ISBN 0362-8566

Self-Reliance

Number 24

September-October 1980

INSIDE:

Printed on 100% recycled paper

ILSR Evaluates Nine Schools

Teaching Skills in Community Organizing

In many ways, it's a familiar story. A middle-aged mother of three, whose only civic activity has been working on church fairs, hears that a community organization has won several stop signs on nearby streets. Hesitant, but concerned because her children often play in the street, she talks to her friends and neighbors, and finally joins the group. By the time the stop signs are up on her block, she's learned that public officials will respond if enough pressure is put on them, and she's already involved in the organization's next issue—fighting a local utility rate increase.

The role of a community organizer is to help build strong, effective organizations from stories like this. An organizer is a catalyst: bringing people together, identifying and researching issues, and developing winning strategies for the group. In order to hone these skills, many organizers work with one or more of the growing number of local, regional or national resource centers or training schools.

Decade-long Growth in Community Organizing

Some of these, like the Highlander Center in Tennessee, or the Industrial Areas Foundation in New York, have supported community, union and other struggles from the 1930's and '40's on. Most of the others were founded in the early 1970's. Together, they have helped fuel the rapid expansion in community organizing that has occurred during the past ten years.

There are at least nine training schools that provide regularly-scheduled organizer training sessions (see box, page 5). Others, like the Mid-America Institute in Chicago, provide consulting support, or, like the Highlander Center, coordinate specially-focused training in their regions.

In many ways, the nine training schools are very similar. With only two exceptions—the Center for Urban Encounter and the Pacific Institute for Community Organizations—they all offer basic three day to two week training workshops covering such topics as membership recruitment, leadership development, strategy and tactics, research, fundraising, and media skills. All but the Midwest Academy offer, or can arrange, three month to two year internships with existing community organizations. And all offer follow-up consulting services to assist organizations in on-site training of staff and leadership, and in addressing other organizational needs.

Despite these similarities, the schools differ in some important ways. Some concentrate on nuts-and-bolts skills, like doorknocking, or running a meeting. Others emphasize analytical skills, like identifying personal and institutional self-interest, or understanding power relationships in a community.

According to alumni and the directors of the schools themselves, the New England Training Center (NETCCO), the National Training and Information Center (NTIC), the Institute for Social Justice, and the Pacific Institute for Community Organizations (PICO) tends to focus heavily, although not exclusively on nuts-and-bolts skills. As Charles Koppelman, Director of the Institute, put it: We concentrate on giving people skills that have been tested (continued on page 4)

Notes

High technology or low technology approaches to resource recovery have been debated for several years. The literature on the subject is often vague, with conflicting accounts of what is meant by each kind of technology and when each would be suitable. Some specifics are offered in *The Community Choice Between High and Low Technology Approaches to Resource Recovery.* The report presents four case studies, two of communities choosing low technology approaches to waste management and two that chose high technology. In every case, the national debate between the two options never occured at the local level. Only one type of technology was considered, depending on the community's particular objectives and waste disposal problems. Copies of the report and information about cost are available from: **Publications Program, Laboratory of Architecture and Planning, Room 4-209, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge MA 02139.**

Staff

Editor
David Macgregor
Publications and Information
Karen Selme
Energy
John Plunkett
Economic Development
David Morris
David Bardaglio
Waste Utilization
Neil Seldman
Administrative Director
Harriet Barlow
Support
Gay Goodenough
Joan Matthews
Miranda Kreisberg
Jean Taylor

Self-Reliance

Published bi-monthly by the Institute for Local Self-Reliance at 1717 18th Street NW, Washington DC 20009
202/232-4108 202/232-0235

Subscriptions:
Individuals, $8; Institutions, $15

© 1980 Institute for Local Self-Reliance

Community development block grants, now totaling $4 billion a year, are a local government's best friend. Putting the grants to good use, however, hasn't been easy. A citizen's group formed to evaluate the block grant program says many local governments are spending their funds on projects which neither help low and moderate income people nor promote local economic development. The group's 70-page report, *Monitoring Community Development,* includes data from 36 local, county and regional block grant programs. Copies are $4.50 from: **Working Group for Community Development Reform, 1000 Wisconsin Avenue NW, Washington DC 20007, 202/338-6382.**

Community surveys can be an important first step in planning a neighborhood project. But getting accurate, useful information can be tricky. A group in Portland, Oregon learned from experience, and published a 32-page guide called *Doing a Community Survey with Volunteer Help.* Copies are 50 cents from: **Northwest District Association, 817 NW 23rd, Portland OR 97210, 503/223-3331.**

Everything You Ever Wanted to Know About Food Fairs is an ambitious title, especially for a booklet only 48 pages long. Nevertheless, a guide to food fairs and farmer's markets has long been needed. Included is information on set-up, publicity, legal codes, and by-laws. Copies are $5 from: **Agricultural Marketing Project, 2806 Westwood Drive, Nashville TN 37204.**

In our description of the Whiteaker Community Self-Reliance Project in *Self-Reliance #23,* we wondered what would happen to the program when the funds ran out. The National Center for Appropriate Technology, which provided a start-up grant of $146,000 last year, has since provided a second grant of $35,000. NCAT reports that Whiteaker is also under consideration for a third grant. We also wondered why the reports published about the Whiteaker project to date were so expensive. NCAT tells us that **if the Whiteaker programs succeed, published reports will be available at reasonable cost.**

Scores of innovative energy projects undertaken by the nation's municipally-owned utilities are listed in the May-June 1980 issue of *Public Power.* The list covers solar energy, photovoltaic, wind power, low-head hydroelectric, biomass, geothermal, cogeneration, district heating and conservation, district heating and conservation projects, and includes contacts and phone numbers. Single issues are $3 from: **Public Power Publications Department, Suite 212, 2600 Virginia Avenue NW, Washington DC 20037, 202/342-7200.**

The *Guide to Running a Recycling Center* mentioned in *Self-Reliance #22* is free only to Oregonians. Out-of-staters should send $1.55 to: **Oregon Department of Environmental Quality, 522 SW 5th Avenue, Box 1760, Portland OR 97207.**

March of "Progress". . .

Holy Smokes!: Marijuana, seized by the Canadian government, was burned by a Nova Scotia paper mill to generate electricity. About 22 tons of the crop, worth $50 million on the street corners across the continent, provided heat energy equivalent to about $100 worth of oil. The marijuana was given to the plant at no charge. Representatives of Scott Maritimes Ltd. expressed willingness to use the fuel again if the government could provide regular supplies without charge.

—From *Recovery Engineering News*

Sludge by Any Other Name: A deal to ship 1200 tons of sludge daily from the District of Columbia to Hati has fallen through. Somehow, Hatian officials got the impression the sludge was ready to use as fertilizer. District officials, however, were planning to send the raw solids that remain after liquids are removed during the sewage treatment process. Now that Hati has said no thank you, perhaps the district can try less elaborate schemes, like composting the sludge into a soil conditioner for Maryland and Virginia farms.

With Federal Help

Utilities Find New Incentives to Encourage Small Power Production

Decentralized power production based on renewable energy has been touted for many years. But real progress is now being made towards turning the potential into reality. Major legal barriers against small-scale renewable energy systems have been removed. New developments may dramatically change the traditional role of utilities—from energy producers to energy brokers, buying and distributing power from hundreds, or even thousands of small-scale producers. Moreover, utilities may find that encouraging the growth of a decentralized energy network will benefit their own interests in the long run.

The key to efficient small-scale renewable energy systems, or any energy system for that matter, is a balance between energy supply and demand. Many worthy systems that can be locally built and controlled are impractical, simply because they generate more power than they can always use, or not enough power to meet peak demands. For completely independent systems, the only solution is to redesign the technology to better match supply and demand.

