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.Self-Reliance

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To Plug 'Economic Leaks'

Methods for Measuring Community Cash Flows

One of the more intriguing concepts of local self-reliance is that of looking at neighborhoods as independent economic units. From this viewpoint, many neighborhoods—particularly the poorer ones—resemble underdeveloped nations. Many resources go unused, while others are exported or owned by non-residents, with little benefit to the community.

One of the earliest and most startling examples of the "Third World status" of many American neighborhoods was revealed by community organizing begun in the late 1960's against mortgage redlining. Campaigns to increase investments in poor neighborhoods were eventually aided by federal laws requiring banks to reveal where they get their money and where they spent it. Armed with this information, neighborhood activists proved (and continue to prove) that residents in many neighborhoods deposit millions of dollars in savings accounts and get very little back in loans for housing and business development. In effect, these neighborhoods are subsidizing more profitable investments in other areas and contributing to their own economic decline.

Later studies revealed similar patterns in other parts of neighborhood economies. In 1976, the Institute for Local Self-Reliance found that a McDonald's food store in its neighborhood in Washington, D.C. exported over $500,000 a year from the community. Another Institute study of food stores in the same neighborhood found that chains exported around $330,000 more per year than non-chain food stores. Meanwhile, non-chain stores generated 80 percent of the bank deposits in the neighborhood, while chains received 72 percent of the retail loans. More recently, the Institute found that about 87 cents of every dollar spent on energy in Washington, D.C. was drained from the local economy. (See box, page 11). With these kinds of "trade deficits" it is not surprising that cities and neighborhoods often lack capital to develop new businesses, build and rehabilitate housing and provide adequate social services.

Government Drains Ghetto of $10 Million

To better understand how neighborhood economies work, several researchers have experimented with models of community cash flow studies, tracing as carefully as they could how money comes into a community and how it goes out. One of the first studies, done in 1969 by Earl Mellors, examined the Shaw-Cardoza neighborhood in Washington, D.C. The study indicated that this primarily low-income area was actually paying out $10 million more in government taxes and fees than it got back in services and public welfare. Both the study's methodology and conclusions have been questioned, but one could argue that at least some of the city services Shaw-Cardoza receives, such as security and education, further weaken the local economy through salaries to police and teachers who live outside the neighborhood.

The most ambitious and comprehensive community cash flow study has been done by Richard Schaffer in a comparison of two Brooklyn neighborhoods. Although the Schaffer study is remarkably detailed, it is now seven years old. The fact that no study has been attempted on a similar (continued on page 4)

Notes

More than 1200 solar businesses in California are listed in a 200-page directory published by the California State Solar Business Office. The directory also examines current and future solar business development in the state and provides information on starting a solar business. Copies are $10 from: **Solar Business Office, Business and Transportation Agency, 921 10th Street, Sacramento CA 95814, 916/445-0970.**

The best information on mortgage and insurance redlining continues to come from the National Training and Information Center in Chicago. It recently published a third and revised addition of the *Community Reinvestment Act Handbook,* titled *Pass the Buck . . . Back!* Added are a step-by-step approach to challenging a bank or savings institution's lending practices and an update on the Home Mortgage Disclosure Act. Copies are $5 for individuals and $25 for financial and government agencies from: **NTIC 1123 W. Washington Boulevard, Chicago IL 60607, 312/243-3035.**

Two guides to housing cooperatives offer some introductory information on financing. *Housing Cooperatives: How Local Officials Can Help* ($3) briefly describes bond sales, joint mortgage pools, revolving loan funds, tax increment financing, mortgage guarantees and other financing techniques. *A Guide to Community Development: Block Grant Funds for Housing Cooperatives* ($2.50) offers some tips on preparing CDBG proposals and lists some examples of CDBG financed cooperatives. These are not "how-to" booklets. Both are available from: **National Association of Housing Cooperatives, 1012 14th Street Nw, Suite 805, Washington DC 20005, 202/628-6242.**

***Horticultural Management of Solar Greenhouses* describes successes and failures encountered by growers and** provides basic information on using solar greenhouses to produce food. Single copies are $4 from: **Memphremagog Group, Box 456, Newport VT 05855.**

The second part of "Community-based recycling" (*Self-Reliance* #22) forgot to include to the report's publisher, **the Civic Action Institute, 1010 16th Street NW, Washington DC 20036.** Copies of the complete recycling report are available from CAI or ILSR.

