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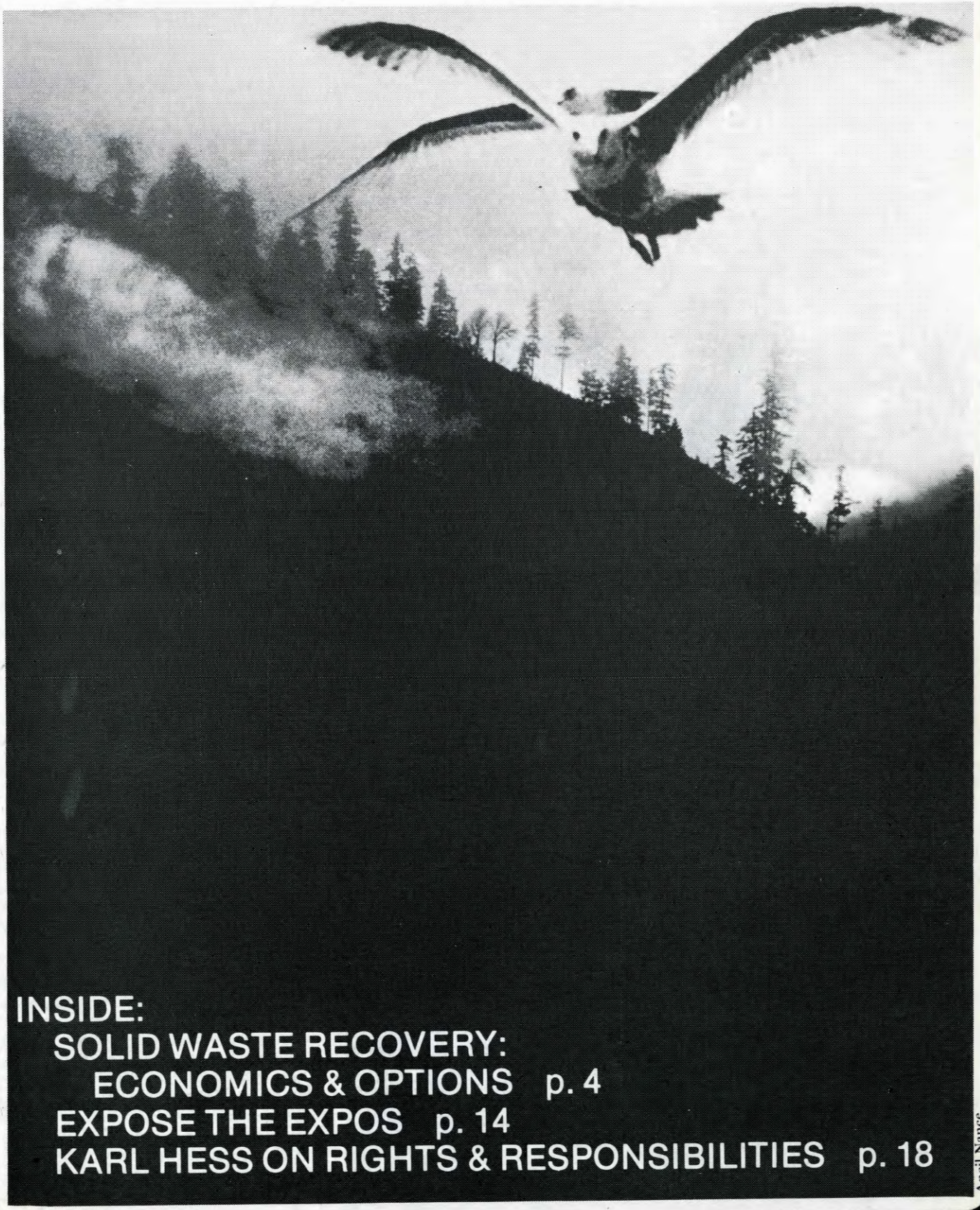

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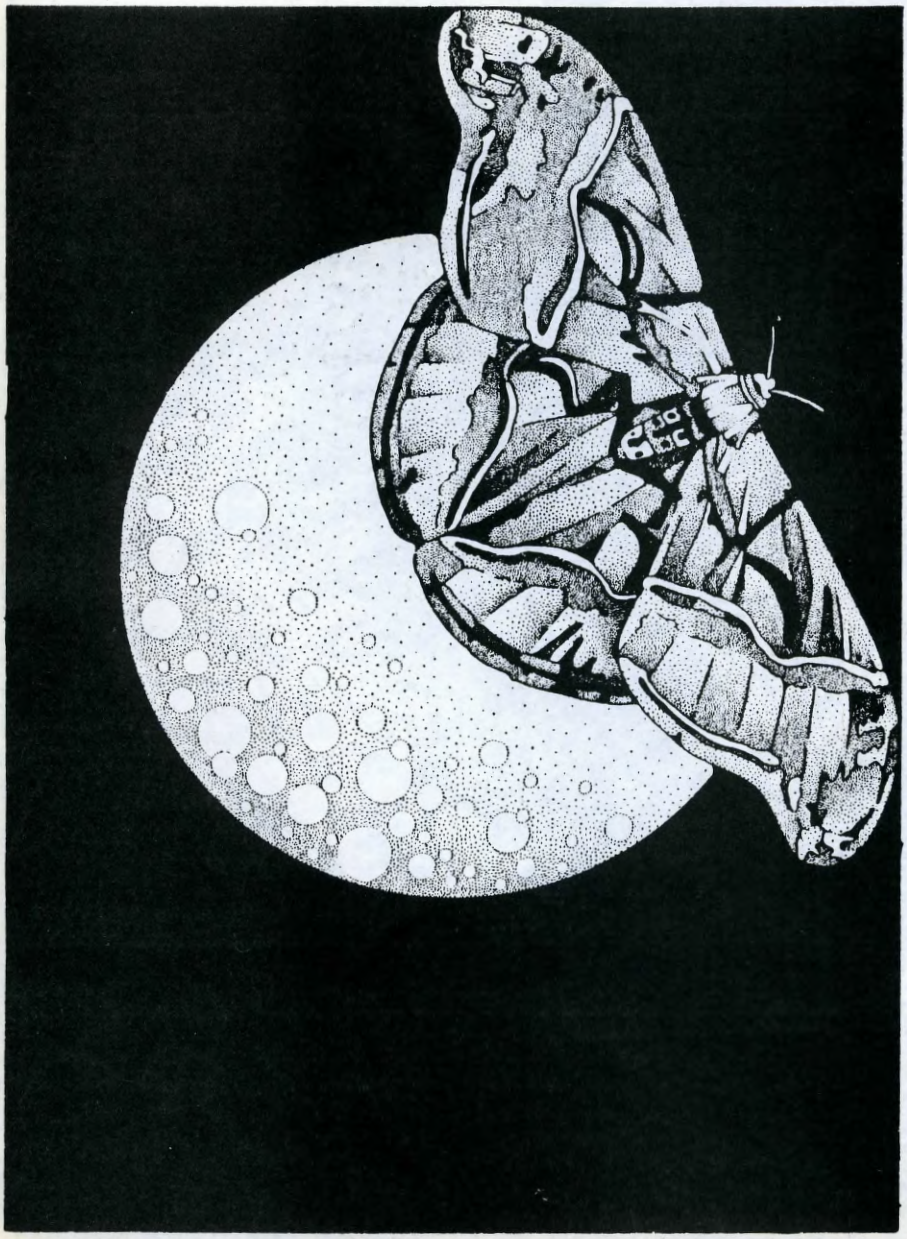
INSIDE:

RAIN access



POLITICS

***Public Policies for the '80s*, edited by Lee Webb, 1978, 256 pp., $9.95, $14.95 institutions, from:**

Conference on Alternative State & Local Policies
1901 Q Street, N.W.
Washington, DC 20009

Taking *Rainbook* a few steps further, this is an excellent tool and resource for public policy innovation and change in state and local government. Done in three parts: 1) models of innovative legislation in energy, economic development, farm land and food, state and local tax reform; 2) bibliographies prepared for 30 critical issues facing state and local policy makers including jobs and energy, public banks, plant closings, linked deposits, state and local tax reform, utility rate reform, urban homesteading, preservation of farm land, support for family farm, aging, housing cooperatives, etc. Bibliographies include organizations and publications for ongoing informational support; 3) resources in a "how to contact" format listing networks of organizations such as national labor unions, Senate committees, House committees, national public interest groups. Indispensible! —LS

RECYCLING

***Repairs, Reuse, Recycling—First Steps Toward a Sustainable Society*, Worldwatch Paper 23, Denis Hayes, 1978, $2 from:**

Worldwatch Institute
1776 Massachusetts Ave., N.W.
Washington, DC 20036

If recycling became the organizing principle of the entire economy, the U.S. could reduce its waste flow by at least two-thirds, avoiding the heavy costs of remaining a throwaway society. According to this overview, three complementary strategies (waste reduction, separation and recovery) *can* make that economy possible—by setting sound priorities (materials recovery should follow waste reduction and separation) and pushing for progressive public policies (like the standardized bottles and refundable deposits on new automobiles used in Scandinavia). In the long stretch, what makes it all possible is building public commitment to—you guessed it—those simple and basic changes in our lifestyles. A good introduction to the issues at hand. —SA

Anyone want to do some research? Or have some information to help put together some research? We've seen enough sticking out from under the rug of food franchises recently to feel that a good solid investigation of them would be really useful for local communities concerned about their own biological and economic health.

Some pieces of the puzzle:

• We've mentioned several times the Institute for Local Self-Reliance study which showed that a MacDonald's Hamburger franchise resulted in removal of up to 60 percent of its cash flow from the local community through franchise costs, profits and requirements such as purchases of food and equipment from the corporation rather than locally (*Rainbook*, p. 46). A check on the other end of the line would probably show that the actual food producers are as strongly squeezed by the economic power of franchise chains, with most of the profit being siphoned off in the middle. Any info on that?

• Two visitors to the Rainhouse within one week passed on personal experiences working in the food service business. One told about a chemical sprayed on salads to keep them "crisp" when unrefrigerated. With it you could keep a lettuce salad "fresh" for three days, but if you sprayed on too much, everything would instantly turn brown and curl up. The other mentioned a disinfectant now being used widely instead of soap and hot water to clean glasses and dishes in bars and restaurants. It left a coating on the glasses which, according to the report, was far from healthful.

(BALL &)CHAIN STORES

• Our review of Michael Jacobson's *Eater's Digest* (Aug-Sept 1978, p. 22) described some of the fearful deceptions sold as hot dogs. Other reports indicate that the stabilizers, extenders, texturizers, flavors and preservatives that actually make up our pre-pared foods are about as far from food as you can get. And we recently saw in a report of a Truth in Menu bill about a food chain being sued by a city for (among other things) selling "orange drink" as "fresh squeezed orange juice." If people knew what they are really getting, a lot more would opt for bans on such foodstuffs.

• Yesterday morning someone told us about Carmel, California, where they've long had a ban on franchise food stores and even on serving of prepared "formula" foods. Anyone know more about that? How it's worked and its effect on the community?

• Finally, what about case studies of some good and individualistic eateries that still exist in nooks and crannies and can serve as good examples of creative alternatives to standardized fast food joints? We've seen crop up recently in Portland a number of *good* and *inexpensive* fast food places—one serving quiches, one with souvlakis, one with good pizza, several with their own creative sandwich combinations—all delightful and welcome alternatives! And then there's my favorite—the Hot Wok Chinese fast lunch joint.

Someone want to dig out the details and put together the picture on why and how to change from fake to fantastic fooderies? —TB

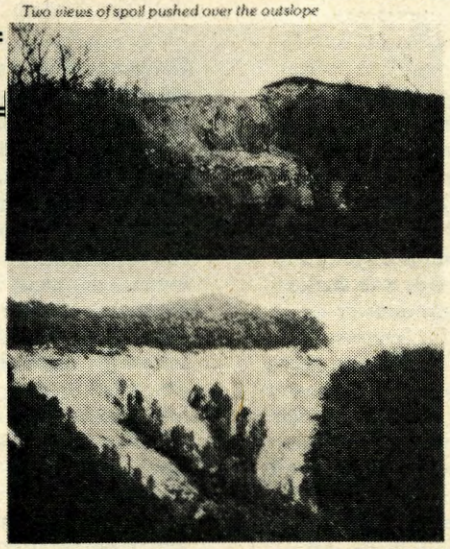
ENVIRONMENT

***Maryland Environmental Directory*, Maryland Conservation Council and The Maryland Environmental Trust, 1978, 100 pp., $4.00 from:**

William G. Wilson, Editor
2574 Riva Rd., 15A
Annapolis, MD 21401

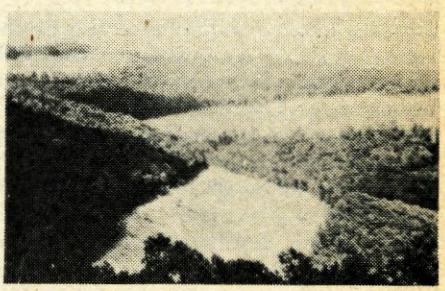
The directory was compiled from questionnaires returned by 125 organizations concerned with the environment. The sections on organizational purpose and publications will be of particular value to present or would-be citizen activists. —PC

Two views of spoil pushed over the outslope



After the coal seams have been removed, the operator is required to put the spoil material back in place and grade the area to its approximate original contour, with all highwalls, spoil piles, and depressions eliminated [**Sec. 714.14**].

