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

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RAIN

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

JANUARY, 1976

VOLUME II, NO. 4

75 CENTS



INSIDE:

- P. 4 Eating High and Lightly
- P. 11 Mega-Paper Tigers
- P. 12 The Great Recycling Race

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.

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by Meg de Moll

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?

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 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 No. 1 in October, 2 in November, and so on. They're also available at 75¢ each.

THE SECOND

It's time to give you a financial report, even past time maybe. I remember promising you one last fall. Seems to me that the dollars and cents part should fit into a picture of *RAIN*'s people-parts. There are six of us who work daily in our office/home here on Irving Street, and one who's here during part of the month. Lane, Tom, Lee and Steve write many of *RAIN*'s articles and entries. (By the way, Lane is a woman and Lee a man—some readers have wondered and/or guessed wrong). They also conduct solar workshops and other projects, clean house and keep on top of more information than will ever fit into this magazine. Nancy is setting up *RAIN*'s local distribution and working on several other things, including helping Portland's food co-ops fit into a NW food network. She wears a bright green slicker. Mary Wells is our part-timer, doing our layout one week a month. She's responsible for our striking good looks. In our June 1975 issue she wrote a valuable article on layout for small publications. It seems to have inspired a remodeling spurt among those we exchange with. I take care of *RAIN*'s mailing list and spend hours writing down numbers and amounts of money in a large green ledger and other places, all while listening to the radio.

So there are seven of us to be supported in some way, plus we have to pay the printer and rent and etcetera. Lane, Tom and Nancy don't show up in the budget you see here. Lane and Tom get income from doing outside consulting on energy-related things. Nancy is paid through CETA, a federal employment program, and will be till the end of June. Mary is called "layout" on the budget. She also has another job doing production for *Willamette Week*, a Portland newspaper. Steve, Lee and I each now receive \$400/month from *RAIN* itself. Here's a listing of average monthly expenses for the months in which we print a regular *RAIN*. During two summer months the expenses are reduced by approximately the \$750 publishing expenses.

<i>Personnel:</i>	Salaries and fringes		\$1239
<i>Publishing:</i>	Printing	\$400	
	Postage	50	
	Typesetting	170	
	Layout	100	
	Miscellaneous	30	
	TOTAL		750
<i>Office:</i>	Rent	\$150	
	Utilities	80	
	Repair & Maintenance	60	
	Phone	90	
	Postage	140	
	Printing & Xeroxing	30	
	Miscellaneous Supplies	50	
	TOTAL		620
<i>Travel & Consultants:</i>			20
TOTAL			\$2609

AGRICULTURE·FOOD

The Commercial Fish Farmer & Aquaculture News, \$8/yr., bi-monthly, from:

The Commercial Fish Farmer
P.O. Box 2451
Little Rock, AR 72203
501-376-1921

A consolidation of *The Catfish Farmer*, *Fish Farming Industries* and *The American Fish Farmer & World Aquaculture News*, this publication would be invaluable to those working on integrated agriculture-aquaculture in solar and wind-powered greenhouses (see Jim

DeKorne's book, *The Survival Greenhouse*, *RAIN*, Vol. 2, No. 3, p. 8, and Bill Yanda's Solar Sustenance Project, *RAIN*, Vol. 2, No. 1, p. 7). Dec. '75 issue contains an aquaculture industry 1976 buyers' guide, a complete directory of production, processing and marketing equipment, supplies and services. CFF also is making great efforts to solicit readers' comments on what they would like to see covered . . . reader participation seems very important in this rapidly changing field.

Acquisition and Culture of Research Fish: Rainbow Trout, Fathead Minnows, Channell Catfish and Bluegills, by Brauhn and Schoettger, EPA-660/3-75-011, May

LAW OF MONEY

Some comments on these expenses. We don't have the equipment to typeset our copy, so we send it to a local duo who call themselves Irish Setter. Nice people who do great work.

Lane and Tom contribute about \$160 toward our \$620 in office-related expenses. Our rent will go up to \$225 in September, we anticipate. The one expense that always seems to me to be outrageous but inevitable is the \$140 in office postage. That's for anything other than our monthly bulk mailings of fresh *RAIN* (i.e., urgent requests for a *RAIN*, back issues, anytime we send five or more copies to one place, and lots of letters).

Where do we get this \$2609? Right now, we're working with three main sources: a grant from the NW Area Foundation, subscriptions, and Lane and Tom's contribution toward office/house expenses. We've been receiving about \$520 per month in income from subscriptions and other sales (back issues, the index to *RAIN*'s Vol. I, Issues 1-8, etc.). With the \$160 from Tom and Lane we have less than \$700 coming in monthly. We now have about \$6000 still coming on the foundation grant, maybe more, but there's no guarantee. Working with only these sources, we would obviously not have enough to carry on indefinitely. We're now looking at our options in working toward greater self-sufficiency: raising subscription prices, carrying advertising, lowering expenses, and others. We welcome ideas. We also know that money is starting to come in from sales in stores, which we began only recently. We don't yet know what it will amount to, though.

If we wanted to be supported only by subscriptions, each of our current 725 subscribers would pay about \$40 for a year's subscription. At 2000 subscribers, it would be \$15 each. That's not what we're completely aiming toward, but it's one way to get a different perspective on magazine financing. We *do* want you to know that subscriptions are important to us financially.

There are probably more than 10,000 readers, we know. Besides to subscribers, we send *RAIN* to about 300 periodicals and contributors and lots of sample copies. More than 10% of our subscriptions go to schools and libraries, and each of the rest is read by 4-5 people.

Where are our readers, geographically? 60% of our December mailing went to the Pacific NW, 8% to California, 15% to the East Coast, 4% to the Midwest and 13% to other places.

If you know someone who'd be interested in *RAIN*, send us up to five names, and we'll send them a couple of introductory issues for free. Or, if you'd like a few extras to give away, let us know. We're a secret from too many people; whisper or shout us to someone.

ANNE

(Steve and Lee are not brothers.)



1975, single copies free from:
Technical Publications Office—EPA
National Environmental Research
Center
 200 S.W. 35th Street
 Corvallis, OR 97330

For fish-farmers (i.e. aquaculture), this covers fish-holding facilities, acquisition, acclimation, maintenance, specific care and problems, and references.

Small Farm Project
George D. Kemper
Produce Development Section
State Dept. of Agriculture
Charleston, WV

In cooperation with the extension service of West Virginia University, the

eight-acre farm is operated to research and demonstrate methods of farming on limited land resources. Total sales from the 8-acre farm last year were \$1100 per acre.

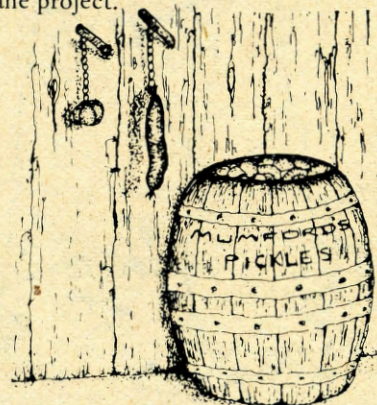
Sugar Energy Farms
E.S. Lipinsky
Battelle Institute
505 King Ave.
Columbus, OH 43201
614-424-6424

Write, enclosing stamped, self-addressed envelope. The concept of developing energy farms of sugar-producing crops to be converted into synthetic fuel on a "mass scale" is being studied.

Energy, Agriculture and Waste Materials, by William J. Jewell, 540 pp., \$22.50 from:

Ann Arbor Science Publishers
P.O. Box 1425
Ann Arbor, MI 48106

Details, from the viewpoint of the agricultural engineer, of energy consumed in food production, technology and energy costs of pollution control and potential for producing energy from agricultural wastes. Recommended by Ken Smith, director, Ecotope Group methane project.



Rural Resources & Information
Rt. 2, Box 142B
Colville, WA 99114

RR&I is a loose collection, a rural network, sometimes just Skeeter (trying to be both farmer and communicator), a communication center for intentional communities (especially central/eastern Washington), helping people locate, find others. Send description of you and your situation, and stamp.

RR&I sponsors the Harvest Festival and Barter Days. Over 1,000 people attended, and according to various reports it was a good event. Exchange of music for food; selling and bartering harvest crops. Skeeter will send you a leaflet that would be of help to someone wanting to organize a barter festival (send stamp, envelope).

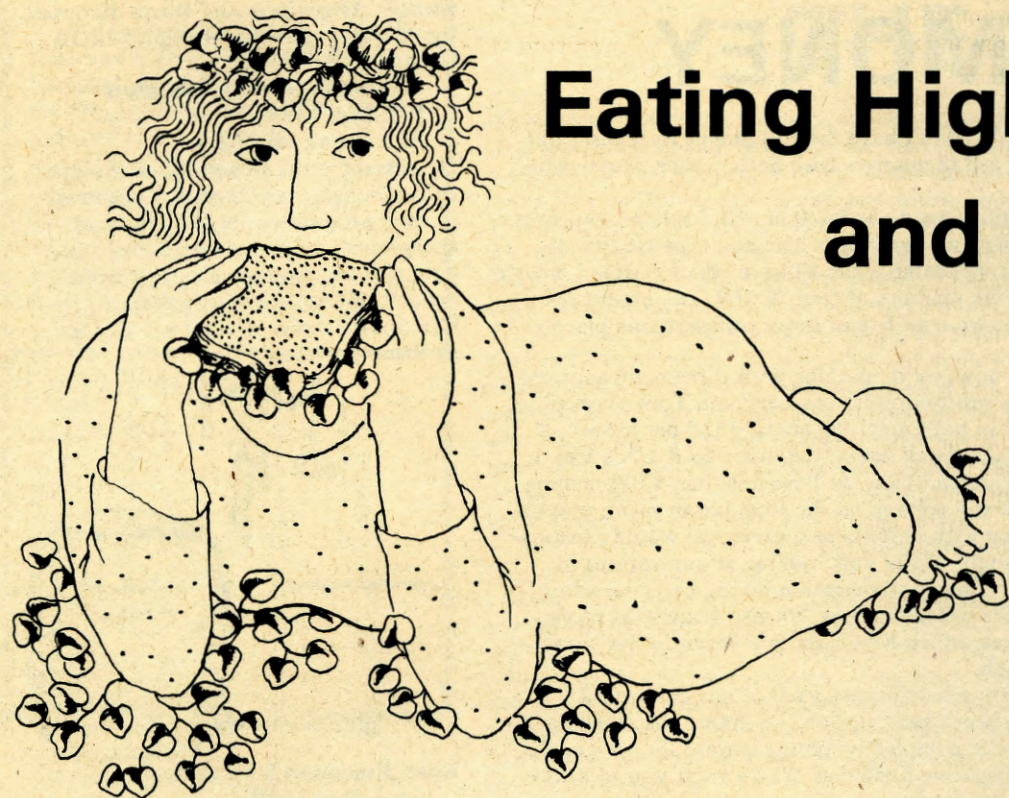
RR&I also sponsored a healer's gathering and is working on a rural apprenticeship program; also compiling information for another issue of *Rural Resources and Information*.

Plants, Shade & Shelter, by Paul E. Waggoner, Bulletin 656, Feb. 1962, free from:

The Connecticut Agricultural
Experiment Station
New Haven, CT

Analyzes the differences in 7 microclimates (clearing, field, beach, etc.) as relates to the human body's ability to maintain a comfortable internal temperature. Charts the relationship of wind, radiation wavelength, insulation, humidity, temperature and heat energy loss.

Continued on page 7



Eating High and Lightly

I think the reason I like to cook is that it brings me closer to other people—whether food *with* or *for* others, there is a certain camaraderie and cooperative spirit involved that is very special. Some of my favorite memories center on fixing food with friends. The ice was quickly broken at my sister's wedding where neither of the families had met before. We all pitched in for two days and cut and chopped and mixed the food for the wedding supper as well as the meals we ate during that time—suddenly it became everybody's party! Many people at Farallones Institute this summer said that the best learning experience of all came from working in the kitchen—5 or 6 people (rotated daily) planning and preparing the mountains of zucchini hot dish, French onion soup and cream puffs, or grilled cheese sandwiches that were eaten out on the hillside. At the Community Design Center in Minnesota a couple of years ago we had homemade soup every day for lunch. It was a time for staff and visitors (often as many as 20 folks) to sit together around the big table without any other agenda than enjoying each other and the creations of our chef. I'm convinced that the ritual provided a large part of the warmth of the place.

Consideration of food—preparation and eating—is definitely a part of living lightly. In a general sense, it doesn't really

matter whether one eats no meat at all, enjoys only organically grown foods, or simply stays away from the sinful yummys like sugar, bacon and white flour. I never have been much of a purist and find I can't draw any strict lines around my diet—it wouldn't be Christmas without my great-grandmother's sand tarts, and I can't resist a little nitrate-loaded bacon now and then. It's all part of the weaning process—starting easy, little by little, figuring out what you can do without or do for yourself. Getting the breadmaking down and then beginning to grind your own flour. Making choices—white flour only on special occasions or fried chicken as a treat. (Like the two friends who met each other in a Kentucky Fried Chicken—both agreed they were still vegetarian in principle!)

The main point is to be aware of what you eat—what it is doing to you, the land and our natural resources.

The folks at the Center for Science in the Public Interest in Washington, D.C. are doing some of the best work on the hidden costs and problems of food. They sponsored Food Day last year to make the public aware of problems such as nitrate in bacon, sugar in baby food and preservatives and coloring in general. Their book, *Energy and Food*, gives figures for energy costs—ice cream and frozen orange juice head the list of "gas guzzlers."

Energy & Food, Fritsch, Dujack & Jimerson, 1975, \$4 from:

Center for Science in the Public Interest
1779 Church St., N.W.
Washington, D.C. 20036

Diet for a Small Planet, Frances Moore Lappé, Ballantine, 1971, \$1.25.