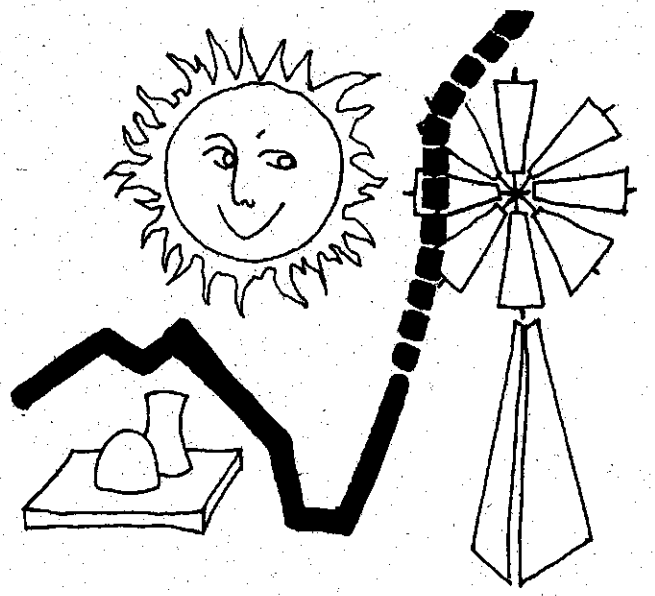
But energy systems that interconnect need be much less dependent on matching supply and demand. Consider industrial cogenerators, which are producing both heat and electricity for their manufacturing process. Until recently, practical cogeneration was limited to those industrial processes where heat and electric demand is evenly matched. Such is the case with the Revere Sugar Company in Massachusetts, which has been using a cogenerating system since 1917. Revere Sugar boilers produce electricity to run their plant, and steam heat to process their sugar. They make electricity at about half the cost of utility-bought power.

Many other industrial plants can do the same, except that they won't always need the electricity or steam they produce, or they will occasionally need more power than they are capable of producing on their own. Excess capacity, or the need for a backup system, make cogeneration uneconomical.

The key to efficient small-scale renewable energy systems, or any energy system for that matter, is a balance between energy supply and demand.

But what if a small power producer could sell excess power, or buy additional power at reasonable rates for the times when it is needed? Many more small-scale systems would be economical. What would work for industrial power producers might also work for a homeowner with a wind turbine, a town with a dam on a small river, or a neighborhood with a central photovoltaic array. However, making arrangements for selling and buying small amounts of power with a local utility has not been easy.

One problem involves utility regulation. With no specific guidelines on small power production, industrial cogenerators could be considered utilities themselves. As such, they would be subject to the same federal regulations as other utilities, and perhaps to the same limited profit margins as utilities. Not only did this uncertainty scare off potential small power producers, it eliminated some existing cogeneration plants. In the 1920's and 1930's, when several paper companies were producing electricity through cogeneration, the U.S. Justice Department filed court suits to regulate the companies as utilities. The companies decided to stop producing and selling electricity.



Utilities themselves are another roadblock to the buying and selling of small amounts of power. Most utilities, still following the "bigger is better" rule of planning, are reluctant to deal with small power producers. For a number of reasons, however, "bigger is better" is often no longer true. Rising petroleum prices make oil-fired power plants extremely expensive. For nuclear and coal power plants, technical and environmental problems result in tremendously expensive lead times between initial planning and finished construction. Operational problems in these large plants produce frequent shut-downs, which increase costs. Relatively uncertain demand for power means that large plants may not always be needed. All of these risks are increasingly recognized by financial institutions, which charge more for the large amounts of capital needed to construct these big plants, which in turn drives up their cost.

In these situations, a utility can reap substantial savings—also known as "avoided costs"—by both reducing demand and buying power from alternative sources. The savings are gained through the kinds of plants utilities run to meet various levels of demand for power. Baseload plants are expensive to build, but cheap to operate, so a utility tries to use these first and keeps them running as much as possible to meet normal power demands. Intermediate plants are relatively cheap to build, but more expensive to operate, so utilities try to run these plants only as power demands increase. Finally, peakload plants are relatively cheap to build but are the most expensive to run, so utilities operate them only for those few times when demand is very high.

(Continued on page 10)

Teaching Skills in Community Organizing

(Continued from page 1)

and proven . . . and that are immediately transferable." In line with this approach, Institute and NETCCO training sessions include at least one day's experience in the community organization, and trainees in PICO's Summer Institute are placed for nine weeks in one of the organizations that PICO supports.

On the other hand, the Midwest Academy, the Industrial Areas Foundation (IAF), the Organize Training Center, the North County Institute (NCI), and the Center for Urban Encounter (CUE) tend to focus more heavily, although again not exclusively, on developing analytical skills. "We try to provide an overall political framework and specific organizing tools to be used in a variety of organizational settings," says Karen Thomas, Director of the Academy. And Mike Miller, Director of Organize, adds: "The important thing we try to teach is that there is a process called community analysis, and that wherever you're going to work . . . there are certain things you ought to know. Otherwise, you're going in with blinders on."

Training Schools and Organizing Networks

Even more important than these differences in training styles, the schools are part of and reflect different networks in the organizing world. As a result, the kinds of organizing they teach, the examples they use, and the long-term relationships they foster tend to be very different. Thus, trainees may find one school more appropriate than another, depending on their own experience, needs and future plans.

Tracing organizing networks is always tricky since, like good cooks, no two organizers work quite the same way, and all are equally resistant to being identified too closely with other people's recipes. But in a general way, there are clearly a number of different networks whose members share a common approach to communities, issues and organization building. Some of these networks, like those among organizers working in rural areas or minority communities, have strong local or regional profiles in different parts of the country. Others, most notably those among neighborhood organizers, have developed strong national profiles over the past ten years.

With two exceptions, each of the training schools is associated with one of these organizing networks. NTIC, NETCCO and PICO, for example, work primarily with neighborhood organizations. The IAF works with parish organizations. The Midwest Academy has a strong association with statewide groups, and the Institute training is based on the multi-state approach developed by the Association of Community Organizations for Reform Now (ACORN). The North Country Institute, which began offering training conferences this year, focuses on rural organizations. The two exceptions are CUE and Organize, which offer training based on their staff's long experience in a variety of community organizations around the country.

Neighborhood Organizing. The neighborhood organizing approach concentrates on developing strong, independent organizations in low-income and working class communities. Usually started by a sponsoring committee made up of local church leaders, the neighborhood organization's strength lies in its block clubs, which tackle immediate issues like the need for stop signs or garbage collection. Block clubs band together through the organization to address broader neighborhood issues such as redlining or community development. As a result, according to John Baumann, Director of PICO, "There are really two levels of organizing going on—continual neighborhood organization, plus issues that cut across the groups like education and housing."

During the 1970's, the neighborhood organizing model expanded when neighborhood groups joined together in national coalitions to press for changes in federal policies related to their communities. These coalitions include the National Association of Neighborhoods and National People's Action (NPA), which has had particular success on issues related to housing and reinvestment.

The National Training and Information Center (NTIC) grew out of, and helped organize NPA, and as a result, has developed solid expertise on a variety of housing, reinvestment and community development issues. In addition to its one week training program, NTIC offers special one day sessions on issues such as reinvestment, insurance redlining, the Community Reinvestment Act, and the Community Development Act. Shel Trapp, NTIC's Director, commented: "We have a strong commitment to local, grassroots organization—which means dealing with stop signs and streetlights—but if you're really talking about turning your community around, you've got to realize that most of the forces that destroy communities come from the outside."

The New England Training Center for Community Organization (NETCCO) provides training and support services to the staff and leadership of neighborhood organizations in New England, many of whom are also involved in NPA. NETCCO has also recently begun offering academic degree programs in conjunction with Beacon College, an independent, campus free college based in Washington, D.C.

The Pacific Institute for Community Organizations (PICO) works with a network of neighborhood organizations in California and the Pacific Northwest. Avoiding links to national efforts, PICO focuses instead on building and strengthening its local groups. "We've got to stay with the people on the street,' John Baumann explains. During training sessions, PICO's staff is supplemented by Tom Gaudette, Director of the Mid-America Institute, one of the top neighborhood organizers and consultants in the country.

Parish Organizing. The parish organizing approach builds strong citywide organizations by linking church institutions and leadership. Like neighborhood organizing, parish organizing is initiated by a church-based sponsoring committee, which is required to raise at least two years funding before staff is hired and organizing begins. But unlike neighborhood organizations, which rely on large number of staff to work with individual block clubs, parish organizations use relatively few, highly-paid organizers who advise the leadership on organizational questions. According to many observors, the most successful parish organizations in recent years have been in Chicano communities, particularly Communities Organized for Public Services (COPS) in San Antonio and the United Neighborhood Organization (UNO) in East Los Angeles.

The Industrial Areas Foundation (IAF) has taken the lead in developing the parish organizing approach. Because the few parish organizers in a city must be highly trained, the IAF emphasizes its on-site program in which trainees are placed in an IAF-related organization for one to five years of on-the-job

(Continued on page 6)

Consumer Guide to Organizer Training

Center for Urban Encounter
Bill Grace, Director
3416 University Ave., SE
Minneapolis, Minn. 55414
(612) 331-6210

Basic Session: Two month Organizer Seminar series — $250

The seminar series can include an internship in a Minneapolis organization for out-of-town trainees.