Steep slope graded to approximate original contour



from the Strip Mine Handbook

***The Strip Mine Handbook*, 1978, 108 pp., $2.30 (includes 1st class postage) or $2.11 (book rate) from:**

Center for Law & Social Policy
Environmental Policy Institute
317 Pennsylvania Ave., S.E.
Washington, DC 20003

Strip Mining has finally come under federal regulation in 1977, and apparently there is a strong need for citizen participation in enforcement of this law. This handbook very clearly shows how citizens can participate by explaining: the law, monitoring, initiating inspections, and formal proceedings. Citizen rights and employee protection for workers who are intimately aware of violations and wish to see enforcement are explained. A valuable citizens' tool. —LS

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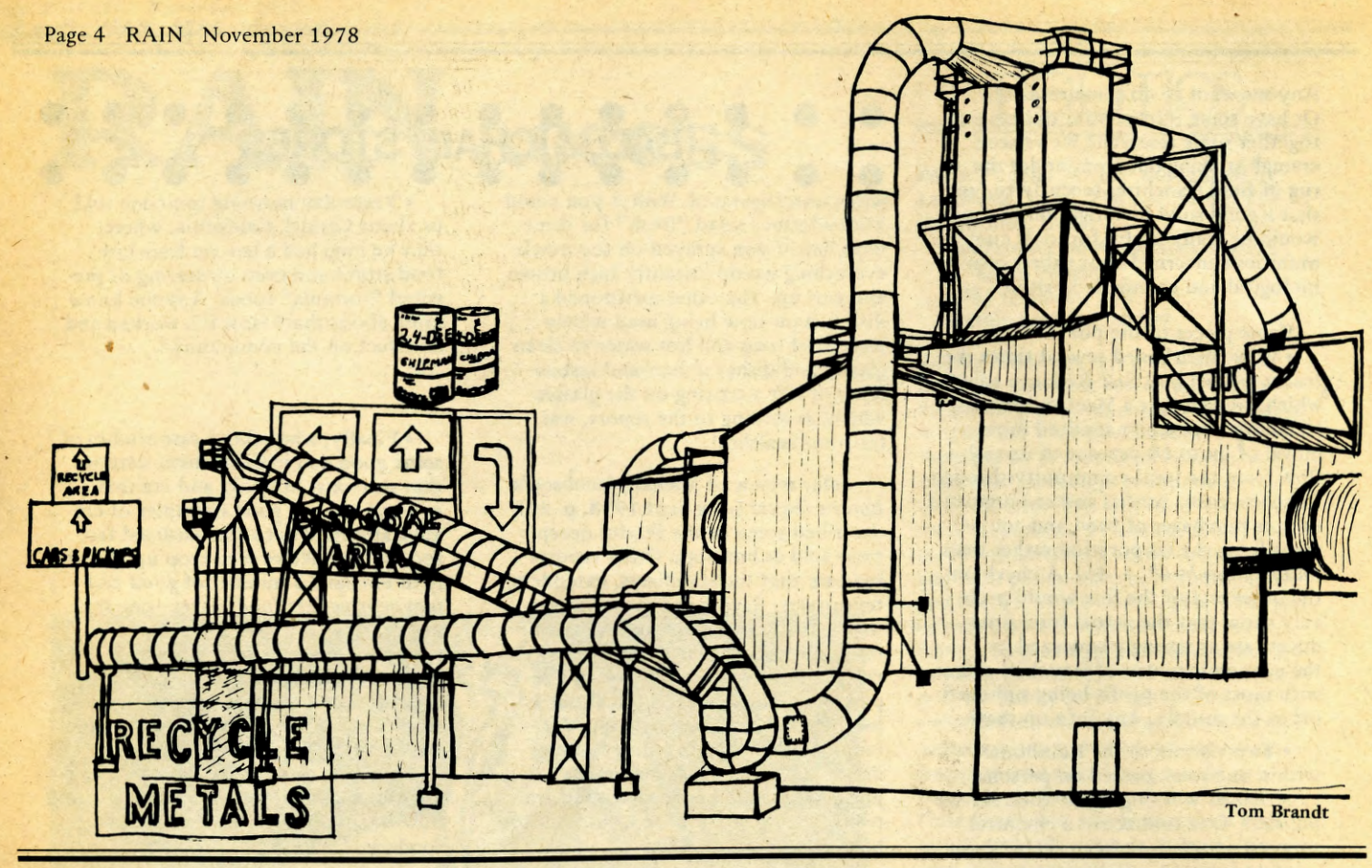


Tom Brandt

From Solid Waste to Resource Recovery: Now You See It, Now You Don't

Several years ago, a bond issue was promoted and passed in Lane County, Oregon, which made possible the extension of credit to capitalize a centralized facility for materials recovery from garbage. Over the strenuous objections of experienced recyclers, the technology that was chosen was capital-, machine- and energy-intensive.

As designed by Allis-Chalmers Corporation, the system consists of two shredders, an assortment of belts and shaker screens, an air classifier for separating out light-density material for burning, and a magnetic separator for ferrous materials, plus an assortment of bins, tubes, augurs and gates.

Preceding this mechanized recovery apparatus is a transfer pit for receiving the garbage, plus machinery to move the garbage from where it lands down to chutes at the end, where it can either be fed into the garbage processor or hauled directly to the landfill 8 miles away.

County residents, through the good offices of county government, assumed a debt of $3.5 million to purchase and install the system. As a concession to recyclers, a small covered shed was built at a cost of about $25,000 to give workers from three local recycling organizations a place to work and store recovered items out of the weather.

It did not escape the notice of recyclers that the money being spent on the mechanized end of resource recovery was almost 200 times that applied to the handsorting systems. Some complained, but they were reminded by solid waste officials that recycling couldn't survive if it weren't for the depressed wages and cash subsidies they got, and that they should be grateful for the covered shed, since they just had a wide spot on a dirt road before.

And so the contracts were signed (1975), the transfer pit constructed (1976), and the resource recovery machinery installed (1977).

Mechanized Resource Recovery: A Faulty Technology

Operating and maintenance costs increased dramatically even before the resource recovery system was in place: for example, five huge trucks were now required to run the garbage out to a new landfill. But the real escalator was to be the mechanical processing system. Assuming the machinery performed exactly according to specifications, the company running the plant was to be paid $1,600 per day, or about $425,000 over the course of a year, for the garbage they processed. A special company was brought in from Seattle to operate the equipment, which didn't do much to relieve Lane County's chronically high unemployment rate. But the garbage grinder was designed to employ only 6 people anyway, so it wouldn't have made much difference.

Lane County Solid Waste Division officials speculated that the facility might begin to break even in the fourth year, but that capital costs would never be recovered. This would be offset, though, by the volume reduction caused by shredding, which would increase the useful life of the landfill.

The system was supposed to begin operation in October, 1977, but it wasn't ready. This was extended to the end of 1977, then early 1978, then October, 1978. Meanwhile, it ran in fits and starts, while shakers broke, dust leaked, motors burned out, and the entire structure was reinforced to keep it from coming apart. Now, more than a year after it was supposed to be operational, the machine still hasn't worked well enough to begin the shakedown required by the contract. The county money is spent already, but more money is coming from someplace to keep trying to get it to work.

Meanwhile, the landfill is growing more rapidly than expected with material the machinery was supposed to be recovering. And the bulk of the money coming in from resource recovery in Lane County is *still* that derived from handsorting.

The authors of the following article are members of Oregon Appropriate Technology, a small a.t. research and consulting group that grew out of the Lane County Office of Appropriate Technology. The level on which they are focusing here—drawing together the straightforward facts on the economies and options in solid waste recovery—may feel a little new to some of you. But its pragmatic, community-scaled approach is extremely important. What pans out is that there are genuine alternatives to more high-tech, low-job government scams, in which our new values and tools not only improve the community, but are cost-effective as well. Just read on. (Oregon Appropriate Technology can be reached at P.O. Box 1525, Eugene, OR 97440.) —SA

MINE THE TRASH CANS NOT THE LAND

by Dan Knapp, Tom Brandt and Don Corson

Other Examples Tell the Same Story

Another mechanized facility, in La Grande, Oregon, was scheduled to begin operation at about the same time. Unlike Lane County's system, the La Grande plant worked. But the refuse-derived fuel (RDF) was full of rags and plastic scraps that clogged the feed screws serving Boise-Cascade Corporation's boilers, and there were also metal fragments that activated protective shut-down devices. And so La Grande's fuel was rejected by the only market within economical shipping distance.

A load of the shredded ferrous material was rejected by the closest detinning facility—in Seattle—for the same reason: too dirty, plus the additional objection that the cans were wadded up instead of opened, making detinning impossible even if the material was clean.

As unmarketable materials piled up around the new resource recovery facility, a large citizen's committee was convened to study the situation. Their recommendations: close the plant, reopen the landfills, sue the manufacturer to recover the county's costs, investigate the consultants who provided the estimates of how much material and income the plant would recover.

In San Francisco at about the same time, a large mechanized ferrous recovery facility operated by Los Angeles Byproducts—one of the first plants of its kind—was abandoned due to the collapse of its market after four years of operation.

And down in San Diego, an even more high-tech plant costing around $14 million is experiencing similar problems, with an added twist. Besides the usual recovered fractions, this plant is designed to make what its backers call "pyrofuel," which is a very low-grade fuel oil made by burning garbage in an oxygen-starved atmosphere. The problem is that this "garboil" is highly corrosive; it corrodes the pipes and pumps it passes through, the containers it is stored in, and, if it is ever manufactured and burned in quantity, it will also corrode the boilers where it is fired.

Interestingly, the plant has a futuristic "linear induction motor" to recover aluminum, copper and brass (it uses electricity, but acts like a magnet in reverse). But the nonferrous material doesn't make its pass by the linear induction motor until *after* it is shredded into bits and pieces. This mixes the aluminum, brass and copper so that it can't be sold as aluminum, brass *or* copper ($600, $700, and $900 per ton) but instead must be sold as mixed nonferrous at $27. Still, the plant operators have determined that it is cost-effective to put the mixed nonferrous product through one final process to restore its value: *handsorting*.

Disappearing Markets

Until recently, county solid waste officials maintained a mood of steadfast optimism that markets for the fuel and ferrous fractions would be found. But developments like these have dampened things considerably.

Since the major materials recovered are unmarketable so far, it is hard to estimate the prices they would bring if they *were* marketable. Top price for clean, flattened and delabeled cans is only in the $20-25 range, but the shredded ferrous is too contaminated to be sold on this market. Refuse-derived fuel prices guessed at in solid waste circles seem to be in the $2-3 per ton area, well below the price paid for recycled paper and cardboard.

And so the conclusion is inescapable: even if markets can be found for mechanically recovered materials like RDF or ferrous, their price per ton will still be far below that for handsorted materials. Right now their price is zero. Meanwhile, the high value metals like aluminum, copper and brass are shredded and/or buried as usual.

continued→

The Hidden Cost of Toxic and Hazardous Materials

There is another diseconomy of such recovery that has not even been taken into account—one that is being externalized on the public-at-large:

All dumps or transfer stations receive a steady stream of toxic and hazardous materials, which with minimal legal enforcement and on-site controls, become thoroughly mixed in with other forms of waste, particularly when shredders and air classifiers are used.

A short list of these materials known to make regular appearances in the solid waste stream include cadmium, lead, acids in batteries, radioactive elements from smoke detectors, zinc oxide in photocopy paper, pesticide and herbicide residues in discarded containers, exotic metal oxides in paints, chlorides in plastics, petroleum distillates, PCBs in fluorescent light fixtures, glues, resins, raw sewage in disposable diapers, dynamite and other explosive substances. No one knows how many different contaminants for sure.

Nor do they know how they combine with each other or with other materials, how they will affect the mostly anaerobic life processes that work beneath the surface of the landfill, whether and by what channels they will migrate into contact with aerobic life forms, or what they will do when they are burned. Test programs typically gather data only on a few items. Testing is expensive and complicated; hundreds of items go untested. In varying concentrations, all these and more toxic and hazardous materials are distributed throughout the moving waste stream. The more thoroughly processed, the more thoroughly the substances are mixed.

The Highgrading Concept

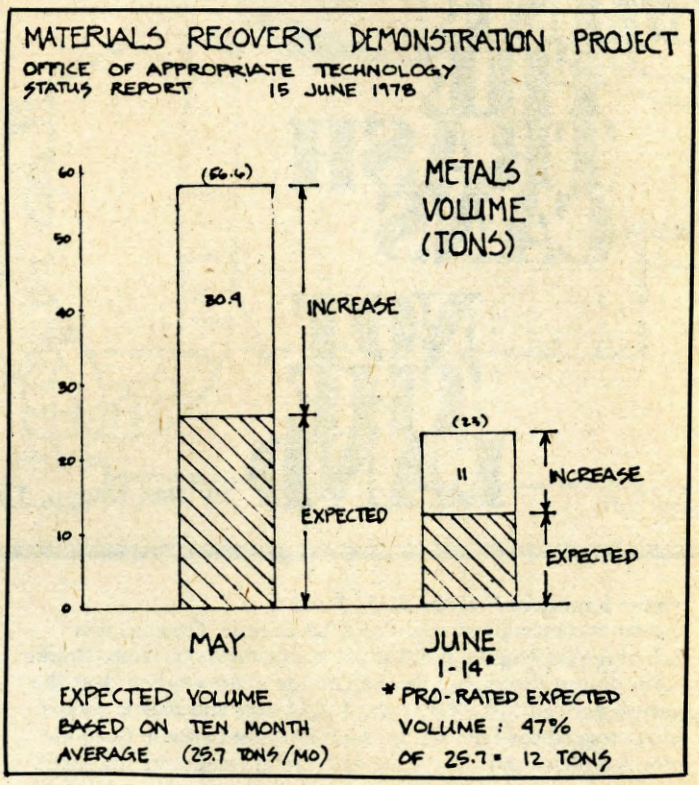
Such concerns were part of the context in which Lane County Office of Appropriate Technology was formed in August of 1977. The majority of the staff hired during the first year were CETA employees brought in under a proposal to do a resource recovery program for the county. OAT hired five experienced recyclers, each with a wealth of specialized knowledge.