Regional Cooking of China, Margaret Gin and Alfred Castle, 101 Reproductions, San Francisco, 1975, \$4.95.

The Complete Yogurt Cookbook, Karen Cross White, Ballantine Books, 1970, \$1.25.

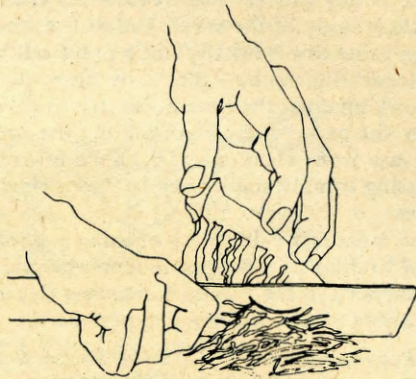
The Vegetarian Epicure, Anna Thomas, Vintage Books, 1972, \$3.95.

The Tassajara Breadbook, Edward Espe Brown, Shambala Books, 1970, \$2.95.

Tassajara Cooking, Edward Espe Brown, Shambala, 1973, \$3.95.

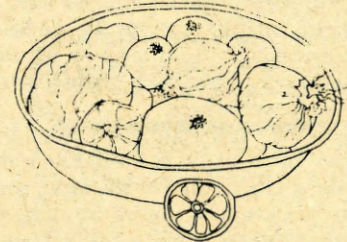
Diet for a Small Planet is the classic that lays out the case against a meat-centered diet for environmental reasons. Frances Moore Lappé talks about all the energy and valuable protein consumed by beef. More importantly, she provides alternatives for combining vegetable proteins into as good, if not more usable protein. There are fairly simple charts, as well as recipes and menu suggestions that make it all clear. I've never found the recipes themselves that great, but they do give a clear idea of what different foods work together to give you what you need. Once you get the idea there are several books that can give you more exciting ideas for cooking.

The Tassajara books are a good place to start. Ed Brown is the Zen monk who made the Tassajara retreat center in California famous for its fine vegetarian fare. Both the *Breadbook* and *Tassajara Cooking* give clear basic directions with lots of possible variations. They're really good for freeing up the fledgling cook by noting such things as "you can skip on the eggs or double the milk" and indicating what the probable results will be. A good friend of mine says that the challenge of cooking lies in making a good soup out of a seemingly empty refrigerator. In a very nice zen way these books make the case for using every scrap possible and making feasts with what you've got on hand . . . "If you don't have lentils, try black beans" or "Zucchini would be just as good as broccoli in this soup."



The Vegetarian Epicure is one of my favorites—it's really a gourmet cookbook with everything from crêpes with white wine sauce to onions monégasque. It includes French, Greek, Italian, Indian and German foods (there's an outstanding linzertorte) and lots of good ideas for spices and sauces. Some recipes are fairly complicated, using lots of pans (the opposite of the zen books which emphasize one-pot meals); others, like the curries, are quite simple. The author talks about serving meals to people who say they can't stand vegetarian meals and then gustily consume what she puts in front of them. The point is, very few people dislike good food . . . and if you give them just that, chances are they won't even notice they haven't consumed their usual portion of meat."

Speaking of curries, Indian food is a natural for good vegetarian cooking. I found out from one cookbook that there is no such word as "curry" in the Indian languages, so it must have been thought up by the English to describe a certain kind of spicy food. In truth, there are many combinations of spices that make up what we think of as curry—including coriander, cumin, cayenne, turmeric, saffron, mustard, cinnamon and ginger. I got a hint of the possibilities in the *Vegetarian Epicure* but am still looking for a good, simple book with lots of ideas and not too many exotic ingredients.



Food definitely doesn't have to be vegetarian to be appropriate to living lightly! Chinese cooking is a perfect example of energy-conserving food. Vegetables and meat are cut into small pieces and cooked quickly over a high flame—generally in a wok, which makes it easy to toss food from the red hot bottom to the cooler sides. Meat is thus used almost as a flavoring, and a little can go a long way—I spent \$1.49 last night on 1/2 lb. of pork tenderloin which fed five—including Lee. *The Regional Cooking of China* is my latest find (actually it was given to me for Christmas). It's really excellent: easy-to-follow recipes with easy-to-find ingredients. They are basically stir-frys and thus common Chinese food as opposed to the fancy exotica in most books. I've long been looking for a book that gives an understanding of the sauces and flavoring that you get in a good Chinese restaurant. I've only tried two recipes so far, but I think this is it—all I need is a little practice in timing.

The Complete Yogurt Cookbook is a good book for getting out of any ruts you might be in. My copy is spattered with sauces, which is the mark of a well-loved source of good food. The recipes in this book include dressings and sauces, soups, vegetables, meat dishes and desserts. They range from Roast Lamb with Macedonia Sauce to Spinach Soup Tanya. Central to many dishes from Balkan countries and the Middle East, yogurt is definitely good for you. I find that it can often be substituted for sour cream for a lighter (less fattening) dish.

There are several good kinds of yogurt—my favorite is Continental, but it's expensive, so I usually use Nancy's, which comes out of Ken Kesey's creamery in Springfield. It's also good to make your own, but I don't know of any fool-proof recipes.

L. de M.



Leeks with Cheese Sauce

- | | | |
|-------------------|--------------------|-------------------------------------|
| 1 lb. leeks | 1/2 cup dry crumbs | 1/2 cup grated Monterey Jack cheese |
| 1-1/2 cups yogurt | 1 T. minced onion | 1 T. lemon juice |
| 1 egg yolk | 1/2 cup butter | cayenne and garlic salt |

Clean leeks and discard outer leaves. Cut into 2-inch pieces and place in saucepan with small amount of water. Add salt and lemon juice; cook about 15 minutes. Remove from heat; drain. Melt butter in skillet; sauté leeks for 2 minutes, adding onion the last minute. Arrange leeks in a shallow baking dish; sprinkle with garlic salt and cayenne. Beat yogurt and egg yolk; pour over leeks. Sprinkle with bread crumbs, then top with grated cheese. Cook under broiler until cheese is evenly browned.

Serves 4.

From *The Complete Yogurt Cookbook*

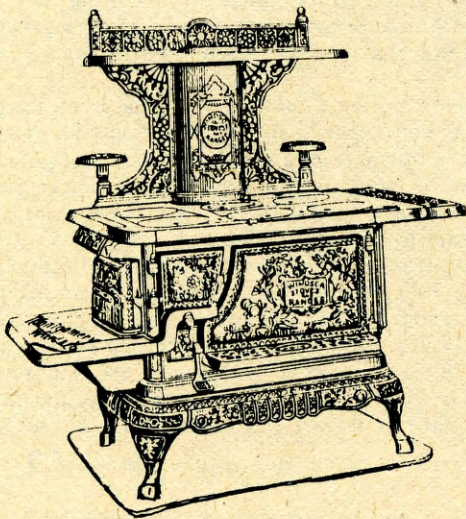
WOOD COOK STOVES

SELECTION AND REPAIR

Quite possibly, in 1915, the first acquisition of a newlywed couple would have been a wood-coal cookstove. Water heating, garbage disposal, food cooking and general house heating were accomplished with this one appliance. Recently the water heating capabilities of the cook stove have been incorporated into solar home heating systems. In the last 100 years no major improvements have been made in wood-coal cook ranges. The general tendency has been gradually to decrease the quality of the newer stoves.

Older stoves are still readily available; however, most people no longer give them away. It should be remembered that a good quality cooking range sold for the same price as a Ford automobile sixty years ago. If you're planning to acquire one, don't be dismayed at having to pay a few dollars for a product that may last a good portion of your lifetime and, with good care, be passed on to your children. A good, serviceable, used cook stove is likely to set you back at least \$100 and perhaps as much as \$500 or \$600. Generally, as you pass the \$150 mark, the price is determined by the amount of ornamental trim and the nostalgia value of the stove.

Good quality, new cook stoves are likely to cost \$600 to \$1400 and some waiting time should be expected. Lesser quality new stoves will cost between \$250 and \$450 and usually can be obtained within 30 days.



Many of the quality-determining features elude the eye until you have spent some time examining cook stoves. As a rule the best stoves have slightly larger fireboxes (16-inch grates), slightly larger surface plates (19-1/2 inches or longer), insulated exterior walls, larger ovens and smoother, more highly polished surface plates. These features add to the versatility of the stove in cooking a meal. Other features have some bearing on the amount of maintenance and the expected life of your cook stove. Cast ovens (instead of sheet steel), heavier firebox linings (such as Monarch, Majestic and Home Comfort brands) and heavier surface plates decrease the maintenance needs of the stove.

As most people are still buying, using and trading older units, here are a few areas to examine on the stove you are considering:

1. The Firebox. Quite often older stoves were discarded or stored in the barn when the linings or grates had disintegrated. Luckily, new replacements for these parts *are available most of the time*. A few all castbody stoves such as the old "Sexton and Giffon" required very unique parts which may not be available. Parts for a complete firebox will likely run \$70 to \$200 plus installation.

2. Surface Plates. Abused or mistreated stoves may have cracked or broken plates. If the cast iron is not warped or crystallized, an experienced welder can mend them. Rust-pitted surfaces have no practical remedy.

3. Ovens. Neglected stoves may develop rust "cancer" in which the metal near the firebox or rear of the stove has disintegrated. Sometimes lack of a firebox lining will burn out the oven. Any hole in the oven allows soot and ashes to enter the oven and the food and must be repaired.

4. Stove Body. The exterior body of the stove has the same "cancer" problems as the oven. Repairs on small spots can be accomplished by making a "sandwich" of two pieces of sheet metal filled with furnace cement and bolted together over the hole. Extensive "body cancer" may require the replacement of the entire sheet body of the stove. Unless the stove has a lot of nostalgia value this is usually not a practicality.

5. Trim. Nickel trim can be replated by many plating works. Most of the work involves the time necessary to disassemble and reassemble the parts. The cost of plating the parts for a Monarch will vary from \$100 to \$150, depending on their condition. Missing trim pieces are nearly impossible to obtain for older stoves.

Possibly the most difficult aspect of using a wood cook stove is that of finding knowledgeable repair people. Here are a few places to check in the Pacific Northwest (let us know about others where you've had good experiences):

Portland Stove Parts Company
Rt. 1, Box 309
West Linn, Oregon 97068
503-638-4719

Stovie's Stove Works
1922 Hewitt
Everett, Washington 98201
206-252-9562 (Joan & Jack)

Anchor Tools & Wood Stoves
618 N.W. Davis
Portland, Oregon 97209
503-223-3452

Here's a few don'ts in contacting wood-coal stove repair people:

1. Don't expect pick-up or delivery unless you plan to pay dearly.
2. Even doctors don't make house calls.
3. Stove parts can't be fitted over the phone.
4. Repairs may take some time to accomplish.

While waiting for an opportune time to get your stove in good condition you may need some sort of temporary repair. Asbestos furnace cement is a universal "fix-all". Furnace cement will fill cracks and holes in firebox liners. The joints between iron castings can be filled to eliminate air leaks and hot spots. Remember, though, furnace cement is a short-term expediency and will not last long.

(Special note to readers: We would appreciate hearing about other sources of parts and repair shops throughout the nation. Please write us. We'll try to put together another article even more chock-full of useful information and hints.) **BILL DAVY**

Bill, one of our subscribers, has been associated with a store in Portland, Oregon, which carries wood stoves. His parents' hardware store in The Dalles was one of the last places in eastern Oregon to find repair parts for wood and coal stoves.

AGRICULTURE

continued from page 3

Care and Maintenance of Common Household and Office Plants: A Home Gardener's Handbook, \$1.20 from:

Superintendent of Documents
Government Printing Office
Washington, DC 20402

Order No. 024-005-00536-6. From The Green Scene Program of the National Parks Service. Covers light water, soil and temperature requirements of 24 kinds of common indoor plants.

Rotations, Organic Matter and Vegetables, by Downs, Jacobson and Waggoner, Bulletin No. 220, free from:

The Connecticut Agricultural Experiment Station
New Haven, CT

Another of the long list of technical reports available from these folks. This one is an 8-year study comparing nutritional content and crop yield between commercially fertilized, continuously grown cabbage and spinach vs. vegetables grown in 5 rotations with green manure. Illustrated with tables.

**Northwest Food Federation**

About a month ago people from around the Northwest involved in food cooperatives, truckers, producers and growers, got together at Ellensburg, Washington, and began the foundations for a communications network that will allow for a more unified distribution of food from small farmers to cooperatively-owned or small retail outlets.

By the half dozen different reports, the meeting was a great success. Some of the Prout research group, out of Seattle, used a simulated map situation to allow people to see the special communication problems of different regions. The map was a room where people sat grouped into their appropriate geographic areas and distances away from one another. It became clear—at least by those represented, that (a) Portland was missing, and (b) most communication was going on in the Puget Sound area and east and west in Washington, with Eugene feeling very isolated.

So, the next meeting, to implement the economic base for a federation, will take place February 27-29 in Eugene, sponsored by the Hoedads and the Prout Collective.

At that time, Mark Musick of Tilth and Brian Livingston of Community will put together a directory of co-ops, growers, truckers and wholesalers in the Northwest.

RAIN, in collaboration with People's Food Warehouse in Portland, sent along the missing Portland information.

If you have ideas, names of people who should know about the federation, write to us (if you're in this area) or Tilth (P.O. Box 2382, Olympia, WA 98507).



Oregon Historical Society

Two Community Gardening Workshops

To those who hold our resources in common:

Two community gardening workshops are being planned this winter for all persons interested in the social, administrative, or operational aspects of Community Gardens. Subjects covered at the workshops will include: some of the background behind the Community Gardening movement, the experiences some of the local agencies have had, and tips on acquiring land, preparing the soil, fertilizer, water systems and arrangements with agencies and organizations.