Industrial Areas Foundation
Ed Chambers, Director
675 West Jericho Turnpike
Huntington, NY 11743
(516) 549-1133

Basic Session: 10 days — $1,200

IAF emphasizes its on-site program in which trainees are placed with an IAF-related organization for one-five years of on-the job-training.

The Institute for Social Justice
Charles Koppelman, Director
628 Baronne
New Orleans, LA 70113
(504) 524-5034

Basic Sessions: Six days — $275

Other Sessions: Introduction to Organizing — two and a half days — $100
Organizing Perspectives for Lawyers — two days — $200
Special Topics — two days — $50

Midwest Academy
Karen Thomas, Director
600 West Fullerton
Chicago, IL 60614
(312) 975-3670

Basic Session: One week — $300
Two weeks — $500

Other Sessions: Fundraising—five days—$300
Administration—three days—$180

The Academy also sponsors a yearly weekend Retreat for alumni and other organizers.

New England Training Center for Community Organizing
Ellen Ryan, Director
620 Potters Ave.
Providence, RI 02907
(401) 941-4840

Basic Session: 10 days — $250

NETCO also offers academic degree programs in conjunction with Beacon College, an independent, campus free college. Tuition is $850 per term.

National Training and Information Center
Shel Trapp, Director
1123 West Washington Blvd.
Chicago, IL 60607
(312) 243-3035

Basic Session: One week — $200

Other Sessions: Introduction to Organizing— — one day — $15 preregistration/ $25 at the door

Special one day sessions are available on insurance redlining, the Community Reinvestment Act, the Community Development Act and reinvestment.

North Country Institute
Meg Campbell, Director
Box 184 Woodsville, NH 03785
(603) 747-2460

Basic Session: 3 day Rural Organizers Conference

Organize Training Center
Mike Miller, Director
1208 Market Street
San Francisco, CA 94103
(415) 552-8990

Basic Session: One week — $300

Pacific Institute for Community Organizing
John Baumann, Director
3914 E. 14th Street
Oakland, CA 94601
(415) 532-8466

Basic Session: Nine week Summer Institute — $500

The Summer Institute includes placement with a community organization in either Oakland, Santa Anna, San Diego, or Stockton.

Bridge, Inc.
Jerome White, Director
Faith Evans, Training Director
P.O. Box 1705
Washington, D.C. 20013
(202) 462-8211

Bridge is holding a series of black community organizers training conferences around the country.

Research, Education and Action Center
Hulbert James, Director
1459 Columbia Road, NW
Washington, D.C. 20009
(202) 387-0619

REAC is working to develop a minority organizer training program.

Teaching Skills in Community Organizing

(Continued from page 4)

training. "We're looking for a few professionals," says Greg Pierce of the IAF staff, "who can be helpful to the leadership in developing institutionally-based, multi-issue, multi-racial metropolitan organizations . . . and who can be helpful to the internal development of the institutions themselves."

Statewide Organizing. The statewide organizing approach, developed by Massachusetts Fair Share, the Ohio Public Interest Campaign and the Connecticut Citizens Action Group (CCAG), among others, relies on both local organizing in low and moderate income communities and coalition building. The statewide structure used by these groups, and their ability to build strong coalitions with others, particularly organized labor, wins them real influence on broad issues like taxes, energy and runaway plants. Speaking of CCAG's recent success in passing a state tax on oil companies, Miles Rapoport of CCAG commented: "There's no way we would have won it without the UAW, the Machinists and everyone else who was involved."

The Midwest Academy has worked closely with the statewide groups, particularly in helping them to expand their outreach to labor and other constituencies. Several years ago, the Academy staff played a key role in developing the Citizen/Labor Energy Coalition, a national coalition of community organizations, labor unions, environmentalists and others working on national energy issues. More recently, the Academy has assisted the statewide groups in the development of the Citizen Action Organizing Committee, a national coordinating body that will aid them in recruiting and training staff, training leadership, developing coordinated campaigns, and supporting other statewide efforts.

Overall, the Academy's work with the statewide groups highlights one of the real strengths of its training—the broad political analysis it provides. Women's groups, neighborhood groups, labor unions, churches, environmentalists and others have found this analysis invaluable. "The Academy does something I wish we could do better," Meg Campbell from the North Country Institute noted, "it politicizes people."

Multi-State Organizing. The multi-state organizing approach is used by the Association of Community Organizations for Reform Now (ACORN), the largest community organization in the country. ACORN has 30,000 low to moderate income family members in 20 statewide affiliates, which are based in turn on local neighborhood membership chapters.

ACORN's approach forms the basis for the training provided by the Institute for Social Justice. The Institute focuses heavily on nuts-and-bolts organizing skills, and in the words of Charles Koppelman, is able to give trainees "an immediate, face-to-face exposure to an active organization."

Independent Training Schools

The Center for Urban Encounter (CUE) and the Organize Training Center do not fall easily into any of these networks. Instead, they offer training based on their staffs' experience in a variety of community organizing efforts.

Bill Grace, the Director of CUE, has been involved in organizing in West Virginia, Delaware and California, and has worked recently with groups in Minnesota, Indiana and upstate New York. CUE focuses heavily on what Grace calls "populations," single issue constituencies like seniors, prisoners and the handicapped. The school has done some solid work with groups in these areas, as well as with labor unions and more traditional community organizations. "We've done more with the handicapped than anyone," Grace says, and adds: "We're looking for organizers who have some anger about the way people get messed over . . . and who hopefully have been messed over a little in their own lives so that they can understand that."

Mike Miller, the Director at Organize, has worked with groups in California for years, most recently with the Citizens Action League, a statewide group which he organized.

Like good cooks, no two organizers work quite the same way, and all are equally resistant to being identified with other people's recipes.

Organize offers exposure to a variety of organizing approaches, using participants experiences to illustrate the advantages and disadvantages of each. "We talk about the relationships between direct action, electoral, service, self-help, and cultural activities in the building of mass organizations," Miller comments.

Organize also has a World Council of Churches contract to train organizers from other countries. Marty Teitel, who worked in southeast Asia for the American Friends Service Committee before becoming Director of the Youth Project's Western Office, considers the school "probably the most effective at dealing with people from other cultures."

Training for Minority and Rural Organizers

Despite all the different styles and approaches used by the training schools, there are a number of areas that they have not addressed successfully. Two of the most important of these are training for minority and rural organizers.

Minority Organizing. There is a wide variety of strong, active organizations in minority communities around the country. Some, like the Black United Front in New York City and the United League in Mississippi, have a direct action focus. Others, like Mississippi Action for Community Education (MACE) and the Opportunities Industrialization Centers, engage in economic development or job training. Still others, like the NAACP and the Urban League, are more involved in national policy issues.

With a few exceptions, most notably the IAF's work with Chicano organizations, the training schools have not been able to address the needs of these groups effectively. In part, this may reflect the need for entirely different approaches to overcome the poverty, discrimination and despair which mark many minority communities. It also reflects the class, cultural and historical differences which separate minority organizers, many of whom matured during civil rights, nationalist, or Great Society efforts, from the predominately white organizers at the training schools, most of whom were shaped by the anti-war movement, or by Saul Alinsky's community organizing efforts.

As a result of these differences, many minority organizations have developed their own staff and leadership training programs, internally, or on a local or regional basis.

MACE, for example, provides internal staff and leadership training for its sixteen county organizations in the Mississippi Delta.

Recent discussions among minority organizers from around the country have led to at least two separate efforts to develop minority training schools. The first, sponsored by the Bridge, a community training program in Washington, D.C., is a series of Black Organizer Training Conferences being held around the country. An initial session, held in Washington in May, was attended by over 100 organizers from a variety of groups; others are scheduled for Atlanta, Cleveland and the West Coast later this year. The second effort, sponsored by the newly-formed Research, Education and Action Center in Washington, will provide back-up consulting to organizations in minority communities, as well as formalized training programs.

Rural Organizing. The situation among rural organizers is similar in many ways to that among minority organizers. There are a number of strong rural organizations around the country, and a variety of excellent local and regional training programs, including the Highlander Center's education and specialized training for Southern and Appalachian residents, the Northern Rockies Action Group's work with resource groups in the Northern Plains region, and many, many more.

In a few cases, the national training schools have been able to assist rural organizing efforts. The Northern Plains Resource Council, for example, received initial training from the Institute, and the original organizers of the North Country People's Alliance, now the New Hampshire People's Alliance, attended an Academy training session. But overall, the schools have not been particularly effective at working with rural constituencies.