As the projects developed, Tom Brandt and others in OAT worked out the details of a *highgrading system* for recovering valuable metals and finished goods. The overall strategy, developed through the hard experience of learning to survive financially off the solid waste stream, was based on a simple idea: metals are the most valuable items in solid waste, and metals recovered in an organized form are worth more money. Therefore, the highgrading project was organized so as to maintain and restore organization in the solid waste stream for the metals fraction.

Workers in the project, which lasted 10 weeks, selected desirable metals, such as aluminum, copper, brass, cast iron and heavy steel, and processed them to meet market requirements. The public performed the initial selection function; they were informed of the new recycling option by a *spotter* who also gave them a card explaining the types of materials the project was looking for. *Many* people were eager to help, to the point of separating the metals out of mixed loads and taking the extra time to drop them off at the metals recovery area. The degree of public cooperation is perhaps best measured by the consistent, 30-ton-per-month jump in metals recovery after the project started.

While one person spotted loads and distributed cards, the other received materials, sorted and cleaned them, and maintained the integrity of the collection system. Eventually, the materials were marketed and records kept of revenues, hours, etc.

The energy requirements for processing materials using the Mechanized Resource Recovery approach was more than 50,000 BTUs per ton, and with the Highgrading approach it was only 12,000 BTUs per ton. Much more impressive was the requirement for capital costs to employ people: With Mechanized Resource Recovery costs were more than $350,000 per person, while using the Highgrading concept it was less than $500.00 per person. This one full-time person enabled Lane County's Metals Recovery Demonstration Project to more than double the volume of mixed metals recovered, therefore doubling revenues.



Surface Mining for Elemental Metals and Alloys

While mining and manufacturing industries are going greater distances to retrieve poorer grade ores from an increasingly degraded resource base, consuming more energy, producing negative environmental impacts and pushing inflation, the OAT metals highgrading demonstration project seems to have made a major metals "strike"—right in the middle of the solid waste stream.

Viewed as a production system rather than as a materials handling system, the project generated some impressive tonnages, especially when they are annualized.

High Grade Metals Production*

Metals	Actual Output, 10 Weeks	Annualized Output
Aluminum (all grades)	6,747 lb.	33,735 lb.
Copper (all grades)	220	1,100
Brass (all grades)	505	2,525
Cast Iron & Steel	21,670	108,350
	29,142 lb.	145,710 lb.

*With 2 people working an average total of 48 hours per week, including education and spotting; program affected less than 20 percent of the total solid waste stream for a Metropolitan area of about 250,000.

These figures point to a fundamental absurdity in the present system of production and pricing of metals. Whatever the productivity of a worker in the mines these days, there aren't many mining operations which, with two workers and almost no capital or energy investment, could generate a first-year production of 73 tons of four kinds of elemental and alloy metals that are so centrally important to so many industrial processes. It is the kind of thing that can only happen at the dump.

And yet, such is the artificially depressed price of once-used metals compared to new that it is somehow more profitable to continue mining and refining new elementals from oxides, meanwhile burying the once-used (but still *new*, for metals last a long time) at public expense in the landfills.

Thus the difference between the scrap and new price of metals functions as a baseline indicator of the indirect, hidden subsidy extended to mining and refining operations under existing arrangements. Add to that the subsidy to bury, mix, and generally lose the great majority of metals in the waste stream which are not recycled because there is no design or investment to see that recovery *can* happen, and you have the beginnings of an assessment of the true costs of this peculiar method of producing and disposing of surplus production.

And beyond this are the environmental costs, and the costs in lost production potential, lost employment, lost resources.

Knowing the costs is only part of becoming fully conscious of our situation; we also need to know much more about what actually *could* be done with volumes of high grade materials like these.

With this in mind, we at Oregon Appropriate Technology would like to ask the international appropriate technology network, through *Rain*, some questions, beginning with:

- *Suppose for the moment that we make a decision to use these materials locally instead of shipping them back to the prime producers at bargain basement prices, what end-uses are there for an annual production of, say, 16 tons of aluminum in a city like Eugene, Oregon? What could be done with a ton of copper? How about 54 tons of high-grade iron and steel?*
- *Are there local, small-scale craft or industrial processes that could use or refabricate these materials? Assuming that there are, what could be made?*
- *What kinds of marketing or exchange mechanisms can we develop to distribute the production and volumes possible under highgrading? What arrangements could we make for the organization of labor to accomplish the necessary work?*

A Vision of Extending Materials Recovery Through Highgrading

The people involved in the highgrading project—really just an extension of traditional recycling efforts into a new segment of the solid waste stream—have ideas about how the approach could be expanded and made more efficient. Elements in the design process involve new routing systems for cars and trucks, new labor-intensive collection and processing techniques, new business "software" systems based on worker self-management, and above all the incorporation of more workers into the system.

Prime candidates for highgrading in the future are firewood, dimensional lumber, topsoil and organics. Substantial volume reductions seem possible under highgrading, especially when combined with expanded and upgraded traditional recycling efforts. Universal source separation and collection combined with source elimination or reduction of residuals could literally do away with the concept, and reality, of garbage. Some jobs would be lost, but many more would be gained than lost, and resources could be made available to stimulate secondary employment and production.

The economics are certainly there to justify expansion of labor-intensive forms of resource recovery: *at just the level of the OAT project, with only two people working, the metals highgrading project could have made about the same income as projected for the mechanized system for the first year of its operation, and all without undue risk or debt for the country.*

Improvements in marketing such as selling for *reuse* rather than recycling, could greatly increase return per unit volume processed. This is because reuse markets typically pay 5-10 times scrap market value. For instance, brass and copper could probably be marketed for a higher price to artists and craftspeople who could then increase its value still more; or a retail store could be set up to sell reusable goods.

Some Objections, and Some Answers

One possible objection to this line of thinking is that mechanized and labor-intensive resource recovery methods are not really comparable. The mechanized plant is designed for a 400-ton-per-day throughput; labor-intensive approaches could never keep pace with this requirement. Recycling is for idealistic college students, women and the handicapped; industrial volumes require industrial processing equipment. Labor is unreliable and hard to train; machinery is the bottom line when it comes to the "baseline alternative."

In answer, we observe the following: 1) Mechanized systems have a long, uphill struggle to prove themselves worth of our attention, given their performance so far; 2) It is labor-intensive recycling that pays, and pays consistently; 3) Highgrading systems could be designed to recover other high-density materials such as wood, agricultural wastes, topsoil and even rocks and concrete. Exclusion of these materials would cut down substantially on tonnages going through the machinery, prolonging the system's usefulness and reducing maintenance and operating costs; 4) The metals recovery demonstration discussed earlier affected only a fifth or less of the total flow available, and *still* recovery volumes were significant, as was the productivity of labor. More labor, more tools, and better collection and storage could raise volumes, and revenue, considerably; 5) Reorganization and redesign of the traffic feed system could set things up so traffic moved through the facility much faster. The addition of more people power under better working conditions could make the recycling operation faster and more pleasant than dumping. People would be encouraged to separate more and more of their "garbage" into recyclable categories as the system became established, known and trusted in the community; 6) It is expected that improvements in small-scale recycle technology at the central transfer facility would soon pave the way to setting up small collection and processing facilities throughout the city, which would feed directly into the existing marketing channels. This would further reduce volume and trips to the central processing system, providing employment out in the neighborhoods; and 7) As stubborn residuals became identifiable through progressive elimination of good materials from the solid waste stream, action could be taken to either find markets for the residuals, or reduce or eliminate their use.

Eventually, it should be possible to have zero residuals.

All tax monies saved along the way could be diverted to other areas of need, or not collected. Income from recycling

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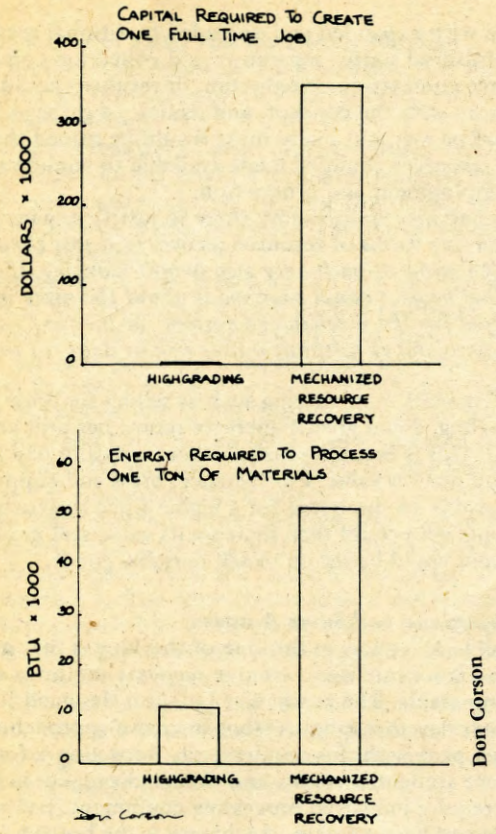


projects could be earmarked for capitalizing improvements in recycling techniques and tools, thus easing the chronic credit shortage in that sector and further accelerating growth in the materials recovery sector.

Contracts and Conservatism

Those of us who want to change the dominant technologies must realize that this kind of analysis can only go so far, for ultimately the practical symbiosis between capital and government is a matter of contractual obligation. The size, design complexity and time dimensions of these relationships are all very imposing, and this helps to structure in an unwillingness to change even when reason, research and logic dictate otherwise.

The result is that appropriate technology people who venture into local government with questions about how and why things are done, or with suggestions for better ways, are confronted again and again with the same sort of argument that appeared during the middle phases of the war in Vietnam: It's too late to stop or even to look things over carefully before we get to the next step; the design is too far along; we've already got too much invested to get out now; Phase I requires Phase II, and if we don't build Phase III the whole system will be useless.

The General Pattern in Other Sectors Is Much the Same

Similar stories could be told in the case of a number of other high-tech public works projects underway in our locality. For example, a much larger bond issue for a mechanized sewage treatment plant was passed last year with little informed citizen input. Here, composting toilets, land disposal systems and experimentally promising aquaculture systems provide the counterpoint. Or consider the economics of passive solar heating and cooling, or even active solar air-heating systems with native rock storage, as against remote generation of electricity by nuclear or coal-fired generating plants to provide resistance heating and air conditioning in housing—a necessary back-up to the continued expansion of the "all-electric home" industry.

Again and again, we see the same pattern of continued credit expansion and large-scale subsidy of uneconomic and inefficient, albeit technically "sophisticated" and "advanced" machine systems while systems that take their energy from people or from cheaper, less environmentally disruptive sources are delayed, resisted, underfunded and undercapitalized.

Whether this pattern can long persist is doubtful, given the very real economic advantage now enjoyed by small-scale, labor-intensive systems and the financial and technical difficulties of the larger systems. It seems certain, though, that continuing along the current path of error will increase costs—and debts that must be retired or forgiven eventually, somehow—when the large-scale capital and energy intensive systems are finally abandoned or their use curtailed.

On Governments and Corporations

After subsidizing loser technologies like these mechanized garbage processors for so many years, why does the EPA continue to insist on lining the pockets of the big corporations even more? We are not so bothered with the many millions of dollars that have already gone into the experiment; these plants have a certain value in that they tell us what we ought not to do. But the *continued* support by the EPA and (soon) by the Department of Energy, for schemes where still more of our bonding capacity and future tax dollars are skimmed off to support these unprofitable (unless you *build* one of them), environmentally unsound garbage machines has many people upset—to say the least.

It is not hard to see why the corporations are moving aggressively in this field: garbage is one of the top categories in local government spending, profit margins in a subsidized field like this can be large, and the whole thing is legitimate and legal and even morally right. After all, who can be opposed to "resource recovery," "energy from waste," "cleaning up the environment"?

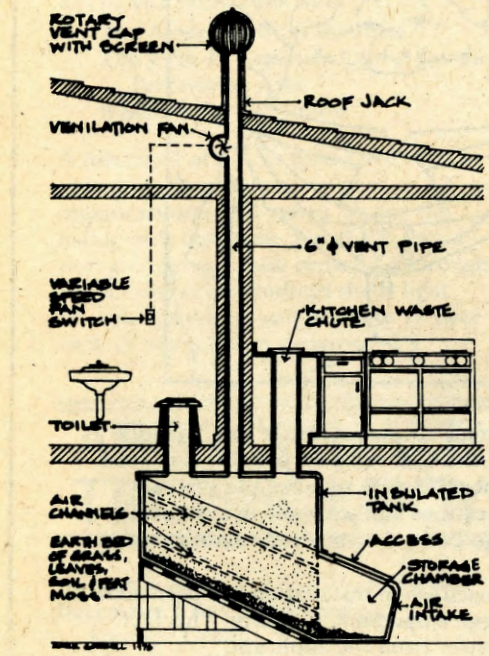
But the fact remains that local communities will be asked to pay the economic and environmental costs that these plants bring with them. And remember that there are no federal subsidies for operating and maintenance expenses, and if the facility has to be abandoned, as some already have, the locality will still be asked to pay.