Monday, Feb. 2, 1976, 9:30 a.m. to 4 p.m.
Lane County Extension Service Conf. Rm.
950 West 13th Avenue
Eugene, OR 97401

Contact: Marshall Landman
Eugene Parks and Recreation
777 Pearl Street
Eugene, OR 97401
503-687-5333

Friday, Feb. 6, 1976, 9:30 a.m. to 4 p.m.
Music Center
3350 S.E. Francis (1 bl. south of Powell)
Portland, OR

Contact: Leslie Pohl
Bureau of Parks and Recreation
1107 S.W. 4th Avenue
Portland, OR 97204
503-248-4717

Please help spread the word around about these conferences through your publications and by word of mouth. Thanks.

Yours for a greener,
more self-sufficient world,
Marshall Landman
Eugene Comm. Gardens
Parks & Recreation Dept.
Rm. 105, 777 Pearl St.
Eugene, OR 97401
503-687-5333

ARCHITECTURE

Creating Modern Furniture, Dona Z. Meilach, Crown Publishers, Inc., 1975, \$6.95.

An unusually fine combination of well-illustrated how-to information on innovative furniture making and an amazing photographic survey of outstanding examples of hand-crafted modern furniture. Fantasy furniture straight from M.C. Escher's etchings: beautifully jointed Japanese tables; hollowed-tree stump chairs; refined glass and fiberglass furniture; sofas shaped like Marilyn Monroe's lips; giant cabbages, sea anemones and catcher's mitts to sit in; hand-carved doors; pigeon-hole desks; and walnut rocking chairs. Shows how to make beautiful things you never thought possible!

Energy Conservation in Buildings, Report R40: 1975, 49 pp., from:

Svensk Byggtjänst
Box 1403
S-111 84 Stockholm
Sweden

A pamphlet in Swedish with an English summary, proposes an easy method of checking the profitability of measures taken to conserve energy in existing buildings.

Energy Conservation Program Guide for Commercial Buildings, by Louis A. de Latour, P.E., Oct. 1975, NRE-PE-75-2, single copies free from:

Project Engineering Section
Dept. of Conservation
State Land & Natural Res. Bldg.
P.O. Box 44156
Baton Rouge, LA 70804
504-389-5161

One of the nice things about this item is a comprehensive, annotated bibliography on energy conservation publications and computer programs focused on commercial buildings; another is the almost layman level of explanation which pervades, increasing its utility and, finally, separation of conservation measures into those needing little or no capital outlay and those which mean a major expenditure.

Continued on page 10

TOWARDS A FEDERATION

Rain that becomes trapped showers in the earth becoming springs becoming creeks becoming rivers that become canals that become wet fields. I picture people making lists like we do of who can you contact region-by-region who will "spread" the (some) word to the appropriate other persons who will spread it still further until and that's the way things happen and change.

This is not a directory; most of these periodicals we just found out about, so it seemed right to put them in one place and say something. Maybe it's map time—where are the word-of-mouth canals in your area?

North County Anvil

Box 37
Millville, MN 55957

Articles, photos, poems, book reviews, with emphasis on the North Country—but much application elsewhere. More political and rural and funkier (on newsprint for example) than *Earth Journal*. Things like: alternative sources of energy persons: Don & Abby Marier; threshing in Wisconsin, survival program for unemployed; Wounded Knee, art and community. \$4.50/yr., 6 issues.

The Texas Observer, a journal of free voices

600 W. 7th St.
Austin, TX 78701

A social issues, public interest news magazine that's been around for years. Recent issue reviewed Limits to Growth conference—the issue was sent to us by a staff member who attended the conference (we do somehow make contact with one another).

Colorado Express

Box 18213, Capitol Hill Station
Denver, CO 80218

Published semi-annually. \$10 for 2 years. \$3.00 each. A cataloging format with outdoor mountains and rivers emphasis. Most issues continuation of access to wilderness equipment. Guide to restaurants in Colorado, VII. Issue No. 1 was catalog of food, transportation, care and recreation in the Denver/Boulder area.

Earth Journal

Minnesota Geographic Society
1501 S. 4th St.
Minneapolis, MN 55404

Most recently a well-done issue on food; includes: neighborhood food systems by Gil Friend and David Moris (Institute for Local Self Reliance); various living lightly menus and recipes; Japanese packaging; guide to groups in Minneapolis—including the newly-developed self-reliance project; the food systems in Minnesota, and more. Single issue 75¢, \$3/yr., quarterly.

Eco Systems

Oklahoma Environmental Information Center
East Central Oklahoma State U.
Ada, OK 74820

An environmental education and issues newsletter for central south area, covering local (and some national) developments in education, energy, waste, wildlife, agriculture, etc. \$2/yr., 8 times a year.

Public Occurrence, a Vermont magazine

182 Main St.
Burlington, VT 05401

\$5/yr. Vermont is one of those regions that collects mellow caring good eccentrics. Somehow I figure it would be easy to talk as an Oregonian to someone from Vermont. *Public Occurrence*—in that almost traditional new regionalism periodical standard: newsprint, orderly design, short to medium size articles—covers most areas that *RAIN* does for Vermont and New England, with more politics, poetry and consciousness.

Santa Cruz Alternative Energy Coop

P.O. Box 66959
Scotts Valley, CA 95066

A nicely done newsletter produced, on the side, by these folks who are holding workshops in solar energy, researching solar greenhouses, starting a meteorological data collection program, helping the county with a winterizing program. Information about middle California. Send self-addressed, stamped envelope and donation if possible.

News Print Co-Op

c/o Theatre Project
45 West Preston St.
Baltimore, MD 21201

Not really a regional magazine but an interesting concept in print distribution. People pay very cheap amounts for space (quarter of tabloid seems about average) where they can advertise, print their poetry, their small magazines, flyers, etc. The co-op, a person at this point, does layout and design. Might be a model for times when paper and energy get short. Send \$1 for sample.

The Cultivator

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

As Lane said to me, it's not often that you find yourself reading an in-house newsletter cover to cover with interest. Much more than might initially meet the eye—not just food and co-ops; there are book reviews and recipes, "Indian Agriculture in Maine," recycling, fuel wood, etc.

IO (and)

North Atlantic Books
RFD #2, Box 135
Creamery Road
Plainfield, VT 05667

Several years ago I came upon an *IO* by accident while I was thinking about places (a sense of knowing around you like the back of your hand)—I was unsure what I meant; the *IO*s helped a lot. It is poetry of place, sometimes feels like it's off on a wing, but lots to get your started. History and spirits. Many of the books and issues of *IO* (20, some are out of print) are by Richard Grossinger; some other titles include: *Here* by Bobby Byrd; *20,000 A.D.* by Ed Sanders; *The Windy Passage from Nostalgia, A Book of Vermont*—a catalog-size book, including geology, agriculture, photographs, settlement patterns, settlers' journals.

OF ECOTOPIAN NATIONS



Geo-cultural Regions

The political regions of our country have developed with total disregard for the realities of our land and our regional cultures arising from that land. Our "melting pot" mythology has attempted to erase local and regional cultures—but it has yet to erase the landforms, climate, soils, vegetation and living creatures that constantly bring into being regional personalities and cultures in response to the unique problems, potentials and rhythms of each place. Those regional lives and cultures are essential and will endure beyond any artificial political boundaries.

A look at one of Erwin Raisz's intricately beautiful landform maps of the U.S. (No. 3—\$1.00 from Erwin Raisz, 130 Charles St., Boston, MA 02114) gives real meaning to the regions shown above, which respond like a well-fitting shoe to the different landform regions. These regions have shared problems, potentials and lifestyles which sharing among the people of the regions can do much to improve. The life of

Tidewater, Virginia, is closer to that of New Orleans than to West Virginia. The myths of *Planet Drum* and *Ecotopia* are alive for the people of the Pacific Coast. The dryland farming of eastern Montana has more to share with that of the Texas Panhandle than with western Montana. Regional publications are arising to further the sharing of our lives and the meeting of our common needs. A sense of our regions and their cultures gives us a sense of place and of our roots as well as of where we can find resources to answer our needs.

Atlases such as the *Climatic Atlas of the U.S.* by Stephen Visher can give more detailed regional maps for topography, geology, climate, soils, flora and fauna—but they only bring into finer focus the general regional pattern. Different regions have distinctive features and resources, and much to share with each other, but our lives are nourished and formed dominantly by what is offered and required of us by the region in which we live. Know it well.

Some other regional publications we've mentioned before:

AERO

418 Stapleton Bldg.
Billings, MT 59101

B.C. Alternative

RR 2
Lumby, BC, Canada

Bolinas Hearsay News

Box 1, Elm Rd.
Bolinas, CA 94924

Briarpatch Review

330 Ellis St.
San Francisco, CA 94102

Center for Rural Affairs

P.O. Box 405
Walthill, NE 68067

Community Environmental Ed. Notes

109 E. de la Guerra
Santa Barbara, CA 93101

Contact

Institute for Ecological
Studies
U of North Dakota
Grand Forks, ND 58202

Down to Earth

Environmental Info Cent.
P.O. Box 12
Helena, MT 59601

Environmental News

P.O. Box 11000
Montgomery, AL 36111

Living in the Ozarks

Pettigrew, AK 72752

Northern Light

Alaska Cent. for Environ.

913 S. 6th St.

Anchorage, AK 99501

Self-Reliance Newsletter

Institute for Local Self
Reliance
1717 18th St., N.W.
Washington, DC 20009

Street

Pratt Cent. for Comm.
Development
240 Hull St.
Brooklyn, NY 11205

ARCHITECTURE

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Energy Conservation Design Guidelines for New Office Buildings, 2nd Edition, \$2 from:

**Regional GSA Business Serv. Centers
or
Business Service Center (3F1)
General Services Administration
7th & D St., S.W.
Washington, DC 20407**

This latest edition features new sections on computer software programs useful for energy design and analysis, and the state-of-the-art in solar energy.

Construction with Surface Bonding, B. Carl Haynes, Jr. and J.W. Simons, U.S. Dept. of Agriculture, Ag. Information Bulletin No. 374. Contact:

**B. Carl Haynes
Environmental Engineering Lab
Richard B. Russel Agricultural
Research Center
P.O. Box 5677
Athens, GA 30604**

Use of fiberglass-reinforced cement plaster on both sides of concrete block walls built without mortar joints has been shown to be easier to build and stronger than conventional block and mortar construction. Such walls are strong enough for two story construction. They also are finding use in low cost containers for solar heat storage and low cost, water-filled Trombe wall passive solar heat storage systems such as designed at Max's Pot (RAIN, Nov. '75) in Texas. This bulletin gives details for construction techniques, which differ somewhat from normal processes.

Journal of the Society for the Creation of Primitive Cultures, by Robert Kertell, \$2 postpaid from:

**Robert Kertell
4630 S.W. Viewpoint Terrace
Portland, OR 97201**

Cut and fold on dotted line 1st edition of a colorful poster of environments for cosmic kids, sensitive grown-ups and landscape architects . . . a museum for superfluous material goodies, a garden hideaway amid your standard slurbia, a symbol house. Simple technology (solar water heaters, parabolic solar cookers, water pumping windmills), combined with a balanced ecology of water and green growth, the journal presents the supposed designs of a fictitious (maybe) architect. Next edition: a serialized account of architect Berll's entry into the field, plus "The Palace of Simple Pleasures." Think I'll go find the scissors.

COMMUNITY

*North Idaho Access, \$1.94 -
Box 8367
Moscow, ID 83843*

There you go, proving that you don't need cities to have need of a yellow pages; these people have created a lovely guide to services, goods, food, rivers, history, legal aid, libraries, art galleries, and on and on. If you have friends there, if you plan to visit, if you want to know what the beautiful boot filled with mountains is doing . . .



**North American Student Cooperative Organization
P.O. Box 1301
Ann Arbor, MI 48106**

A campus-based consumer cooperative federation devoted to the spread and effective use of cooperative ventures, especially in student housing. The *New Harbinger*, quarterly, covers developments in co-ops internationally. A recent issue was devoted to international scale; an issue in the near future will be on more small scale energy co-ops. Many publications on various levels of generalizations and subjects, including: *What Is A Co-op* (free); *Co-op Housing Information Kit* (50¢); *Accounting for the Simpleton* (75¢); *The Nanaimo Experience* (Nanaimo, BC, direct charge co-op, 35¢) . . .

**Wind Bell
Zen Center
300 Page Street
San Francisco, CA 94102**

\$4/yr., 3 issues. Reports on activities of the San Francisco Zen Center. Recent issue contained a lecture by Baker-roshi and articles on community projects such as the Green Gulch Greengrocer—a neighborhood store set up to make available organic produce and oven-hot Tassajara bread to the community surrounding the center. Also a neighborhood park and neighborhood foundation organized to help residents rehabilitate the area. The spirit with which all these things are done and its implications for everyday life are well worth becoming aware of.

**Basement Roots Library
314 Laurel St.
Santa Cruz, CA**

The Hobbits sent us some material they have produced, including bibliographies on education and California politics, as well as a *People's Yellow Pages* for the Santa Cruz area.

They act as a clearinghouse for information not available through normal libraries; with some funding and assistance from the South Bay Social Responsibilities Round Table—of the American Library Association.

They are especially interested in possibilities of the new time/space frame in education created by the availability of paperback books. An interesting book they sent along explains what's happened to publishing: "The Paper Book Goes to School," published by BIPAD, Bureau of Independent Publishers & Distributors.

**Guide to Neighborhood Ecology
Center for Visual Environment
1525 New Hampshire Ave., N.W.
Washington, DC 20036**

\$1.00. A clearly designed/organized introductory information resource guide to city environment, historic preservation, parks, signs, public art, urban conservation, community gardens, etc. Ask them about other services and publications.