Cultural differences between urban and rural organizers and residents play a large role in this. So too does the real physical difference between urban and rural communities, which renders many of the urban techniques taught at the schools ineffective. Doorknocking is a tedious, unproductive job if the houses are miles apart, and it's difficult to find subway entrances—a favorite spot for petition gatherers—in small rural communities.

Recently, the North Country Institute (NCI), founded several years ago to provide training in northern New England and associated with the New Hampshire People's Alliance, has begun offering a three day rural organizing session open to participants from around the country. NCI's most recent session was held in June, and focused on rural economic development as well as organizing.

Look Dick! See Jane Organize!

Other Community Skills

There are some community skills that the national training skills simply do not cover. These include economic development, alternative technologies, and political organizing, can only be learned on the job, or through organizationally-based efforts such as the National Abortion Rights Action League's IMPACT '80 program, which provides political skills training to NARAL members. Others, including alternative economic development and alternative technologies, are provided by other national and local institutions. The New School for Democratic Management, for instance, provides training in alternative business development, while the Institute for Local Self-Reliance provides back-up technical assistance to projects organized around alternative energy and waste disposal issues.

That the training schools don't cover these subjects is a cause of concern to some. Others would agree with Karen Thomas: "We look at the groups we've been trying to help, and ask what would make them work better," she says. "They need more money, more leadership development, more minority staff, better internal management skills . . . We have to concentrate first on developing programs to meet these needs."

As this overview of training schools and organizing networks suggests, the past ten years have seen an explosion in community organizing. Unnoticed by nearly all the national media, community organizations using different styles and approaches have sprung up all over the country, addressing issues ranging from the most basic neighborhood concerns to broad national policy questions.

There are a number of areas that schools have not addressed successfully. Two of the most important are training for minority and rural organizers.

The training schools, and the many local and regional training centers and consultants, have played an important role in this process. By training and supporting organizers and community leaders, they have nurtured organizations that might otherwise have floundered and died. By providing an ongoing center for organizers working on similar issues, or in similar communities, they have facilitated the sharing of successful techniques and strategies.

Obviously, the schools have not been the only source of information and support for organizers, nor have they always been successful. And, because of competition for scarce resources—including money, recruits, staff and contracts—they have often played up their differences, instead of working together on common problems.

Yet overall, the schools have had an important, positive impact on the development of community organizing. As Harriet Barlow, head of the Institute for Local Self-Reliance put it: "We're a movement without a sense of our tradition. The schools help provide a history and a context for our work, as well as helping people learn the skills they need to be effective."

-Charles Biggs

Progress Reports

New Technology For Food Co-ops

A community natural foods store in Eugene, Oregon has developed new machinery for dispensing foods which may become the state-of-the-art for both the organic foods industry and food co-operatives.

Bulk food buying has been the standard for organic food and food coop consumers because of the cheapter costs involved. But bulk foods also bring two major drawbacks. One is that food stored in bulk, particularly organic foods, can quickly become spoiled or contaminated. Another is that many food shoppers find bulk food buying too messy or troublesome. As a result, food coops which rely on bulk food sales cannot attract the broad range of customers they need to survive.

Machinery designed for the Community Store in Eugene eliminates both problems. The machines store bulk food in nitrogen and then dispense it by pumping it out with compressed air. Oxygen never touches the food until it comes out of the tube and into the customers container, so contamination doesn't happen. The system is also much cleaner and easier to operate than conventional bulk buying.

The machinery, which cost the store $50,000, dispenses over 30 kinds of foods, including oils, butter, nuts, grains and honey. Flours and other powders will be added later.

Those in the food business are full of praise for the new system. "It will probably revolutionize the dispensing of bulk foods," said one local produce dealer. "It will become the state-of-the-art within five years in the natural foods industry," predicts Anthony Stahelski, owner of Sundance Natural Foods, adding, "It's a much needed step. The competition will have to adapt or die." A major mover of organic produce in California referring to conventional food shoppers, said, "There is now another way besides the funky, hippie approach."

Community Food Store manager Pat Leonard, who designed the system, is more cautious. "We don't know whether the consumers are willing to accept the machinery. The noise, the unnaturalness of it . . . It might go belly up."

Leonard had problems capitalizing the project, because banks refused to loan him money. So the system was financed through profits generated by the store. If it succeeds, Leonard wants to duplicate both the system and the overall operation of the store in other communities. For more information, contact: **Pat Leonard, Community Store, 140 East Fifth, Eugene OR 97401, 503/683-1055.**

Economic Development in Neighborhood Arts

A revitalized Neighborhood Arts Programs National Organizing Committee (NAPNOC) has begun a newsletter as well as research on the potential for economic development in neighborhood arts.

According to the newsletter, the role of neighborhood arts and cultural programs has recently been officially recognized in overall community economic development by the U.S. Department of Commerce. Whether or not this new official policy will translate into loans, technical assistance and other support from the Commerce Department remains to be seen.

This summer, NAPNOC is preparing a report on self-sufficiency in neighborhood arts. The report will explain how groups have tried to increase economic self-sufficiency, what has worked and what hasn't, and list resources for help with economic development projects for neighborhood arts. For information on NAPNOC and a subscription to its newsletter, contact: **Don Adams and Arlene Goldbard, Box 3036, Washington DC 20010, 202/667-4200.**

Micro-Scale 'Garbage-to-Energy'

While the federal government pushes massive, high technology "garbage-to-energy" plants and ILSR argues for small-scale waste recycling, a **Vermont developer has taken waste utilization to a new level—micro "garbage-to-energy" production.**

Lou Audette, president of New England Alternate Fuels, Inc., is perfecting a technique to turn waste paper, cardboard, papermaking and wood process residues into fuel pellets. Audette's system uses a modified pellet machine, the kind to turn hay and grass into animal feed, to process about three tons an hour of cellulose waste into fuel pellets. Other modifications to traditional coal stoking systems burn the pellets efficiently.

Although the capacity of the system is extremely limited, it is a perfect match between supply and demand. The amount of waste paper that can be easily separated at a local landfill can produce enough fuel to replace or supplement coal or oil furnances in local schools, businesses and public buildings. Audette estimates that the ideal closed loop—processing raw waste material into useable energy—would be in an area less than 15 miles from a landfill.

The system has already worked in a local motel, which burned the pellets during Vermont's winter and saved an estimated 30 percent over the equivalent heating value of oil. Audette is now negotiating a conversion with a Brattleboro parochial school, and is talking with Brattleboro town officials about using the process in several of the town's public buildings.

Audette estimates that landfills in towns the size of Brattleboro (pop. 30,000) typically receive between five and seven tons of suitable paper waste a year, enough to power about 40 schools and small plants with the heating equivalent of 500,000 to 700,000 gallons of oil.

For more information, contact: **Lou Audette, 156 Vernon Road, Brattleboro VT 05301, 802/257-0704.**

Good School Lunches Begin at Home

School officials in Hazen, North Dakota are buying and preparing more food locally. The result has been healthier food, happier students and lower costs.

Hazen's school lunches, served to about 500 students a day, were typically bland, heavy on processed and sugared foods, and purchased from companies hundreds of miles away. Noting that "we were losing money with every meal," School Superintendent Dr. Joseph Crawford (who has since moved on to another North Dakota school system) began looking around for a better deal. Crawford first contacted local wheat farmers for donations by the bushel. They were not only happy to give, one sent along an electric grinder as well. Now school kitchen staff makes whole wheat bread everyday.

Crawford also learned that Hazen schools were buying meat from a wholesaler in Chicago, which in turn, was importing it from Argentina. So Crawford set up a program where high school students in a vocational agriculture class process local, range-fed beef, storing it on site. Not only does the local beef have less fat, Crawford says the school system saves about 20 cents a pound.

Crawford notes that it is hard for many schools to break from far-off suppliers that do their best to intimidate the schools. The common threat is: "Don't come to me again if you find you run out of local suppliers."

To Crawford, this kind of attitude is more reason why the school system should become more self-reliant. Now, in addition to meat and bread, the schools buy local produce and fruit whenever possible.

"We've gained financially with every meal we served," says Crawford. In fact, Hazen saved enough to give the school kitchen staff a healthy raise last year.

For more information on the Hazen school program, contact: **Supt. David Smette, Hazen Public Schools, Hazen ND 58545, 701/748-2345.**

Eco-Cycle is Reborn

Three years ago, Eco-Cycle of Boulder, Colorado, was considered one of the most innovative and successful community based recycling programs in the country. One year ago, Eco-Cycle was on the verge of bankruptcy; curbside collections were discontinued; and the Save Eco-Cycle Committee was desperately trying to pull together enough funds to keep a drastically trimmed operation alive.