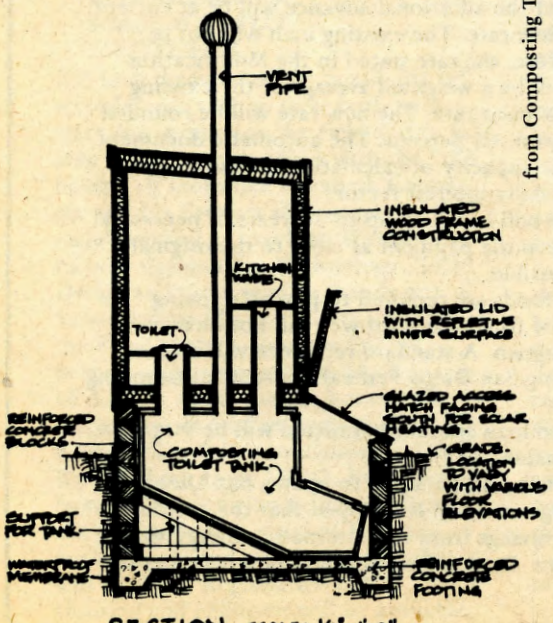
We therefore call upon the EPA to reexamine their motivations and their practice. In the area of resource recovery, we need studies of alternatives based on diversity of approach rather than either/or, one-best-option logic. Labor-intensive approaches based on labor-saving materials handling and storage systems should receive the same care and loving attention to detail as is now lavished on the mechanized, centralized systems. A program for control of toxic and hazardous wastes is urgently necessary *now*. There should be funding available to capitalize efficient, state-of-the-art highgrading systems, integrating them with traditional recycling systems. Credit should be made available to set up *production* facilities based on reused materials. Mechanized processing systems should be regarded as experimental rather than operational. The emphasis should shift to efficient sorting and handling methods, decentralized processing systems, exchange of surpluses rather than mere dumping or burning. ❑

SEWAGE

***Composting Toilets*, edited by Joyce Theios, 1978, free from:**
Lane County Office of Appropriate Technology
125 East 8th Ave.
Eugene, OR 97401

A handbook for Lane County Residents who wish to explore alternatives to flush toilets. Gives regulations and permit information for that county in addition to general information about types of toilets, problems, costs, health aspects, resources. A good model for other communities wishing to encourage implementation of a.t. —LS





from Composting Toilets

ENERGY

***Citizens' Energy Directory*, Jan Simpson, 1978, 152 pp., $7.50 from:**
Citizens' Energy Project
1413 K Street, 8th Floor
Washington, DC 20005

Here's a large, state-by-state directory of organizations that are involved in energy issues, from citizen action, conservation, a.t. and anti-nuclear groups to small industries, architects, and consultants, to government offices, educational and research institutes. Each organization's activities, publications and contact persons are noted, and all groups are cross-indexed in the directory's several appendices. A useful resource for energy activists and networkers. —SA

***Groups Involved in the Anti-Nuclear Movement*, 1978, 6 pp., $1.00 including postage from:**
Sunspark Press
Box 389
Santa Cruz, CA 95061

***Residential Energy Uses*, Current Housing Reports, Series H-123, Housing Division, Bureau of the Census, 1978, Stock Number 003-024-01554-4, from:**
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

To look back on the U.S. energy-use trajectory of the past few decades can be a dizzying experience. This simple 8-page fold-out lays out a piece of that picture in depicting changing patterns of energy use by American households from 1940 on. Three color U.S. maps documenting *Primary Home Heating Fuels by County (1950-60-70)* are particularly revealing of the shifts in regional energy use—from the remarkable decline of wood-heating in the Southeast to the increased dependence on electricity in the Northwest and Tennessee Valley. Until the positive trends afoot become retrievable data, this visual aid makes it clear how much we have to change. —SA

Granny-Flats and Duplex-Pensions

The July-August '78 *Ways and Means* had a report on a program in Victoria, Australia, to build "Granny-Flats"—small, efficient living units for elderly residents on the property of the older citizen's children. A great idea in itself, but even more it points out the social impacts of our restrictive single-family-residence-only zoning practices. Many of our multi-bedroom, two-bath residences can be built (or converted) to divide up into a smaller house and an attached apartment—allowing a less expensive home for small families, ability to expand as a family grows, and then to later rent out unused space as children grow up and move away. It would make possible for older families and individuals to get rental income, have other people close by, and younger people around to shovel snow and make repairs. Duplex houses used to be (and should be) a common and wise kind of pension fund. (A California study—*Rainbook*, p. 48—showed that public pension funds could obtain better returns by investing in housing than in corporate stocks. Better yet, cut out the middleman and make it possible for people to do so directly themselves!) Duplexes provide a more secure income source for retirement than many pension funds and also provide a better kind of rental housing than most apartment houses. Having the owner living in the other half of a duplex always seems to ensure better maintenance and upkeep for the renter, and better treatment of the rental unit for the owner. Granny flats and duplexes are socially good housing patterns, wise investment, and a good way to convert oversized housing to better use patterns as our energy glut bottoms out. All that is required is a zoning change to allow owner-occupied two-family housing in present R-1 zoning areas. —TB

Peter Sardagna, vice president of San Diego Federal Savings & Loan Association, recently proposed a method for financing retrofit solar systems in California. He believes this "Energy-Saver" plan "is the financial key to large scale commercialization of solar energy in California."

"The importance of such a program is that it can be put into motion immediately," he says. "It taps the expertise and resources of the existing financial institutions and does not rely on the creation of new, untried and probably inefficient and ultimately more expensive lending sources, such as utility companies or taxpayer subsidized 'state solar banks.'"

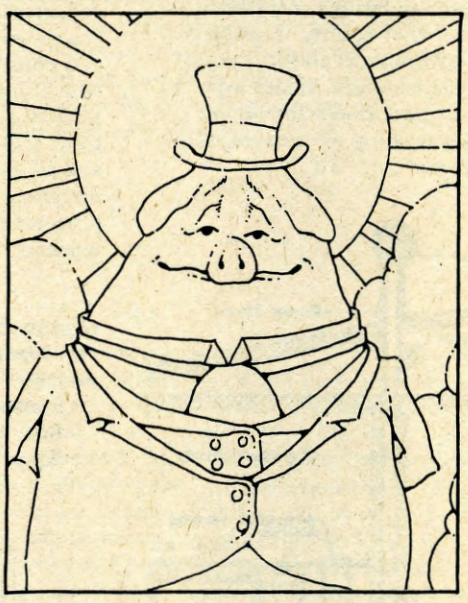
Essentially Sardagna's plan boils down to an extension of the house mortgage. Wilson Clark, Jerry Brown's energy advisor, is keen for the idea, which expands on the energy conservation loan program he helped to start in Seattle. The federal Department of Energy gave Sardagna a sympathetic hearing this summer, and the federal Home Loan Bank Board promises to push the idea with savings and loan associations.

The scheme is new and the bank has had little experience in administering it so far. Sardagna himself is glum about short-term prospects since the state is experiencing a slump with solar firms going out of business. Low gas prices are blamed for the decline. But over the long term, the San Diego Federal official is hopeful.

Below we are publishing Sardagna's own description of the plan, along with an example, which he also prepared, of how it would work in detail:

BANKING ON THE SUN

The paleolithic banking system is finally discovering that the sun exists and that it can be a wiser investment than business as usual. Here are details on one program. Converting banking investment to good things like this is commendable, and wiser than giving more power to utilities, but praising their belated awakening shouldn't obscure the value and need to experiment with new processes such as state solar banks. Innovation is survival. Thanks to Jim Ridgeway for permission to reprint this article from The Elements *($15/year individuals, $25/year institutions, 1747 Connecticut Ave., N.W., Washington, DC 20009). —TB*



I. *Home Buyers*—This program can be used where the home buyer wishes to install energy saving devices at the time of his purchase:

A. The buyer provides a cost breakdown and contract showing the improvements to be made.
B. The appraisal will be completed utilizing this additional cost as value added to the property and the loan to value will then be based on the total appraised value.
C. If the funds required for conservation devices are less than two percent of the purchase price, these funds will be released to the buyer at close of escrow.
D. If the funds required for conservation devices are in excess of two percent, but less than ten percent, the funds will be placed in a non-interest-bearing, Loans-in-Process account until the work is complete. Upon completion, the borrower will request in writing these monies and an inspection will be made before the funds are released.
E. A maximum of 10 percent of the house sale price will be provided for the energy conservation devices.
F. Only 80 percent loans will be included in this program.
G. It is important for the loan officer to use discretion in determining the increased value to the home after considering the feasibility and workability of the system and materials chosen.

II. *Home Owners*—This program will help existing SDF borrowers convert to lower cost, alternative solar energy sources, mainly for hot water heating.

A. Maximum loan amount of $4,000, or 10 percent of house market value, whichever is less.
B. A flat $200 fee will be charged to cover the cost of title policy, appraisal, processing, credit reports, recording fees, etc. If additional costs are incurred, due to the subordination of junior liens, these fees will be added to the basic fee.
C. San Diego Federal must receive evidence that the solar system qualifies for the California 55 percent tax credit. This is necessary since the state requires the system to meet certain specifications and we want all systems financed by San Diego Federal to meet the state's minimum requirements.
D. Funds will be disbursed when installation has been completed and the system is operating properly. This fact will be verified by letter from the applicant.
E. The amount of the additional advance will be at current residential prime rate. The existing loan will not be raised. Therefore, the rate stated in the Modification Agreement will be a weighted average of the existing rate and the current rate. The new rate will be rounded up to the nearest .01 percent. The automatic document printer has the capacity of calculating the monthly payment and daily interest factor.
F. The mortgage will be recast up to 30 years, if necessary, in order to keep the payment as close to the original amount as possible.
G. If additional funds are required to pay off existing junior deeds of trust, the borrower will not qualify under the program. A standard refinance will be conducted utilizing San Diego Federal's current outstanding policies.
H. The maximum loan amount permitted will be 90 percent loan to value.
I. The customer should be urged to open a San Diego Federal savings account. It is hoped that the customer will place all savings from this alternative energy source in this account. By doing so, this program becomes self-perpetuating.

MEDIA

***Copyright Primer for Film and Video*, by Joseph B. Sparkman, 1978, 22 pp., $1.00 to members, $2.00 non-members from:**

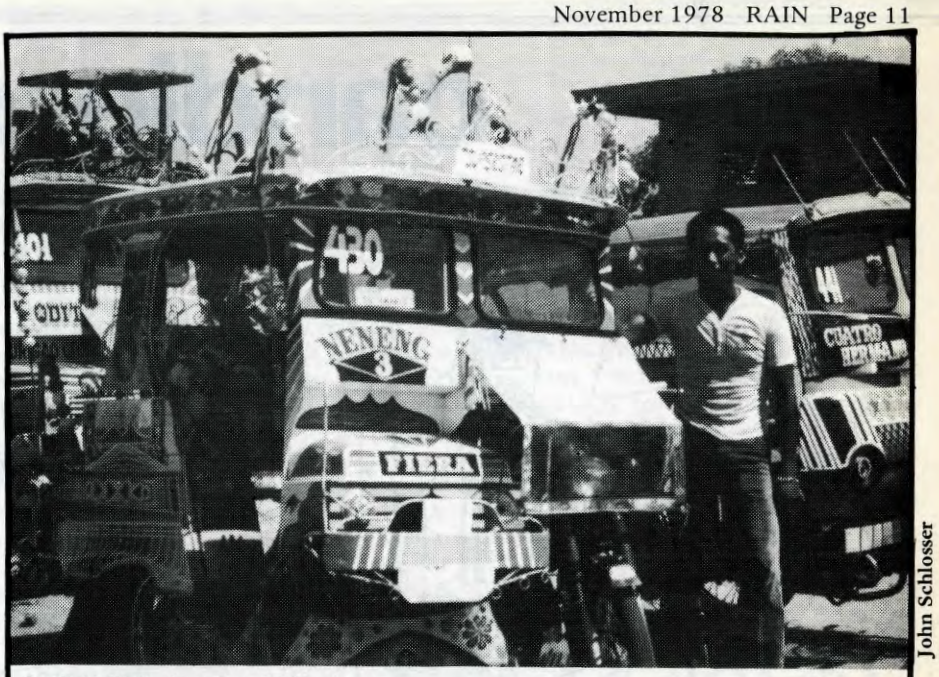
NW Media Project
P.O. Box 4093
Portland, OR 97208

New copyright laws in January 1978 inspired this study guide, which is best used simultaneously with the text of the law (Public Law 94-553, available free from: Copyright Office, Library of Congress, Washington, DC 20559).

