Sears, Hearthcraft Industries and some other imports are useful as scrap iron.

Another highly available heater is the lightweight sheet metal airtight heater. These oval, flat-topped stoves boast low cost and quick radiative heating. They tend to last only a season or two, but may be preferable to a four-hundred-dollar oil bill.

The King and Ashley radiant heaters are more sophisticated airtight heaters with an iron top, bottom, door and door frame. They use an automatic draft control to maintain a slow-burning, efficient fire. Medium price is a big factor for most people choosing these stoves.

The most popular modern heating stove seems to be the "circulator," incorporating an automatic draft control. A circulator is any stove with an external shell or jacket enclosing the firebox in such a way as to produce a convection air current for increased transfer of heat into the room. The famous Ashley of the late 1940s was the first of this type of heater. Few real improvements have been made on Ashley's original stove. Actually, time seems to have eroded the quality in all of the new circulators except for the "Warm Morning" produced by Locke Stove Company. In picking a new wood circulator, I would recommend avoiding Wards and Sears as well as units made by United States Stove Company. The external shells of these stoves are only slightly heavier than painted foil. Sometimes they don't even have cast iron doors and frames.

Another group of heating stoves is the electrically-welded units, which have arrived on the market during the last few

years. Most of these stoves resemble the primitive box heaters produced by the Pennsylvania Dutch in the early 1800s. For a while, as oil scarcity and higher fuel prices hit the news, it seemed that every energetic welder with an empty garage was turning out stoves. As competition increases, more of these people are disappearing. Ludicrous claims such as "100 Year Guarantee," "Lifetime Warranty" and "the most efficient stove in the world" lead knowledgeable people to look elsewhere for quality stoves. It is interesting to note that some of the "100 Year Guarantee" stoves already have warped sides, leaky-doors, inoperable draft controls and no guarantor in sight.

One major consideration for any heating stove should be that the firebox be large enough to accommodate the wood you have available. To use lower grade wood (i.e., woods with lower BTU per cord heating values, such as fir, pine and alder), a very large firebox is necessary if you plan to keep the fire burning all night. Attention to this when buying will keep you from having to restart the fire every morning in a cold home.

Efficiency of all wood heaters depends heavily upon having airtight door openings. This is usually accomplished by using cast doors, door frames and asbestos gaskets. I would suggest being leery of any stove having sheet steel doors or welded door frames. They tend to warp and develop uncontrollable air leaks which lower a stove's efficiency.

In all of the above, I have ignored the finest quality wood

heating stoves. The various Scandinavian stoves boast the best looks and highest quality of any stoves in the world. For the Pacific Northwest, these stoves have a limited use as their fireboxes are very small. We would need higher quality woods, such as oak, maple, hickory or ash, or smaller houses to heat, or both, in order realistically to select these fine heaters. Availability is not good as no importer or jobber has been set up with a regularly purchasable inventory.

One of the most confusing facets of the wood stove business is the lack of reliable quality and efficiency statistics. This means you must rely upon the knowledge and honesty of the person selling you a stove. Normally, a person who sells only one kind of stove, or who specializes in modern decorative cone fireplaces, is less likely to be able to advise you about heating equipment. Perhaps, if you're lucky, a traditional hardware store might have a variety to show you.

A point to think about in making your final decision about your new stove should be, "What's the availability of parts for the 20-year-old stove?" Some companies such as Ashley, Washington Stove Works and Locke Stove Company take good care of their old customers. Some stove manufacturers did not exist five years ago, and there is no way to tell.

The price of the stove you buy should include access to the help, knowledge and accessories necessary for a safe stove installation. In other words, it's more important to pick the place to buy before settling upon a particular stove.

Bill Day

## WOOD HEAT STOVE COMPARISON CHART

Ratings go from a low of one star to a high of five.

Manufacturer	Brand	Model #	Firebox Dimensions H x W x D	Firebox Liners	Finish	Price	Rating	Comments
Martin Industries	Ashley	C60	23 x 14 x 29	1" Brick	Paint	\$430	***	Good quality stove, sold through a reliable distribution system, parts available, well engineered
Martin Industries	Ashley	C62	19-1/2 x 13-1/2 x 23	Cast iron	Paint	\$370	***	Same as above, but smaller
United States Stove Co.	Wonderwood	726	Not available	1" Brick	Paint	\$330	*	Poorly assembled stove, sheet steel door and frame, lightweight construction, similar to Sears 8405N
Autocrat Corporation	Autocrat	6724	22-7/8 x 14-1/2 x 25-1/4	1" Brick	Paint	\$314	***	Medium quality stove, uses Ashley type thermostat
Autocrat Corporation	Autocrat	FF65	22 x 15-1/2 x 28-1/4	Cast iron	Paint	\$380	**	Same as above. Loads from front, develops maintenance problems with front-loading door hinge
Martin Industries	King	7801B	18-3/4 x 14-5/8 x 25-1/4	1" Brick	Porcelain	\$325	****	Good quality stove, will maintain appearance for long period, parts available
?	Sears Roebuck	8405N	24-1/2 x 10-1/2 x 24-1/2	1" Brick	Paint	\$230	*	Poor quality stove, sheet steel door and door frame, lightweight construction, poorly assembled
?	Montgomery Ward	5710	? x 13 x 25-1/2	Cast iron	Paint	\$270	*	Poor quality stove, rough castings, front loading door, poorly assembled
?	Montgomery Ward	5718	? x 13-3/4 x 23-1/2	Cast iron	Paint	\$235	*	Same as above, but end loading
Locke Stove	Warm Morning	701B	23-1/2 x 10-1/2 x 29-1/2	2" Brick	Porcelain	\$460	*****	Excellent quality, extra heavy grates and firebox liners, finest doors and gaskets, long lasting appearance, automatic thermostat is easier to adjust

# APPROPRIATE TECHNOLOGY

*Appropriate Technology Sourcebook*, by Kenneth Darrow and Rick Pam, Appropriate Technology Project, 1975, \$1.50.

Volunteers in Asia  
Box 4543  
Stanford, CA 94305

A 74-page preliminary edition of a sourcebook for techniques and equipment appropriate to Asian conditions. Listings of publications by U.S., British and other groups, but as yet little input from indigenous developments in Asian countries or philosophical, economic or

institutional overview of the conditions they are attempting to change or establish. Sources for Chinese Barefoot Doctors' Manual, Farm Shop and Equipment, Waterproofing Soil Construction and other hard-to-find information. Suggestions for listings in an expanded edition would be welcome.

**Appropriate Technology at Habitat, Vancouver, B.C., Canada, June 1976.**

**Contact:**

William N. Ellis, A.T. Coordinator  
7410 Vernon Square

Alexandria, VA 22306  
703-768-2524

A.T. groups from all parts of the world are being invited to participate in an exposition to be held in conjunction with HABITAT, the United Nations Conference on Human Settlements. Exhibits are to be equipment or working models that demonstrate the success of small technology in solving problems identified by local communities. Groups wishing to enter displays should submit their suggested format to the coordinator before January 30, 1976.

## Appropriate Technology Bibliography: Tools and Hardware Section

Millenia of experience has given us a grand legacy of tools, techniques and wisdom to draw upon in developing simpler, yet wiser ways of doing things. We have the whole earth to draw upon. Our enthusiasm for unprecedented energy-intensive technology has caused us to forget the wealth of simpler and more ingenious technology that has long existed and is being greatly expanded today.



*Traditional Crafts of Persia*, by Hans Wulff, MIT Press, 1966, \$7.95.

Records in readable yet technically clear language the wide range of technologies of the traditional Persian culture: metallurgy and metal working, jewelry, lockmaking, woodworking, comb making, building, brickmaking, tiles and glazing, textiles, carpet weaving, irrigation, agricultural methods, windmills and oil milling. A wealth of valuable information.

*Science and Civilization in China*, by Joseph Needham, Cambridge University Press, 1962

A vast goldmine of information on ways of thought different from our own and the incredible technologies developed over 4000 years in one of the most productive cultures on our planet. The volumes produced so far include intro-

ductory orientations, history of scientific thought, mathematics, sciences of the heavens and the earth, physics, mechanical engineering and building, chemistry and medicine. The volumes are very expensive (\$30-\$50 each), so get them at the library (or through inter-library loan).

*Science and Civilization in Islam*, by Seyyed H. Nasr, Harvard University Press, 1968, \$15

Far less comprehensive than Needham's masterpiece, but contains an extremely thought-provoking introductory section explaining the underlying purposes and practice of Islamic sciences—conceiving of science as a means for spiritual growth and considering an individual who specialized in one aspect of science or life to the detriment of others to be unbalanced and a danger to society and oneself. The basis of Islamic sciences can offer a valuable yardstick with which to evaluate our own.

**Appropriate Technology Intermediate Technology Development Publications**  
9 King Street  
London, England

\$7/yr. (\$10.50 airmail). An excellent technical journal (quarterly) geared mostly towards A.T. for developing countries. However, most of the tools and processes could be applied to overdeveloped countries. Hydraulic rams, metal bending machines, sugar mills and agricultural tools and processes.

**Tashiro Hardware**  
109 Prefontaine Place  
Seattle, WA 98104

Wonderful store in Seattle where it is possible to get (and learn how to use and take care of) traditional Japanese tools. Write for their catalog.

*Spectrum*

**Alternative Sources of Energy**  
Rt. 2, Box 90A  
Milaca, MN 56353

Catalog of tools and processes for small-scale use of solar, wind, water & other forms of income energy.



**Shoe Patch**, an adhesive liquid for running shoes, tennie-runners, deck shoes, sneakers. \$3.50 per tube postpaid from:  
**One More Company, Inc.**  
540 Santa Cruz Ave.  
Menlo Park, CA 94025

It works! Non-skid too. An economically sensible product that encourages recycling (now I can buy all my shoes at the flea market, shoe-patch them and save money while extending the life of one of life's material goodies). Packed in a cardboard mailing tube that is also useful as a tiny wastebasket (if you're a good shot), or pencil holder, a *Raparound No. 1* newsletter—user's guide—Briarpatch catalog comes with it, telling you the story of this humble product, sharing Briarpatch economics and business practices and asking for your comments. All you food co-ops out there might find this a hot item to carry.

## CONSCIOUSNESS

*Queuing and Waiting*, by Barry Schwartz  
U. of Chicago Press  
5801 Ellis Ave.  
Chicago, IL 60637

We wait for unscheduled service at the supermarket, post office, theater, stoplights, gasoline stations; we wait for people to repair our houses and our bodies. This is a sociological study (with the assets and deficits that implies) of a variety of waiting and delay processes; religious variations in client impatience; intentional delays as means of establishing hierarchy (15 minutes' wait for a full professor before students leave a class); an odd sticking out chapter on manuscript review in scholarly journals. Overall, the study is disappointing to me; not sure why—I was maybe expecting a wider perspective. Maybe if Studs Terkel and Marshall McLuhan added interviews and photo montage. It is important perspective, and surely the most complete study I've seen so far.

*Brain Mind Journal*  
P.O. Box 42492

Los Angeles, CA 90042

Marilyn Ferguson, author of *The Brain Revolution* (see RAIN, Vol. II, No. 1), has begun issuing this newsletter every first and third Monday. It is a selection of concise articles on frontiers of mind/consciousness research. Reaches a whole other area than either *Psychology Today* or *East West Journal*. \$15/yr.

*Transpersonal Psychology in Education* is Fastback No. 53 in an admirable series of little books published by Phi Delta Kappa's educational foundation. Thomas Roberts and Frances Vaughan note in their preface that "a revolution in psychology usually foreshadows a revolution in education." They ask pertinent questions about human capabilities, describe innovative approaches employing altered states of consciousness in learning and describe emerging psychologies.

The fastbacks, subsidized by the foundation, are extremely cheap: eight titles for \$4, \$15 for the first 58, cheaper in bulk and to members. Sixty-six titles are now in print. For information, Special Publications, Phi Delta Kappa, 8th and Union, Box 789, Bloomington, IN 47401.