Perseverance, however, appears to have won through. By October, the new Eco-Cycle recycling facility will be back in full operation. Pete Grogan, director of the program, termed the facility "the most sophisticated appropriate technology waste recycling facility in the country."

The new building, which features the latest concept in paper fiber processing, should be able to handle 2000 tons of corrugated cardboard, mixed grade, and newsprint per month. It is also designed to accommodate glass, cans and other recyclables.

The core of the facility will be the baling system, which consists of a series of conveyors, a shredder, and a baler. Baled newsprint, corrugated, and other grades will then be loaded onto semi-trailers or rail cars for market.

Funds for the facility came from a variety of sources, with some $60,000 yet to be raised. Contributions for the $275,000-plus facility came from Boulder County: $35,000, City of Boulder: $175,000 (plus the land for the site), State of Colorado: $19,000, Adolf Coors Company: part of the baling system, and other contributors: $7,000.

The operation will be coordinated by a management team of six, assisted by approximately 16 part time personnel. Curbside collections will be resumed in the original Eco-Cycle style, using 75 or so youth and community groups on Saturdays who will, in turn, receive a standard contribution toward their particular cause.

An additional support concept for the curbside collections is a "neighborhood network" system which is now being organized. The network will consist of block leaders who will volunteer to be in charge of promoting recycling on the block he or she lives on. This system is expected to bring participation to a maximum and maintain it at a high level. For more information, contact: **Eco-Cycle, Box 4193, Boulder CO 80306, 303/444-6634.** *—Reprinted from Renews ($5/year) Box 472, Breckenridge CO 80424*

Audit Business Thrives in Maine

One of the most successful energy audit programs in the country is Cornerstones in Brunswick Maine. Starting with just a handful of employes and an idea about how to run a good audit, Cornerstones recently won a $135,000 contract to perform 1000 audits for Northeast Utilities, serving western Massachusetts and Connecticut.

Northeast Utilities awarded the contract after Cornerstones proved it could run better audits at lower cost than the utility could design itself. The utility was skeptical about Cornerstone's ability to manage a large contract, but so far, the work has gone smoothly.

A key to the opeartion is a computer program designed by Cornerstones director Charlie Wing, which allows auditors to process a considerable amount of data at relatively low cost.

With 15 full-time employes, Cornerstones is now negotiating for contracts with other New England utilities, and has trained over 100 auditors looking to get into business for themselves. For more details on the Cornerstones project, contact: **Charlie Wing, 54 Cumberland Street, Brunswick ME 04011, 207/729-0540.**

PURPA Could Boost Small Power Production

(Continued from page 3)

Small power producers, when feeding the excess power they generate into a utility's grid, are in effect helping the utility avoid building the power plant capacity and providing energy which is most expensive to supply. Utilities may be naturally reluctant to enter into new arrangements with small power producers, because exactly how these deals will be made is still open to question. But utilities may eventually encourage those producers that can supply cheaper sources of power than the utility can build on its own. We may even see the creation of energy "prospectors" who make a living finding cheap sources of power for a utility to buy.

Regulating New Arrangements

Probably the most complex problem in developing decentralized energy involves regulating the new arrangements between small power producers and utilities. How will rates be set, and who will enforce them? Who will be allowed to own small power generators and at what point will they be regulated like any other utility? These and other issues are addressed—though by no means completely answered—in a federal law known as the Public Utilities Regulatory Policies Act (PURPA).* Passed in 1978, regulations on enforcement were drafted last year, and final federal rules were drafted in March of this year.

The part of the PURPA legislation called Section 210 has received relatively little publicity, but could have a tremendous impact on the nature of power production in the coming decades. Section 210, in fact, for the first time places the federal government squarely in favor of small-scale energy production. Section 210 provides several important advantages for small scale power producers:

- exempts small (under 80MW) electrical power producers from federal and state utility regulations
- requires utilities to provide back-up power at a reasonable rate to small power producers and cogenerators
- requires utilities to interconnect with small power producers and buy power at a fair rate.

Guidelines for implementing these provisions have been developed in Washington, D.C. But many of the details have

We may see the creation of energy "prospectors" who make a living finding cheap sources of power for a utility to buy.

been left to state utility commissions, which are required to have plans for implementing PURPA by 1981. As states develop their own interpretations of the law, probably the biggest question will concern the definition of a utility's avoided costs. One factor will be reliability, with systems that can guarantee power at certain times getting higher rates. Some systems, like wind, can be considered as a class, which increases their overall reliability. Other systems, such as photovoltaics, which provide output when demand is greatest, would also qualify for higher payments. Air conditioning, for example, creates peak demand for most utilities, and hot, sunny weather is exactly when photovoltaics are most efficient.

A considerable amount of interpretation of avoided costs is likely, and some states may attempt to handle the issue on a case by case basis. The federal government is trying to discourage this. California, which has already written a state PURPA plan, has decided that standard rates between utilities and small power producers are in the state's interest in the long run. The California Public Utility Commission reasoned that because a utility is one buyer in a situation of many sellers, a utility might not pay high enough rates if it were allowed to negotiate with each seller. Standard rates also give potential small power producers a better handle on the economics of their operations, and may help in obtaining financing for the project.

Less complicated is the requirement that utilities provide back-up power at a reasonable rate to small power producers. The past utility practice of charging persons using renewable

(Continued on next page)

*Free copies of the final PURPA regulations are available from: Federal Energy Regulatory Commission, Office of Public Information, Room 1000, 825 North Capitol Street, Washington, DC 20426, 202/357-8118.

Utility Economics and Alternative Energy Planning

A utility in one part of the country encourages conservation and offers both low-interest loans for solar installations and generous rates to small power producers. Meanwhile, another utility plows ahead with plans for a huge nuclear power plant and [illegible] consumers at every utility commission hearing.

Why is there a difference, and how can community groups encourage utilities to pursue policies leading to safe, renewable and decentralized energy systems? Many of the answers are in a new Institute publication, *Facing the Grid: Utility Economics and Alternative Energy Planning.*

Facing the Grid explains how utilities work, beginning with a primer on utilities economics, and the principles of utility finance. The hardware of energy systems is explained in plain language, as well as the methods utilities use for analyzing utility performance and economic [illegible].

Facing the Grid then goes beyond the operations of a utility to explain how utilities can encourage or discourage demand for power, using actual case studies. With procedures clearly outlined in the book, groups will be able to calculate whether or not their local utility is doing all it can to promote efficient use of energy.

Finally, the book details recent developments in small power production, including new government regulations requiring utilities to give small producers of renewable energy a fair [illegible]. The book shows how groups can use available data to calculate the rates they should expect from utilities for the power they produce and the back-up power they need.

Facing the Grid is a book for doers. It expects that readers will want to take pencil in hand and spend a little time getting to the bottom of how their local utility really works. The book provides the information needed to do the job. Copies will be available in the fall from the Institute.

Economic Development Through Glass Recycling

In Self-Reliance #23, basic techniques of glass recycling and drop-off centers were discussed. The second part of this report focuses on intermediate glass processors, bottle bills and curbside collection systems.

The most promising glass recycling operations in terms of entrepreneurial and economic development potential are what are usually called Intermediate Glass Processors (IGP). These companies act as middlepeople between consumers/recycling centers and manufacturers. By insuring quality cullet and efficient collection to manufacturers, they are able to add significant value to the cullet they handle. A typical IGP will pay $5-$10/ton for separated glass, and then upgrade its quality to the point where it is worth between five and 10 times that amount at a glass factory. Glass manufacturing plants hesitate to deal with centers that cannot provide timely and consistently clean cullet. Intermediate processors, of which there are about 25 in the country, collect waste glass from community source separation programs, drop-off centers and various industries and process it to meet glass industry specifications on contamination and color mixture. The National Center for Resource Recovery has estimated that "about 70 percent of the post-consumer cullet recycled in the U.S. is processed by IGP's."

Many intermediate processors were involved in the glass or the trucking business before becoming interested in the recycling of post-consumer waste. One of the more successful IGP's is Recom, Inc., outside of Milwaukee. Recom's president, Michael King, has been working for a trucking firm that hauled a Milwaukee brewery's waste to a landfill. He decided that there had to be a way to recycle all that glass being discarded and set about devising a system.