***Access: Film & Video Equipment: A Directory*, edited by Nancy Legge, 1978, 122 pp., $2.00 from:**

The American Film Institute
The John F. Kennedy Center for the Performing Arts
Washington, DC 20566

A directory of 54 compiled from responses to a questionnaire sent to 72 organizations in 23 states. Hence the listing isn't complete, but the information given about each center is thorough and a look at the findings sheds light on some problems and provides an overview of video access activity. —LS



John Schlosser

April 1978, Surigao City, Philippines

After an exchange of letters about three years ago, you asked for a photo of these "tricycles"—Philippine village and city transportation. I didn't have a photo at the time, but recently went back over and took this for your interest and amusement. As transport they're colorful and efficient, but noisy. Footpower alone, though, wouldn't propel this vehicle fully loaded (i.e. 6-10 people). —John Schlosser, Seattle, WA

APPROPRIATE TECHNOLOGY

***Women in Solar & A.T.: A Conference* December 2 & 3, sponsored by:**

Ecotope Group
2332 East Madison
Seattle, WA 98112
206/322-3753

I've long dreamed of the possibility of a conference such as this—both to attract new women to the field and to be able to share perspectives with the "old hands." It looks like Elizabeth Coppinger and Liz Stewart at Ecotope are finally bringing us together. Workshops include Community Technology, Solar Design and Construction (hands-on), Strategies for Change, Alternatives in the Food System, Biomass Energy, Setting up Businesses, and The Impact of A.T. on women in the home, and discussions of professionalism for women. Gigi Coe from California OAT, Kye Cochran from AERO, Beth Sachs from NCAT and Harriet Barlow from the Institute for Local Self-Reliance are some of the resource people who will be there. Registration is $20. Housing and childcare will be available. —LdeM

Oregon Self-Reliance
c/o RAIN
2270 NW Irving
Portland, OR 97210

Almost a year ago we wrote about a group of Oregon a.t. people who got together to discuss the problems, needs and possibilities for a statewide coalition of some sort. Well, a core of 10-12 people have continued meeting on an almost monthly basis and as of this summer have incorporated as Oregon Self-Reliance. Involved at this point are people from Cascadian Regional Library, RAIN, the State Department of Energy, Lane County OAT, the Eastern Oregon Community Development Council, and SUNERGY, not to mention individuals from Bend, Eugene and the coast. Our initial project will be to work towards appropriate legislation in the upcoming session. Other goals are to foster communication among groups and projects, provide assistance to small towns and neighborhoods, and perhaps to take on some research projects. We're still in the early stages of organization, so things are pretty wide open—no money, no staff, but a good deal of energy and enthusiasm. We're welcoming new members—$10 for individuals and $25 for organizations brings you invitations to meetings, sometimes a newsletter, and a chance to work on a statewide network of self-reliance projects. —LdeM

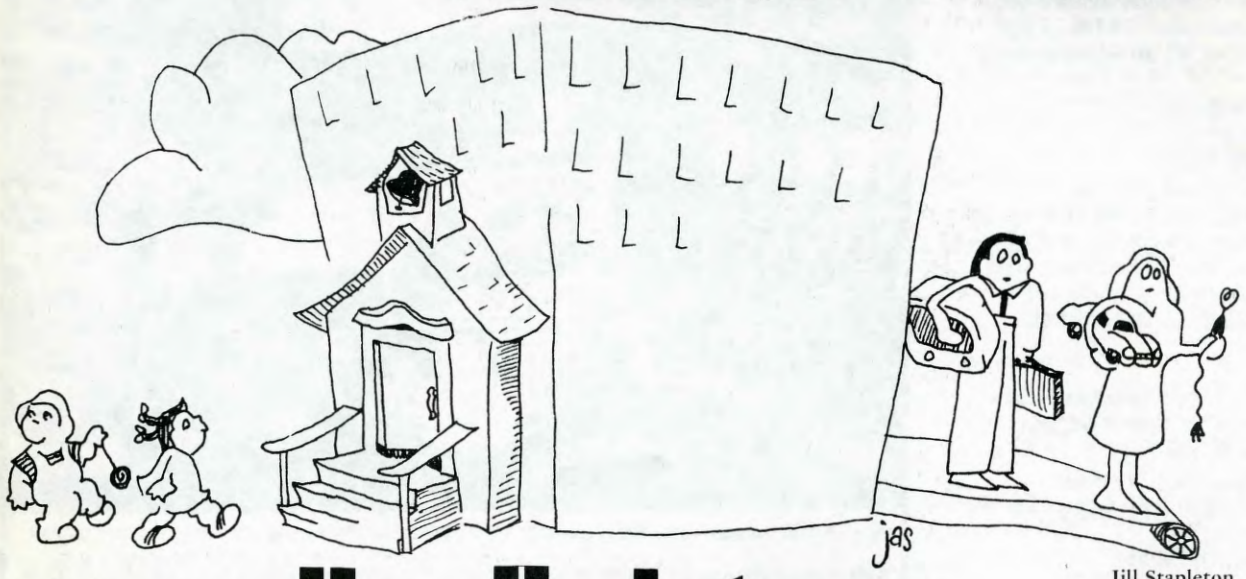
LEARNING

***The Free U Manual*, A National Guide to Operations of a Free University, First Edition, edited by Bill Draves and Cathy MacRunnels, 1978, 422 pp., $15.00 from:**

University for Man
1221 Thurston
Manhattan, KS 66502

The Free U Manual is an open communications and idea exchange with articles from over 50 contributors nationwide, designed to assist communities in setting up and operating a free U. Based on a "mutation" of the Dewey Decimal System and available in a loose-leaf binder, this hefty manual will expand and replace its contents with new articles and yearly updates. The first edition contains lots of how-to information on organization, class sessions and public relations. Future editions will add materials on legal matters, learning networks and small communities. —SA

candle snuffers



Jill Stapleton

candle lighters

by Fred Lorish

I have a concern.

The past few years I have seen that amorphous thing called appropriate technology come of age. It was seen, not that long ago, as a collection of solar hardware, wind generators, methane digesters and compost toilets. It has suddenly become much more. The soft side of a.t. has begun to affect many aspects of our collective lives. Decentralization, deschooling, equity, stewardship, labor-intensive—these are terms that we find rolling off our tongues often. And there is much that can easily be seen that indicates that the values, the words and the theorizing have all attained a currency that can be seen and touched. In short, a sizable portion of the population has embraced a vision, and the long-term ramifications are exciting to behold.

But I still carry a concern that gnaws at me daily: what about the kids?

I'm a school teacher, and so I see kids day in and day out. It scares me—not the kids, but the powers that affect these kids, whether it is TV, standardized texts, basal readers, corporate advertising or whatever. Kids arrive at school at six still children. And their childhood, for the most part, has been a time of enthusiasm and involvement in the wholeness around them. It has been a time of learning (done without formal teachers and schools), of openness, of what George Dennison called "joyous intelligence."

Part of my concern is simply that children, once they enter school, give up much that makes them and their childhood so unique. I have the sense that children, more so than any other age group, have an intuitive feel for the processes that make up their world. Sure, they can't categorize it. They can't verbalize in any clear way what they naturally feel so that adults can understand it. They simply know how to be a part of the processes; they flow with them with ease, and this is one of the more beautiful gifts the gods have given children. And when at six the child takes those first halting steps through a classroom door, much of the natural learning process comes screeching to a halt. And in the course of years, the love of learning, the involvement in the wholeness of life, the openness, the enthusiasm of just being alive seem to slowly but inexorably get pruned away.

All of which sounds like the kind of philosophical jargon that educators begin spouting when they are waxing poetic. But in an age when schools have put such a premium on performance indicators, behavioral goals, scope and sequences, accountability, et al., I can't help but want to go back and look at what those first learning processes are. Childhood is a period of time when IQ tests, multi-phasic inventories, achievement tests, or whatever quantitative measuring device is used completely miss the mark . . . and miss it so widely that the public gets caught up in assuming that kids aren't learning at all since the results can't be quantified. The *quality* of learning is forgotten. There isn't very much *quality* in the public schools.

But the public schools are where the kids are. The public schools are also where the corporations are. Textbooks are produced by publishing companies that are part of a much larger corporate umbrella. Standard Oil has its free energy curriculum materials, not to mention a host of other special interest industrial groups. Walt Disney produces comics with Goofy talking up nuclear power. Products are packaged with the mark of Madison Avenue; the Marlboro Man is transformed into a textbook character pushing rampant consumerism. Everyone gets caught up in it. The kids do, too.

It goes far beyond this. School districts and state departments of education set up guidelines that insure that kids must read commercially produced texts. School districts must buy certain texts; teachers must use them. That kids can produce their own books, their own equipment, their own environments, is conveniently forgotten. School districts are placed in the position of buying amazing amounts of texts and equipment, much of which is not used, or if it is used, ends

up on a supply room shelf within a few years. The waste is staggering, but it is good for business.

Even worse, it seems to me, is the way the role of teachers has been conveniently preempted. Teachers no longer have very much to do in terms of preparation. Everything is done for them except for the continual requirement to keep records, monitor student "growth," and keep their classroom in order. The publishing companies tell them what to say, when to say it, and have the ditto masters ready to go when the talking is over. This is not to condemn teachers, who find themselves out of control anyway. My concern is that teachers have, to put it bluntly, been taken. They are daily used by the publishing companies and their representatives, by state boards of education, by school boards. And it has happened so slowly (and with such skill) that in many cases the teachers seem scarcely aware of the damage being done them and their students.

But . . . 99 percent of the kids in the country are in public schools. They will move through this system, and out into the world. They will take jobs, buy or rent shelter, accumulate possessions. They will do this by basing their actions on a system of values. Those values will be shaped in large part by the time spent in schools. And though there is much to criticize the schools for, the kids are in those classrooms. It is there that kids need to be touched and loved, where kids should have choices and involvements, where their life can take on a sense of reality, where there can be real encounter and honest interaction. It is out of this kind of openness and honesty that values sensitive to humans and community and the ecosystem arise.

In short, we need to develop learning environments that allow children to gain the tools necessary to understand processes that support life. We need to develop environments that engender those values which are necessary for a harmonious and supportive relationship with those processes. What are those values? Tom outlined many of them in "Sharing Smaller Pies:"

stewardship	not progress
permanence	not profit
austerity	not affluence
responsibilities	not rights
people	not professions
betterment	not biggerment
enoughness	not moreness
localization	not centralization
equitization	not urbanization
work	not leisure
independence	not interdependence

To this list, I should add:

doing	not education

My concern, you see, is that the values associated with a.t. are not getting down to the kids. I'm not certain that I know the best way of including them. The reality, however, is that the information and the models are around, and have been for a long time. But we need to begin the process of exploring what we can do to ensure that those values we believe in become part of the lives of children. There is too much of the mentality of Battlestar Galactica and Star Wars, of Baretta and Starsky & Hutch, of Mattel Toys (to barely start the list) floating around for us to sit back and assume that kids or schools or the culture in general is going to change of its own accord. What do we do, and how do the kids fit into the matrix? It needs to be discussed.

Let us know your thoughts.

California AB 2391 would prohibit corporate logos from appearing in school textbooks. (Recently the State Board of Eduction adopted a math textbook for use in grades 3-6 where McDonald's, Dairy Queen, Tootsie Rolls, Cracker Jacks and 54 others are illustrated!) For more information contact the author of the bill: Assemblywoman Leona Egeland, State Capitol, Sacramento, CA 95814. (From *Ways and Means*) —LS

Fred, a long time friend of Rain, *is currently teaching in an alternative school funded by the Oregon Public School System. —PC*

GOOD THINGS

***Watch for Me on the Mountain*, Forrest Carter, 1978, $9.95 from:**
Delacourt Press
1 Dag Hammarskjold Plaza
New York, NY 10017

***Walks Far Woman*, Colin Stuart, 1976, $8.95 from:**
Dial Press,
1 Dag Hammarskjold Plaza
New York, NY 10017

It's hard to know how to review these books. Both are very moving fictional accounts of Native Americans coping with the end of their culture as they have known it. I have no idea of their authenticity, but they *ring true*. The first is the story of Geronimo—famed Apache who fought last ditch guerilla warfare against both the Mexicans and the Americans in the Southwest until he finally surrendered in 1886. The second is about a Sioux woman as she makes the transition from her girlhood hunting buffalo to her old age on a farm in the Northern Plains in the 1940s. Both are spiritual books—the characters themselves receive a lot of special guidance (Walks Far from a grinning coyote), while the lives they lead are clearly spiritually in tune with the world around them. Both are agonizing books—the destruction of the native cultures and each of their families by the coming of the white people is slowly and painfully detailed. Yet in neither book are the whites all bad, nor the Indians all good. In fact, what shines through is the similar humanity of all people—their common struggles (and sometimes treachery) in response to change that is out of anyone's individual control. At their most mundane level the books are very plausible accounts of the lives and cultures of a famous warrior and a very strong (almost feminist) and delightful woman. I highly recommend them both. —LdeM

***I'm a Stranger Here Myself*, John Seymour, 1978, 140 pp., $9.95 from:**
Faber & Faber
101 S. Broadway
Salem, NY 03079

It's hard to recommend a book that's so small and so light and so expensive, but this one is a real gem. Maybe your library can get it. John Seymour is a long-time farmer/writer in Britain whose other works include a couple of excellent how-to books on the subject (see *Guide to Self-Sufficiency, Rainbook*, p. 172). This one is a delightful, rambling account of his farm in Wales. I liked it best when he was describing the neighbors-helping-neighbors understandings. Colorful stories mixed in with some excellent thinking on schooling (or lack of a need for it), cooperation, and city people making silly laws for country people. If you'd like a feeling for the values and benefits of old time/new time country living, here's a nice introduction. —LdeM

For a long time I've been having mixed feelings about a new trend starting (where else?) in California and perhaps moving its way across a.t. land. It's something that appears to be a mixed blessing, but the dues paid seem to be more than the benefits in this particular tradeoff.

It's often called something like Great Western "Hole" Earth Expo Extravaganza. Publicity appears for it well in advance in very slick looking packages. The names of the people organizing it are somehow strikingly familiar to those of us who've been involved in the arts/crafts fair circuit. The entrepreneurs of that burned-out realm are seeking (and seemingly finding) a new way to accumulate groovy American dollars.

Jill Stapleton

When an a.t. expo is presented in a completely fluorescent-lit, artificially aired, enclosed, gargantuan space, something is wrong. When the scale of it is so huge that you can't take half of it in, no less deal with the mobs, something is wrong. When solar cigarette lighters to laser light shows are presented to the newly initiated masses, the understanding of a.t. is going to be completely off keel.

There is something inherently different in the process when entrepreneurs come in to sell self-reliance. In fact there is *no* difference in the process of selling a.t. than in selling at a car show, boat show, arts/crafts show.

That is the problem: there are no differences. The context is *selling*: they charge at both ends—the door, the exhibitors—and even in the middle, by operating the food concessions, not to mention trucking in the curtain dividers.

A big part of the problem is that the people organizing (i.e. profiting) from these "fairs" are not people from within the community (whether it be the a.t. community, the arts/crafts community, whatever). Perhaps there are good intentions of getting a.t. to the masses—but it's because a.t. is beginning to be *the* thing that sells now and their *primary* goal is profit, not education. So what happens is a lot is lost in the process.

It happened with arts and crafts in a similar way. Eventually all that began to be at these fairs were attempts at art and craft. But the entrepreneurs made their entry fees, their percentages, and their space fees. To them the quality of life propagated was of little significance. The dollar was the motivating force.