EDUCATION

*Free Poster Charts and Maps, \$2.95
Sources of Free Teaching Materials, \$3.95 from:*

**Mr. Dale E. Shaffer
Library Consultant
437 Jennings Ave.
Salem, OH 44460**

20 years ago I received a book called *1001 Free Things*, which started me on a life of mailing for things. It has its ups and downs. The free things are not always really free—it costs us via company expenditure for PR as passed through retail sales. And the pamphlets, charts, posters, would often sound like they would come with brass bands—and instead pieces of dull paper would arrive.

Also there are many good free things, and these guides are obviously well-researched. Good stuff for class supplements, visuals, attention getters, or for us mail freaks lots of things to send ourselves or friends. Most people, I think, would feel they could at least get their money back from buying Mr. Shaffer's guides.

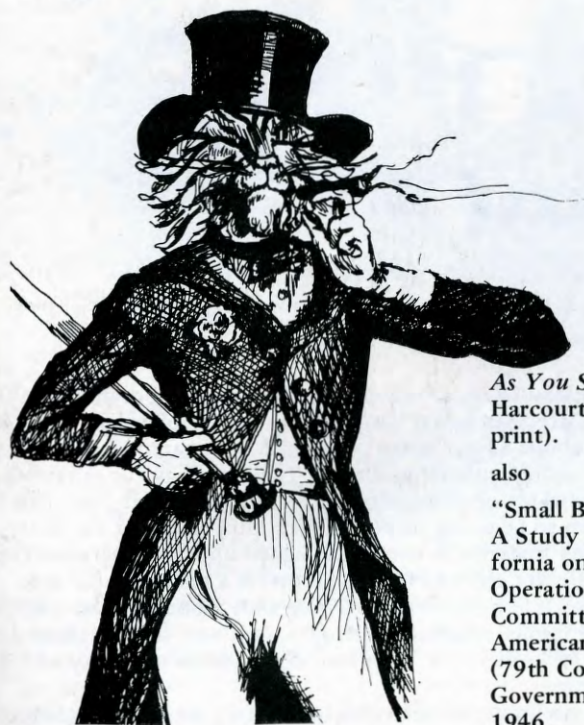
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APPROPRIATE TECHNOLOGY

MEGA-PAPER TIGERS

Individuals and communities attempting to change regulations hampering small local businesses, finance development of their own small business, or encourage public policy favoring such enterprises have to overcome the massive inertia of conventional wisdom that says that big business is more efficient, labor-intensive processes are uneconomical, and small-scale activities are less beneficial to our quality of life.

The following books should be required reading for any city council that votes for a big motor inn rather than guest houses or for bringing in outside industry rather than developing local industry; for any banker who redlines a neighborhood or loans to big industry rather than small businesses; and for anyone who needs solid documentation supporting small-scale, labor-intensive, local activities.



As You Sow, Walter Goldschmidt, Harcourt, Brace & Co., 1947 (out of print).

also

"Small Business and the Community: A Study in the Central Valley of California on Effects of Scale of Farm Operations," Report of the Special Committee to Study Problems of American Small Business, U.S. Senate (79th Congress, 2nd Session), U.S. Government Printing Office, Dec. 23, 1946.

The effects of small vs. large businesses go far beyond the mere question of costs of production. They influence the whole social structure of communities and nations. Goldschmidt's pioneering study of the social effects of large vs. small scale farming on towns in California showed this so clearly that the U.S. Department of Agriculture refused to publish it. Here's why:

"The study showed the small-farm community had twice as many business establishments and did 61% more retail business; the small farms supported 20% more people at a measurably higher standard of living; the small-farm community had more institutions for democratic decision-making and much broader citizen participation in such activities; it had far better physical facilities, such as sidewalks; paved streets, garbage and sewage disposal, schools, parks, newspapers, churches and civic organizations; and the majority of the small-farm community population were independent entrepreneurs, while 2/3 of the large-farm communities were agricultural wage laborers."

Technology and Employment in Industry, A.S. Bhalla, Ed., International Labour Office, 1975, \$14.95.

International Labour Office
Washington Branch
1750 New York Ave., N.W.
Washington, D.C.

This collection of specific, detailed case studies of industries and industrial processes in many countries demonstrates that a considerable range of technological alternatives exist for industry—even in "core" processes. Such alternatives provide significant latitude for different mixes of employment, machinery, materials and energy within economically competitive costs. Options are thus available that can simultaneously reduce unemployment, respond to our increasing capital shortage, accommodate increasing energy and material prices and provide mechanisms for reducing externalized costs such as transportation and unemployment compensation. Lack of awareness of alternatives by business leaders is shown to be a dominant obstacle in businesses adapting cost-effective changes to more job-producing, energy-saving processes.

Worker-Owned Plywood Companies: An Economic Analysis, Katrina V. Bannan, Economic and Business Studies Bulletin No. 42, Washington State University Press, 1967.

One of the major fears preventing businesses from encouraging labor-intensive processes is the fear of labor/management conflicts and problems of employee boredom and low productivity. One obvious answer is to eliminate the conflict of interests between workers and owners through worker-owned businesses. Bannan's case study shows that they have been and can be well-managed and economically viable, even under difficult conditions of using abandoned plants, obsolete equipment and difficult material supplies. The firms studied actually had worker productivity 30 to 50% greater than in non-worker owned firms, along with greater flexibility to adapt during difficult times.

Size, Efficiency and Community Enterprise, Barry Stein, 1974, \$5 (?)

Center for Community Economic Development
1878 Massachusetts Ave.
Cambridge, MA 02140

Extensive documentation of economies and diseconomies of scale in manufacturing industries showing large firms to be generally economically less efficient than small ones. It also shows how a large number of specialized small firms can enjoy more economies of scale than a large, integrated firm; documents greater inventiveness of individuals than corporations. A wealth of important data and insights into myths and realities of large and small scale business operation.

The Great Recycling Race

Success of the Ore Plan

Almost no one believed it when Portland recyclers claimed it would be possible and economical to get householders to keep their trash separated, to pick it up with pushcarts and small vehicles and recycle it directly—thus eliminating the need for mammoth and expensive mechanical sorting systems, saving money and energy, and providing more jobs in the process. A big order! Yet it works, and works well enough that more than 30 ORE Plans are now starting around the country. Many cities, and even the EPA, are beginning to look seriously at this ridiculously simple mini-system that outperforms the biggest and best technology around.

The following is an excerpt from Prof. Richard Duncan's upcoming *Compost Science* paper on the ORE Plan. See the Jan.-Feb. 1976 issue of *C.S.* (\$6/yr. from Rodale Press, 33 E. Minor, Emmaus, PA 18049, single copies \$1 postpaid). His earlier ORE Plan article can be found in the Jan.-Feb. 1975 *C.S.* (Vol. 16, No. 1, pp. 24-32).

Portland State University's Prof. Duncan has been shepherding these neighborhood recycling organizations through the city-county-state-federal political thickets, providing the researched, academic analysis and conceptual background that is needed to keep a working "small is beautiful" technology in front of waste-management decision-makers.

We've listed over 30 local ORE Plan recyclers and resource people on page 14 in case you want a nearby contact person with whom to work on your own hometown ORE Plan.



Figure 1: The Alsport UT-10 with trailer (10 hp., 1000 lb. total capacity, \$2,300 from Alsport, Inc., 84 Whittlesey Ave., Norwalk, OH 44857)

The Ore Plan in Portland

The ORE Plan started in 1974 when Sunflower Recycling, Inc., extended their operations by using a small hand-pushed cart to pick up grouped recyclable wastes from homes in the community. Wastes collected included paper, bottles and cans, which were later sold to secondary materials markets. Later, a separate experiment added organic wastes, which were composted and used as a soil conditioner in local gardens. More than 50% of the households in the community participated in this 10-month experiment. In March 1975 Sunflower began using an Alsport UT-10 vehicle with a trailer for home collection, as shown in Figure 1. The positive results of this project led to the design of an alternative garbage collection system where the main financial base would come from collection fees.

The ORE Plan is now a full-line garbage collection service where recyclable materials are kept separated by householders

and small-sized vehicles are used to pick up both recyclable wastes and mixed garbage at one visit. ORE Plan organizations are designed to be financially self-sufficient and pay fair wages to all workers. Collection fees, averaging 20 to 40 percent below fees for standard service, provide the main economic base and are supplemented by income from the sale of secondary materials.



Figure 2: Pick-up of Home Separated Waste with "Satellite" Truck and Trailer

In May 1975, Cloudburst Recycling, Inc. became the first new ORE Plan based business. Recycling collection fees averaged about \$3 per home per month, compared to about \$5 for standard collection service. Their strategy for obtaining an initial set of customers was to canvass households already known to be doing recycling. Over 80 percent of the first seventy households contacted signed up for the service. The community serviced by Cloudburst is a relatively flat area about 1-1/2 miles long by 1 mile wide, containing about 5,000 single-family residences. Cloudburst is now serving about 100 families in this area, representing a collection density of 1.5 percent.

Waste materials are collected by two people using a small pick-up truck with trailer as shown in Figure 2. The truck acts as a "satellite vehicle" to a large van truck parked in the neighborhood where materials are temporarily stored, reducing collection costs by lowering gasoline consumption. A recent "net energy" analysis by David Beaton, former director of the Oregon Energy Study, indicated that the ORE Plan was first among the nine systems studied in terms of overall energy-efficiency.

Basic collection fees range from \$1.50 to \$4 per month in January 1976, with over 50 percent of the subscribers preferring weekly collection of all their wastes. Collection times to serve about 80 customers have ranged from 3 to 5-1/2 hours. These hourly figures include backyard pick-up of wastes, breaking bottles into containers and personal attention to customers and potential customers, but exclude lunch and rest stops. Cloudburst estimates that two workers, using a pick-up truck and trailer, could collect from 150 households in 8 hours, including the time needed to transport wastes to markets or disposal sites. An estimated 2,800 pounds of wastes were collected from 80 households, of which more than 50 percent by weight were recycled. Income derived from the sale of recyclables is currently between \$0.55 and \$0.75 per household per month. The potential gross monthly income from a Cloudburst-type recycling operation is estimated at about \$2,700 per month.

Several crucial factors influence successful implementation of ORE Plan type systems: 1) rodent control in organic wastes, 2) flow control legislation and 3) franchising fees.

Both Sunflower and Cloudburst were composting organic wastes near their shared recycling center in an industrial-zoned area. The expense of physical facilities necessary to resolve rodent control problems caused them to cease composting operations in summer 1975, and all organic wastes have been landfilled since that date. Experience to date indicates a substantial demand exists for compost as a fertilizer and soil conditioner. Composting could be successfully done within city areas with 1) recognition by decision-makers that composting is a cost-effective method of both waste utilization and disposal, with 2) cooperation from elected official and government agencies, and through 3) policies making grants or small business loans available for construction of proper facilities and purchase of equipment.

A second problem facing recycling collection services is proposed "flow control" legislation that would guarantee all wastes collected in a municipal area would be destined for processing by big machine "resource recovery" systems. Biased legislation of this type could eliminate recycling collection services and force householders to deliver mixed wastes to expensive "authorized" services, as excerpts from one "flow control" ordinance show:

"All solid wastes collected by a solid waste collection service within the Metropolitan Service District (MSD) boundaries must be disposed of in transfer stations or solid waste disposal sites designated by the MSD and in accordance with the ordinances and regulations of the MSD."

"No person engaged in business as a solid waste collection service may deposit solid wastes at any facility owned, operated or regulated by the MSD if he has culled, separated or removed from the refuse at the facility and sold, recycled or otherwise reused."

ORE Plan kinds of home collection of recyclable wastes would significantly reduce the purchase and operating cost of large-scale, mixed-waste sorting systems. Any problems of exclusion and big machine monopoly could be avoided by explicitly stating in a "flow control" ordinance that "home grouped wastes" (i.e. also called "source-separated wastes") are not "solid waste" as used in the above excerpt.

Collection of garbage is now done by non-franchised private companies in Portland. Presently these companies serve overlapping areas and result in as many as three or more different collectors serving some streets. With good reason, efforts are underway to franchise routes to reduce expenses.

Franchising in Portland could either help or harm existing home collection and recycling services. The main benefits of a fair franchise ordinance are obvious: increased collection efficiency and reduced costs. The dangers of a poorly designed ordinance are three in number:

1. Sector assignment. The city might be divided into sectors and assigned to collectors in proportion to their present cash flow. Since a standard garbage collection business has about 1000 households compared to the current figure of 100 for Cloudburst, this would end their operations even though they are the most rapidly growing collection service in the city due to lower prices.

2. Customer assignment. Cloudburst and Sunflower now serve only customers who have voluntarily chosen their recycling services. Thus, they are dealing with a specific clientele who cannot be arbitrarily assigned.

3. Standard franchise fee. A third way that a poorly designed franchise ordinance might eliminate existing recycling collection services is by requiring a standard fee, say \$1,000, from all businesses. Clearly this would end small ORE Plan type business because most of their capital flow is needed for reinvestment during an initial period of rapid growth.

Most home collection recyclers and citizens alike would welcome a properly worded, non-discriminatory franchise ordinance which would continue to allow customers to choose among competing services according to price and services rendered.

Summary

Implementation of the ORE Plan in Portland, Oregon, indicates it is an economically viable garbage collection and recycling system. It is an energy-saving method for recycling household solid waste that has reduced garbage bills 20 to 40 percent, compared to fees for standard collection service. More rapid spread of this approach should be possible now that that operating data exists for cities and private garbage collectors to explore the relative economic and social advantages of offering an ORE Plan type service.

Special Note: Cloudburst and Sunflower each operate home collection routes in N.E. Portland. Residents wishing more information on their services should call 281-8075 or 281-0448, respectively).