Reverse Distribution

The story of Recom's success is a good indication of just how site-specific the economics of recycling can be. Recom is located near the breweries of Milwaukee, which supply Michigan beer drinkers with most of their brew. Michigan voters passed a bottle bill in 1976 that put a 10¢ deposit on all nonrefillable beverage containers and a 5¢ deposit on refillables. This left Michigan distributors with up to one million nonrefillable bottles a month that either had to be destroyed or recycled. King at Recom set up a "reverse distribution" system, by which beer haulers returning to Milwaukee after a run to Michigan now pick up non-refillables in Michigan and drop

(Continued on page 12)

PURPA Loopholes Makes Decentralists Cautious

(Continued from preceeding page)

energy systems higher rates for back-up power is effectively banned by PURPA. In general, utilities cannot charge a small power producer more for back-up power than it would pay if it did not generate any power on its own. Utilities are also now required to offer rates to small power producers normally available only to larger industrial customers. Interruptible rates, for example, allow a utility to curtail or shut down power to a customer at times of peak demand. This would be acceptable for a small power producer (such as an industry) which could plan operations around peak demand or rely on a back-up system of its own for those few times when power may not be fully available.

PURPA Loopholes

The PURPA legislation, combined with the increased unreliability of large-scale centralized power plants, make the potential for small-scale power production extremely bright. But decentralists are also cautious. Many issues remain unsettled, and small power producers could still find themselves at the mercy of large utilities, or out of business altogether. One part of the PURPA legislation, for example, allows a utility to buy up to half interest in a small power producer that qualifies under the PURPA rules. Conceivably, a utility could aggressively pursue major interests in small power production facilities to both generate most of its power and free itself from federal and state utility regulation. A utility might also negotiate deals with small power producers, and then cut back on the price it pays for the power if it substitutes cheaper-to-operate nuclear plants for oil-fired plants. A utility might also argue that as more small producers join the grid, its avoided costs become lower, because each additional producer displaces energy which is cheaper to generate. The first small power producers, as a result, will want some price guarantee to justify the risk of their investment. There is also a question of how tough the requirements for reliability (and higher rates) will be. Utilities will argue for close to 100 percent reliability, while small power producers, particularly those using renewables such as wind, hydroelectric and photovoltaics, will want reliability geared to peak demand, when the expensive additional capacity is really needed.

The outcome is likely to be a mixed bag of successes and failures in small power production. But it is equally likely that the nation's electrical generation system in the coming decades will be drastically different from the one we know today.

Economic Development Through Glass Recycling

(Continued from page 11)

them off at Recom's facilities for $10 a ton before returning to the breweries. This system increases the efficiency of the trucking, helps both the Michigan distributors and the Milwaukee breweries, and enables Recom, Inc. to sustain a healthy glass recycling business which processes about 180 tons of glass a day. Recom also picks up glass from volunteer community recycling groups along the coast of Lake Michigan between Milwaukee and Sheboygen.

But Recom's success is not easily replicable. Michael King had developed much of the required business and management knowledge before the company began. And the beer distribution patterns in Wisconsin and Michigan, combined with the new Michigan bottle bill, have proved to be the real secrets to Recom's success. It is difficult to know what generalizable lessons can be learned from Recom by an entrepreneur or a community development corporation interested in pursuing glass recycling as an economic development venture. **(Recom, Inc., N56 W12828 Silver Spring Rd., Menomonee Falls WI 53051.)**

The effect of bottle bills on glass recycling operations, as reflected in Recom's success, must be taken into account in any evaluation of glass recycling. For Recom, the Michigan bottle bill has been a boom. But how have recycling operations in Michigan fared? Community-based glass recycling has declined appreciably since the Michigan bottle bill went into effect in 1978. Glass recycling centers must settle for the collection of food jars and wine bottles - a small fraction of glass waste - since beverage bottles now get returned to distributors for deposit refunds. Recycle Unlimited in Grand Rapids is one community recycling system that has survived. Recycle Unlimited supervises about 25 drop-off centers in Kent County which handle glass, aluminum and plastic milk jugs. Owens-Illinois pays the group $30/ton for clean color-sorted cullet. But when the transportation costs to the glass plant, which is 50 miles away, are figured in, the revenue is much lower. Recycle Unlimited has always depended more on aluminum than glass for its revenues, so it has not been too badly hurt by the bottle bill. But it has not been helped either. The county provides free warehousing and parking space and a $17.50 per ton payment for saved landfill fees. But these subsidies - and the assistance of Calvin College staff and students - are still insufficient to enable the operation to recover its costs. **(Recycle Unlimited, 1241 Madison Avenue SE, Grand Rapids MI 49507.)**

Some experienced community-based groups are moving into intermediate processing on their own.

Steve Howard sees the passage of bottle bills as causing a significant restructuring of the glass recycling market. Since distribution systems effectively yank materials from private, independent haulers once a deposit system is introduced, the net effect is the elimination of independent handlers from the system. This is not to say that bottle bills are necessarily bad public policy. In fact, waste experts argue that the reduction in glass in the municipal waste stream that results from bottle bills can be an important source of savings for municipalities and their taxpayers. Others, like Armen Stepanian of Freemont Recycling Station, Seattle, Washington, prefer to sidestep the bottle bill issue. Stepanian favors an approach that convinces the container and beverage industries to capitalize efficient curbside collection of materials so that the recycling of paper, aluminum, tin and glass could become a more widespread phenomenon.

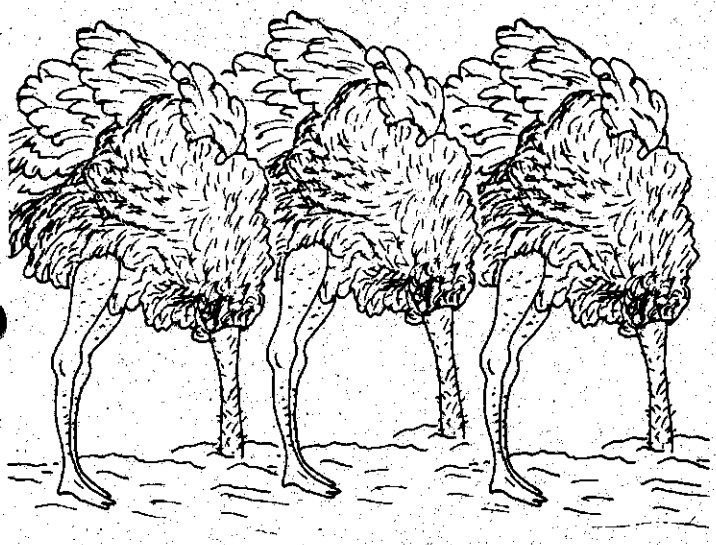
Community-based glass recycling has declined appreciably since the Michigan bottle bill went into effect in 1978.

Whatever the outcome of the debate in each state, the impact of bottle bills on local recycling must be anticipated and planned for. One effect has been the growing success of intermediate processors such as Recom, Inc. and Recycling Enterprises, Inc. in Oxford, Massachusetts, Sessler Corporation in Los Angeles, and Arco Glass Co. in Fresno. The growth of these companies, no matter how site-specific their economics, does point to a new period in glass recycling and new opportunities for community-based recyclers. As these IGP's develop and expand, they will be looking for new sources of clean cullet. Local drop-off or curbside collection projects close to these processors may well be able to plug into the system and increase their revenues. Moreover, some experienced community-based groups are moving into intermediate processing on their own. The East Harlem Council for Community Improvement has recently received a $600,000 grant from the Economic Development Administration to set up such a facility and Ecocycle in Boulder, Colorado, has landed a $400,000 package of funds from CETA, HUD and general revenue sharing to do the same.

Glass recycling - like the recycling of all materials - is a volatile, changing industry. When the new realignment of manufacturers, distributors, processors and recyclers begins to stabilize in the next few years, it will be interesting to see how small community-based programs like volunteer drop-off centers and larger, more ambitious processing ventures have fared. At this point, it is still too early to tell, but the shakeout may actually improve the long-run economics of recycling glass and other materials.

Local drop-off or curbside collection operations close to Intermediate Glass Processors may well be able to plug into the system and increase their revenues.

—Richard Kazis



Paradigm Shift Producing New Thinking on Waste Management

Once in a great while the paradigms of science which define the legitimate problems and methods of inquiry take a drastic turn. Copernican astronomy and Einsteinian physics are famous examples of "paradigm shifts" established over institutional and psychological barriers thrown up by traditional science.

A similar shift is now taking place in how we deal with garbage. What was formerly "waste" has suddenly acquired value. A one-time burden is now a flow of resources that can cut pollution, boost local economies and perhaps even redefine our role as citizens.