EXPO exposé

ECONOMICS

***Cooperative Housing: A Handbook for Effective Operations*, Midwest Association of Housing Cooperatives and Organization for Applied Science in Society, 1977, 260 pp., $16.25 from:**

MAHC
343 South Main St., Suite 208
Ann Arbor, MI 48104

This is a comprehensive how-to manual for running a housing co-op, written by veteran co-op directors and members. It includes chapter on organization, management, finances, budget, purchase, resale and membership plus sample legal and financial forms. Though the handbook is specifically oriented to the concerns of government-insured co-ops, it also focuses on aspects of multifamily housing operations that are of equal importance to privately financed co-ops. As an alternative to the inflated prices of single-family dwellings, housing co-ops provide not only economic advantages but can offer the shared values and supportive environment needed to retrofit an apartment building with appropriate technologies. —PC

Sudbury 2001/Alternative Development Paradigm

Box 1313
Sudbury, Ontario P3E 4S7
CANADA
705/674-2001

Sudbury may soon become a buzzword for the many communities and regions across North American which have been exploited by "foreign" capital for their resources and labor, and inevitably deserted for greener acres and greener backs. Massive lay-offs by Sudbury's copper mining industries have forced the city into a desperate recognition of the need to diversify economically. A uniquely diverse coalition of government, labor, business, citizen and ethnic groups has formed Sudbury 2001, a self-help, R&D and community development fund-raising group to find jobs for its thousands of disemployed citizens.

More unique is the fact that appropriate technology as a strategy figures strongly to this group and its federal backers: they are looking for leads on decentralized industries and other small-scale enterprises that can carry them into a sustainable future. They need hard economic data on the a.t. alternative—capital investments, job creation and the like. To promote idea-sharing they've formed an Alternative Development Paradigm network. If you can contribute something, drop them a line. We'll keep you posted on Sudbury's success. (Thanks to George McRobie) —SA

What is lost in this process is many-fold:

- people go home frustrated not knowing what is an appropriate technology and what is not—there is no objective way or means to evaluate the products that are put before them in a competitive context. (There is little or no education.)
- which brings us to another problem: the context is selling, people are left with the impression that a.t. is something you *buy*.
- the kinds of ideas shared there are limited—no one is there selling dirt for mud housing, for example.
- there is a competitive spirit, rather than a kindred spirit.
- the total picture which is inherent in any definition of a.t.—the form, sense of community, is absent.

A.T. is a field ripe for capitalization, exploitation, and co-optation. We need to ask ourselves what our role and responsibility is in relation to these new age scams. Do we participate? Are we co-opted if we do participate? There is definitely lots of appeal in reaching more people, helping our financial situations—there is a need for more people to have access to a.t. kinds of information. How do we evaluate the tradeoff? When the entrepreneurs work hard at getting credible groups involved, they use that credibility to lure other groups in. Can we learn from and work with the entrepreneurs to organize successful conferences and fairs and share with them our sense of community, education and business as interrelated elements of our lives? Or do grassroots groups have the skills to organize events themselves?

This is not to say that there can't be selling at a fair/conference. Only that if things are being sold, there must be accompanying education via workshops, for example, so people can hear someone with expertise on wood-heat explain about wood-heat principles, safety, stove efficiency, or even how to build your own woodstove. The effects of doing things for oneself can come through in all levels of the process—from eliminating curtain dividers so we can construct our own spaces to public participation and hands-on learning experiences.

Other questions can be raised as well: if you have thoughts to be shared on the subject, we'd like to hear how you feel. —LS

Yes! A Grassroots Organized A.T. Fair!

We've just received word about MATNET (Mid-Atlantic Appropriate Technology Network) doing this very thing in the East. They're the grassroots behind the Appropriate Community Technology Fair and Conference—a region-wide event scheduled next spring April 28 to May 1, 1979, in Washington, D.C. Take a look at their plans and see how positive it can be:

- plans for the fair and conference include featuring all the exhibits and speakers in the context of a model a.t. community. That is, the layout of the booths, exhibits, speakers, etc. will seek to simulate as closely as possible the layout of a community.

- the primary focus is training of citizen activists from throughout the region as well as exposing people from the region to resources and hands-on information available in the mid-Atlantic region. Rather than bringing people together to show them an exhibit of a commercial solar collector, people will *learn* via workshops and participatory exhibits: how to build a solar greenhouse, how to organize a community sweat equity program, how to open a community health clinic, how to start a small newsletter, how to retrofit a house, start a community garden, etc.

- people will take skills home with them.

Contact MATNET about the fair at: ACT, P.O. Box 57078, Washington, DC 20037, for more information. —LS

(Thanks to Ken Bossong)

***Citizen Involvement in the Local Budget Process*, A Citizen Action Guide, 1978, 50 pp., $1.50 from:**

The Center for Community Change
1000 Wisconsin Ave., N.W.
Washington, DC 20007
Attn: Publications

For those of us working to move our communities in 101 saner directions, the need to bring more influence upon local political and economic processes is becoming increasingly clear. Here is a remarkably handy guide that will help in one phase of that effort: navigating the ins-and-outs of a typical city budgeting process. It clearly and simply outlines direct access points for citizens groups throughout the entire process—from departmental requests to the final auditing. Among other things, the report notes a strong connection between innovative budget-making approaches and the resurgence of neighborhood self-determination. —SA

FORESTRY

***The Other Face of 2,4 D*, A Citizens' Report, John W. Warnock and Jay Lewis, 1978, 175-plus pp., $7.00 from:**

South Okanagan Environmental Coalition
P.O. Box 188
Penticton, B.C. V2A 6K3
CANADA

First serialized in *Acres, U.S.A.* (see *Rain*, Aug/Sept 1978), an expanded edition of this excellent report is now available in its entirety from the above group. It is a must for people working to control the use of all-pervasive and persistently dangerous phenoxy herbicides.

On a related front, supporters of increased regulations on the use of Dioxin-containing herbicides have succeeded in amending the Oregon Forest Practices Rules relative to the aerial application of these chemicals—increasing spray buffer zones, public warning requirements, road closures in affected areas and monitoring for herbicide contamination. For a copy of these amendments contact:

Northwest Coalition for Alternatives to Pesticides (NCAP)
P.O. Box 375
Eugene, OR 97440

Finally, in response to a U.S. Forest Service official's comment that opposition to herbicide usage was coming from a "lunatic fringe," **Citizens Against Toxic Herbicides, 2737 25A St., Clarkston, WA 99403**, is offering handsome certificates confirming membership in the **Order of the Lunatic Fringe**. Donations will be used to finance a federal lawsuit attacking the use of phenoxies in forestry practices. Get yours today! —SA

This issue's column is devoted to helping consumers make good decisions in considering the purchase of wood fueled central furnace systems. Following some general suggestions is a partial list of manufacturers. It would be helpful to me if readers with personal experiences concerning use of wood furnaces would let me know of their disappointments or success stories. —Bill Day

wood heating news

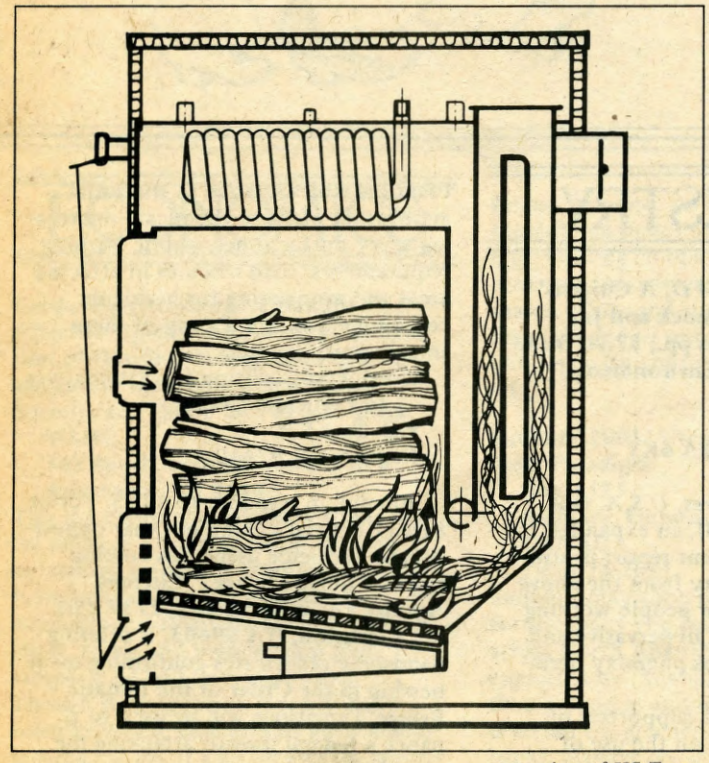
WOOD FURNACE TIPS

by Bill Day

As the use of wood fuel returns to its position as America's leading source of domestic heating, we are seeing a definite trend toward more sophistication in its use. Wood fired furnaces have some definite advantages. Large furnace fireboxes and truly automatic temperature controls require less frequent attention (labor) and often offer greater heating capacity than do free-standing wood burners. Usually the furnace system is concealed and is not part of the home decor.

Wood and multi-fuel furnaces are finding a greatly expanded market here in the late '70s. A number of manufacturers are now in production. Some of the best products seem to be imports whose outstanding quality follows the trend established by the importation of European free-standing stoves. Except for a very few, the bulk of the products manufactured in the USA are of relatively poor construction. Good data for quality and efficiency comparison are lacking.

Initial costs associated with installation of a central furnace are much greater than those with installation of free-standing wood stoves. The central furnace is only a portion of the capital expense. The chimney, sheet metal ductwork, and installation labor may exceed the cost of your furnace. Choosing a low efficiency or short-lived furnace is a very expensive mistake.



Section of HS Tarm

Here are a few ideas which may help you determine how to spend furnace dollars.

1. Look for a knowledgeable person or company to buy from. People who have no inventory or are short-changed on knowledge are likely to be expensive and in the long run simple mistakes and poor advice in this area might cost as much as two thousand dollars to correct. If possible, try to find someone to deal with whose experience began before 1973. (1973 was the year that "get rich quick artists" entered the wood-fueled appliance field.)

2. Examine the products offered. Higher quality furnaces are likely to use a great deal of cast iron in their construction. Cast iron lasts longer when used for firebox parts. Steel warps and shows heat fatigue quickly.

3. Positively eliminate from consideration any furnace whose doors or door frames are not cast iron. When steel is used for either the feed door or door frame, warpage is likely to cause uncontrollable air leaks. Efficiency is greatly reduced and loss of combustion control frequently leads to overheating.

4. Your furnace should be occasionally inspected and serviced. It is best to make your purchase from a stable, local, service-oriented retailer.

5. Avoid furnace manufacturers whose literature is flambuoyant. Traditionally the highest quality furnaces are produced by solid, conservative companies whose products are likely to outperform the claims of the manufacturer. Poor quality products are often warranted for periods exceeding the lifetime history of the manufacturer.

6. Add-on units designed to supplement oil, gas or electric furnaces are, at this time, notoriously poor quality. (The Kickapoo and Sam Daniels are exceptions.) Use of these units may void U.L., ASME or ICBO approvals on your existing furnace.

The following manufacturers were not included on the opposite page due to lack of information about their products.

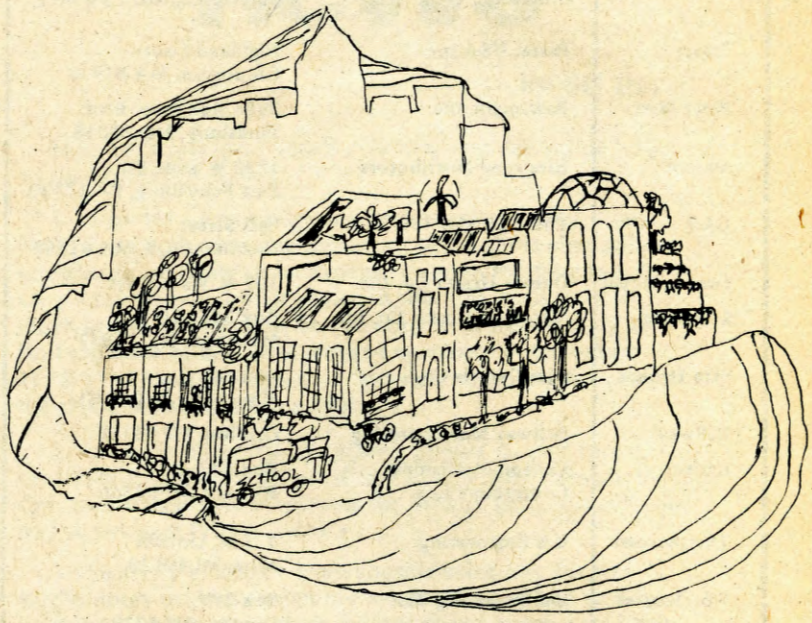
Basic Energy Systems Inc.
B48
Des Moines, IA 50301