**BIOFEEDBACK:** Another innovative approach to getting the word out quickly. Bio-monitoring Applications puts out a program of cassettes featuring not only many famous biofeedback researchers discussing their latest findings but also those who are putting the research to work in hospitals, private offices and other clinical settings. Headache, stress, weight control, cardiology, depression, rehabilitation, behavior mod, relaxation and instrumentation are among the topics covered. The tapes are expensive (\$9.95 each, 10 for \$90) but will be less under a subscription plan to begin in January. BMA, 270 Madison Ave., New York, NY 10016.



Ancil Nance

**PSYCHIATRY:** The splendid new edition of *Comprehensive Textbook of Psychiatry II*, edited by Alfred Freedman, Harold Kaplan and Benjamin Sadock, is almost twice the length of the 1967 edition. The editors blame the "explosive expansion of psychiatric knowledge" for the size of the \$65, two-volume, 2,609-page set. This is a truly comprehensive approach, with 226 contributors, including many of the best-known contemporary theorists, researchers and authors in the field. The increasingly broad spectrum of approaches is evident in the inclusion of such topics as biofeedback, meditation, parapsychology and synchronicity. A large section details new therapies. Encyclopedic, readable, generously illustrated. Publisher: Williams and Wilkins Co., Baltimore.

### Hawaii Health Net

1629 Wilder Ave., #802  
Honolulu, Hawaii 96882  
808-949-3642

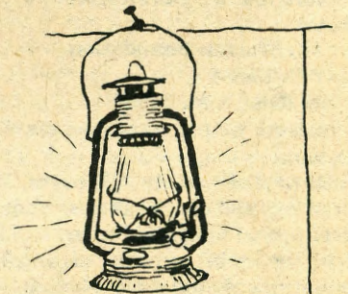
Someone asked us awhile back what's happening in Hawaii environmentally. Well, as health relates to environment, this is a good growing network of persons from a wide variety of backgrounds who sponsor eclectic workshops/conferences/gatherings from play to ESP to natural living. An ongoing directory of involved individuals.

### Synthesis

150 Doherty Way  
Redwood City, CA 94061

Similar to *Human Dimensions* (RAIN No. 6). This is an intellectual journal containing fairly-long to long essays on self-realization, meeting of east and west, inner wisdom, spiritual journeys, planetary consciousness. Done in a high class way—heavy book stock, glossy cover, etc. It is very "astral" in appearance—not like the funky, newsprint *East West Journal* and *New Age Journal*

and not oriented as those toward practical living skills. The center section is a self-instruction manual which didn't seem to have an integral reason for existing separately. The essays are good. Recommended for those needing to work their way through intellectual karmas and in need of soft long sound introductions to varieties of religious and self-realization possibilities.



## EDUCATION

*Seed Catalog*, \$5.95 from:

Beacon Press  
25 Beacon St.  
Boston, MA 02108

Whether you're a teacher, hermit, parent, administrator or librarian, you should look this one over. 350-plus pages of materials, organizations, ideas, devices. Emphasis is on the simpler, less expensive teaching tools. And of course they let their prejudices show. Astounding to think of the percentage of groups and materials listed here that didn't exist, say, 6 or 7 years ago. Highly recommended. Even though 2 years old—I'd probably still recommend it even 3 or 4 years from now.

Continued on page 8



**EDUCATION**

continued from page 7

**School Library Journal**

R.R. Bowker Co.  
1180 Avenue of the Americas  
New York, NY 10036

We may find a way eventually to review more materials for schools (any volunteers?), but we feel rather swamped/lost for now. If you need access to a broad spectrum of materials, look through the *Journal*. Basically same structure as *Library Journal* and *Publisher's Weekly*—a nationwide network of reviewers from schools and libraries in paragraph size reviews of books, audio visual, curriculum materials. \$10.80/yr. For good introduction to teacher stuff, see *Seed Catalog* in this issue.

**ENERGY**

*The Best Present of All*, by Oliver Houck, 15¢ each from:

The National Wildlife Federation  
1412 Sixteenth St., N.W.  
Washington, DC 20036

The best elementary school level story of the best present—Energy—from various sources, such as: Mr. Gas and Mr. Oil, Mr. Coal, Mr. Atom, General Water, Mr. Geothermal, and Ms. Sun. One of many "Ranger Rick" nature magazine reprints, this one is colorfully illustrated with lively writing to explain energy resource facts and explore their meaning in ways that maintain one's interest. Well-balanced presentations of advantages/disadvantages of each energy source are presented.

*Development of an Energy Information Retrieval System*, by Donald Mazziotti and Ilene Wright, Nov. 1975

Single copies \$5.00 from:

Portland Planning Bureau Library  
424 S.W. Main  
Portland, OR 97204  
503-248-4253

A good, useful attempt at using simple and inexpensive methods—optical coincidence retrieval (OCR)—to keep track of energy-related publications in such a way that small towns and cities can afford and manage (i.e., non-computerized). This first product of the Portland Energy Conservation Project is an excellent example of appropriate technology which bows to human nature as represented by the ubiquitous KISS rule . . . "Keep it simple, stupid!" Yet it is one level more sophisticated than your usual key-sort card system.

Continued on page 10

# DeKorne's Survival Greenhouse

*The Survival Greenhouse: An Eco-System Approach to Home Food Production*, by Jim DeKorne, \$7.50 from:

The Walden Foundation  
P.O. Box 5  
El Rito, N.M. 87530

Last issue we promised you more on Jim DeKorne's long-awaited book, *The Survival Greenhouse*. In 150 pages, 30 drawings and charts, and 20 photos, the detail of an integrated solar, wind, fish-farming, rabbit-growing, organic hydroponic greenhouse are explained by the designer-builder. This is the kind of work that needs to be done and widely shared. We highly recommend Jim's first publishing effort and hope to be able to share his future efforts with you. The following are excerpts from the introduction to Jim's book.

Communism, invented to counter the inhumane excesses of the 19th century capitalist "robber baron," is no improvement, since it only replaces one form of tyranny with another in its cynical (though cold-bloodedly pragmatic) assumption that moral individualism is impossible. Capitalism insists on the individual's "right" to be a predator. Communism, in correctly curbing this "right," insists that the individual cease being an individual entirely. (The choice between being eaten alive by a lion or by a million fire ants is not much of a choice.) In addition, communism is essentially "people's capitalism"—and, as an economic system, it is not inherently more "ecological" or less damaging to natural systems than capitalism



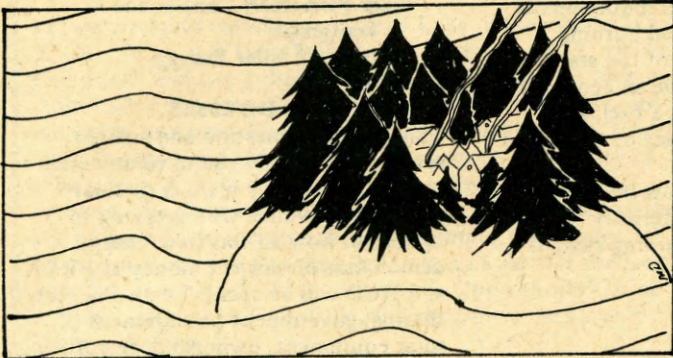
is, though because of its totalitarian nature it could conceivably enforce ecologically sound practices. Neither system is adequate to cope with the real problems we face.

What the world needs desperately is a philosophy of natural economics. Both the words *ecology* and *economy* have the same root and, if one meditates long enough on the meaning of each, it becomes obvious that they are in a very real sense synonyms. What the world has now is an economy of consumption, not an economy of conservation, and in capitalism and communism we have two economic dinosaurs struggling for control of a technological tar pit. History may yet prove that high technology has negative survival value for any civilization which embraces it. . . .

The Decentralist ideal of a civilization made up of autonomous agrarian communities is often advocated as a solution to our present problems, but what would it be like in actuality? Without some form of centralized control, it is not difficult to imagine the emergence of a petty provincialism not unlike the feudal system of the Middle Ages: Oakland makes raids on San Francisco; the Duke of Chicago begins machinations for an alliance of all the Great Lakes fiefdoms to declare war against Cleveland; Arizona and New Mexico agree to cooperate in a scheme to exact tribute from all those who wish to travel and trade between Texas and California. While the examples are exaggerated, it is not difficult to imagine the problems a decentralized society would engender.

# Think About Land

E. F. Schumacher



Martha Dyck

For quite some time I have been particularly interested in the question of the proper scale of things. This question seems to me to be the most neglected subject in modern society. "To the size of states," said Aristotle two thousand three hundred years ago, "there is a limit as there is to other things, plants, animals, implements; for none of these retain their natural power when they are too large or too small, but they either wholly lose their nature or are spoilt." It's hard to equal the language of the ancients. Imagine a small island, a small island community of two thousand people. One day a boat arrives and unloads a man who has just been released from prison on the mainland. The discharged prisoner returns home. Will this community have any difficulty in looking after this one man, giving him a bit of human contact, finding him work and reintegrating him into society? Hardly. And now imagine an island community twenty-five thousand times as big, of some fifty million people, and every year twenty-five thousand discharged prisoners return home. It is then the task of various ministries to get them back into normal life together with a number of harassed and over-worked probation officers. What a problem! In fact a problem that has never yet been satisfactorily dealt with.

Now it seems to me that somehow, somewhere, there is a very big lesson to be learned here. Or imagine that instead of one solitary discharged prisoner presenting his problem to a small island community of 2,000 people, a homeless family of five people appeared—or even two such families of ten people in all. Surely the community would find ways and means to ensure adequate shelter for these two families. But multiply the scale of the situation by twenty-five thousand: a community of fifty million people trying to cope with two hundred and fifty thousand homeless people. What a problem! Ministries, officials, rules, regulations, financial arrangements, immense efforts to cope with immense difficulties, and (going by experience) never an adequate solution.

I have just published a book with the title *Small Is Beautiful*, and I received a letter which explains this strange and challenging problem of scale from a mathematical point of view. I quote:

The crucial point is that as a monolithic organisation increases in size, the problems of communicating between its components go up exponentially. It is generally reckoned that the maximum size of a productive scientific research team is twelve; over that size everyone spends all his time finding out what everyone else is doing.

Some twenty years ago, working for the National Coal Board, I became interested in the problem of accidents in the pits. At that time we had two hundred and fifty thousand accidents a year. Someone drew my attention to a mine outside the National Coal Board which did not actually produce coal but some other mineral—by exactly the same methods of ex-

traction as we applied in the coal mines. The accident rate at that mine was much the same as in the coal pits. One day the management in charge of this one single mine decided to do something about these accidents and virtually abolished them. So we studied their methods, which were perfectly straightforward, and said to ourselves: "What they can do, we can do." They had one mine, we had six hundred; but then our resources, staffs, etc. were certainly in proportion the same as theirs. So the National Coal Board said, "When it is a matter of people getting hurt or killed, we cannot afford to lose any time. Let us apply these proven methods of accident prevention in all six hundred collieries right away." We did not succeed—although of course, in the twenty years since then, the safety record of the coal mines has improved beyond recognition. But at that time, I repeat, we did not succeed the way this outside firm with only one mine to worry about had, in fact, succeeded.

It took me a long time to understand this strange and paradoxical thing. If one able safety engineer with his team can succeed in one mine, why can't six hundred able safety engineers with their teams succeed in six hundred mines. The answer is that one man requires no administrative superstructure to do his work; he himself, as team leader, is the superstructure; but six hundred team leaders do require (or everybody appears to think they do) an administrative superstructure.

And now let me make this point: administration to be well done is a very difficult job which requires a very high level of intelligence. It is much more difficult than accident prevention underground. It follows that only the best talent is good enough for administration; and if you need an administrative superstructure because of the scale of the operation (six hundred mines instead of one) then you simply cannot avoid your best people being sucked into administrative posts; and then only the second or third rate people remain to do the job itself.