Simple Separating

Suellen McDonough of Durham, New Hampshire, has invented a simple aid for keeping separate the glass, metal and paper household wastes that remain even when we reduce the waste we generate. Her "Recycl-it," a three-section plastic wastebasket, is specifically designed to hold three supermarket bags, allowing easy handling of recyclable materials. "Recycl-it" is currently available at East Coast department stores, such as Jordan Marsh and Bloomingdale's, and will be available from Sears in the Spring, 1976, catalogue.



Bob McDonough

ORE Plan Recyclers and Resource People

(O = operating, PL = planned, P = proposed)

ARKANSAS

Uroborus Recycle Service (O)
121 West St.
Fayetteville, AK

CALIFORNIA

John Amodio (P)
Arcata Community Recycling
Center
1380 9th
Arcata, CA 95521

Terry Harrison (P)
Ecology Center
2179 Allston Way
Berkeley, CA 94704

George A. Burcham (P)
13271 La Barr Meadows Road
Grass Valley, CA 95945

Jim Bonser (PL)
3725 Army
San Francisco, CA 94110

Ron Guenther (PL)
P.O. Box 249
Venice, CA 90291

DISTRICT OF COLUMBIA

Dr. Neil Seldman (PL)
Institute for Local Self Reliance
1717 18th St., N.W.
Washington, DC 20009

IDAHO

Ron Hanson (PL)
Recycling Center
290 N. Jackson
Moscow, ID 83843

ILLINOIS

David N. Paddock (P)
Natural Areas Coalition
R.R. 1
Carlock, IL 61725

Tom Simon (P)
Box 249
Cedarville, IL 61013

MASSACHUSETTS

J. Richard Ludders (PL)
169 Elliot St.
Danvers, MA 01923

MINNESOTA

Michael Conway (PL)
1221 Park Ave.
Bemidji, MN 56601

Thomas Haller (P)
Rt. 1, Box 3
St. Michael, MN. 55376

MISSOURI

John M. Williams (P)
Rt. 2, Box 188
Anderson, MO 64831

Elizabeth Laughlin (P)
Rural Route One
Kirksville, MO

NEW HAMPSHIRE

Bob McDonough & Craig
Cassarino (PL)
Solid Waste Recovery Co.
16 Meserve Road
Durham, NH 03824

NEW MEXICO

Shirley P. Brewer (P)
611 E. Mesa
Gallup, NM 87301

NEW YORK

Gerald R. Schultz (P)
88 Manhattan Ave.
Buffalo, NY 14215

Mary C. Hall (P)
RD #1, Box 713
Jordan Road
Jordan NY 13080

NORTH CAROLINA

Helen G. Spencer (PL)
809 Russell Ave.
Reidsville, NC 27320

OREGON

Julie Massy (P)
2021 Wine St.
Ashland, OR 97520

Al Walker (P)
Sort Recycling
280 Palm St.
Ashland, OR 97520

Marion Frank (O)
BRING
2009 Elk Drive
Eugene, OR 97403

David McMahon and Michela
Marcus (O)
Cloudburst Recycle Inc.
2440 N.E. 19th
Portland, OR 97212

Chuck Fischer & Bill Everitt (PL)
Fischer & Everitt Recycle
6805 N.E. 47th
Portland, OR 97218

Len Casciato (P)
SE Portland YMCA
2033 S.E. 50th
Portland, OR 97215

Bruce Nelson & Ruby Smale (O)
Sunflower Recycle Inc.
520 N.E. Russett
Portland, OR 97211

PENNSYLVANIA

David W. Bowen (P)
Environmental Action
Coordinator
Frackville Area Jaycees
P.O. Box 202
Frackville, PA 17931

Lefferts Hutton (PL)
Hutton Recycling Circle
Box 289
New Hope, R.D., PA 18938

Alan De Sanzo (P)
Box 417
Racine, PA 15010

SOUTH DAKOTA

Mrs. J.R. Anderson (P)
2404 S. 3rd Ave.
Sioux Falls, SD 57105

WASHINGTON

Dean Ruth Weiner (P)
Huxley College
Western Wash. St. Coll.
Bellingham, WA

Armen Stepanion (O)
Fremont Recycle Station
600 No. 34th
Seattle, WA 98103

Steven Marble (P)
Buttercup Recycling
W. 2210 Pacific
Spokane, WA 99204

Dwaine Townsend (P)
P.O. Box 100
Waterville, WA 98858

FOREIGN

A.S. Venkat Rao (P)
28 New Street
Tankasi 627811
Tamilnad, So. India

APPROPRIATE TECH

Volunteers in Technical Assistance (VITA)

3706 Rhode Island Ave.
Mt. Rainier, MD 20822

Bangladesh cannot afford to buy imported soap, and a development worker wants to make a substitute out of locally available materials. A missionary in Honduras wants to develop wind energy for a local village. The fisheries officer in India wants to find a commercial use for the copious supplies of seaweed that grow along his coast. VITA constantly gets requests like these from all over the world . . . about 1000 a month. If they don't have the information in their library, they find a volunteer from their national network of 6000 who suggests a solution and then continues to provide detailed technical advice until the problem is solved. It's all done by mail—efficient and effective. The organization has been doing this valuable a.t. work

since 1960. And they can always use technical assistance. Right now, volunteer specialists are urgently needed in the following fields: 1) windpower, including the use of windmills for pumping water and electrical generation; 2) grain processing and storage; 3) methane and biogas technology; 4) bamboo crafts; 5) rabbit raising; and 6) housing construction in tropical climates using locally available materials. Write for more information as well as their list of excellent publications. Better yet, visit their jam-packed a.t. library if you're ever in the D.C. area—it's definitely the most complete I've seen.

EAT 3—Environmentally Appropriate Technologies, 3rd edition, by Bruce McCallum, limited numbers of free copies available from:
Information Services
Environment Canada

10th Floor, Fontaine Bldg.
Ottawa, Ontario, Canada K1A 0H3
819-997-2087 (Bruce)

Excellent, 162-page introduction to biotechnology, renewable energy sources, resource and energy conservation in city planning, transportation, industry, agriculture and housing. Covers vital areas often neglected or under-emphasized because their potential is not yet fully understood: energy storage; decentralized on-site energy generation, conversion and utilization; wood heating. Excellent suggestions for further reading. One extremely instructive item is 4 pages of calculations and tables comparing present and future costs for oil, gas, solar & electric, total solar, and solar & wood heating. You'll have to get a copy to find out which beat out all the others. Highly recommended for classroom use in conjunction with *The Energy Primer*, published by Portola Institute, and for public libraries.

EDUCATION

continued from page 10

URECA (Unified & Relevant Education Center Affiliates)
 School of Education
 Portland State University
 Portland, OR 97207

The URECA center, formerly the Environmental Education Center, would like to place student or class generated materials on display from Feb. 14-21. Materials on: energy, environment, resources or pollution. Stories, essays, poems, posters, experiments, pictures, slides, models or tapes. Call or write about arrangements. 229-4789.

***The Whole Kids Catalog*, created by Peter Cardozo, designed by Ten Menter, Bantam Books, 1975.**

Hundreds of items—mostly access through mail or retail outlets, of things to buy, make, read, cook, think about. The range is from free to expensive (such as movie making equipment): kites, puppets, science, history, photography, carpentry, gardening, pets, etc. Seems like a pretty good image of what a "kid" is—though maybe I'm burning out on access to access with emphasis on buy.



Farallones Scholarship
 Farallones Institute
 15290 Coleman Valley Road
 Occidental, CA 95465
 707-874-3060

For anyone interested in learning building and gardening skills, whole systems and energy research, the Farallones Institute has a scholarship available for a student from Oregon, made possible by the Carpenter Foundation in Medford. It covers tuition for one year, starting April 5, 1976, for the spring session. In addition, there are still 3 or 4 regular spaces available for this spring. Interested people should contact Farallones as soon as possible.

Director David Katz reports that the winter shelters are built and work has begun on a solar heated greenhouse. And thanks to another small grant, research and construction on the grey-water recycling system is proceeding.

ENERGY

***Hothouse Earth*, by Howard A. Wilcox, 181 pp., ISBN 0-275-52910-X, \$7.95 from:**

Praeger Publishers, Inc.
 111 Fourth Ave.
 New York, NY 10003

A marine scientist and physicist, director of the U.S. Navy's Ocean Farm Project, warns that rising global heat, a menace worse than the energy crisis or air/water pollution, is at hand. Thermal pollution from our use of heat-producing energy systems at ever-increasing rates could so heat up the earth's atmosphere that the polar ice caps melt, the oceans rise, and much of the world's arable land and most of its largest cities are lost beneath the water. Well-documented evidence, including warnings from the world's leading climatologists, backs up his scenario for disaster. His solution, intensive development of solar technology for food, fuels and fertilizers, is sensible and is an area in which he is working. Recommended for those who still don't understand the energy-environment connection, those who already so relish the understanding of whole systems that they'd love to learn more and for your favorite weather forecaster.

"Energy from the Oceans: Fact or Fantasy" Conference, Jan. 27-28, Raleigh, NC. For details write:

Sea Grant Program
 1235 Burlington Laboratories
 North Carolina State University
 Raleigh, NC 27607

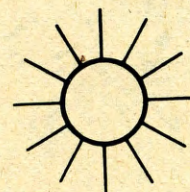
Northwest Energy Policy Project, contact:

Myron B. Katz, Proj. Dir.
 N.W. Energy Policy Project
 1096 Lloyd Building
 700 N.E. Multnomah St.
 Portland, OR 97232

A 2-year, \$1 million study of the social, economic and environmental impacts of long-range energy development in Idaho, Oregon and Washington, funded by the Pacific Northwest Regional Commission, they want public participation by individuals and public interest groups in the development of the study. They welcome comments on the kinds of questions you think should be asked and answered, how the study should be conducted, what state and local policy choices merit attention, all of which the consultant will be required to review and consider.

LOF Sun Angle Calculator, \$5 from:
 Attn: Corporate Affairs—MDSE
 Libbey-Owens-Ford Co.
 811 Madison Ave.
 Toledo, OH 43695

First issued in 1951 to help architects design natural daylighting, solar shade overhangs and "giant south-facing picture window with night curtain" solar homes, this re-issue includes the classic plastic bubble, a completely revised and updated instruction book and an added daylight availability overlay. Get one quick before the price goes up and thank them for a simple, straightforward solar energy tool.



Florida Solar Energy Center. For details write:

Charles R. Johnson, Information Specialist
 Florida Solar Energy Center
 P.O. Drawer N
 Cape Canaveral, FL 32920

Set up to conduct research, test solar equipment, coordinate various solar projects throughout the state and engage in other activities "to exemplify the capability of solar energy as a resource for meeting state energy needs."

Wood Stove Efficiency Testing Facility, write (enclose stamped, self-addressed envelope):

Dr. Jay Shelton
 Physics Dept.
 Williams College
 Williamstown, MA 02167

Dr. Shelton, recognizing the need to gather information on the thermal efficiency of various wood stove designs, has established, with the Center for Environmental Studies, a test facility where the amount of useful heat generated by burning wood can be measured. The facility will give interested persons efficiency results from wood stoves tested over the next few months.

Net Energy Clearinghouse. Contact:

D. Johnson
 Industrial Economics Div.
 University of Denver Research Inst.
 Denver, CO 80210
 303-753-3105

Heads a team of researchers assembling a clearinghouse to disseminate information on analyses of "net energy" methods used and studies made throughout the nation.

Continued on page 17

The Seven Laws of Money



The Seven Laws of Money, Michael Phillips, Word Wheel, 1974, \$3.95.

Word Wheel
540 Santa Cruz Ave.
Menlo Park, CA 94025

By delving into the murky depths of how our beliefs and dealings with money have dominated and distorted our lives, *The Seven Laws of Money* has helped start the collapse of one of our biggest paper tigers. The book is filled with wisdom for understanding and using money and about living in the real world, of which money is a mere shadow. The seven laws may sound somewhat flip and irrelevant at first, but keep coming to mind just as our experiences show us what they mean.

- Do It! Money Will Come When You Are Doing the Right Thing
- Money Has Its Own Rules: Records, Budgets, Saving, Borrowing
- Money Is a Dream: A Fantasy as Alluring as the Pied Piper
- Money Is a Nightmare: In Jail, Robbery, Fear of Poverty
- You Can Never Really Give Money Away
- You Can Never Really Receive Money as a Gift
- There Are Worlds Without Money

Its fragments probe and move around and through the realities beneath money like Zen koans. Anecdotes, poems, commentaries, how-to information, and accounting of personal experiences all draw to the surface of our consciousness a new awareness of ourselves and how we deal with each other. *Seven Laws* has been a seed of the new briarpatch economics emerging from the cracks of our society. More on that in a later issue.

“When you open a checking account, open it with the largest amount of money you possibly can. I’m not kidding! Even if the average balance in your account is only going to be \$50, try to borrow a friend’s \$10,000 (home down payment) for *one day* so you can use it to open your account. You don’t have to go that far, but anything over a couple of thousand dollars looks good. You can withdraw most of the money a few days after the account is opened. Really! The reason for this is that the bank records your opening balance

on your signature card (and often in other places, too), believing that it is representative of your financial status. I did a study when I was a banker and found absolutely no correlation between opening balances and the kind of balances that appeared later on in the same account. It’s such a strong tradition to do it this way (at least a hundred years old) that bankers still judge people by their opening balance. Try it; the branch manager will smile on you forever more.

“It may seem middle-class to have credit, but if you have it you need less money. ‘Credit’ is the ability to borrow, and if your credit is good you don’t need savings—or at least you need less savings. Savings are generally for emergencies, but if you have credit you can use it in an emergency instead of your savings, and pay it back later. For example, if you’re busted in Marrakech and a \$500 bribe will get you out, you can get an “advance” on your American Express card.