Waldo G. Cumings
Fall Road
East Lebanon, ME 04027

Damsite Dynamite Stove Co.
RD No. 3
Montpelier, VT 05602

Brand Name	Manufacturer or Importer	Address	Wood Only	Dual Fuel	Comments
Kickapoo	Kickapoo Stove Works	Box 127 La Forge, WI 54639	X		Furnace add-on unit. Cast iron doors and door frames—a relatively good product.
Surefire	Welkum Steel Products	RR2 Equaville, Ontario CANADA K0S 1T0	X		Steel door and door frame.
Hunter	Hunter Enterprises Orilla Ltd.	P.O. Box 400 Ontario, Canada L3V 6K1	X	X	(Valley Comfort (good products. Relatively wide range of sizes and fuel options.
Passat	Passat USA Inc.	Highland Court Gloucester, MA 01930	X	X	Relatively good quality. Hot water boiler available 5 sizes.
Powr-Matic	Powrmatic Inc.	2906 Baltimore Blvd. Finksburg, MD 21048	X	X	
Mascot	Hiestrend Distributors	1830 W State St. East Petersburg, PA 17520			Water Boiler add-on unit.
G&S	The G&S Mill	Otis Street Northborough, MA 01532	X	X	Large commercial units designed for waste utilization. A pioneer in this field.
Oneida Royal	Oneida Heater Co. Inc.	109 N. Warner St.	X	X	Hot water available. Relatively crude product.
Logwood	Marathon Heater Co. Inc.	Box 265, RD 2 Marathon, NY 13803	X	X	Water boilers available.
Sam Daniels	Sam Daniels Co.	Box 868 Montpelier, VT 05602	X	X	Exceptionally good quality. Wide variety of multi-fuel, wood, coal, oil-water boilers.
Bellway	Bellway Manufacturing	Graffon, VT 05146			
Carlson	Carlson Mechanical Contractors Ltd.	Box 242 Prentice, WI 54556	X	X	Solid fuel only water boiler.
Thermorossi	UA Engineering	323 N. Lincoln Niles, MI 49120		X	Water boiler.
Woodwaster	Suburban Mfg. Co.	Box 399 Dayton, TN 37321	X		Oil-gas-electric. Furance add-on unit. Terribly poor quality, no door frame.
AES	Alternate Energy Systems, Inc.	752 Duvall St. Salina, KS 67401	X		Medium quality, add-on unit available.
HS Tarm	Tekton Corporation	Rt. 116 Conway, MA 01341	X	X	High quality water boiler. 4 sizes available.
Tasso Universal	Tekton Corporation	Rt. 116 Conway, MA 01341	X	X	High quality water boiler, 4 sizes available.
Riteway	Riteway Manufacturing Co.	P.O. Box 6 Harrisonburg, VA 22801	X	X	Low quality, steel doors and door frames—secondary combustion seldom operates.
Ram Furnace	Ram Forge	Brooks, ME 04921	X		Furnace add-on unit. Tacky steel door and door frame
Heatmaster	E.C.E. Industries Inc.	P.O. Box 878 Wisconsin Rapids, WI 54494	X		Furnace add-on unit—steel door and door frame.
Johnson Energy Converter	Johnson Energy Systems Inc.	7350 N. 76th St. Milwaukie, WI 53323	X		The worst furnace add-on I've ever seen—don't buy one!
Energy King	Chippewa Welding Inc.	R 5, Box 190 Chippewa Falls, WI 54729	X		Furnace add-on, medium quality.
Duo Matic	Duo-Matic Division	450 W. 169th St. South Holland, IL 60473	X	X	A relatively good product available various sizes and fuel options.
Combo	Combo Furnace Company (Northern Heating & Sheet Metal Co.)	1707 W. 4th St. Grand Rapids, MI	X	X	Wide variety of sizes. Steel doors.
Thermo-Control	Thermo-Control Wood Heating Systems	Box 640, Dept. WSD Cobleskill, NY 12043	X		Low quality sheet metal products.
Longwood	Longwood Furnace Corp.	Rt. 2, Box 223 Gallatin, MO 64640	X		Uses logs up to 5'—too large for homes with moderate needs.
Newmac	Dual Fuel Products Inc.	2775 Pittsburgh Ave. Cleveland, OH 44115		X	Steel doors and door frames.
Red Ox	Energy Options Inc.	P.O. Box 303 Green Bay, WI 54305	X		Water boiler—steel doors and door frames.
Gibraltar	Self Sufficiency Products	One Appleton Square Minneapolis, MN 55420	X		Furnace add-on, unacceptable steel door and door frame.
Yukon	Wilson Industries	2296 Wycliff St. Paul, MN 55114		X	A relatively sophisticated design—steel door and door frames.

This article is a continuation of Karl Hess's ruminations about appropriate technology (in the broadest sense) and urban blacks or poor people in general begun in his article for Quest/77*—reprinted in our* Stepping Stones. *It's an important train of thought. Who wants to continue it further? Printed simultaneously in* North Country Anvil, *Box 37, Millville, MN 55957 ($7.50 for 6 issues/year). —LdeM*



There are important practical, even tactical differences between an outlook that emphasizes rights and one that emphasizes responsibilities.

On the broadest scale, the difference should be apparent. Politics in most countries, for years now, has been based upon organizing to secure rights. People organize in order to *get* something. They usually identify the thing being sought as a right. Big Business organizes to get the right to operate its processes in secret and without regulation—except for the sort that will reduce competition to a minimum (e.g. auto inspection and licensing regulations which act against home-built cars, medical licensing that prevents self or community health care, highway regulations to obstruct independent truckers not to mention highways themselves which serve national rather than community purposes, zoning regulations to prevent experimental communities or alternative businesses, and housing codes to prevent experimental or innovative construction).

Professionals, generally, organize to secure the right to exclusively practice a craft—teachers, doctors, some mechanics, even lawyers and politicians.

Poor people organize to secure what they regard as a right to a share of the incomes of working people who are not officially listed as poor. And, of course, the government itself organizes power in such a way that it may decree the right to say who is poor, proper, employed, rich, etc.

Throughout the system, organizing to secure rights is general. And, throughout the structure of rights, the notion of rights as power over *other* people also is general. None of the rights that have become central to modern political and economic activity can in fact be realized without penalizing the rights of someone else. (The reason I include the economic is because the major businesses now all operate on the public utility theory of a *right* to a steadily increasing profit. Because of effective government agreement, this assured upward profitability—regardless of market conditions—is known officially and widely as Progress. Its lack is called a Depression.)

These modern rights are distinct from the ancient provisions of the common law, incidentally. Common law does not concern itself with positive rights so much as it concerns itself with those things simply felt to be unacceptable civil behavior, by individuals or by institutions—murder, theft, lying, etc. The common law derives from a notion that most human communities, in order to stay together and be pleasantly livable, would prefer that neighbors not kill each other, or steal, and that lords not loot them.

Positive rights, as they have come to dominate politics, say something altogether different. They do not say that such and such an act is unacceptable or impractical to community purposes. They say that such and such an action *must be performed*—performed by someone on behalf of someone else. Positive rights are based solidly and exclusively on the police power of the state. They are paid for, to get at the heart of it, by taxation and taxation is now clearly an act of force, of police authority and not the gracious voluntarism that the civics books say it is. Without raw police power the whole system would collapse—and everyone seems to know that.

The common law, on the other hand, has emerged from and is based upon long experience with community and with those minimal agreements which have made community possible or bearable. Common law is based upon suppositions that have been tried and tested over a very long time and not upon the vying for short-range gains as in the realm of positive rights.

One more comment before the practical applications of all this. There are no rights in the natural world. Nothing has, for instance, a right to life, although all organisms seem to exercise a very noticeable attempt *to* live—grass forcing its way through concrete, mosquitos becoming resistant to pesticides, human beings living on deserts and ice-caps. In each instance, however, the organism can be said to obey the imperatives of a genetic *responsibility*—to try to survive. Unless that responsibility is successfully met, the organism dies. It has no way of exercising a right to survive. It must exercise a will and a way to survive. People sometimes think of this arrangement as cruel, applying an understandable emotion to a merely observable phenomenon. Cruel is an opinion. The responsibility of living is a material reality independent of opinion.

ON SHElling IT OUT

by Karl Hess

Now, some practical differences and applications.

For those who, as I do, work always toward a free and decentralized society and away from hierarchical authority, the difference is absolutely basic. It means, at the start, that your political life is spent in the creation of new ways to work, live, organize, co-operate rather than in trying only to levy claims against existing institutions. This doesn't mean some sort of across-the-board refusal to take anything tainted by state ownership—it just means that it isn't the focus. For instance, in work that I did in Washington, D.C., a neighborhood technology project, many of the tools used were obtained happily, even gleefully, from a license to purchase directly from government surplus stores. Since then I have lobbied a time or two on Capitol Hill to get legislation that would make such surplus materials available to all community experimenters, or experimenters in communities. But that was a means. The end was the community work.

It is true, however, that the means can come to dominate even the best of ends. Thus, every move toward getting, rather than building, has to be carefully kept in perspective as a tool, and a minor one, lest it get the best of you and become a way of life rather than a way to a new life.

Housing presents a striking example of the difference between rights and responsibilities at a practical level.

Much of the current organizing involving housing, among people who claim to be seeking alternatives, is calculated, instead, to bolster existing systems even though it may peel off a little from them. It's like this: if you organize to *get* housing for poor people through, for instance, a tax-supported program, the organizing probably will be based upon the right of everyone to have decent housing. What that means, in truth, is that you are saying that *some* people have the right to housing that is paid for by *someone else*. In order to establish the right of some to *have* housing, someone else has to build it, or cause it to be built. The result may be desirable, at first glance; a bunch of houses for poor people. The second glance will show that the long-range effect is to shore up a system in which an underclass of non-productive people (they didn't produce the houses) becomes more and more a client class, forever dependent upon the power of the state to exact, on their behalf, certain resources from certain other people.

I understand that there is a romantic belief in some quarters that these resources are extracted from people with too much and given to people with too little. The truth should now be obvious. It is the productive working class that pays the most for all social programs. The idle rich are scarcely touched. But, worst of all, the problems of poverty are not touched at all. Poverty is cured by wealth and wealth is the result of productive activity such as thinking, or material work. Wealth that is produced simply by claiming a right to wealth is no more healthy in the long run than wealth produced merely by a state-sanctioned claim on the title ownership of property—whether earned or not. (The old Populists used to launch tirades against the *two* great classes of parasites —millionaires and bums. The exercise of rights can make a bum out of anybody, if totally disconnected from creativity. It, of course, makes bums out of millionaires too, but in an esthetic rather than workaday sense.)

The contrast is to see the problem of housing as one in which the desirable goal is to turn people away from being merely consumers of housing toward being producers of housing.

Money is usually not the thing standing in the way. Take an inner city neighborhood where most of the people are welfare clients. They will remain welfare clients until they either get jobs or become otherwise productive. My own preference is to work for a time when no one has a job, when everyone works either independently or in groups democratically organized by the participants—equal partnerships, co-ops, whatever.

A basic economic fact of any welfare neighborhood is that there is disposable income within it. The fact is made clear by the proliferation in such neighborhoods of liquor stores, junk food sellers, dope pushers, etc. I understand all of the arguments about poor people living lives of such misery that only drunkenness or appetite pleasures make it bearable. I also understand that unless poor people become productive through mostly their own efforts, as suggested by such people as Jesse Jackson and, formerly, by the Black Panthers, that they will remain poor—even if pleasured by drink, dope and fast food.

continued→

BAD GUYS

***The History of Shock Treatment*, edited by Leonard Roy Frank, 1978, 206 pp., $6.00 from:**
Bookpeople
2940 Seventh St.
Berkeley, CA 94115

250,000 people each year in the U.S. are administered electroconvulsive (shock) therapy, which is essentially a means of obliterating emotional distress through controlled damage of the brain. Leonard Roy Frank, a staff member of *Madness Network News* and a campaigner against psychiatric inhumanity, has pulled together this disturbing history of shock therapy. His anthology of letters, testimony and articles covers every angle—from dispassionate clinical ads in psychiatric journals to such piercing reconstruction of shock treatments as that of poet Sylvia Plath: *"Then something bent down, and took hold of me and shook me like the end of the world. Whee-ee-ee-ee-ee, it shrilled, through an air crackling with blue light, and with each flash, a great jolt drubbed me till I thought my bones would break and the sap fly out of me like a split plant."*

from The History of Shock Treatment

With its original articles, glossaries and shock-sourcelists, *The History of Shock Treatment* is a comprehensive primer for exploring this most controversial of psychiatric techniques, and its undeniable connection to other kinds of human and social repression. —SA

Rotten Tomatoes (or more Why Big Business Loves "A.T.")

Large-scale hydroponics is becoming a new growth sector for such conglomerates as General Electric, General Mills and Ralston-Purina. General Mills is currently piloting hydroponic "Kitchen Harvest" lettuce in the Minneapolis area. Ralston-Purina is doing the same with house plants for Tupperware-type party distribution. And G.E.'s "Geniponics" brand tomatoes are selling at 50¢ a pound in Syracuse supermarkets. The General Mills lettuce is grown in movable troughs that pass from light to dark areas to "simulate day and night," while the G.E. system relies on the more labor-intensive option of workers turning lights on and off every twelve hours. "We tried constant light," said Lewis W. Fogg, head of G.E.'s hydroponics project, "but the tomatoes split wide open." (*Wall Street Journal*, Sept. 22, 1978, via NCAT) —SA

In a neighborhood of a thousand welfare clients, the equivalent of one carton of cigarettes or one bottle of booze per week, per person, would be about $5,000 a week, or about one-quarter of a million dollars a year! With a cash flow like that the neighborhood would have such options as opening its own light industrial plant, retail stores, or forming a local construction company—or a co-op to buy the neighborhood from absentee landlords who may be looting and deliberately ruining it for future speculative profits.

Housing or any other social service is not simply a matter of money: money is only one tool in a constructive process. Housing, for instance, is a matter of work and the allocation of raw materials—hammers, nails, building materials, skills.

To organize to provide housing is one thing and, I think, a short-sighted thing at that. To organize to make housing possible could be a more vigorous and healthy activity and it would be based, I believe, on a shift of attitudes away from rights and toward responsibilities.

A living example of this sort of shift can be seen in the East 11th Street project in New York City. Although it has received some generous support from federal funds, it got started and derives its main energy from a notion of responsibility. In that neighborhood, a group mostly of Latin-speaking people got together to take over an abandoned apartment house and recondition it for the use of people in the group. The idea enlarged until, now, the people involved are branching out into community gardening, light industrial production and construction generally. They are building their own lives and community—not asking that one be provided for them.

One objection to this, from a sharply differing ideological point of view, is that poor people should not be forced to make up with their own energy the deficiencies of a system that has for so long exploited or oppressed them. To be stuck in such a position is to forever spend time building variations of old power structures, re-oriented but not otherwise changed. The shift toward the East 11th Street approach is to shift toward building a new world inside the shell of the old and not just trying to make the old one bearable.