I am making this point very seriously against the people who say, "Yes, we set up a big structure, but of course it must not be bureaucratic." If it is not to be bureaucratic it will absorb all the best talents you have at your disposal. And this is not all. Once you need an elaborate administrative superstructure, the people who actually do the work cannot give the best that is in them because they are being administered (and this is nobody's fault) by people far away whom they have probably never met except at impersonal briefing meetings.

This experience, reinforced by many similar ones in the last twenty odd years, has led me to the conviction that small is beautiful—where small, of course, does not mean infinitely or absurdly small but the order of size, or scale, which the mind can fully encompass,—so that large administrative superstructures can be dispensed with.

Good administration, let me repeat, demands superlative talents and intelligence; and bad administration is the worst of all evils. So this whole question of scale I consider to be absolutely central and one of the most neglected questions in the modern debate. I quoted Aristotle and repeat: "When things become too large or too small they either wholly lose their nature or are spoilt," or, as my grandmother used to say, "Everything *too* is of evil."

From *Think About Land*, by E. F. Schumacher, \$1 airmail, from: Catholic Housing Aid Society, 189a Old Brompton Road, London, SW5 0AR, England.

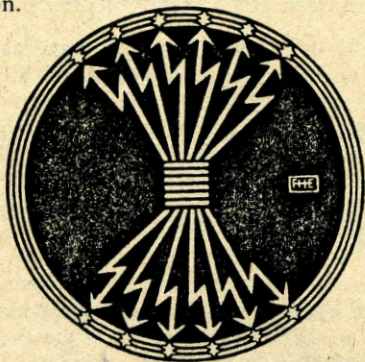
**ENERGY**

continued from page 8

*Natural Energy*, ed. by Robin Clarke, quarterly, subscriptions via:

Conservation Tools & Technology (CTT) Association  
143 Maple Road  
Surbiton, Surrey KT6 4BH  
England  
01-549 5888

This second issue of *Alternative Energy Sources*, fortunately renamed so as not to be confused with *Alternative Sources of Energy* in Milaca, MN, USA, features articles by the Vale duo on the autonomous house, on BRAD's do-it-yourself solar collector, on solar collector testing, and windmill costs-benefits. Perceptive book reviews, news items and letters to the editor round out this handy publication.



*The Energy Index*, free monthly from:  
Energy Index  
Sen. Mike Gravel  
3317 Dirksen Bldg.  
Washington, DC 20510

As news stories, debates, votes and transcripts are entered in the *Congressional Record*, Sen. Gravel and his staff will compile an index to nuclear and alternative energy information. Citizens can subscribe to the *Record* (\$45 per year) or read their public library's copy. Sen. Gravel asks for citizens to send him any important energy items they see so that others across the U.S. can learn about them quickly. Hopefully, we'll see much more on energy conservation.

*Energy Conservation Task Force Report to Governor Straub*, Nov. 24, 1975, available from:

Oregon Energy Office  
528 Cottage St., N.E.  
Salem, OR 97310  
503-378-4040, -8445

Excellent suggestions by a 21-member citizen task force on the establishment of a state energy conservation plan for the various sectors: residential, commercial-industrial, transportation, communications and agriculture. Full of good ideas and implementable, practical methods.

**Vermont Firewood**

A task force led by R. Sam Lloyd (D-Vermont) has released findings that there is enough annual growth of cull or unmarketable wood in Vermont to supply all the state's fuel requirements. On a practical basis, wood burning would only supply 25% of the state's energy needs. It would be an economical move to use wood as a fuel, as it would use 4.7 million tons of cull wood that otherwise rots.

There is a test case now being planned. The state hospital at Waterbury will be converting to a wood-burning system. (*Not Man Apart*)

**Solar**

*Extended Abstracts of the 1975 International Solar Energy Congress & Exposition* will be available in the near future. To be put on the list to receive notification, write:

ISES '75 Abstracts  
American Section, ISES  
c/o Smithsonian Radiation Biology Lab  
12441 Parklawn Drive  
Rockville, MD 20852

*Catalog of Solar Energy Heating and Cooling Projects*, ERDA-75, Oct. 1975, single copies free from:

ERDA Technical Information Center  
P.O. Box 62  
Oak Ridge, TN 37830

251 solar equipment manufacturers listed by services/systems supplied, by state and alphabetically. Bill Church, AIA Arch., Portland, OR; Long, Maxwell & Assoc., Tigard, OR; Steve Baer, Zome-works, Albuquerque, NM; and Malcolm Wells, Solar Service Corp., 306 Cranford Rd., Cherry Hills, NJ 08003, hopefully will be in the next revised issue.

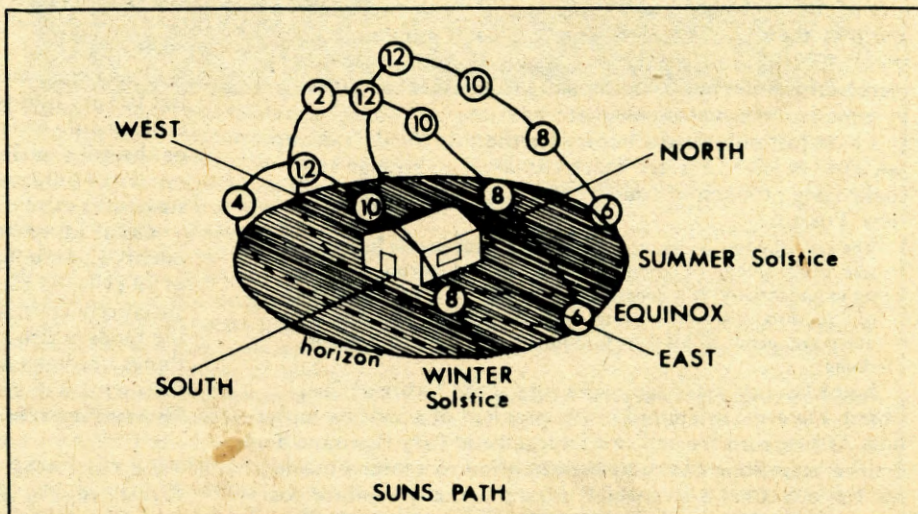
*Proceedings of Pre-Submission Conference on Program Opportunity Announcement, DSE-75-1, and Program Opportunity Notice, DSE-75-2, Oct. 1975*, free from:

Solar POA/PON Conference  
Transcript  
Division of Solar Energy  
US-ERDA  
Washington, DC 20545

This unedited question and answer session will be very useful to any architect, engineer, city planner or solar-oriented individual who is trying to figure out how all this solar energy demonstration-project money at ERDA and HUD will be spent. Financing cost-sharing, government procurement of solar equipment, ownership, retrofitting... most of the questions are asked, and the answers are clearly stated. Vital for the solar library; also useful for its list of small and large solar firm/consultant attendees at the back.

*Solar Energy and Building*, by S.V. Szokolay, 1975, 148 pp., from  
Halsted Press Division  
John Wiley & Sons, Inc.  
605 Third Ave.  
New York, NY 10016

One of the better introductions to solar architecture, noteworthy for its well-done layout and design, which gets a lot of information across to the reader by excellent use of visuals: drawings, maps, designs. Even the graphs are un-oppressive. It is comprehensive, with sections called: context and principles, collection methods, uses, sun and building, solar houses, planning implications, economics & prospects, solar heat industry, design guide. Includes a glossary and index.



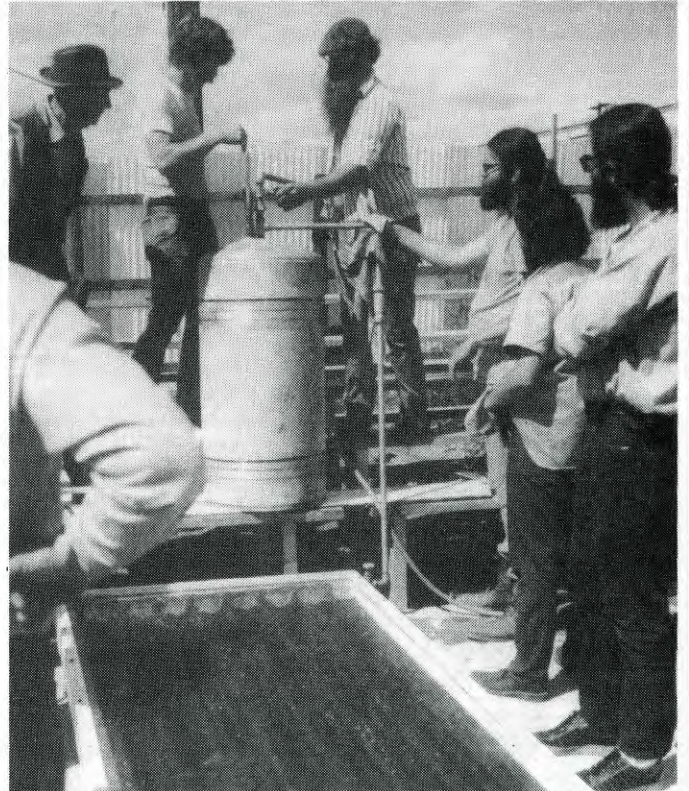
# Solar Workshops

In two weekend workshops at Soap Lake, Washington (June 27-28, 1975), and Twin Falls, Idaho (October 30-31, 1975), Ken Smith and Lee Johnson taught over 100 people how to build solar collectors. County energy affairs assistants, community action agency winterization crews and private citizens in Washington and Idaho learned the history and theory of solar energy and then built flat-plate collector hot water systems. The three built at Soap Lake are now located at the Washington State Energy Office in Olympia, the Energy Information Center in Spokane and in Soap Lake. Of the four in Idaho, one is at the Idaho Economic Opportunity Office in Boise, another in Twin Falls, and the others we haven't heard about yet.

But more important than the devices are the people, who are listed by location on the following pages, in case you've any questions. Teaching and observing them build, it became delightfully obvious that a rapid transition toward a solar society will not only be much easier than many people would believe, but it will be one of the most popular and politically acceptable events that will occur between now and the year 2000. People want to relate to peaceful technologies they can understand; to sciences which are as basically grounded in human experience as sunrise, sunset and the changing seasons; and to energy systems of which they need have no fear.

They always say "Why, this is so simple! Why aren't there more of these around?" Then they realize that there are now seven where there were none, and that there are now 100 people who know how to go beyond those seven devices. And they see that a great many things are possible under the sun.

The instructions, materials and tool lists on the next few pages cover the system we built: a 4'x8' panel heating water by gravity circulation (no pumps). Three to four of these panels would provide enough hot water for a family of four. Depending on your particular situation and personal needs, such a system might supply all your requirements or might simply, by means of a heat exchanger, assist your existing electric or gas water heater, lowering your bills. Check with



Photos by Maggi Sullivan

your local utility, building, electrical and plumbing inspectors, and with your local plumbing store handyman for local information before you build . . . mostly they'll be intrigued and helpful.

You start by making out a tool and materials list. You finish by adding water and pointing the collector south at 45°.

## INSTRUCTIONS

**BUILD BOX:** Cut one 2x4 in half, build 4x8 rectangle by glue-nailing 2x4s together with #12 box, gluenailing 4x8 sheet to 2x4s with #4 common, caulking seams before nailing to prevent heat leaks. Paint all over.

## MATERIALS

One 1/2"x4'x8' exterior plywood sheet, three 8'x2"x4" utility or better, 1/2 lb. #12 box nails, 1/2 lb. #4 common nails, 1 qt. white wood glue, 1 tube latex caulking, 1 gal. white latex paint.

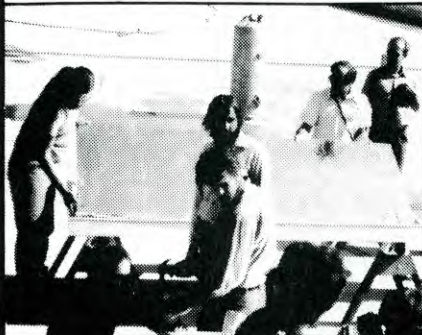
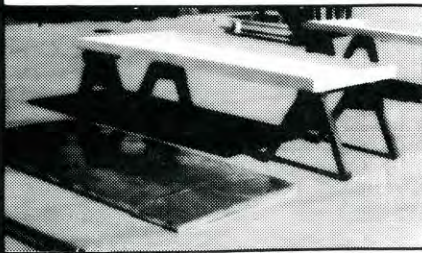
## TOOLS

1 sharp hand saw, carpenter's square, 2 hammers, 2 saw-horses, 1 caulking gun with tube of caulk, tape measure.