The dymanics of paradigm shifts as outlined by Thomas Kuhn in *The Structure of Scientific Revolutions,* correspond closely to the recycling movement. Kuhn defines paradigm shifts as those scientific achievements "sufficiently unprecedented to attract an enduring group of adherents away from competing modes of activity." Kuhn notes the phenomenon of young people who see science and the world differently, who urge a basic requestioning, often at the risk of appearing "unscientific." This especially happens, Kuhn says, when the embryo of a new paradigm emerges before a crisis is apparent to the rest of the world.

History shows that much of today's recycling activity grew out of the social activism of the 1960's. Earth Day 1970, a culmination of growing concern for limited natural resources and gross waste in the economy, was also the beginning of a new wave of community-based recycling, led by social activists eager to put theories into practice. Much of this enthusiasm was stilled by the economic realities of recession in 1974. But hard times also produced new maturity. Recycling activists began planning with balance sheets and sophisticated equipment along with their principles. The result has been "an enduring group of adherents"—250 municipal recycling programs and over one thousand community-based and private sector recycling programs nationwide, turning 12 million tons (eight percent of the nation's solid waste) of material into $360 million and conserving about one percent of the nation's total energy needs.*

The paradigm shift shows most clearly among recycling converts. "While I have spent more than five years promoting large-scale (waste) systems," writes one public works engineer, "I am coming more and more to the conclusion that, for most communities, smaller scaled systems, (including low technology systems such as home pickup of segregated wastes or hand picking) make much more sense. They are cheaper, employ more local labor (much of it low skill), engage the community in a process of cooperation, and entail significantly lower financial risk." In Seattle, city officials, once convinced that burning the city's wastes was the only alternative, have changed their minds. Now they have designed a strategy for composting all of Seattle's yard waste.

In business, a former multi-million dollar plate glass manufacturer has found it more profitable to move into glass recycling. A newsprint manufacturer is now thriving by selling recycled newsprint for $350 a ton, seven times higher than the price of newsprint just four years ago. Solid waste engineers, formerly enamored with mass combustion, now think and plan for material recycling options which reduce entropy: reusing energy-intensive goods to benefit the entire economy.

Typically, the shift has not come easily. Kuhn writes:

> *At the start, a new candidate for a paradigm may have few supporters, and on occasion, the supporters' motives may be suspect. Nevertheless, if they are competent, they will prove it, explore its possibilities, and show what it would be like to belong to the community guided by it.*
>
> *And as that goes on, if the paradigm is one des-*

(Continued on page 14)

*While markets for recycled materials plummeted during the 1974-75 recession, the 1980 recession is witnessing a remarkable increase in prices for recycled materials. Increased energy costs, as well as costly pollution control standards, account for the difference.

New Thinking on Waste Management

(Continued from page 13)

tined to win its fight, the number and strength of the persuasive argument in its favor will increase. More scientists will then be converted, and the exploration of the new paradigm will go on.

Gradually, the number of experiments, instruments, articles, and books based upon the paradigm will multiply. Still more persons, convinced of the new view's fruitfulness, will adopt the new mode of practicing normal science, until at last only a few hold-outs remain.

Recyclers and advocates of low-technology waste utilization systems, of course, have been laughed at by practitioners of the old paradigm. Our proposals are impractical, uneconomic, and cause more problems than they solve.

Perhaps the most significant sign of an impending paradigm shift is the increasing government subsidy to make sure the old methods "work."

Recycling is seen as an added activity, not as a transition to a completely new form of solid waste management.

Curiously, this last criticism reflects Kuhn's second feature of a paradigm shift. They are "sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to solve."

The recycling movement has been just that. Our work has been cumulative and incremental. Our "solutions" have raised new problems in marketing, equipment design, and capital investment. More critical, our methods involve not only new technology, but new social patterns as well. Recyclers' interest in composting, for example concerns not only the use of organic waste, but agricultural techniques, and relationships between urban and rural communities. It requires not just new processing methods, but whole new attitudes on how society is organized. It involves prescience: anticipating long-term needs, and analyzing both immediate problems and the ideological resistance to overcoming them on the part of established institutions.

Picking Up the Other End of the Stick

Other analysts have suggested additional features of paradigm shifts which again resemble the development of recycling. James Parker, in a report entitled "Designing a Research Agenda for Individual and Self-Help Appropriate Technologies,"* says that paradigm shifts "signify a radical reordering of the way in which physical reality is defined." Herbert Butterfield, cited by Kuhn, describes a classic paradigm shift as "picking up the other end of the stick," a process that involves "handling the same bundle of data as before, but placing it in a new system of relations with one another by giving them a different framework."

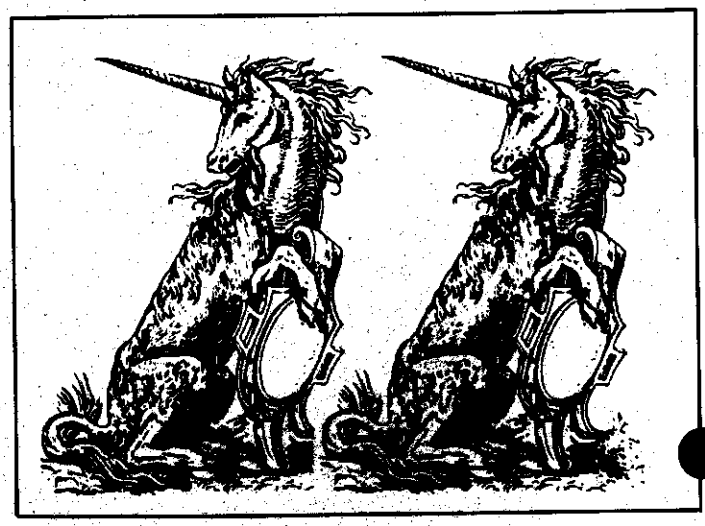
Thus, Darwin saw what all others saw (physical and biological reality), but thought what no one else thought (no teleological development of species, but rather change, through adaptation to specific environments).

Clearly, recyclers have "picked up the other end of the stick." We talk of landfill site recycling, hazardous waste recycling, composting and source separation—all leading to local economic development, empowerment of low- and middle-income people, expansion of the small business sector and the maintenance of conservationist habits. We talk of small modular incinerators and mining the landfills to make more fill space, strategies which allow time and flexibility for our ways to take root, for the paradigm to be completed. Traditionalists talk of "cradle to grave," mass throughput, mass burn. They divert money, time, and energy away from us. The difference in the two paradigms is based on differing images of reality, science, and ultimately of human nature and the actual image of the good life.

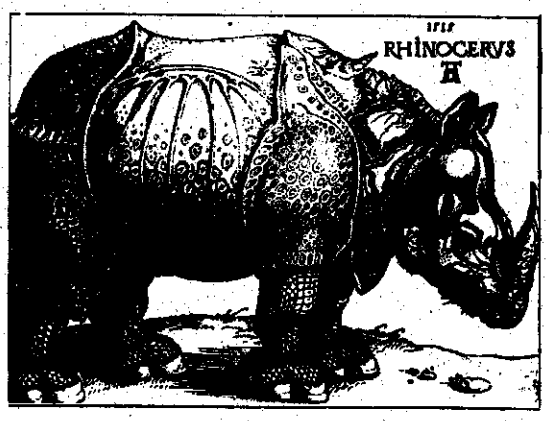
This conflict eventually leads to a redefinition of the role of science and technology in society, a development which Parker also identifies as a feature of a paradigm shift: "The paradigm shift represented by the appropriate technology movement involves redefining how we think about science and technology, not (only) how we think about physical reality."

Consider curbside recycling. The process involves treating waste material by segregating it where it is generated, facilitating its use for local processing and manufacturing enterprises. The practice requires individual participation, and an understanding and overt acknowledgement of one's status as a citizen in a polity, a biological being in an interdependent environment. Home composting does much the same thing. Thus, the technological process alters social thought and political institutions. It is what Aristotle referred to in the *Ethics:* "Moral goodness is the child of habit." Recycling offers people a chance to affirm their roles as citizens who, for two minutes per week's time, can avoid energy, pollution and capital costs of unnecessary high technology dinosaurs.

This image of citizen derives from the concept of democracy in Hellenic times, based upon clear expectations about the role of character and habits. Then, citizenship implied personal competence, intelligence, moral probity, and social commitment. Indeed, this is a far cry from the passive consumer-citizen which characterizes the current level of American democracy.



*National Science Foundation, *Workshop on Appropriate Technology*, Harper's Ferry, 1978.