“All it takes to establish credit is a little time and a little stability. You need *one* job, one address, a phone and a checking account for one year. Having decided to establish a good credit rating and already having a job and an address, wait four months and then apply for a gasoline credit card. Next apply for credit at a luxury store (they give credit *very* readily because their losses on credit are covered by the high mark-up on their merchandise). After six months apply at Sears or Macy’s or a similar middle-price-range national store. Their credit is the very hardest to get and can really get you the rest. Use these credit accounts once or twice and pay promptly. After from seven to nine months you can apply for Master Charge or BankAmericard (not both at the same time). When you get them your credit is really established (after a few months, you can ask by letter to have your credit card borrowing amount raised). Now you are free—you can get a new job as often as you wish and move as often as you feel like it; your credit is established. Just remember to pay your accounts promptly, and never have a run-in with a jewelry store! Most bad credit ratings are put in the credit rating computers by jewelry stores—the \$300-diamond-studded-watch-type places.

“Credit is dependent mostly on stability. Your stability is measured by the time you stay with a job (they check), the time you have lived at your present and previous residence, whether or not you have a phone (bad debtors usually avoid having their own phone), and by your checking account. Be sure not to overdraw your checking account more than once or twice a year; sometimes your bank may keep track of it, and sometimes the word gets around to other banks.

“Lastly, if you need a loan, shop around. The bigger the loan, the more important this is. Banks are not monolithic; each branch is different. Some have loan officers or managers who are liberal, smart and understanding; others have insensitive bores who retired at age twenty-four when they joined the bank. Ask around. If you need a loan for a specialized purpose—say an organic restaurant or to import merchandise from Zanzibar—find someone who got a similar loan and go to their lender. Specialized knowledge and good experience on past loans are what encourage a lender to make additional loans in esoteric areas.” (pp. 55-56)

“There is no tipping in Japan. It made me realize what tips mean. We tell ourselves that tips are rewards for doing a good job, a reward-punishment thing. Then why do we only have tips in job categories where people are expected to be servile—say taxi drivers and waiters, as compared to plumbers or doctors? It’s because this is a vestige of slavery experiences and of our contempt for certain ways of earning a living, not reward-punishment.” (p. 182)

ENERGY

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"Energy" issue of *The New Harbinger*, Vol. 2, No. 6, Sept. 1975, quarterly, \$2.00, single copy postpaid, \$6/yr. subscription from:

The New Harbinger

Box 1301

Ann Arbor, MI 48106

Attn: Ruth Ann Weidner,

Subscription Coordinator

Food co-ops, utility co-ops, farmers' co-ops, auto repair co-ops even! This time the *Journal of the Cooperative Movement*, published by the North American Student Cooperative Organization, examines "co-ops in energy" with emphasis on existing oil co-ops which supply over 30% of U.S. and Canadian farmers' petroleum needs. Includes the story of the world's first co-op refinery, on co-ops banding together to find and produce their own oil, on credit union gasoline. Instructive to those who say "we can't do it alone" . . . they don't have to.

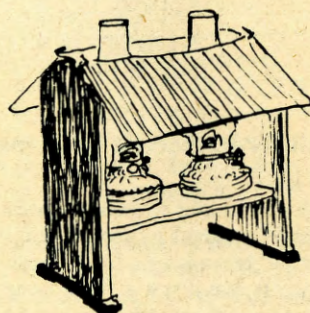
Steam Automobile Bibliography, by Charles L. Smith, 50¢ from:

Charles L. Smith

61 San Mateo Road

Berkeley, CA 94707

Compiled from the files of various libraries at the University of California and the personal collection of Mr. Roy Renner, M.E., of Livermore, California, this is one of the most complete guides to steam car literature we've seen. Covers government documents, books and papers, collections of articles (by source), articles (by author), magazines and newsletters, organizations and firms. Did you know there is a *Steam Calliope Newsletter*? Recommended as an acquisition guide for state energy agencies, research and development centers, libraries and individual experimenters.



Selected Major Federal Energy, Administration Publications, free from:

National Energy Information Center

FEA

12th and Pennsylvania Ave., N.W.

Washington, DC 20461

UCAN Manual of Conservation Measures (Conservation Paper No. 35)

Office of Utilities Programs

Federal Energy Administration

Washington, DC 20461

Or maybe your local FEA office. Free. This manual was prepared for the "Utilities Conservation Action Now" workshops of FEA. Unsurpassed as a guide from the utilities' point of view of what can be done to save power. Some measures are silly, others excellent, but the whole way through you can watch how their minds tick.

New legislation proposed in Arizona would call for speeding fines of \$20 for motorists exceeding 55 mph. \$15 would go into a special fund for solar and geothermal energy research. Rep. John Wettaw estimates that \$1 million would be raised for energy research each year if the proposal passes. (From *State Energy Action*)

Energy Activity Guide, free from:

Park Project on Energy Interpretation

National Park and Recreation Assn.

1601 N. Kent Street

Arlington, VA 22209

Although it's hard to understand why there is virtually no mention of energy conservation in the parks themselves, this guide is an excellent energy handbook for general purposes. There are good graphic summaries of several concepts as well as a reprint of Wilson Clark's net energy article in the *Smithsonian*. Also included are conservation and energy budget ideas as well as a pretty thorough bibliography. Hope this gets handed around to lots of people.

Making the Most of Your Energy Dollars

National Bureau of Standards

Consumer Information Series 8

U.S. Government Printing Office

70¢

or you may be able to get it free from:

Madeleine Jacobs

Office of Information Activities

National Bureau of Standards

Washington, DC 20234

The homeowner's guide to selecting energy conservation measures for the home based on the technical report, *Retrofitting Existing Housing for Energy Conservation: An Economic Analysis*. Both the technical report and the homeowner's guide are still the "best of the bunch" of all the insulation guides we've seen. Insulation values are keyed to climate and energy costs—you pick what you think energy will cost through the life of your home! They also give economics for storm windows, weather stripping, floor insulation and other conservation measures.

Vermont Firewood

We mentioned in last month's *RAIN* (p. 10) a Vermont study on using waste wood to provide 25% of the state's energy needs. The report, "Wood as a Source of Energy" is currently out of print, but will be reprinted at the price of \$1.50 if demand for it continues. Send requests to:

E. Bradford Walker

Director of Forests

Agency of Environmental

Conservation

Montpelier, VT 05602



Energy Today, 8-pg. bi-monthly, \$90/yr. from:

Trends Publishing, Inc.

National Press Bldg.

Washington, D.C. 20004

202-393-0031

If you've the money, this is the energy newsletter to get. Covers all areas, nuclear, fossil, solar, legislation, projects, research, international, domestic, relevant new publications and energy trends (who's doing what where, conferences). Highly recommended for public libraries, corporate libraries.

Informal Directory of the Organizations and People Involved in the Solar Heating of Buildings, by William A. Shurcliff, \$5 if check enclosed with order;

\$7 otherwise; add \$1 for shipment by

1st class mail. Make checks to:

New England Solar Energy Assoc.

P.O. Box 121

Townshend, VT 05353

Covers institutions (gov't agencies, commercial concerns, universities, professional societies, foundations), individuals (solar engineers, architects, inventors, house owners, planners, writers), 26 countries (U.S. emphasis, much material on Canada, Great Britain, France, Australia) and activities (all aspects of solar heating of buildings: invention, research, development, design, manufacture, marketing, operation, use, government). Highly recommended, especially since the EARS Directory by Carolyn is getting old in the fast-moving solar area and because Bill does good work.

Continued on page 19

BULLETIN BOARD

B.C. News

Hello Rain:

In the last forty-one days we islanders have experienced the retirement of our member of the legislative assembly (a cabinet minister and head of the government car insurance corporation); the enpaneling and subsequent necessity for making representations to a commission for the redistribution of electoral boundaries (which involved getting information to and statements from voters who are accessible only by boat, mail plane and logging road), some fairly hairy back to work labour legislation and the calling of an election which, after thirty some days of eighteen-hour-a-day campaigning, democratic socialism lost to the forces of "bigger is better" business (Australia and New Zealand labour governments also losing in the general backlash against the post-Vietnam inflation ramp). No fires, pestilence or famine, but a jolting experience from end to end all set against a backdrop of a general mail strike of forty-five days duration.

So I am now confronted with putting a retread on the information service without government assistance.

On airpower front: Ottawa Wind Collective. Odin windmaker—vertical axis turbines, 32 Roseberry Ave., Ottawa, Ontario, Canada.

I will either write or bespeak into a tape recorder something about lady blacksmiths in bee-keeping communities in the interior, castle-building stone masons on river islands, or will be sailing to Seattle in early February to break in a new multi-hull of the very low cost cold molded hull variety and will bring a Pelton No. 1 motor to intrigue those who watch the water pour past their houses on upper vista.

Yours in somewhat
groggy haste,
J.R. DeWeese
Youbou, BC, Canada

Recycling

Folks:

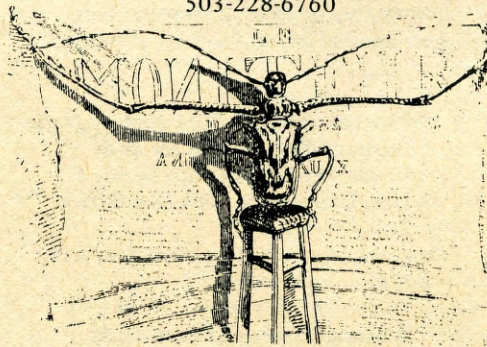
Just a short note to tell you how much we appreciate the magazine. Also, we wish you all a pleasant holiday.

One short comment: I think you may have missed the point in terms of the League of Women Voters publication mentioned on page 19 of the Dec. 1975 issue. I think a more thorough analysis would indicate that recycling

endeavors as well as energy recovery systems generally do *not* address the issue of source reduction. In fact, many recyclers are fighting bottle bills because they will take away major portions of their income (brewery bottle programs and aluminum can sales). Collection for fee systems such as the so-called ORE Plan and drop-off programs have only recently confronted this issue. Your mention of the Bottle Bill was correct (though it must be remembered that it is a litter bill and as such makes no reference to waste reduction or recycling). My point here is this: a waste reduction program involves legislative and educational programs to lower the amount of waste in the garbage stream. Generally recycling programs start at the other end (with source-separated waste). Unless there is a strong ingredient of reduction education most recyclers (including both drop-off operators and collection for fee plans) avoid the point. A minor thing. But with that understanding the LWV is a valuable publication.

We hope to keep in contact (especially since we're neighbors).

Jerry Powell
Portland Recycling Team
1207 S.W. Montgomery
Portland, OR 97201
503-228-6760



Musical Instrument Supply

Dear Raindrops:

The Guitar's Friend, a mail order musical instrument supply outfit out of Stockbridge, Michigan (1240 Brogan Rd.), briefly and insufficiently mentioned in the *Whole Earth Epilog*, has a \$2.00 catalog that is well worth the plunge. A beautiful catalog that oozes care. They even list outfits whose instruments they don't handle but think you should know about anyway.

Johan Mathiesen
Church of the Creative
Crewell, OR

In Australia

Dear Rain:

I am concerned here with building a contemporary documents collection with emphasis on alternative literature. Although my emphasis is on Australian material, I am trying to build a collection of reference materials that will provide input and guidance where overseas material is required. *RAIN* is excellent for this use.

I would like to suggest that if your office or other organizations in *RAIN* produce bibliographic materials or guide, such as *RAIN* catalog, then please inform us so that we may acquire them (if they aren't gratis).

Sincerely,
Grant L. Stone
Serials Section
Murdoch University
Murdoch, W. Australia
6153

Warehouse Space

My friends,

We rent at a reduced rate three garages-warehouses from the State Highway Department. We no longer use all of the space and would like to share it with another non-profit, community-oriented organization. There are two paved garages that are each roughly 20' by 30' by 15'. The rent would be \$35/month, but only for non-profit, community-oriented groups. We would like to see the space used for working on bringing about fundamental changes in neighborhood. Contact me if you have any ideas.

Bruce Nelson
Sunflower Recycling
521 N.E. Russet
Portland, OR 97211
503-281-0448

Small Hydroelectric Systems

Dear Rain:

We would like to make information available on small hydroelectric systems available. It took us a lot of time to develop it. We just ask for a large, stamped envelope. We will send hydroelectric guide and working/operating characteristics of pelton-type water turbines. Alaska people write to: Box 504 A. Chugiak, AK 99567, Attn: R. Soltis. Others:

P.O. Box 124
Custer, WA 98240

Chemical Compounds & Plants

Dear Rain:

Allelopathy is a term in plant ecology which refers to direct or indirect harmful effects inflicted by one plant or soil microorganism on another plant through the production of chemical compounds that escape into the environment either during the plant's life cycle or during its decomposition. The study of allelopathy also touches frequently on beneficial plant associations and uncovers much information useful to those of us interested in companion planting. *Allelopathy*, by Elroy L. Rice, Academic Press, (111 5th Ave., New York, NY 10003), 351 pp., 1974, is a well-done explanation of the principles and exhaustive compilation of available research results with references. A recommended companion to *Companion Plants* by Philbrick, for the serious companion planter.

Woody Deryckx
TILTH
Arlington, WA

Forestry Research

The PNW Station is the research arm of the USDA-Forest Service in the Pacific

Northwest. Each year the station publishes a list of research papers which have appeared in print during the preceding twelve months. Most of the material is esoteric (scientists talking to other scientists), but some of the publications can be useful to those engaged in home forest industries, home building, and other areas. The topics range from the functions of microorganisms in the forest soil to the insulation of wood frame structures for optimum heating and cooling.