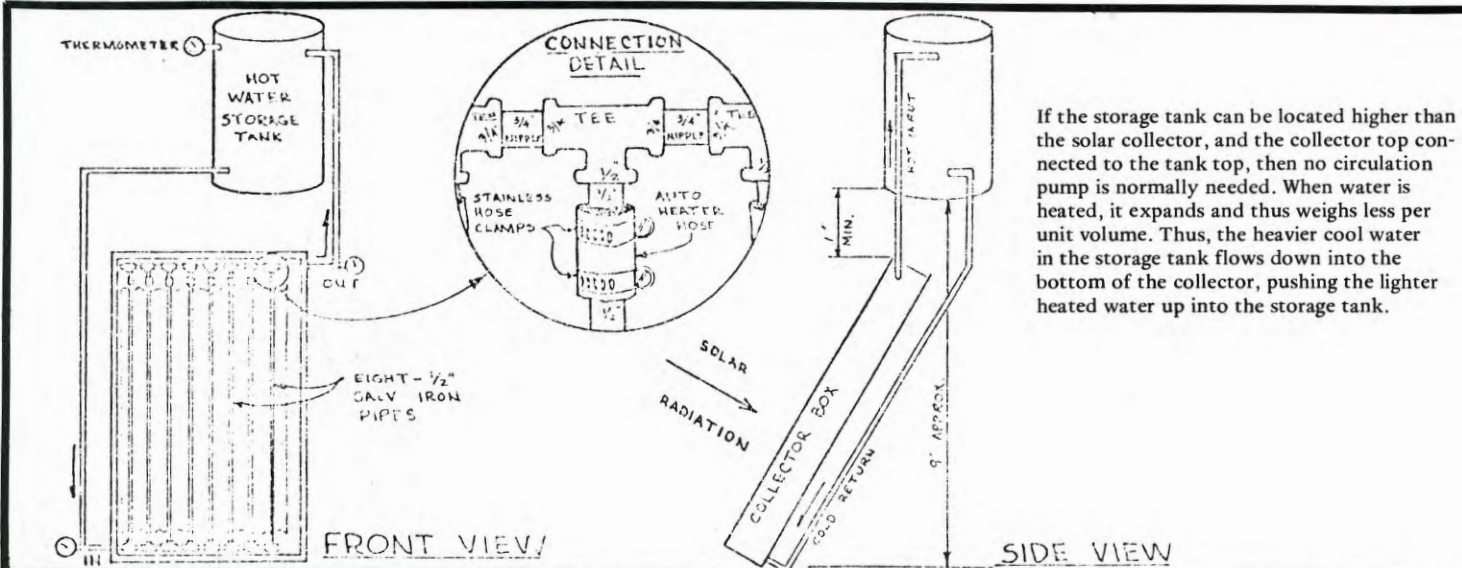
**INSTALL INSULATION:** Measure box interior and insulation to fit bottom, glue foil to insulation, lay insulation in box shiny foil side up.

One sheet 2"x4'x8' rigid fiberglass, styrofoam or other rigid substitute. Household aluminum foil, wood glue.

Cardboard box knife or upholstery knife, tape measure.



Continued next page



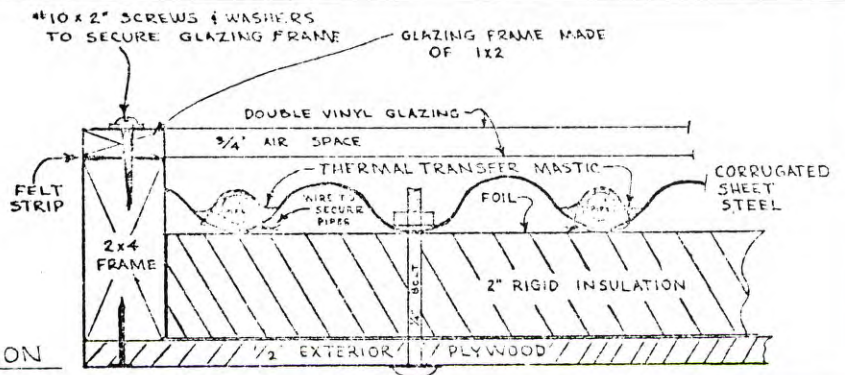
If the storage tank can be located higher than the solar collector, and the collector top connected to the tank top, then no circulation pump is normally needed. When water is heated, it expands and thus weighs less per unit volume. Thus, the heavier cool water in the storage tank flows down into the bottom of the collector, pushing the lighter heated water up into the storage tank.

	<p><b>BUILD MANIFOLDS:</b> Measure center-to-center distance between every other valley on corrugated sheet. Build manifolds (headers) into which runner pipes (header pipes) fit at each end of collector.</p>	<p>16-3/4"x3/4"x1/2" tees, 14-3/4"x4" nipples, 1/2 pint can pipe joint compound, 8-1/2"x5" nipples cut in half.</p>	<p>2-12" pipe wrenches, 1 pipe vise on portable stand (rent), tape measure.</p>
	<p><b>CUT PIPE RUNS:</b> Cut and thread runner pipes (header pipes). Use pipe vise to hold pipe.</p>	<p>8 pieces 1/2"x7'3" galvanized iron pipe (60' total), 1 pint pipe threading compound.</p>	<p>1 pipe cutter, on 1/2" pipe threading die with handle (rent).</p>
	<p><b>CONNECT PIPE ASSEMBLY:</b> Assemble runner pipes into manifolds. Wipe oil on inside of heater hose and on pipe ends to ease hose over pipe.</p>	<p>3' of 3/4" I.D. automotive heater hose, cut in 3" lengths, 16-1" stainless steel hose clamps, pipe threading oil.</p>	<p>2 screwdrivers (for hose clamps). Use pipe wrenches again.</p>
	<p><b>RIVET COLLECTOR SHEETS:</b> Size corrugated sheets to fit inside box, resting on insulation. Drill holes and rivet sheets together along the long edge. This is the absorber plate.</p>	<p>2 pieces corrugated galvanized steel roofing 26"x84", 1 box 3/16"x1/4" pop rivets.</p>	<p>Tape measure, 1 hand pop rivet gun, 1-3/16" metal drill bit, 1 hand drill with shoulder brace</p>
	<p><b>WIRE PIPE ASSEMBLY TO ABSORBER PLATE:</b> Lay runner pipe and manifold assembly onto absorber plate which is still outside box. Hammer holes in absorber plate about every foot near pipes. Run wire through holes and twist tight, cutting off excess and bending wire away from foil to prevent puncture.</p>	<p>10 feet galvanized bailing wire</p>	<p>1 nail, pointed punch or awl (use hammer again). Vise-grips, diagonal sidecutting pliers, plain pliers.</p>

Drawings by Rollin Francisco, Ecotope Group

Additional copies of this 4-page section on solar hot water construction and solar resource people will be available from RAIN and from Ecotope Group (Box 618, Snohomish, WA 98290), after January 15, 1976. Send \$1 and a stamped, self-addressed business-size envelope.

CROSS SECTION



<p><b>APPLY MASTIC:</b> Apply thermal transfer mastic and paint.</p>	<p>1-1/2 gallons "Thermon," from Set-Point Control, Seattle and Portland. Must be done in a dry place. 1 pint flat black barbecue paint.</p>	<p>1 large and 1 small putty knife, 2" paint brush.</p>	
<p><b>BOLT ASSEMBLY IN BOX:</b> Bolt assembled absorber plate-pipe/manifold configuration into box with fender washers top and bottom.</p>	<p>4-1/4"x3-1/2" bolts with nuts and 8 fender washers.</p>	<p>1/4" metal drill bits (use hand drill again).</p>	
<p><b>DRILL PIPE HOLES:</b> Drill holes for cold water inlet and hot water outlet nipples, insert nipples, insert manifold end plugs. Caulk to seal around inlet and outlet nipples between wood and pipe.</p>	<p>2-3/4"x6" nipples, 2-3/4" pipe plugs.</p>	<p>1 brace, 1-1/8" wood bit, wrenches, dope, caulk.</p>	
<p><b>FRAME GLAZING:</b> Build frame for glazing material, staple vinyl to frame, running greenhouse tape between stapler and vinyl sheet. Apply weather-stripping. Lay glazed frame onto 2x4 box, drill holes and screw frame to box.</p>	<p>1-25' roll 4' wide Sears vinyl, 1 box 3/8" staples, 30' adhesive felt weatherstripping, 30' greenhouse tape, 30' 1"x2" wood molding, 24-#10x3" wood screws and washers (galvanized).</p>	<p>1 building stapler, 1 screwdriver, 1 hand drill with 3/16" bit and 1/32" bit (reuse wood glue).</p>	
<p><b>ATTACH THERMOMETERS:</b> Attach thermometers.</p>	<p>2 dial face thermometers with 2" stems and 1/2" NPT (National Pipe Thread).</p>	<p>Crescent wrench, dope.</p>	
<p><b>CONNECT STORAGE:</b> Connect collector to hot water heater storage storage for natural (gravity circulation) thermosiphon effect. Use gates valves at inlet and outlet. Wrap insulation around pipes and fasten with duct tape at ends and as needed in between.</p>	<p>1 roll 2" wide duct tape, 20' 3/4" pipe insulation, one 30-gal., used, non-leaking hot water heater (buy salvaged from local plumber, working element not needed, gas models also OK). Two 3/4" pipe unions, 20' 3/4" galvanized iron pipe, 4-3/4" 45° elbows, 4-3/4" Tees (3/4"x3/4"x3/4"), 8-3/4" 90° elbows, 2-3/4" compact bronze gate valves, 1 dial thermometer with 7" stem (minimum length, longer is OK).</p>	<p>Wrenches, dope, threading vise.</p>	

# Solar Resource People

## IDAHO

**Albion**  
Loren Goodman  
Box 6, 83311

**Boise**  
John Chamberlain, Wendell Peabody  
(deputy director)  
Idaho State Economic Opportunity Office  
State House, 83720  
206-384-2322

Edward L. Gomez  
Idaho Migrant Council  
415-8th St. S., 83706

John Powell  
Solar, Inc.  
611 Brumback, 83702

**Buhl**  
George F. Anthony  
P.O. Box 632, 83316

Homer Baker  
201 N. 11th, 83316

**Burley**  
Robert Kulkank  
1918 Conant, 83318

Del Parish  
2675 Brentwood, 83318

**Coeur d'Alene**  
Laurie Mauser, Greg Wroble  
No. Idaho Special Services Agency  
105 Indiana, P.O. Box 1300, 83814  
208-664-3114

**Fairfield**  
Michael & Maggi Sullivan  
Rt. 1, 83327

**Idaho Falls**  
Lou Jonas  
Eastern Idaho Special Services Agency  
P.O. Box 1068, 83401

**Jerome**  
Tim & Cher Williams  
South Central Community Action Agency  
Rt. 3, Box 49, 83338

**Ketchum**  
John Neuss  
Gen. Delivery, 83340

**Lewiston**  
R.J. Reilly, Fred Stedman  
Community Action Agency, Inc.  
1032 Bryden Ave., 83501

**Payette**  
Julie Guthrie, Roy Main  
Western Idaho Community Action  
Program  
Box 608, 83661

**Pocatello**  
Richard Jones  
South Central Idaho CAA  
1356 N. Main, 83201

**Sun Valley**  
Richard B. Meyer  
Environment West—Clarendon  
Box 449, 83353

**Twin Falls**  
Del Butterfield  
Rt. 3, 83301

Joe Casillas  
136 6th Ave., E., 83301

Bryan Franklin  
237 Jackson, 83301

Dick Leslie  
South Central Community Action Agency  
P.O. Box 536, 83301  
208-733-9351, -59