There are, basically, two ways to get things done today. You can either beg and plead or you can organize to produce. At the outset, you may have to beg a bit—perhaps some tools or space or materials. But there is a significant difference, the initial begging is soon to be abandoned, it is not the object, and, ideally, it should be considered merely a convenience that could be dispensed with anyway!

I believe that there is a moral principle involved in all this. I call it moral because it is one of those practical matters that seems to be so pervasive and persuasive that it needs a more high-falutin name than simply being called "a practical matter." Nevertheless, as a practical or a moral matter it seems to me that it is inappropriate to turn people into consumers when they could be producers. I believe in the old saying that when you give people a fish you solve their hunger for a day, but when you teach them to fish, you solve it forever (given livable waters, of course—another area in which local-level social agreements have worked whereas top-level state solutions have not).

Some other examples of possible practical differences between rights and responsibilities that come to mind:

Unemployment among black teen-agers is, as everybody now must know, the highest of any easily defined group. Most black teen-agers, like most people of any sort, seem to think of employment solely in terms of getting a job (an extension of the rights concept). Suppose, instead, black teen-agers thought of creating work instead. They have massive advantages!

continued→

MYTH

***Parabola, Myth and the Quest for Meaning*, $12.00 yearly from:**
G.P.O., Box 165
Brooklyn, NY 11202

For those of us seeking to change our world and ourselves, we must often look farther than politics and deeper than our values. Myth—not the falsehood that is widely accepted—but the underlying meaning which expresses itself in our world views and rituals, and which guides us in our perception of who we really are, is all around us. We live in Myth, even now. Some has been with us a long time. Some, like that fired on fossil fuels, burning out quickly. To be consciously aware of this can enlighten us in our struggle to be whole people in the flux of changing times.

Parabola is a quarterly journal which relates history's multi-faceted quest for meaning to our present. In articles, interviews, images and poetry, it brings mythic themes into a new context, taking careful advantage of the parables and folk tales of many cultures that have survived the onslaught of this too-rational world, trying not to exploit them, but rather weave them into a contemporary understanding. This synergy of many world views seems to be a part of the hope upon which our future rests. We are on the cusp of two ages, and we need the power of new dreams to carry us over. —SA

. . . In the dark sea, in the Northern Ocean, steadfast old Vainamoinen drifted. For seven summers, for seven winters he drifted, splashed along for eight years on the surface, on the open expanse of the sea. Above him was the dark sky, below him the flowing waters. As he floats along, as he drifts here and there, the man now and then lifts his head, to see where he is, and where he lifts his head islands magically come into being. Where he swings his hand, he arranges a headland, and his feet make places for fish . . .

The Creation of the World: From the Kalevala (Finland)
Parabola, Spring 1977

In most large cities, for instance, the hunger for decent and fresh vegetables is totally unfulfilled by supermarket practices which insist on central purchasing and long storage and transport times.

Black teen-agers operating a fresh produce market would have this great advantage over virtually anyone else: If the authorities tried to stop such an enterprise, using the usual big business-inspired excuses of health regulations, zoning, etc., the black teen-agers could mount a public relations counterattack that should be stunning. After all, every city authority has declared them to be in a disaster situation. Self-help to cure that, if attacked by the city authorities themselves, would appear to many people as unconscionable. Support and sympathy for the black teen-agers should be more substantial than for most people in the same situation.

Urban or suburban gardens to produce the vegetables would be a good addition.

Or take transportation. In many cities, transport systems that carry black service and household workers to their jobs are miserable—certainly when compared to the systems that carry the middle class. Jitney services to replace the creaking public transportation service, operated by black teen-agers, might be another example of an attractive, useful, productive activity that the authorities would have great difficulty in squashing. From it might emerge mechanical facilities to service the jitneys or informal cabs or busses. Who knows, it isn't impossible to dream of a day when the very vehicles would be built in the neighborhood, probably using a better motor than the reeking, relatively inefficient reciprocating engine to which the major manufacturers (hopelessly resistant to innovative technology) are bonded. Someday, given a growing productive life, it might not be desirable for black people to clean other folks' homes. They could start building and caring for their own.

These are just a few examples to try to make a very large point about the difference between responsibility and rights. They are presented and should be read in the light of another responsibility: the responsibility for people to think such things through for themselves and not to accept without thought the thinking of *anyone* else. The basic responsibility may be just that: to think, and then to act. One without the other is to claim the right to something that doesn't exist, the right to simply be, without thought and without action. Not even the lilies of the field, despite what the old tales tell us, can get away with that. They are good neighbors and they work diligently at their craft.□

HELP UPDATE

Well, the responses from Rainfolk to our plea for HELP have been trickling in day by day, and the trickle has accumulated into an overflowing of responses that indicate you folks want us to continue. So, we're going to continue! (Whew!)

We've been brainstorming about how to do a promotional campaign so that we can increase our subscribership to about 8,000-10,000 people. In order to increase by that amount via direct mail, we need to do a mailing to 400,000 people (Yikes!) (at a normal 1-2 percent return). We guess that this is going to cost us roughly $60,000 as follows:

$16,000.00	to purchase mailing lists at $40/1000
10,000.00	bulk mailing at .027/ea
34,000.00	printing and mailing
$61,400.00	

Many friends have indicated they want to help us, so here are three concrete ways to give *Rain* a hand:

1. Donate a large amount of (tax-deductible) money to our promotional fund.
2. Send us any mailing lists that you have access to so that we can have names of people who could use *Rain* well, and cut cost of purchasing mailing lists.
3. Send us the names and addresses of 3 friends who you think would like to know about *Rain* so we can accumulate our own mailing list. (Use the handy form on this page.)

Any of these ways of support are important and should be done right away, since we have such lag time between this writing and your reading. We feel real good about this surge and time of growth; it's already adding some freshness to our *Rain*: the enthusiasm of our new readers as well as that of our old-timers.

RAIN'S NEW INDEX

Speaking of old times, I've just finished an exciting project that Lane started and almost finished a while ago: THE INDEX of all and everything in *Rain*, Volumes I, II, III, IV, and *Rainbook* too. Its usefulness to us is unending: especially felt right now while it's at the typesetters and inaccessible to us. Essentially it's our filing system for almost all the information that passes through here. Now old friends with back issues can find anything in old *Rains* that they're looking for (and most likely you'll find many more great items that you weren't). New friends will be able to look through and order back issues that have important information. Be sure to watch the next issue for price and ordering information.

One request to our mobile subscribership: please send us a change of address if you move (before you move if possible!) so that you don't miss any *Rain*. Also it's a big time and financial drain: we have to pay anywhere from 20-40¢ to the post office for every issue —which adds up, and we also have to try to find you. . . . Thanks.

We're still looking for a couple of people to intern at *Rain*. Possible living space in the Rainhouse and $25/week as a stipend are offered in exchange for a chance to help us out of our financial crunch and to learn the internal operations of our magazine and networking system. An incredible amount of information comes through here daily; only the finest sifted out into the magazine—the remainder attempting to overload our circuits. Contact me if you're interested. —LS

Raindrops

RAIN Mailing List

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city, state, zip _____

name _____

address _____

city, state, zip _____

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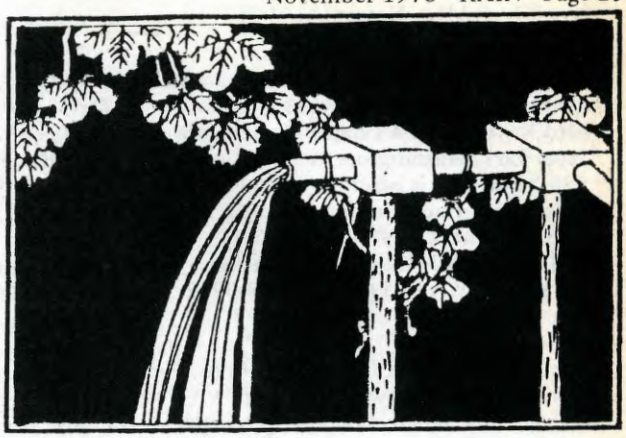
city, state, zip _____

RAIN PUBLICATIONS



NEW

☐ ***Stepping Stones: Appropriate Technology and Beyond*, edited by Lane deMoll and Gigi Coe, 208 pp., Fall 1978, $7.95.** A valuable reader providing the philosophical glue and background of what appropriate technology is. Compilation of classic essays by Schumacher, Odum, Lovins, etc., as well as new visions of what may lie beyond by David Morris, Margaret Mead, Tom Bender, Gil Friend and Lee Johnson.

☐ ***Stepping Stones Poster*, by Diane Schatz, approx. 22"x 33", $3.** This incredible new vision landscapes a community combining rural and urban views of Ecotopia. It was designed for the cover of our new book, *Stepping Stones*, to illustrate some possibilities for beyond. The detail in the poster is great.

☐ ***RAINBOOK: Resources for Appropriate Technology*, 256 pp., April 1977, $7.95.** Resources for changing our dreams and communities. Compilation of the best of RAIN through Spring 1977, with much new material on economics, communications, health, energy, community building and other areas. Fully indexed.

☐ ***Urban Ecotopia Poster*, by Diane Schatz, 22"x33", $3.** A reprint of the "Visions of Ecotopia" line drawing that appeared in the April '76 poster issue. Great for coloring.

☐ ***Suburban Ecotopia Poster*, by Diane Schatz, 22"x30", $3.** Available for the first time in full size, this finely executed drawing illustrates Small-Is-Beautiful and self-reliance principles applied in a happy suburb of the very near future. Also great for kids' (and grown-up kids'!) coloring. (See cover of April '76 poster issue)

☐ ***Emerging Energy Policy Principles*, by Tom Bender, August 1974, $1.**

☐ **Cosmic Economics, by Joel Schatz and Tom Bender, revised revised March 1974, $1.**
Principles to be carefully remembered in wending our way through this transition, and outlines for the simplest and most effective economic mechanism we've seen for guiding that transition.

☐ ***Consumer Guide to Woodstoves*, revised Sept. 1977, $1.** Compiled reprints of Bill Day's article on selection, installation, repair of woodstoves, wood cookstoves and wood furnaces of all kinds.

☐ ***Sharing Smaller Pies*, by Tom Bender, January 1975, 38 pp., $2.** Discussion of the need for institutional change tied in with energy and economic realities. Begins to lay out new operating principles, including some criteria for appropriate technology.

☐ ***Environmental Design Primer*, by Tom Bender, 206 pp., 1973, $5.95.** Meditations on an ecological consciousness. Essays about moving our heads and spaces into the right places.

☐ ***Living Lightly: Energy Conservation in Housing*, by Tom Bender, 38 pp., 1973, $2.** Early ideas on the need for change in building and lifestyle, compost privies, Ouroboros Project (self-sufficient experimental house in Minnesota) and the "problem of bricks in your toilet."

☐ ***Employment Impact Statement*, October 1976, 2 pp., 50¢.** A simple, step-by-step way to figure the employment impacts of a new industry and consider the benefits of different options.

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Alternative Food Systems **second annual conference of the Northwest will be held November 10-12 at Millersylvania State Park, Washington. Registration is $20, child care is offered. Contact NW Alternative Food Conference, 257 17th Ave., Eugene, OR 97401, 503/343-6580, or Judith Gille, 747 16th Ave., E., Seattle, WA 98112, 206/329-0922, a.m.**

The National Trust for Historic Preservation is seeking b/w photos of new architecture which is compatible with older settings for possible use in a book. Contact Michael Leventhal, 740-748 Jackson Pl, N.W., Washington, DC 20006, for more information.

U.S. Office of Education has established an energy information center. Contact Energy and Education Action Center, Rm. 514, Reporters Bldg., 300 7th St. S.W., Washington, DC 20202, 202/472-7777.

Preregistration deadline is Nov. 30 for *New England Solar Energy Assoc's Third annual conference*. $50 for NESEA members, $75 for other AS/ISES chapter members, $100 for non-members before deadline. Conference dates January 26-28, 1979. Contact NSEA '79, P.O. Box 541, Brattleboro, VT 05301.

Help Care for New York City Street Trees: A Pruning Course for Citizens will occur November 4 & 18 at Green Guerillas, P.O. Box 673, Canal St. Sta., New York, NY 10013, 566-0990; Nov. 4, 11, 18 at Council on the Environment of New York City, 51 Chambers St., Rm. 228, New York, NY 10007, 566-0990; Nov. 6, 13, 20, 27 at Magnolia Tree Earth Center, 1512 Fulton St., Brooklyn, NY 11216, 756-2233. These are all members of the Street Tree Consortium, contact Louise Bryant, 566-0990, for more information.

Solar Information Service *for people in the San Francisco Bay area. Call 415/777-1987 for free information about solar water heating, passive systems, space heating, etc. Sponsored by Citizens for a Better Environment, 88 First Street, Suite 600, S.F., CA 94105.*

***Land Use Litigation: Critical Issues for Attorneys, Developers and Public Officials*, a conference on Nov. 30-Dec. 2 at the Fairmont Hotel in New Orleans. Sponsored by Urban Land Institutes, American Law Institute, American Bar Association. Contact Donald Maclay, ALI-ABA, 4025 Chestnut St., Philadelphia, PA 19104.**

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Caravan for a Non-Nuclear Future, November 11-16, contact Catfish Alliance, U-5862 FSU, Tallahassee, FL 32313.

Energy Issues and Indian Lands *is the subject of the Nov. 13-14 American Association for the Advancement of Science (AAAS) Seminar at the Pacific Science Center in Seattle. Contact Rayna Green, Project on Native Americans in Science, AAAS, 1776 Mass. Ave., N.W., Washington, DC 20036, 202/467-5433. This is co-sponsored by the U. of Washington, the United Indians of All Tribes, the United Indian Planners Assoc. and the Small Tribes of Western Washington.*

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