Tom Baugh
Pacific N.W. Station
P.O. Box 3141
Portland, OR 97208

Northwest Public Power Association

Dear Rain/Full Circle Staff:

Thank you for including the Northwest Public Power Association in your Northwest Energy Directory. I have some corrections to make in our listing. Our address is now 1310 Main Street, P.O. Box 1307, Vancouver, Washington 98660. We have two phone numbers, (206) 694-6553 and (503) 226-0320, Portland. Our General Manager is Henry

G. Curtis. And our publication is the *Northwest Public Power Bulletin*, which is now bi-monthly.

I have enclosed a copy of our publication and our Directory for your information.

Sincerely,
Tom Santee
Communications Dir.
1310 Main St.
P.O. Box 1307
Vancouver, WA 98660
206-694-6553

We Live and Breathe

Dear Rain:

Thought you'd be interested to know what uses your magazine is put to. We were in Corvallis, Oregon, job hunting to no avail. My parents sent my mail, including back issues of *RAIN*. So we got the idea of writing to different environmental groups soliciting our energy. One of our letters was to Earthmind in Saugus, California. They answered a warm welcome. So, hopefully, we are headed down there.

Thanks,
Sam & Dave Izzo
Saugus, CA

ENERGY

continued from page 17

Fuel Economy Annotated Bibliography, by American Automobile Association, 14 pp., from:

Traffic Engineering & Safety Dept.
American Automobile Association
8111 Gate House Road
Falls Church, VA 22042

Lists and briefly describes: pamphlets, booklets and flyers; magazine and newspaper articles; publications partially devoted to fuel economy; audio-visuals; research; AAA items and sources for further information. Useful to school libraries and audio-visual departments, city planning & traffic engineering agencies, consumer-environmental-public interest organizations.

Solar Heated Buildings: A Brief Survey, by W.A. Shurcliff, 172 pp., Nov. 1975, \$9 via 1st class mail, \$8 via book rate, payment must accompany order:

W.A. Shurcliff
19 Appleton St.
Cambridge, MA 02138

This latest, 11th edition, describes 187 existing solar buildings and contains a graph showing, in factual terms, the rapid growth of solar heating. The

total number of houses built in 1975 exceeds the total number built in all years preceding 1975 (74 in 1975; prior to 1975, 62). By surveying owner-built, as well as government-sponsored construction, many comparisons of different approaches to solar heating are made. A must for anyone interested in solar energy.

Solar Energy, Vol. 17, No. 5, Nov. 1975, \$65/yr. to libraries and institutions, included in \$30/yr. dues (students \$17), bi-monthly from:

American Section
International Solar Energy Society
Smithsonian Radiation Biology Lab
12441 Parklawn Drive
Rockville, MD 20852

An excellent issue with 2 papers on the use of reflectors to increase solar energy collection, one on ways to add solar energy to existing fossil-fuel steam power plants, one on a Brace Institute-designed greenhouse for cold regions and welcome technical notes on Zome-works "Beadwall" by David Harrison. In sum, *well-designed reflectors* can give 40 to 70% increase in light-gathering power for direct solar radiation in winter, and a 50% enhancement for diffuse solar energy; *greenhouse heating* can

be reduced 30 to 40% if the south wall is angled to optimize max. transmittance of solar energy and the north wall is insulated and has a reflective inside face; and, going beyond economics, we need an "energetics" study which takes into account not only the obviously great amounts of energy saved in a building using beadwall, but also 1) the BTU value of petroleum energy inherent in the polystyrene and that used to form beads from amorphous chunks of that plastic, 2) the amount of electrical energy needed to blow beads into a wall and to suck them out again.

Wind

NSF-RANN Wind Energy Conversion Research: Recent Publications, ask for Bulletin No. 3, June 1975, from
National Science Foundation
Washington, DC 20550

An abstracted bibliography which some wind enthusiasts may have missed if they were not on the NSF wind mailing list. Includes Sandia Labs' vertical-axis wind turbine reports, NASA Lewis Research Center reports on the 100-KW machine, as well as NSF grantee reports. Tells you where to order what.

Continued on page 20

ENERGY (Wind)
continued from page 19

"Wind Workshop Report," in *Sun-Times*, Vol. 2, No. 10, Nov.-Dec. 1975, single copies \$1 postpaid, \$10/yr. dues to AERO gets you a subscription to the newsletter. Write:

Sun-Times
Alternative Energy Resources
Organization
435 Stapleton Bldg.
Billings, MT 59101
406-259-1958

Kye Cochran, AERO director, has done it again. She has gotten together a few friends: Jack Park of Helion, Hans Meyer of Windworks and Woody Stoddard of U. Massachusetts (Heronemus' Wind Energy Group), for a very successful 2-day theoretical-to-practical construction session, with talks, slides and films. Anyone organizing energy workshops should get this issue of *Sun-Times* and learn how to do it well. Ken Smith and Lee Johnson of Ecotope Group will be directing an AERO Solar Workshop in March, 1976. Contact AERO for details.

Boston wind shelter, energy and food production classes, write:

Boston Wind
307 Centre St.
Jamaica Plain, MA 02130

In existence only 6 months, BW is a non-profit, educational institute with classes on windpower for home use, solar heating systems, owner-built shelter, aquaculture and mariculture, and food production. They also give slide lectures to interested groups and 1-day wind workshops. Membership is \$25/yr., quarterly newsletter only is \$10/yr. When a new center starts, like the one we started at OMSI or AERO (Billings, MT), Max's Pot (Austin, TX) or Farallones Inst. (Occidental, CA), we ought to all pay special attention to helping them. After all, that's what this network, any number of religions and Whole Earth consciousness is all about, right? Right. So what could Boston Wind find useful? Well, how about the *RAIN*, *TILTH* and *AERO* newsletters in exchange for theirs; and let's ask Ben and Hans to send their latest Windworks bibliography and info on Gemini; Michael Hackleman of Earthmind to send his latest publication; Jim DeKorne to send his *Survival Greenhouse* book, and Tom Bender to share a *Sharing Smaller Pies*. And maybe Byron Kenard of the National Council for Public Assessment of Technology and Hazel Henderson of the Council for Economic Priorities/Environmentalists for Full Employment, ought to put them on their mailing lists. And, someone, some-

time, really ought to sit down and think about how and what a new group like Boston Wind should be plugged into. It all comes back to all of us in the end.

GOOD THINGS

The Private Lives of Animals, Roger Caras and others, Grosset & Dunlap, 1974, \$17.95.

Compare this photograph and commentary natural history kind of survey to ones 20 years ago—something quite different. Better photographic techniques, allowing more behind the scenes shots; and also facing up brutal beauty and the beast. Sex, death, forms of uncivilized behavior—and lovely camouflage photos with a what's-that-feeling. A good gift book. Should be in school libraries.

The Mariner's Catalog, Vol. 3, \$5.95.
International Marine Publishing Co.
21 Elm St.
Camden, ME 04843

We had hoped to draw more attention to this in Vol. II, No. 11; hope this does. It's well worth it. A place to begin and keep perfecting one's understanding (and eventual instincts) about water life and adventure—and lots more, even for those on rivers, creeks or just bathtubs.

To Finish off an end of Wire not Required to be Spliced.—
It may be that after fitting an eye in one end of a wire, that you decide to leave the other end unspliced, but preserved, and be able to handle it without fear of tearing the hands. I use the following method:—Whip the end neatly an inch or two, with sail twine or the like. Then make a sleeve of flax canvas

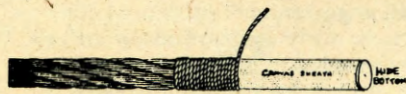
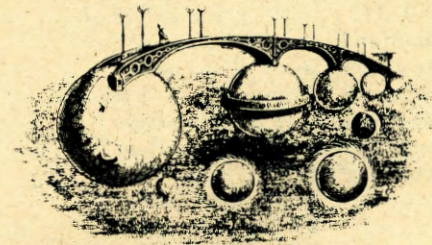


Fig. 30—Preserving a Wire End

about six inches in length, and just a fraction larger in circumference than the wire, but instead of using canvas for the bottom of the sleeve use pig hide; this prevents the ends of the wire from piercing through the bottom of the sleeve. Now give the end a spot of grease and slip it into the sleeve hard on to the hide bottom. Complete by passing a serving of yarn over sleeve (See Fig. 30).

Fieldbook of Natural History, E. Lawrence Palmer (revised by H. Seymour Fowler), McGraw Hill Books, \$19.95. For the person who wants to know quite a bit about every branch of natural history, a selective field guide to plants, clams, mammals, insects, birds, dogs, etc. Clear illustrations, descriptions—that in the case of plants often refer to possible use. How did they ever select; but it seems to be pretty much on target. Sure, you'll not find everything, but to buy the specialized guides for each area covered would cost you 3 to 4 times more, and then you'd always feel there was too much to know.

Peoples Almanac, David Wallechinsky, Irving Wallace, Doubleday & Co. \$7.95. This may be the fattest paperback in existence (1500 pages, over 2 inches thick) . . . Adolph Hitler owned 8,960 acres in Colorado. . . . The traditional listing of countries round the world also lists large corporations: International Telephone & Telegraph, population 438,000. . . . Also lists who rules, followed by who *really* rules. . . . They have thought of many unanswered questions and answered some of them. . . . A listing of neglected scientists. . . . Sports oddities. . . . It seems like another Whole Earth outgrowth and is maybe a new genre in itself. . . . Nearly a month later I'm still finding different pockets, unusual slants and inventories. They expect to update: *People's Almanac*, P.O. Box 49328, Los Angeles, CA 90049.



Sun Sign Almanac, 1976, \$3.60
Elizabeth and Wilbur Wood
Stone House, Box 12
Roundup, MT 59072

A nice astrological calendar with 20 or so pages at the back on everything from natural birth control to plate tectonics. Basic information on climate, weather, alternative energy, wine-making and astrology.

INFORMATION

Comindex Keysort Cards
Bob Wallace
New World Computer Services, Inc.
P.O. Box 5414
Seattle, WA 98105

Cards of various dimensions with holes on all 4 sides and a knitting needle, and you have a kind of treadle-operated computer: a way of retrieving information through a sophisticated number of combinations available by cutting out holes on each card applicable to a given key word—when you slip a needle through the holes at the desired key word point, all the cards with punched holes fall to the desk or floor.

Bob Wallace has come up with a modification on the more well-known keysort systems—smaller, cheaper, and an easier way of making mailing lists using the cards.

A fairly complicated cost set-up—

TOUCH and GO

A 98-year-old Sitka Spruce was found near the Arctic Circle only 11 inches high and less than an inch in diameter. . . . For those who do not remember the past are condemned to live it once more. . . . W.C. Fields had over 700 bank accounts when he died because he had a recurring dream about being alone without money in a strange town. . . . The Academy of Applied Sciences has obtained photographs of the Loch Ness Monster. . . . "The bather selects the desired water temperature and soap, pushes a button and is then soaked, washed with suds produced by ultrasonic waves, rinsed, massaged with rubber balls and finally dried with heat lamps. . . . On the transcendental meditation front, 109 inmates at California's "end of the line" institution have petitioned Gov. Edmund Brown for support of a transcendental program at Folsom prison. Elsewhere, Mike Love (formerly of the Beach Boys) has been visiting the White House to tell Susan Ford more about it. . . . On an average day, 367 acres of California agricultural land is destroyed by urbanization. . . . A ham on rye is merely a ripple, or fluctuation constructed by thought in the quantum foam of space. . . . Recycling pocket lint. For description of a way to make paper from it write to Mere Benoit, Abby of Jonarre, Seine et Marne, France. . . . "For my own particular biocomputer to feel good and to welcome me as its lone inhabi-

though approximately 75¢ per 100. Write for details. Send self-addressed, stamped envelope.

Dustbooks

P.O. Box 1056
Paradise, CA 95969

For about 10 years Len Fulton and friends have kept track of the rich deluge of self-published books, small circulation magazines, basement literary and low budget publishers. Most of the work focuses on literature, poetry, arts, so should be supplemented with things like the *Alternative Press Index*, *RAIN*, *Co-Evolution Quarterly*, etc.

tant, 10 to 12 hours of sleep per night are required (John Lilly). . . . A small, pot-shaped object with hieroglyphics on the outside; a book of 17 thin copper sheets with 2,000 "words" engraved, fell near Scarborough, England, Nov. 21, 1957. . . . Lithium is the newest "wonder drug," hailed as the cure for "mood-swings," manic-depressions, etc. (for interesting article, see latest issue of *Madness Network News*). . . . An old formula for whitening linen: first soak the cloth from Saturday to Monday in a thick green mixture of soft water and sheep's dung (only summer dung will do). From Monday to Wednesday dip the cloth repeatedly in a pond or river. On Wednesday beat out and leave to soak in a pond or river until Thursday

Resource books include: *International Directory of Little Magazines and Small Presses* (\$5.95); *Small Press Record of Books* (\$4.50); and, to keep on a regular basis, *Small Press Review*, \$6/yr. individual, \$10 institution.