Edward McLain  
Magic Valley Plumbing & Heating Co.  
544 Main St., 83301

Art Rathbun  
Univ. of Idaho, Coop Extension  
634 Addison Ave., 83301

Judith Smith  
204-7th Ave., N., 83301

Kay Viste  
Box 531, 83301

Charles Williams  
292 Caswell Ave., 83301



## WASHINGTON

**Everett**  
Jerry Purcell  
Community Action Council of Snohomish  
County, Inc.  
P.O. Box 1185, 98206  
206-252-5141

**Longview**  
Michael West  
Lower Columbia Community Action  
Council, Inc.  
1208 Broadway, 98632  
206-425-3430

**Moses Lake**  
Gregory J. Higgins  
Grant County Community Action  
Council, Inc.  
60BA East Third Ave., 98837  
509-765-9206 or 754-4052  
P.O. Box 777  
Soap Lake, WA 98851 (office address)

**Okanogan**  
Bill Ringrose  
Okanogan County Community Action  
Council, Inc.  
Box 1067, 98840  
McManus Building, 98840

**Olympia**  
Clint Lougheed  
Mason/Thurston Community Action  
Council  
202 Capital Theater Building, 98501  
206-943-7617

Keith Sherman, Carol Costello,  
Larry Diamond, Bill Kingrey  
Washington Energy Office  
4220 E. Martin Way, 98504  
206-753-5420

Priscilla Cates  
Washington State Economic Opportunity  
Office  
214 General Administration Bldg., 98504

**Pasco**  
Benton/Franklin Community Council  
P.O. Box 2280, 98301  
509-547-0777

**Port Townsend**  
Lloyd Johnson  
Clallam/Jefferson County Community  
Action Council, Inc.  
P.O. Box 553, 98368  
206-385-0776

**Walla Walla**  
Aluster "Les" Jackson  
Blue Mountain in Action Council, Inc.  
19 East Poplar, 99362  
509-529-4980

**Wenatchee**  
Larry Knight  
Chelan/Douglas Community Action  
Council, Inc.  
620 Lewis Street, 98801  
509-662-6156

Additional copies of this 4-page section on solar hot water construction and solar resource people will be available from RAIN and from Ecotope Group (Box 618, Snohomish, WA 98290) after January 15, 1976. Send \$1 and a stamped, self-addressed, business-size envelope.

## INFORMATION

**People's Yellow Pages, Seattle**  
Metrocenter  
909 4th Ave.  
Seattle, WA 98104

People's yellow pages have been increasingly whole-city catalogs, doing what Chambers of Commerce and Welcome Wagons should be doing. This one is really good. Easy to access, sensible subject breakdown, indexes. As well as hundreds of entries, accompanying articles on gardening, housing, occult in Seattle, and others help to make this probably the best way to find your way through time and space in Seattle. Recommended for other cities as model. \$2.25 plus 25¢ handling.



THE REGIONAL  
MONTHLY COMMUN-  
ICATIONS NETWORK  
FOR PEOPLE IN AND  
INTERESTED IN THE  
OZARKS. \$5/YEAR.  
L.I.O.N.  
PETTIGREW, ARK.  
72752

**Community Development Clearinghouse**  
Vermont Tomorrow  
5 State St.  
Montpelier, VT 05602

With help from CETA they are establishing an information clearinghouse for community development. Information to include alternative energy, energy efficient housing, agricultural self-sufficiency.

**Plain Dirt, New Life Access**  
P.O. Box 86  
Cobham, VA 22929

\$10/yr. (includes free ad when placed with subscription). Another hybrid—somewhere between *Mother Earth News* contacts section and *RAIN*. Classified ad/entry format. Groups telling each other what they are doing and/or people looking for other people.

**Alternative Celebrations Catalogue**  
Alternatives  
701 N. Eugene St.  
Greensboro, NC 27401

"That's too bad," someone said when the catalog arrived too late for pre-Christmas *RAIN*, but in looking it over I don't feel out of place reviewing it. The theme is celebrations—from April Fool's to birthdays. The whole idea of which ones and how to make days special. Hand-made gifts and gifts that support good causes. Access in usual whole earth style, as well as idea sections per holidays.

### Artists/Humanists Directories

It would seem something's afoot. Rumors and established facts of no less than 3 local directories and inventories underway. The Arts and Crafts Society of Portland (616 N.W. 18th Ave., Portland 97209) is compiling an Oregon directory of artists/craftspeople. The NW Performing Artists Guild has an ongoing inventory of local performing artists (614 S.W. 11th, Portland 97205). The Oregon Joint Humanities Committee (1633 S.W. Park Ave., Portland 97201) is compiling a list of "humanists"—which may or may not include artists and crafts people. Two people have told me about a National Endowment for the Arts inventory underway too—no more detail, though.

## LAND USE

**1000 Friends of Oregon**  
3709 S.E. Belmont  
Portland, OR 97214

This coalition of land use groups and individuals, initiated originally by ex-Governor Tom McCall, is a non-profit service organization working to implement Oregon's land use laws, especially Senate Bill 100, as administered by the Land Conservation and Development Commission. Financed by \$100 pledges over the course of a given year. Also newsletter available, \$5/yr.

**LCDC Goals Protect Agricultural Economy:** The Land Conservation and Development Commission's Agricultural Lands Goal and Urbanization Goal are why the Senate Bill 100 program is the most important land use experiment in America. Properly implemented, these two goals can keep Willamette Valley farmlands in production over the long term and can reduce the tax cost of providing public services to new development.

**How the Goals Work:** LCDC's Urbanization Goal requires cities to identify their built-up areas. These are called "Urban Lands." Working with counties, cities are also to designate land resources surrounding Urban Lands sufficient to accommodate identified growth and population needs for 15-20 years. These lands are called "Urbanizable Lands." The perimeter

of the Urbanizable Lands is the Urban Growth Boundary. Lands outside the Urban Growth Boundary are "Rural Lands."

As defined by ORS Chapter 215, EFU zoning specifies (1) *farm* uses permitted outright under ORS 215.203(2), (2) *non-farm* uses permitted outright under ORS 215.213(1), e.g. schools, churches, growing and harvesting of timber, utility facilities, and dwellings in conjunction with farm uses; and (3) *non-farm* uses permitted conditionally under ORS 215.213(2), e.g., commercial activities in conjunction with farm use; mining and aggregate activities; parks, golf courses, preserves and campgrounds; and utility generating facilities. ORS 215.213(3) permits single family dwellings not in conjunction with farm use if an applicant can show that the dwelling would not interfere with adjacent farms and is located on land generally unsuitable for the production of farm crops or livestock. The basic policy is to keep large blocks of agricultural land in production.

Willamette Valley counties will soon begin a two-step planning process. First, they will inventory and map agricultural lands. This will identify the broad natural resource conservation areas of comprehensive plans and roughly shape urban forms. Polk, Yamhill and Washington counties are well along in this first phase. Others, like Clackamas, are behind. Second, the counties will work with cities to identify Urbanizable lands, establish Urban Growth Boundaries and coordinate housing and transportation policies.

The Agricultural Lands Goal is effective because of two key features: (1) an objective definition of Agricultural Land; (2) a precise standard of uses permitted on Agricultural Land. Agricultural Land is land of predominantly Class I-IV soils, as defined by the U.S. Soil Conservation Service. Soil classes are criteria of productivity. "Rural" Agricultural Land (i.e., Class I-IV soils outside Urban Growth Boundaries) is to be zoned exclusive farm use (EFU).

(From: *1000 Friends of Oregon Newsletter*)

## MEDIA

### ACCESS

**National Citizens Committee for Broadcasting**  
1346 Connecticut Ave. N.W.  
Suite 415  
Washington, DC 20036

This is a good way to keep track of issues in public broadcasting. Watch-dogging the FCC and network television. Offshoot of the work done by Nicholas Johnson (*Talking Back to Your Television*), who is the chairperson of the committee. *Access* is staffed by students who get paid \$50/week to do research, edit the magazine, etc., in 3-4 month periods. Write for details. Basic price is \$24/24 issues, \$12 student rate.

Continued on page 17



# The Map Is Not The

*The very meaning of "survival" becomes different when we stop talking about the survival of something bounded by the skin and start to think of the survival of the system of ideas in circuit. The contents of the skin are randomized at death and the pathways within the skin are randomized. But the ideas, under further transformation, may go on out in the world in books or works of art. Socrates as a bio-energetic individual is dead. But much of him still lives a component in the contemporary ecology of ideas.*

Gregory Bateson

**担** Earth (sign not very well drawn — left lower stroke should be at bottom) + the foregoing = level plain, wide horizon.

Every so often when the sun shines around here I'm aware, each time with some amazement, how thick the air is with curlicues and specks—pieces of our fairly orderly world falling apart, drifting about.

And so, too, every so often—sometimes for periods of months—my attention is drawn to the language between me and myself, me and others in the world.

Does the the world change first and pull language after it, or does a new awareness of language suddenly make us see the world differently.

Historically, in the West, language became an overt object of attention to philosophers around the turn of the century. There was a turning away from the Romantic philosophical tradition (represented by Henri Bergson, Friedrich Nietzsche and others). The new analytic philosophy, with centers of gravity in England and Vienna, struck out for a more "down to earth," approachable goal. Philosophers like Bertrand Russell, A. N. Whitehead, A. J. Ayer, G. E. Moore, herded philosophy toward analysis of philosophical language.

By far one of the most complicated and interesting paths was taken by Ludwig Wittgenstein. His books, mostly transcripts of lecture notes, are often painfully—and sometimes unintentionally humorously—complicated.

"Now there is no objection to calling a particular sensation 'the expectation that B will come.' There may even be good practical reasons for using such an expression. Only mark: if we have explained the meaning of the phrase 'expecting that B will come' in this way, no phrase which is derived from this by substituting a different name for B is thereby explained . . ."

At first glance, one of Wittgenstein's underlying themes, "The limits of my language are the limits of my world," sounds like a blatant mental steady state. But, on the other hand (that's one of those expressions?), it is a place to begin; until we know something about it and at least spot the bloom-in' borderline between ourselves, the metaphysics implicit in our language and use and the real(?) world, we are perhaps stalking termites with pick-up trucks.

Greatly influenced by the analytic philosophy tradition and occurring almost simultaneously, the science of general semantics begins to grow.

In 1933 Alfred Korzybski published *Science and Sanity*, which was eventually to bring to life a perspective on social/psychological life referred to as general semantics. Like the analytic philosophers, Korzybski was influenced by the swelling awareness of applications of the scientific method—it appeared to be the only way to get *real* results. He attempted to outline a study of man through seeking descriptions and formulas that would point to the relation between language in brain and language in mind.

Korzybski saw the possibilities that are only becoming

technically feasible of scientific analysis of language on the surface, as it falls from tongues in relation to the accompanying neurological occurrences.

Very often since, the twenties' semantics has come to mean something more like the study of the ambiguity of language—often as applied in the political sphere—a worthwhile study in its own right, but not nearly as holistic as Korzybski was describing:

"A process accompanying our words which one might call 'the process of meaning them' is the modulation of the voice in which we speak the words; or one of the processes similar to this, like the play of facial expressions."

One of the major influences in the study of language has been the in-depth studies of families of languages. We have always learned a great deal by comparing one language to another; but it's only been recently that elaborate comparisons have been made between languages with little or no direct contact with one another. It is then the culture shock sets in, and language appears like a metaphysical structure that is indeed the limits of *our* world.

*Every language and every well-knit technical sublanguage incorporates certain points of view and certain patterned resistances to widely divergent points of view. This is especially so if the language is not surveyed as a planetary phenomenon, but is as usual taken for granted, and the local parochial species of it is used by the individual thinker and is taken to be its fun sum.*

Benjamin Whorf

**旦** Sun above line of horizon = dawn.

*It was found that the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather itself the shape of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis, of his mental stock in trade.*

Benjamin Whorf

What this brings to general semantics and analytic philosophy is a wider perspective, for the laws of correct, clear, meaningful maps of the territories are dependent not on simplifying all languages to one that "makes sense" but to create an ever-increasing synthesis of cultural points of view.