High-tech/Low-tech Conflict

In the past few years, a clear conflict has developed between high-tech/landfill and low-tech reuse/recycle. Low-tech advocates and practitioners have made many important breakthroughs. We have gone far toward changing the scientific and technological approach to waste. We have forced high-tech practitioners to deal with questions of prevention, product redesign, community development, citizen participation, and social context.

In fact, we have already progressed beyond "changing the role of science and research" in our field to a new arena of "puzzle solving." For us, "puzzle solving" means answering questions like how best to recycle and reuse, how to maximize energy and economic value of waste using human-centered criteria applied in very specific conditions.

Have we already made a paradigm shift in garbage? Not yet. The majority of old paradigm thinkers have not recommitted themselves to our side. No "great book" delineating the shift has been produced. No single event or crisis has refocused the entire image of science and research in garbage. Recycling has become part of the American religious and secular value structure, but not yet institutionalized in the economic structure. But, perhaps the most significant sign of an impending shift is the increasing government subsidy, some $500 million in the last decade and $500 million for the next five years, needed to prop up the old paradigm, to make sure the methods "work."

The paradigm shift will take place after recyclers can guide the direction of future research, commit investment capital, pass laws and write regulations. This process has already begun at the local, state and federal levels. We need not feel burdened to solve all the problems prior to a complete paradigm shift. We'll do it after recyclers are in control of public resources and can be guided by our own criteria.

Kuhn writes:

> *Usually opponents of a new paradigm can legitimately claim that even in the area of crisis it is little superior to its traditional rival. Of course, it handles some problems better, has disclosed some new regularities. But the older paradigm can presumably be articulated to meet these challenges as it has met others before . . . In addition, the defenders of traditional theory and procedure can almost always point to problems that its new rival has not solved but that for their view are no problems at all.*
>
> *Paradigms gain their status because they are more successful then competitors in solving a few problems that the group of practitioners has come to recognize as acute. To be more successful is not, however, to be either completely successful with a single problem or notably successful with any large number.*

The struggle over who decides which technology is developed has been engaged. Current estimates indicate that 55 percent of the costs for high-tech facilities are subsidized by one government program or another. An industry lobby is pressuring for an array of further subsidies. Against this effort, recyclers are rekindling ideas among large populations of Americans abandoned only 30 years ago. Formerly small groups of advocates are now organized in an Association for a National Recycling Policy, state recycling associations and environmental action/management councils which unite community based groups, private enterprises and local government agencies on the recycling issue. New tax laws, "bottle bills" and new regulations are among their accomplishments. Over one hundred waste experts from around the country met and produced a comprehensive Recycling Research Agenda for the National Science Foundation. Demonstrations of techniques that work, expert testimony, media and education packages and even confrontations which change familiar concepts and vocabularies in times of crisis have been part of the citizen/recycler arsenal* in the attempt to redirect the flow of public capital from the old paradigm to the new one.

The paradigm shift will take place after recyclers can guide the direction of future research, commit investment capital, pass laws and write regulations. This process has already begun.

"Like the choice between competing political institutions," writes Kuhn, "that between competing paradigms proves to be a choice between incompatible modes of community life." Today, mass consumption and mass disposal can be shown to be incompatible with appropriately scaled and humanly oriented politics. The hazardous waste disasters, massive cost overruns in high disposal plants that barely work, intolerable levels of pollution—these are integral and unavoidable outcomes of the old garbage paradigm. The new one will be forged not only by engineers, businesspeople and government bureaucrats, but by community organizers, nutritionists, health workers, farmers, open space planners and everyday citizens. If the recycling paradigm fully emerges, solid waste management of the future will be implemented with inner city economics, job creation and community equity in mind, as well as environmentally safe and cost-efficient public service.

It all will have happened because lay people, organized at the local level, took leadership into their own hands. And over a ten year period proved that common sense and social ecology are indeed the most efficient way to address very real problems of production, distribution, and disposal.

-Neil Seldman and Dan Knapp

*We have in mind as an illustration of the latter, recycler Tom Brandt's handing EPA and Oregon air pollution authorities a gallon of 2-4-5-T herbicide and a radioactive crock, both rescued from the landfill only the day before, at a public hearing on granting an air quality variance so a high tech shredder plant could be run and tested. As "unscientific" as such tactics are, they are effective at changing people's images of what is happening. Ironically, the traditionalists abandon scientific inquiry in refusing to address the reality of the waste situation. Of course, another classic example of appropriate confrontation was the assault on the public's credibility when on Earth Day 1970 a new car was smashed, burned, and buried as a symbol of conscious resistance to American "affluence."

Notes

A plan for developing low-income housing cooperatives with low-or no-equity investment by tenants has been designed by the Center for Urban Affairs at Northwestern University. The plan involves conventional acquisition, syndication, rehabilitation and management of multi-unit buildings for seven years. The property is then donated to a non-profit, tax exempt organization for conversion into a cooperative. With the right financing and tax allowances, a donation of property handled this way could approach or equal the profitability of a conventional sale. To illustrate the process involved, the report presents a financing and tax package and cash flow of what would be a typical conversion of a 60-unit building. Copies of the report are $2.50 from: **Center for Urban Affairs, 2040 Sheridan Road, Evanston IL 60201, 312/492-3395.**

Can non-profit, tax-exempt organizations legally run commercial enterprises? Yes, in certain situations which are detailed in the March-April 1980 issue of the *National Economic Development and Law Center Report.* The March-April issue also includes a 1978 and 1979 index to this worthwhile newsletter. Single copies are $1.50 from: **National Economic Development and Law Center, 2150 Shattuck Avenue, Berkeley CA 94704, 415/548-2600.**

Researchers in Vancouver, Canada, have come up with some interesting statistics on that city's potential for growing its own food. Not counting actively used open space such as parks and golf courses, Vancouver has 6515 acres of open space within its borders. Eliminating unsuitable open space (due, for example, to shading) and land used for paths in garden beds, the city still has enough vacant land so that Vancouver's 427,000 residents could grow all their own vegetables within city limits. Calculations were based on 2400 square feet for a family of four to grow fresh vegetables plus enough to can or freeze for winter use. Some experts say the same can be done on as little as 600 square feet. If grown, the produce would be worth a whopping $100 million retail. For more information, contact: ***City Farmer,* 801-318 Homer Street, Vancouver, Canada V6B 2V3.**

Two networks—one for planners and the other on neighborhoods—should interest those working in community development, citizen participation and a broad range of other issues involving local control. The Planners Network and the Neighborhood Organization Research Group each publish good newsletters in the same format: comments and queries from members, mostly academics, about their work. For more information and sample newsletter, contact: **Planners Network, Box 4671, Berkeley, CA 94704, and NORG, Workshop in Political Theory and Policy Analysis, Indiana University, 814 East 3rd Street, Bloomington, IN 47405.**

The Federal Role in Resource Recovery details how government programs and research discourage resource recovery and what can be done to reverse this policy. Also included is a description of some 30 government programs potentially available to recyclers. Copies are $3 from ILSR.

Barter groups, skill banks and exchanges are the subject of a new newsletter called *Exchange Networks.* The first issue includes case studies, information on grants and reviews of publications. Subscriptions are free from: **Barter Project, 1214 16th Street NW, Washington DC 20036, 202/467-5560.**

Support Self-Reliance

The Institute for Local Self-Reliance is a research and consulting organization that explores the potential for, and the implications of, high-density population areas becoming independent and self-reliant. The institute, incorporated two years ago as a tax-exempt non-profit organization, conducts basic research, develops working demonstration models of new technologies, institutions and small-scale production systems, develops educational materials, and disseminates information.

The best way to keep up with developments at the institute and around the country that are relevant to the movement toward urban decentralization is to subscribe to SELF-RELIANCE. The best way to support the institute is to become an Associate Member.

1) Subscribe to SELF-RELIANCE:

A year's subscription (six issues) costs $8 for individuals and $15 for institutions, libraries, government agencies and private businesses. Out of U.S., add $1.50/year for surface mail. U.S. first class, add $2.00/year. For air mail, add $2.60/year, North America; $4.20/year, Central America; $5.10 a year, South America, Europe, Mediterranean Africa; $8.00/year, Asia, the Pacific, other Africa, USSR.

2) Become an Associate Member of the Institute for Local Self-Reliance:

The $25 annual dues ($40 for institutions) entitle you to a year's subscription to SELF-RELIANCE and a 20% discount on all Institute publications.

Self-Reliance
The Institute for Local Self-Reliance
1717 18th Street N.W.
Washington D.C. 20009
Address Correction Requested

Non-Profit Organization
U.S. Postage
PAID
Washington, D.C.
Permit No. 46663