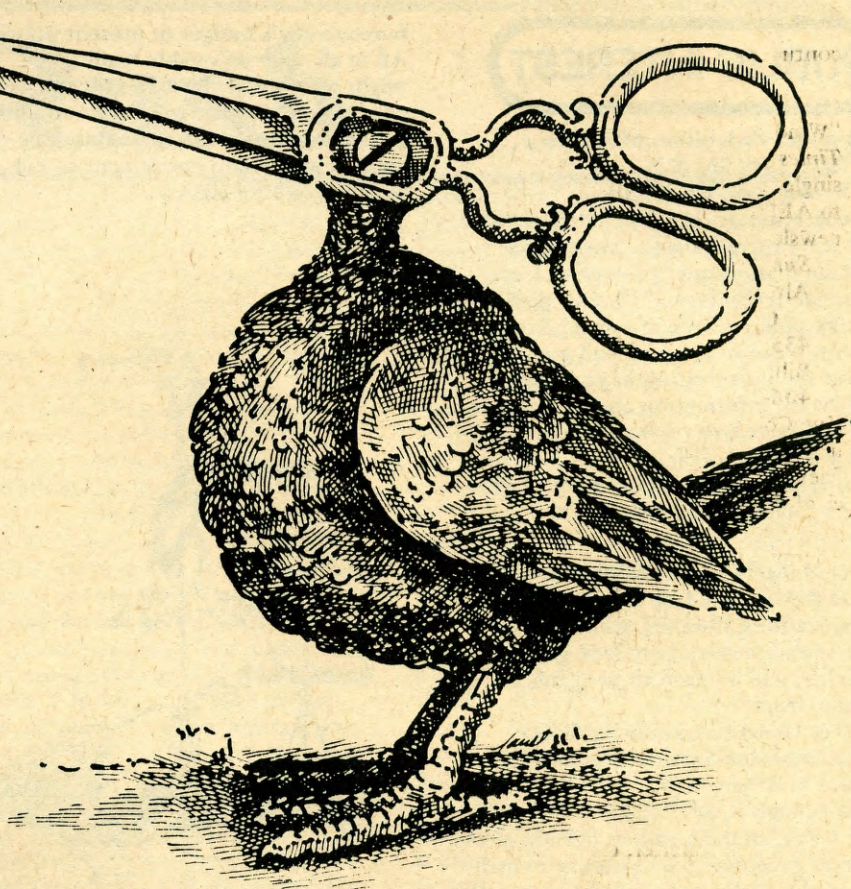
Environmental Action Foundation 724 Dupont Circle Building Washington, DC 20036

An excellent source of soundly documented information for community action on electrical energy, transportation, solid waste, and our visual environment. Publish a very informative bi-weekly magazine, *Environmental Ac-*

afternoon, then allow to dry. Next day, put it in a tub, spread a buck sheet over it, make a thin paste of dog's mercury, mallow, kecks or wormwood, spread this over the buck sheet, then pour strong, boiling lye over the sheet, cover and allow to stand overnight. By Friday it is ready to be spread on the grass and watered all morning. Friday night, repeat the whole process with dog's mercury, etc., and boiling lye, and again on Saturday. On Saturday night drop the cloth into a tub of lye and allow it to soak until Monday morning. It is then ready to be laid out once more and watered every day with pond water until white enough. . . . Either that, or I'm doing the right thing at the wrong time. S.J.

tion (\$10/yr.). Some recent and useful publications available: *Phantom Taxes in Your Electric Bill* (\$1), a report on federal income tax avoidance by electrical utilities; *Oregon's Bottle Bill: Two Years Later* (\$2.50), a report from the Oregon Environmental Council that examines the success of Oregon's ban on non-returnable bottles and cans; *A Citizens' Guide to the Fuel Adjustment Clause* (\$1), describes utility abuses of fuel adjustment clauses and outlines strategies to challenge those practices.

Write for full list of publications and how to assist their program.



PUBLIC INTEREST

Consumer Federation of America
1012 14th St., N.W.
Washington, DC 20005

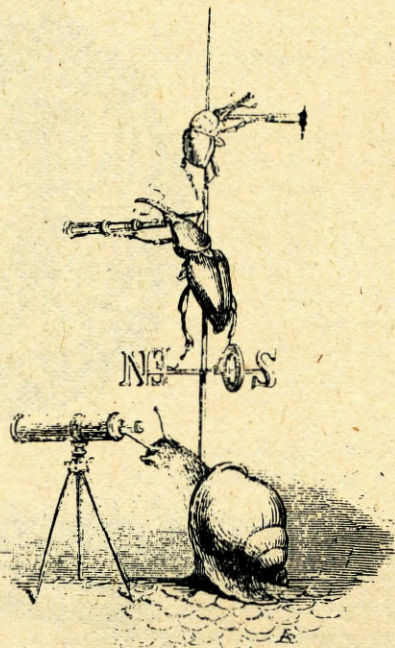
A federation of over 200 national, state and local organizations, working for passage of consumer protection laws, national health insurance, unit pricing, energy policy (through a special task force). Write to them to find out about the organization in your area and/or for information about their newsletter *You've Got to Move*. Other booklets available include: *How to Prepare a Lifeline Proposal* (75¢); *How to Prepare a Candidate Survey* (25¢).

GAO Monthly List of Reports and GAO Reports are free to non-profit organizations, libraries, students, newspapers and local-state-federal gov. officials, and \$1 each to the general public, from:

U.S. General Accounting Office
Distribution Section, Room 4522
441 G Street, N.W.
Washington, DC 20013

The GAO, an independent agency of the federal government's legislative branch, has traditionally been called Congress's "watchdog" for its economy, efficiency and effectiveness reviews of executive branch programs. Most of their work originates through requests of congressional committees, individual members or of their own initiative. The Office of Special Programs, directed by Monte Canfield (formerly of the Ford Foundation Energy Policy Project), coordinates GAO's activities in energy, food, materials and regulatory reports reviews. OSP's objective is to focus GAO's attention on pertinent issues facing Congress in these areas and to educate GAO in methods of targeting and analyzing issues. OSP also analyzes government policy on critical issues in reports or issue papers to Congress, such as "The Liquid Metal Fast Breeder Reactor: Promises & Uncertainties," OSP-76-1, July 31, 1975. The most unique and useful characteristics of *GAO Reports* are 1) their layperson language—there is little jargon, and what there is is clearly explained in footnotes or glossaries; 2) their very complete references, including understandable maps, graphs and tables; and 3) their balance of both pro and con views on often controversial issues. An added bit of spice are the inter-agency letters and memos which ever so gently try to persuade GAO to say something else, say it more euphemistically, pat someone on the back in their reports, or not say anything at all, if it would prejudice some federal

bureaucracy's budget or present policies. All in all, very enjoyable reading . . . might renew your faith in at least one part of government. Invaluable to public interest/environmental/consumer groups; would add excitement to college/high school classes.



NSF "Science for Citizens" Program, write:

Jack T. Sanderson, Deputy Ass't.
Dir. for Science Education
National Science Foundation
Washington, DC 20550

NSF is making every effort, including public meetings at various science, art and natural history museums around the country, to get comments and suggestions on a program aimed at 1) improving public understanding of public policy issues involving science and technology; 2) facilitating the participation of experienced scientists and engineers, as well as students, in public activities, including community and citizens group activities, aimed at the resolution of public policy issues having significant scientific and technological aspects; and 3) enabling non-profit citizens' public interest groups to acquire technical expertise to assist them in dealing with scientific and technological aspects of public policy issues. Jack wants your ideas on a) what specific forms NSF involvement should take in each of these 3 areas, b) what kinds of policy issues a "Science for Citizens" program should address, and c) what policies, criteria and procedures should be established to identify individuals and activities for support and to assure that the program works in a fair and cost-effective manner.

This looks very encouraging, especially since we are being asked for common-sense *before* the federal government does something; also it fits in with what many *RAIN* readers both know about and want to encourage . . . the humane use of knowledge—science in the neighborhood—appropriate technology. The *RAIN/Full Circle* staff will be sending Jack some thoughts, and Ecotope Group will mention the multiplier effect of its successful solar workshops. We hope you'll send him some advice too.

An Organizer's Notebook on Public Utilities and Energy for New York State, 300 pgs., \$15 from:

Human Affairs Program
Cornell University
410 College Ave.
Ithaca, NY 14853

Excellent looseleaf guide to "citizen action" against a utility or oil company. Specific examples in NY state but recommended for any consumer or public interest group, or to any individual wondering what to do about high-handed practices or high energy bills.

RECYCLING

Alternative to Waste Disposal Conference

RAIN/Full Circle, along with people from Clackamas Community College, OMSI, and the Oregon State Department of Environmental Quality, are planning a conference on present methods of large-scale sewage treatment and alternatives available, such as household size, composting, no-or-little water use systems.

The conference is planned presently for sometime in March. We would like outside input—would you attend?—what should be covered?—can you help?

One of the reasons the conference idea has come up is because of the recent approval by the (Oregon) Dept. of Environmental Quality for the installation of 100 bacteria composting toilets. The units will be monitored by the DEQ every 6 months for 3-5 years. In order to install a composting type toilet, one must apply at the DEQ. Contact: Jack Osborne or Bob Jackman, Dept. of Environmental Quality, 1234 S.W. Morrison, Portland, OR 97205.

Rodale Press people have also announced plans to hold their 6th annual composting conference in Portland, and discussion is underway to combine the two events.

Continued on page 24

Rush

Biomagnetics. Dr. U.J. Pittman, a researcher for Canada Agricultural Research Station at Lethbridge, has been working on a no-till method of agriculture; also he's been working on biomagnetics. "We have discovered that the root systems of wheat and barley tend to grow north and south, according to the magnetic field of the earth. We've found that by planting rows of crops at right angles to this magnetic field, crops are able to make better utilization of moisture in the soil." Experiments with subjecting seeds to a magnetic field have also shown positive results, with an 8% increase in productivity. . . . *Tax laws.* John R. Quarles, deputy administrator of the U.S. Environmental Protection Agency, has called for changes in federal tax laws to support environmental groups and their efforts to lobby the Congress. . . . Alternative media coalition. Jeff Berger, KHSU-FM (Humboldt State U., Arcata, CA 95521) is attempting to set up a clearinghouse to act as a go-between for large and small, straight and wrinkly radio stations. He would like to hear from others. . . . "Weeds

and Plants" is a nicely done bibliography on the history of weeds in America. From: *New York Botanical Gardens, Bronx, NY 10458.* . . . Student research. Results of projects conducted by college students on environmental and societal problems are reported in a new National Science Foundation publication, "Abstract Reports," Student-originated Studies Projects, 1974 (NSF 75-38), from: Gov. Printing Office, Washington, DC 20550. \$5.20, Stock No. 038-000-00247-3. . . . *The Neighborhood History Project, 1020 S.W. Front Ave., Portland, OR 97204, has been formed to research and record history from a neighborhood-by-neighborhood perspective, by oral taping, photography, general research.* . . . Toxicology Research Projects, Dept. of Health, Education and Welfare, has announced plans for a new publication entitled "Toxicology Research Projects Directory," a 644-page directory containing descriptions of 2,500 ongoing research projects. Single issues \$15. . . . BLM computerized map inventory. Oregon's Bureau of Land Management has been working for 3 or 4 years on a

computerized map service for its regional offices, allowing the retrieval of specialized maps for various areas, including information on: land ownership, road system, timber status, etc. . . . *Only 30 years ago the U.S. was in 4th place in the international health standings, with only the Hunzas, a tribe in South America, one in Netherlands New Guinea to top us. Now, in 1973, we are in about 40th place (from "Acres).* . . . Ernest Callenbach, author of "Ecotopia" recently visited Eugene and spoke to a crowd of about 350-400. He may also be coming further north to visit interested people in the Portland area. . . . *Nebraska Low Energy Agriculture Project was announced by the Center for Rural Affairs (P.O. Box 405, Walthill, NE 68067).* . . . U.S.D.A.'s study, "The Composition of Foods," found beansprouts not living up to their nutrition reputation. . . . *The Oregon champion Douglas Fir (700-1000 years old, 302 feet tall, 13 feet in diameter) is dead; fallen by a 140 mph wind. The Queets Fir in Olympic Ntl. Forest again is champion.*

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NESTUCKERS and TRASKERS



Ancil Nance

"The climate of this part of Oregon has been described as mild and salubrious, but such a description presupposes a taste for misty, rainy, and cloudy weather. From October to June, disturbances move in from the vast Pacific in a steady succession of varieties of bad weather. Storms that are funneled inland by the gorge of the Nestucca, driven by southwest gales, are called 'Nestuckers.' They send new Oregonians fleeing to ticket offices and other escapes. A Nestucker can dump an inch of rain in an hour, and has been known to bring four inches of rain in a day.

"Gentler disturbances that move in from the west, up the valleys of the Wilson and Trask, are known as 'Traskers.' They bother the natives no more than the famous showers of Paris trouble Parisians. Intervals between Nestuckers and Traskers are not long enough, or numerous enough, to receive nicknames. They are referred to, somewhat nervously, as 'nice spells.' In August a nice spell sometimes prolongs itself for several days and is then called a 'drouth.' The pitchy evergreen forest that surrounds Tuality then dries out, and pictures of serious-looking bears inform everybody that 'only you can prevent forest fires.'" (From *Land of Tuality, Washington County, Oregon*, Bob Benson,

RECYCLING

continued from page 22

Stop the Five-Gallon Flush, 4th edition, A Survey of Alternative Waste Disposal Systems, from:

School of Architecture
McGill University
P.O. Box 6070
Montreal, H3C 3G1 Canada

\$2.00. A survey of 60 alternative privys and equipment: marine toilets, squat style, portable, clivus, manual remove, low water use (or no water use), make your own, methane digesters. Also good introduction, definitions of terms.

The Sewerless Society, Bulletin of the Atomic Scientists, November, 1975.

Lots of good homework in this report on types of proposed and in-use alternative waste disposal systems. Especially useful survey of some medium-size systems in operation on the east coast. Sound analysis of the net costs of present directions.



Washington State Recycling Office

People in Washington can now call a toll-free number to get information on how and where to recycle in their area:
1-800-562-8090

Bucks County Audubon Society
c/o Virginia Hutton
Hutton Recycling Center
Box 289
New Hope, R.D., PA 18938

The June 1975 issue on recycling. Obviously they are good fanatics. The kind of density and impact of reading our rush section—but 40 pages long. A pot-pourri or collage about national developments in recycling—quotes, references, survey of unique programs—all from a wide range of sources. I'll bet even those that follow the recycling scene closely will find lots of things to note and work with.

(Usually local Audubon newsletters come with membership in the national organization, so write for details.)



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