**王** One who binds three planes: heaven, earth and man = ruler, to rule.

*The Hopi Indian language is better adapted than our own to the exact sciences. It contains words representing not verbs or nouns, but events, and is thus more applicable to the space-time continuum in which we now know that we are living. Furthermore, the "event-word" has three moods: certitude, probability, imagination. Instead of saying: a man crossed the river in a boat, the Hopi would employ the group: man-river-boat in three different combinations, according to whether the event was observed by the narrator, reported by a third party, or dreamt.*

From *Morning of the Magician*

# Territory

*Chinese Written Character as a Medium for Poetry*, ed. by Ezra Pound, \$1.25:  
City Lights Books  
1562 Grant Ave.  
San Francisco, CA 94133

"A true noun, an isolated thing, does not exist in nature. Things are only the terminal points, or rather the meeting points, of actions, cross-sections cut through actions, snapshots. Neither can a pure verb, abstract motion, be possible in nature. The eye sees noun and verb as one: things in motion, motion in things."

"All processes in nature are interrelated; and thus there could be no complete sentence (according to this definition) save one which it would take all time to pronounce."

An introductory trip through the difference between a phonetic (English) and a symbol/image language like Chinese.

伙

Man + fire = messmate.

*The Morning of the Magician*, by Louis Pauwels, Jacques Bergier, Avon Books, \$1.25

"We are not thinking of an organized society, but of the establishment of the necessary contacts between exceptional minds, and a common language, not secret, but merely inaccessible to ordinary men at a given epoch in time. . . . The fate of the world could be discussed openly by ten scientists in the presence of Khrushchev and the president of the United States without these gentlemen being able to understand a single word. . . ."

*The Art of Awareness*

J. Samuel Bois  
Wm. C. Brown Co.  
Dubuque, IA

One of the best interpreters of Korzybski.

*Science and Sanity*, by Alfred Korzybski  
International Non-Aristotelian  
Library Publishing Co.  
Lakeville, CT 06039

The Institute was formed in 1938 by Korzybski. They publish a good journal, the *General Semantics Bulletin*. The last issue had two good articles, one by Gregory Bateson, the other a summary of the work of Wittgenstein.

*ETC*, a review of general semantics  
P.O. Box 2469  
San Francisco, CA 94126

\$6/yr. The other primary semantics review.

*Understanding Media*, by Marshall McLuhan, McGraw-Hill  
Still mind-opening. "Henri Bergson lived and wrote in a tradition of thought in which it was and is considered that language is a human technology that has impaired and diminished the values of the collective unconscious. It is the extension of man in speech that enables the intellect to detach itself from the vastly wider reality. Without language, Bergson suggests, human intelligence would have remained totally involved in the objects of its attention."

"The breaking up of every kind of experience into uniform units in order to produce faster action and change of form (applied knowledge) has been the secret of Western power over man and nature alike. . . ."

*The Blue and Brown Books*, by Ludwig Wittgenstein, Harper Torchbooks, \$1.45  
"Philosophy, as we use the word, is a fight against the fascination which forms of expression exert upon us."

*Language, Thought and Reality*,  
Selected Writings of Benjamin Lee Whorf

M.I.T. Press  
28 Carleton St.  
Cambridge, MA 02142

The basic introduction to comparative language studies; especially fascinating studies of Native American languages.

洄

Water + revolve within a circle = eddy.

"The Aesthetics of Silence," in *Styles of Radical Will*, by Susan Sontag, Delta Books

A good essay on meaning of prolonged, pregnant and necessary silences—lots of overlaps with works of John Cage.

"Everyone has experience how, when punctuated by long silences, words weigh more; they become almost palpable. Or how, when one talks less, one begins feeling more fully one's physical presence in a given space. Silence undermines 'bad speech,' by which I mean dissociated speech—speech dissociated from the body (and therefore from feeling), speech not organically informed by the sensuous presence and concrete particularity of the speaker and by the individual occasion for using language. Unmoored from the body, speech deteriorates. Silence can inhibit or counteract this tendency, providing a kind of ballast, monitoring and even correcting language when it becomes inauthentic."

## MEDIA

continued from page 15

*Northwest Alternative Communications Directory*

454 Willamette St.  
Eugene, OR 97401

\$1.00, checks, to Communitytype. Putting out directories as results of conferences getting better all the while. This one lists the 150 people who attended the June 27-29 conference held at Evergreen State College, and then fills in the holes with people, media groups, etc., who did not attend the conference. If you want to reach other people through the multiplicity of small presses, information centers, information freaks, listener-supported radio, video, ham radio, here's a good place to begin.



## PUBLIC INTEREST

*Environment Improvement Case History Report Service*

Freed Publishing Co.  
P.O. Box 1144, FDR Station  
New York, NY 10022

A good source of information on programs/projects throughout the U.S. in areas of resource recovery, energy, urban rehabilitation and more. Usually has contained items I don't see elsewhere (among the 200 magazines we get every month). A for-more-information format. They also publish *Land Pollution Reporter* and two land pollution organization and agency directories (\$10 each). Subscription to *Case History* is \$35/yr., *Land Pollution Reporter* \$25/yr.

*Science for the People*

SESPA  
16 Union Square  
Somerville, MA 02143

With chapters throughout the country, this consortium seeks to lay out ethical considerations in scientific research, as well as general implications of directions of various disciplines. The magazine is mostly essay style discussions of issues. \$15 institutions; memberships \$12, and some one-by-one sliding scale rates.

Continued on page 18

**PUBLIC INTEREST**

continued from page 17

**National Association of Accounts for the Public Interest**

233 Sansome Street, Room 400  
San Francisco, CA 94104  
415-956-4400

The accountants, like the architects and lawyers, have started to do free work for folks who are boggled by debits and credits, 501(C)(3)'s and Form 990's. The national organization publishes a newsletter (\$5/yr, \$15 membership), which can fill you in on what's happening. The centers each take different forms. The one in Detroit works for small businesses (mostly minority), while others, like the one in San Francisco, take on public interest research. The Oregon Accountants for the Public Interest, using volunteer accountants, works for non-profit corporations, helping them do tax forms and annual reports and set up books. They are just beginning to get into public interest research and are also sponsoring a morning workshop for campaign treasurers on the whys and wherefores of campaign financing—February 14 at the Lloyd Center in Portland. Call them if you need help!

**Oregon Accountants for the Public Interest**

730 S.W. Third Ave., #112  
Portland, OR 97204  
503-225-1224  
Elaine Cogan, Executive Director

**Accountants for the Public Interest**

321 Woodland Ave.  
Winnetak, IL 60093  
312-446-3252  
Len Fagenholz, Acting Executive Director

**Public Interest Accountants**

11340 West Olympia Blvd.  
Los Angeles, CA 90064  
213-477-1995  
Sylvia Aroth, Executive Secretary

**Accountants for the Public Interest, Inc.**

Box 2620 Grand Central Station  
New York, NY 10017

**Accountants for the Public Interest, Inc.**

c/o Rutgers Graduate School of Business Administration  
92 New Street  
Newark, NJ 07102  
Bernhard Hect, Executive Director

**API, Inc. of Rhode Island**

41 Lorraine Ave.  
Providence, RI 02906  
Michael Aaronson, President

**Accountants for the Public Interest**

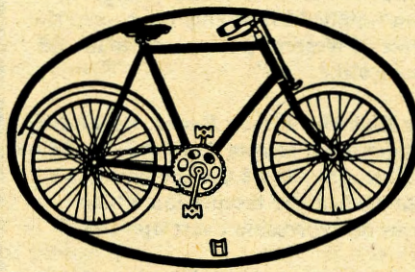
351 California Street, 16th Floor  
San Francisco, CA 94104  
415-956-3222  
Wallace Little, Acting Executive Director

**Accountants for the Public Interest of Washington, DC**

1714 Massachusetts Ave., N.W.  
Washington, DC 20036  
202-872-0318  
William Wood, President

**Accounting Aid Society of Metropolitan Detroit**

10 Peterboro, Rm. 617  
Detroit, MI 48201



**Project America 1976**

c/o Ecology Center  
13 Columbus  
San Francisco, CA 94111  
Contact: Norie Huddle

Project America 1976 is a walking and bicycling trip across the United States designed to promote alternate sources of energy, rational use of resources, and simple living. It begins in Santa Barbara, California, in early February, and ends in Philadelphia around October. The core group will consist of perhaps a dozen people of various national and cultural backgrounds, and others are welcome to join for shorter periods of time. They need publications, plans, and working models of alternate technology to carry on a resource bus named "Hope." Donations or information regarding grants is most welcome—and inquiries from possible participants or contacts with specific areas of expertise are invited. For further information, contact above address.

**U.S. Senate Bill 1**

We have gotten 3 different warnings from our readers. Reading summaries of the bill, which is a major revision of our criminal codes, gives one the odd sense of eating dinner while someone is telling you for the tenth time in three days that the train is scheduled to come through any minute now. The bill sounds nightmarish: prohibiting prose-

cution of wrongdoing by public servants, legalized wiretapping, death penalty, stiffer laws against demonstrations. You should find out more. Write to the ACLU (22 E. 40th St., New York, NY 10016) for a free brochure. Or write to your representative or senator or: Committee Against Repressive Legislation, 1250 Wilshire Blvd., Suite 501, Los Angeles, CA 90017.

**Environmentalists for Full Employment**

1785 Massachusetts Ave.  
Washington, DC 20036

More and more we hear about Environmentalists being one way or another, responsible for inflation, energy shortages, unemployment. This group has been formed to seek creative solutions to the stated or real conflict.

1. Modern technologies that are excessively capital intensive and energy wasteful simultaneously destroy the environment, deplete resources, and cause structural unemployment. These problems must be attacked concurrently, and such technologies must be rejected.

2. U.S. economic history is a parade of innovations using more and more capital, energy, and resources. In a world of increasing population and diminishing resources, it is more efficient to fully employ human resources while conserving capital and natural resources. But most economic analysts have not yet grasped this new reality.

3. U.S. policy makers have consistently failed to internalize all the costs of our economic system—including pollution, unemployment, and other social costs—in their accounting procedures. We must follow the principles of ecology that state that nothing is "free," nothing is "throwaway," and that everything must be accounted for on a closed-loop basis.

4. National leaders have naively assumed that material satisfaction for everyone can be obtained through a policy of undifferentiated growth. Since this policy has clearly failed both the environmentalist and the worker, we must strive for a fairer redistribution of the nation's resources rather than a continued expansion of resource intensive production, the fruits of which are inequitably shared.

**Sugar Tax**

West Virginia taxes soda pop and soft drink syrups and powders. Other states have similar taxes, but West Virginia is the only one to earmark soda pop revenue for the state school of medicine, nursing and dentistry. It's one way to make sugar prime suspect in such national health disasters as tooth decay and diabetes. The tax was voted in 1951; it generates between \$4.5 and \$5.5 million annually. (From *Food Day Newsletter*, Washington, DC 20036)

## RECYCLING

*Reduce: Targets, Means & Impacts of Source Reduction*, by Diana Wahl, Publ. No. 576, \$1 from:

League of Women Voters of U.S.  
1730 M St., N.W.  
Washington, DC 20038

Explains the difference between and relative benefits of source reduction (reducing the total amount of waste with measures such as the Oregon Bottle Bill or with methods such as the ORE PLAN for home separation and pickup of garbage) and resource recovery (trying to re-separate mixed garbage using energy-gulping air classifiers, magnetic separators and water separation systems). Unfortunately, this was written before the ORE PLAN was nationally known (see *Compost Science*, March-April '75). Hopefully, it will be included in revised editions.

**Recycling in Washington State. Contact:**  
Recycling Information Office  
Dept. of Ecology  
Northwest Regional Office  
4350 150th Ave., N.E.  
Redmond, WA 98052  
1-800-562-8090 (toll-free)  
Jim McMahon

The Department of Ecology Recycling Information Office opened for business on November 17. The purpose of the office is to assist the public in learning the why, what, where and how of recycling. A major component of that will be the recycling hotline—a statewide

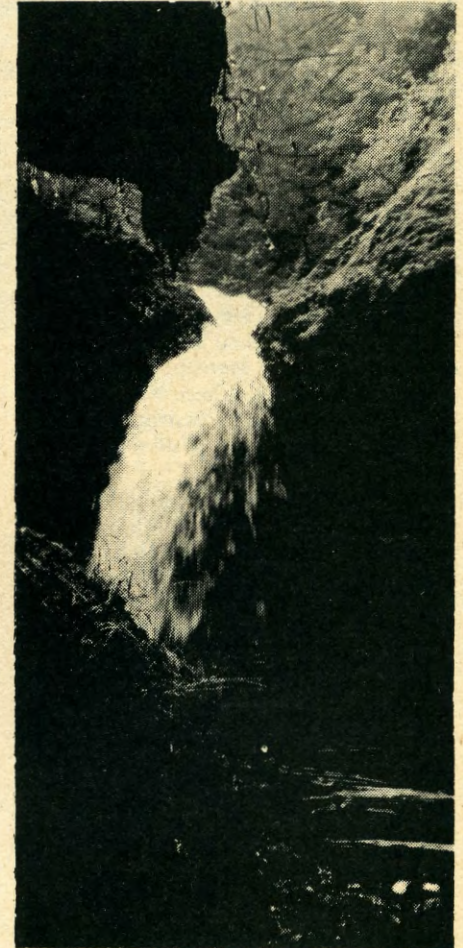
toll-free number which people can call to get information on where to take their recyclables. Other projects include a free booklet entitled: *Guide to Household Recycling*, which explains how to recycle and goes into what happens to materials after they're dropped off at a recycling center. Also research into the legal barriers to increased use of secondary materials; development of educational materials for use by educators; monitoring of secondary materials markets; and assistance to businesses involved in recycling. For more information, or if you have any comments or suggestions, call 1-800-562-8090.

## MISCELLANEOUS

*Groundwater Newsletter*, twice monthly, \$60 per year, and *Water Newsletter*, \$36 per year, twice monthly, from  
Water Information Center  
14 Vanderverter Ave.  
Port Washington, L.I., NY 11050  
516-883-6780

Water Information Center, Inc. (WIC) is a private publishing firm specializing in water matters. They issue the oldest commercial newsletter on the subject (*Water Newsletter*), the only professional newsletter covering ground water (*Ground Water Newsletter*) and a list of rather unique professional, reference and text books on the subject. They also distribute a selected group of McGraw-Hill publications. WIC is a spin-off from Geraghty & Miller, Inc., the world's largest group of consulting

ground water geologists. They do answer questions (free) from the public (especially on ground water) and have done so regularly for 17 years. However, try your local library, well-driller, county extension agent or consulting hydrologist first; if they don't know the answer, send a stamped, self-addressed envelope with your question to WIC. Extended consultations done on a fee-paid basis only. Ask for their publications list.



Ancil Nance



Oregon Historical Society

*The Art of Winning Foundation Grants*, Howard Hillman and Karin Abarbanel, The Vanguard Press, 1975, \$6.95.

It's very hard to write about how to write grants! This book comes as close as any I've ever seen at laying it out clearly and simply. How to scout out foundations appropriate to your project, how to approach them, and good suggestions on putting together a proposal. It's very straight. I learned that it's considered protocol to inform a foundation if you've submitted to any other foundations and if they turn you down to thank them for their time (thus leaving the way open for another try).

# BULLETIN BOARD

## Pennsylvania Contacts

Dear Rain:

Two recycling tips for Pennsylvanians (and others): (1) Pennsylvania Alliance for Returnables, Inc., Box 472 Federal Square Station, Harrisburg, PA 17108. A coalition of environmental and consumer groups united to promote a return to returnable beverage containers. "Each throwaway bottle costs the consumer an average of 3-1/2¢ and the cans 4-1/2¢. . . . Experience in Oregon has shown that, rather than causing big layoffs, the shift to returnables has actually created new jobs." Fact Sheet, April 1974. Memberships \$5, students \$2, groups \$25. (2) Delaware Valley Citizen's Council for Clean Air, 311 S. Juniper Street, Philadelphia, PA 19107. They publish a detailed list (free) of recycling centers in Metropolitan Philadelphia, including southern New Jersey. Both commercial and volunteer facilities with days/hours open and materials accepted.

Now a question re referral service. What are some simple techniques of converting waste paper to mulch? Do I soak the paper in water for a certain length of time? Does the paper have to be shredded? Can I get a rich brown color? (Don't want white lumps sticking up all over.) Is there a problem with chemicals from the ink?

That's it for now. We anxiously await the first RAIN of the fall. I might add that in the process of moving we never received the yellow update sheet you sent out (heard about it). Please send a copy of that.

Best of luck,

Dave Deppen  
2911 W. Harper St.  
Philadelphia, PA 19130  
215-232-1689

## Land Trusts, Wind Power, Book Distribution

Rain:

Enclosed you should have a copy of the first listing of books offered in a cooperative book distribution service I have been involved with, also a copy of the preliminary report on food policy for the state of Massachusetts. The final report is finished, but I have no spare copies. Also there should be a handbill for a film festival on the food crisis which happened last Friday (we lost about \$50 but did show some good films).

Also happening in Boston is Boston

Wind, 307 Centre Street, Jamaica Plain, MA 02130, phone 617-522-8915, which is a factory rooftop with a working windmill, offering courses in wind power and beginning work on a vertical axis design and looking forward to a rooftop garden and perhaps aquaculture site. They are good people who have sweated and strained for nearly a year now at that one place to get it together, and to a large extent they have. Got it together, I mean. Boston University School of Education has opened the Human Environment Institute, 730 Commonwealth Avenue, Boston, MA 02215, phone 617-232-0121, which is offering courses on owner-built and integrated energy system housing as well as wind and solar workshops. They seem to use Total Environmental Action for their major input. Bob Swann out in Ashby, Mass., told me of an article "A Model State Land Trust Act" by John McClaughry in the June 1975 issue of the *Harvard Journal on Legislation*. Have not yet read the whole thing, but in going over it I have found it to be pretty complete. You might want to look into it.

If you could get me any information on urban farming and job co-ops and labor pools I would certainly be appreciative.

Yours,

George P. Mokray  
30 River Street  
Cambridge, MA 02139

## Soil Bacteria

Dear Rain:

It is to your credit that I always learn something new about my own special field of interest, agriculture, and more especially soil biology, when your generalist paper comes around. But speaking of biology, I do have a response to your review of *Biological Control of Plant Pathogens* by Cook and Baker. Your lead statement: "This is the first book devoted wholly to the microbial soil ecology," is not quite right. Although soil micro-ecology is one of the most neglected fields of biology and agricultural science, there are a few very bright works available, a few of my favorites being: *Ecology of Soil-Borne Plant Pathogens* (prelude to biological control), edited by Bahr, K.F., and W.C. Snyder, U. of California Press, 1965. Proceedings of a symposium held in Berkeley, 1963. *The Ecology of Soil Bacteria*, edited by Gray, T.R.G. and D. Parkinson, U. of Toronto Press, 1968,

680 pp., \$21.75. Also proceedings. *Soil Microorganisms and Higher Plants*, Krasiz Nikof, Nicoli Alexandrikov. Translated by Y. Halperin. Published by NTIS (Springfield, VA 22161), No. TT-60-21126.

Plus there are Wakesman and Burgess books, listed in the *Energy Primer*, p. 120.

. . . The plant pathology people have traditionally held attitudes about control that were closer to a sensible approach than have their entomological counterparts. This is mostly because plant pathogens (i.e., fungi, irus, bacteria) are much harder to influence through toxic poisons than are insects—and usually impossible. The equivalent of spraying is soil fumigation, and, although fumigation has and will continue to be practical, it is always a gross, ecological catastrophe; it is also expensive and ineffective. The more simple the organisms are, the more difficult the control. That is why more resistance breeding is directed at disease-resistance than insect-resistance, likewise biological control.

Yours for a healthy soil community,  
Woody Deryckx  
Pragtree Farm  
Arlington, WA

## Learning from the Earth

Dear Friends:

The class I am doing here at Millbrook is "Learning from the Earth," and includes organic gardening, learning the spiritual nature of the earth as our mother, natural living and foods, natural ways and more. I am seeking information that will help me present to my students a well-rounded picture of environmental problems and solutions. . . . We hope to publish a journal of alternatives in the future.

Hilario (Larry Sheeky)  
Millbrook High School  
430 First St.  
Fresno, CA 93702

## Federation of Coops, Maine

Dear Friends:

FEDCO is a non-profit, educational organization, set up, run and controlled by its member coops. We gather and dispense information on coops, food, organics, etc., etc. from our office and have direct contacts with the 100 or

so food coops in Maine as well as most other "people's" groups. Please send us RAIN.

In the cooperative spirit,  
 Jay Robbins, for the staff  
 Federation of Coops, Inc.  
 P.O. Box 107  
 Hallowell, ME 04347  
 207-623-1722

**Medium Rare**

Dear Rain:

I appreciate very much your including us in "Notes from Eugene." Unfortunately, the blurb is basically outdated. Since our inception as "Medium Rare" our major thrust has not been solely video production.

Medium Rare is a media confederacy-agency-clearinghouse of people working in cinema, still photography, audio, video and other graphic arts. Totally independent, M/R relies on the very meagre resources of its members and the funds from contract work. Some productions are self-initiated efforts to chronicle Eugene/Oregon/U.S./world history, while other works are assignments that have been solicited.

To survive, M/R continues to seek commercial assignments with fees that are infamously low.

Medium Rare is Allison Rodman, John Nelson, Philip Perkins, Tripp Mikich, Guy Orcott, Robert Johnson, Susan Detroy and Tom Cooke.

Besides creating works we support and sponsor other local artists: Film-makers Cinemathèque is a monthly showing of film, video, slides and audio works, open to all without censorship and free of admission charge. (50¢ is asked of each artist showing work to cover printing/publicity costs.) This occurs on the fourth Wednesday of each month at the Eugene Public Library.

Toadskin Film and Video Festivals—yearly shows of the best of the Film-makers Cinemathèques, plus works from all over the Northwest and special events. The date and place of our third Toadskin will be announced soon.

Very truly yours,

Tom Cook,  
 Medium Rare  
 1175 Charnelton  
 Eugene, OR 97402  
 503-344-4625

**Alternative Energy—Kent State**

Dear Friends:

I am a student at Kent State University working with the Committee on



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Political Education (COPE) and various public interest and alternative lifestyle groups. We have combined efforts in an attempt to provide the students at KSU directions in alternative energy sources, problems in energy and conservation of energy. We need much input from outside sources, since very little information is available at this university. We would like to know what you are doing. Hopefully, we will be able to utilize these materials as part of our festival of alternative lifestyles come this spring. This festival will also cover areas of alternatives in education, politics, liberation groups, health, youth, housing, media, and so on. Thank you very much,

Paul Gross  
 Alternative Lifestyle  
 Collective  
 Kent State University  
 Kent, OH 44242

**Kansas City Regional Development Association**

Dear Rain:

We are directing our efforts towards the evolution of a social system based on semi-self-sufficient neighborhoods that can support us as individuals and nuclear families. We are creating a working model of our program in Independence, Mo., a city of 120,000 people.

We have funding from The Cooperative Foundation to create audio/visual documentaries on the kind of things that neighborhoods could do for themselves. This fits right into the information you have.

We will produce or use existing "how-to-do-it" manuals to go along with our

filmed documentaries and also create a set of "evocative dialogue questions" that will stimulate discussion and decision-making at the meeting where neighbors see the documentary.

We also have a tie-in with the community colleges school without walls and the Public Broadcasting System through "Shaf" Nader, Ralph Nader's brother. We are confident that we will be able to use our audio/visual documentary and the accompanying written material as a story board to develop video taped material that can be shown on P.B.S. and cable TV as well as being used within the school system.

The Neighborhood Councils of Independence, Mo. have been funded by The Cooperative Foundation of St. Paul, Minn., to create a series of audio/visual documentaries on self-sustaining economic activities that can or are being done by people at the neighborhood level. They are interested in any kind of a cooperative success story or any middle level technology or energy-saving technique that could be used on a city block or neighborhood level.

If you have a story to tell, send a brief outline to the Neighborhood Councils, 600 West Mechanic, Independence, MO 64050. The Councils will send you details on what they need and an outline of what they will be able to pay for the material you provide.

Sincerely,

Joe Falk, Gen. Mgr.  
 Kansas City Regional  
 Development Assn.  
 P.O. Box 912  
 Shawnee Mission, KS  
 66201  
 913-432-8743

# TOUCH and GO



Imagine that all human bodies which exist looked alike, that, on the other hand, different sets of characteristics seemed, as it were, to change their habitation among bodies. . . . **Assassination** conspiracy resources list. Free with stamped reply envelope from Donnelly, Box 1131, Winters, CA 95694. . . . There's been a winding through people I know of a chain letter or two. What gives; where did the mailing lists come from? . . . **Jack Nicholson** was living in a rented house in Salem, Oregon, getting up before dawn every morning and plodding off to the hospital where "One Flew Over the Cuckoo's Nest" was being filmed. Tim Cahil, in a Rolling Stone article, describes Salem: "Winter in Salem, Oregon, can add several hundred pounds of bad psychic baggage to the soul of a Southern Californian like Jack Nicholson. There is a constant chill fog and the sun, at high noon, could possibly be that faint glimmer behind the brightest cloud bank. It is like living inside an Edgar Allen Poe poem, minus 20 degree centigrade. . . . Have I yet suggested that the effect of a winter's day in Salem can best be experienced by wrapping oneself in 30 pounds of wet blankets and standing inside a meat locker for 24 hours?" . . . **Given** a blink that lasts 300 milliseconds every 3 seconds, there are about 20,000 blinks a day, with about 1-3/4 hours spent in eyeblinks in the average waking day; similarly, about 1-3/4 hours a night are spent in dreaming. . . . **Archimedes'** last words (to a soldier): "Stand away, fellow, from my diagram." . . . **There** is probably a connection between a rose and a hippopotamus, and yet no young man would ever think of offering his fiancee a bouquet of hippo-

potami. . . . **ABC-TV** has late night special caption news for the deaf, which for those who see and hear both can be an odd sensation; watching the elaborate complete sentences get reduced to the facts only. . . . **A man** sent out to investigate ESP experiences in the West Indies, particularly rumors of women who spoke to trees in order to relay messages to husbands at work to get them, for example, to get them to bring something home asked: "Why do you address yourself to a tree?" They answered, "Because I am poor. If I were rich I should have the telephone." . . . **During** 1974 visitors to Madame Tussaud's Wax Museum were asked what person they most hated and feared. The results were: Richard M. Nixon, Adolf Hitler, Jack the Ripper, Moshe Dayan and Abdul Salan Muammar El-Qaddef. (On Aug. 9, according to UPI, Nixon's wax figure was placed in storage.) . . . **Think** about your deepest secret, now scream away from it like a hummingbird courting, now look at your secret so that it looks like a light deep in a canyon, drop towards it, pretend it's a pool and you've just been dreaming all this, and the fall is only five feet into the green quiet waters and someone is applauding you from the shoreline as you surface. . . . **Adolf Hitler's** birthday is still celebrated in the hamlet of Waringlid in England. On the morning of the birthday every year, some of the participants drive to Stonehenge, where they swear their continuing allegiance to the principles of national socialism. . . . **If one** auditory nerve were misconnected with an optic nerve, when you heard music you would see vision. . . . "It depends on who you're talking to. If you're talking to the head of the KGB and you happen

to be overheard, and you're Jane Fonda, or somebody else, there's no reason you wouldn't be overheard if somebody has the capability to overhear you—which I don't know if they do or not" —Vice President Nelson Rockefeller, commenting on electronic surveillance by the National Security Agency. . . . **Electro-biology** is found in Roget's Thesaurus (1946 edition) listed under acts of religion, in the sub-section, "sorcery." . . . **Last words** of Henry David Thoreau, "Moose, Indian." . . . **While** Bruce Springsteen made the cover of both Newsweek and Time, Governor Brown of California made it almost simultaneously into both Co-Evolution Quarterly and New Age Journal.

### The Governor's coffee table

We sat round a low clear-glass table. Visible under it was a heap of well-read books.

- World Energy Strategies Amory B. Lovins
- The Perfection of Wisdom in 8000 Lines & Its Verse Summary Edward Conze
- Multinational Oil Neil H. Jacoby
- The Updated Last Whole Earth Catalog
- Poverty & Mental Retardation Rodger Harley
- Ecology Law Quarterly
- Sweet & Dangercus John Yudhin
- Human Ecology Ehrlich, Ehrlich, Holdren
- Briarpatch Review Michael Phillips, ed.
- Man & People Ortega y Gasset
- Turtle Island Gary Snyder
- Deschooling Society Ivan Illich
- The CoEvolution Quarterly
- St. Benedict's Rule for Monasteries Leonard J. Doyle, trans.
- Out of My Thought & Life Albert Schweitzer
- Changing State Budgeting S. Kenneth Howard
- Building the Earth Teilhard de Chardin
- A Time to Choose — America's Energy Future Ford Foundation
- The Servant as Leader Robert K. Greenleaf
- Schopenhauer Selections Dewitt H. Parker, ed.
- Public Work, Public Workers Ralph J. Flynn
- Rome M. Rostoulzeff
- After Deschooling, What?
- Wittgenstein — The Philosophical Investigations George Pitcher, ed.
- The Fourth Way P. D. Ouspensky
- Current Lesley Wenger, ed.
- Sun Moon and Stars Coyote Man
- Environment, Power, and Society Howard T. Odum
- Daedalus (The No-Growth Society)
- A More Goody Country John Sanford
- Energy Primer Portola Institute
- The Mediterranean Fernand Braudel

Governor Brown's coffee table, from Co-Evolution Quarterly.

# The Prospect of Alchemy

*The Migma Principle of controlled nuclear fusion turns atoms of one element, hydrogen, into those of another, helium. This is, in effect, the first man-made ordered transformation of one substance into another, and it opens up the prospect that science has at last stumbled upon the long sought-after Philosopher's Stone, the imaginary rock or chemical believed to give alchemists the power to transmute baser metals into gold. We asked Dr. Maglich to comment on this possibility.*

Some people have proposed that migma fusion can be used for the purposes of alchemy—that is, to bring about the transmutation of elements. That's correct, of course. There is no machine today in which you can put one element and out will come another element. Migma will be the first device of this type. In fact, it will be what we call a *nuclear isotope production plant*. Of course, you cannot do everything in it, but you will be able to produce most of the isotopes, stable or unstable, one way or another. It will be a completely new technology.

I don't want to go on record as saying that you can make gold with migma, but I can say that it is a very good general idea. The migmaticell opens a new type of nuclear physics, but, being only limited and mortal human beings, we must concentrate only on certain goals, and our goal is just to produce a power source. Then that will open a whole new technology. We did not think of making a machine to synthesize elements. There are only 26 working hours in a day for me, and the rest of the time I sleep. No, seriously, there are masses of ideas totally unexplored. *(Harper's Weekly, Oct. 6, 1975)*



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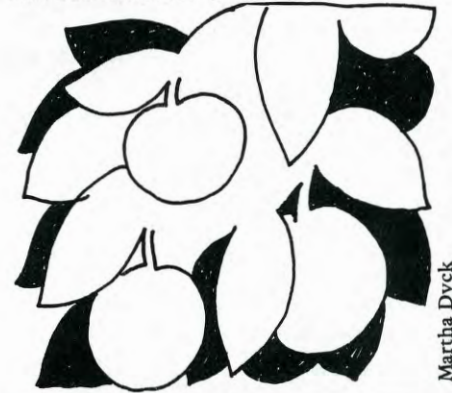
# Rush

The birthrate for the 12 months ending with August '75 was 20% higher than the preceding 12-month period. . . . *The Public Broadcasting System's "The Incredible Machine" (like a video version of Behold Man) actually challenged the viewing ratings of the other networks, getting, for example, 36% of the New York City audience. . . . Since 1920, at least 4300 miles of the San Joaquin Valley in California subsided more than a foot, and some land near Houston, Texas, has sunk over eight feet. Caused by the withdrawal of water or oil. . . . The Food Action Council of Eugene had a meatless thanksgiving celebration, and would be glad to send people (send self-addressed, stamped envelope) the good-sounding recipes they used—maybe in time for Christmas. F.A.C.E., P.O. Box 1255, Eugene, OR 97401. For those in the area, their meetings are Wednesdays, 7:30 p.m., 1414 Kincaid. . . . Federal Government Access. "A Directory of Information Resources in the U.S. Federal Government." 1242 entries. This is really a helpful research item. Much more breakdown than the U.S. Gov. Organization manual. Government Printing Office, Washington, DC 20402. Order No. 3000-00067. \$4.25. . . . "Guidelines for Municipal Sludge Disposal on Land." Maine is pretty actively utilizing sludge from wastewater treatment plants. The guidelines they have established are available from Dept. of Environmental Protection, State House, Augusta, ME 04333. . . . The nation's three transit bus makers expect to build 5,000 units by the end of '75, up nearly 20% from last year and the highest since 1948. . . . An Alternatives for Small Communities conference was held in Nebraska, Dec. 8-9. Wendel Berry and others, sponsored by a consortium of*



Nebraska groups. Nebraska Lutheran Rural Ministries, RR2, York, NE 68467. . . . 80 miles from King Salmon, Alaska, Tums Wetink has an NSF grant to construct some experimental windmills. The first one will help operate a small cannery. . . . Two new Guides to the Land: *The South Cascades (Gifford Pinchot National Forest)*, E. M. Sterling, text; *Bob Ira Spring, photography. It is some photographic guide, some polemic. The Mountaineers*, 719 Pike, Seattle, WA 98101, \$4.95. . . . *Exploring Crater Lake Country*, Ruth Kirk, University of Washington Press. General introduction to area, history, geology, bikes, plants, etc. \$4.95. . . . Between 1958-1970 we (the U.S.) consumed 38% more fresh produce packaging and 11% less fresh produce. . . . *The 1976 edition of Boston's People's Yellow Pages is out. 200 pages, \$2.50. Vocations for Social Change*, 352 Broadway, Cambridge, MA 02139. . . . According to the China News Service, Peking is popularizing use of solar energy with solar water heaters in hotels, communes, bathhouses, etc. . . . *The Southern New England Telephone Company has implemented what*

sounds like some far-reaching energy policies: recycling in the offices, carpooling, experimenting with compact cars. A spokesperson said, "Measuring our total energy output for 1974 against 1972, we used 195,000 BOE's compared to 249,000 BOE's. Roy M. Coughlin, Environmental Affairs Supervisor, Southern New England Telephone, P.O. Box 1562, New Haven, CT 06506. . . . Some of the people with National Land for People are touring the Northwest, expecting eventually to meet with others interested in land reform, land trusts, etc. Contact RAIN, Tiltb, or National Land for People (1759 Fulton, Room 7, Fresno, CA 93721) for more information. . . . Zelko Kujundzic has a solar-beated kiln (with temperatures up to 2,000 degrees) at his San Juan Island (Washington) home. . . . The British Waste Materials Exchange was established last year by the Dept. of Labor. It functions as a large industry recycling switchboard, putting waste materials in touch with manufacturers seeking such waste. In one bulleting released 263 companies indicated their ability to supply 63 of the 78 items listed as wanted. . . .



Martha Dyck



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