March of "Progress" . . .

Deadly Dump: Residents of Wilsonville, Illinois (pop. 700) have been trying for two years to close a hazardous waste landfill on the edge of their town. Originally billed as a "research and recycling center," the site actually contains tons of PCB's, cyanide and acid waste. Residents won a court order preventing the landfill owner, Earthline-SCA, from accepting more hazardous waste. But Earthline appealed the ruling and won the right to resume operations. Residents then pressured state politicians to legislate tougher restrictions on hazardous waste. One bill would have given small communities like Wilsonville the power to prohibit dumping of unsafe wastes in their communities. Waste producers would also have been required to consider alternatives to dumping such as recycling, controlled burning or neutralizing harmful acids. Despite strong statewide support for the bill, Governor James Thompson vetoed it in favor of a weaker law. Meanwhile, Wilsonville is stuck with its dump, because the state Environmental Protection Agency says it is too dangerous to move. For more information, contact: Gloria Kapovich, Box 137, Bend IL 61523, 217/835-4868.

* * *

Hazardous waste landfills are located all over the country, and residents can take some work. An environmental coalition called Clean the Dump identifies techniques to stop poor disposal of toxic products, lists the danger signals of leaking waste dumps, and shows citizens how to force polluters to become accountable for the effects of their toxic trash. The booklet will be followed by others on legal remedies, citizen organizing and possible legislation. For a copy of *Hunt the Dump,* send 15 cents to: Sierra Club, 330 Pennsylvania Avenue SE, Washington DC 20003, 202/547-1141, or Environmental Action, 1346 Connecticut Avenue NW, Washington DC 20036, 202/833-1845.

Big Oil Becoming Big Copper: Oil company investment in the copper industry since the 1973 Arab oil embargo has been "frightening" according to a study done by the University of California and SUNRAE (Solar Use Now for Resources and Employment) a California solar lobby. SUNRAE fears that if oil companies control a major piece of the copper industry, they could selectively affect the production of copper, leading to short supplies and high prices. Copper is a major component of most solar systems. Oil officials do not deny that they have added investments in copper production, but insist the moves are necessary for "acceptable profitability" and "company stability." For more information, contact: SUNRAE, 1107 Ninth Street, Room 1023, Sacramento CA 95814, 916/448-1192. *(Information from Solar Washington newsletter)*

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ILSR State-of-the-Art Report

Glass Recycling: New Options for Community Economic Development

What role can glass recycling play in a local self-reliance strategy?

Just 20 years ago, returnable bottles were emptied and refilled an average of 40 times before entering the waste stream for disposal as broken glass. By 1971, the average lifespan of a returnable bottle had dropped to eight roundtrips. This change has been due, in large part, to the phenomenal market growth of no-deposit/no-return beverage bottles in the past 25 years. In 1950, 49 percent of beer bottles produced were returnables. By 1974, that figure had dropped to under five percent. As non-returnables began to dominate the market, the tendency of consumers to throw out returnables and non-returnables alike increased significantly.

One result of this change has been the increase of glass in the municipal waste stream. Americans now discard 36 billion bottles each year, one every two days for each man, woman and child. Glass now constitutes between six and 12 percent of the current total volume of municipal waste. Of this, more than 90 percent consists of clear (also called flint), amber and green bottles and jars.

The existence of so much bottle glass in the municipal wastestream leads to some obvious questions: is the recycling of glass from municipal waste feasible? Can it be economical? And can it provide new opportunities for community economic development? In other words: what role can glass recycling play in a local self-reliance strategy?

Although the raw materials that are used in glass manufacturing - sand, soda ash and limestone - are found in plentiful supply in the United States, there are several reasons why the glass manufacturing industry is carefully considering the feasibility of glass recycling. One is the reduction of air pollution that results from the substitution of cullet (broken, recycled glass) for virgin materials in glass production. The production of one ton of glass produces 27.9 pounds of air pollutants. This figure does not put glass manufacturing among the high-pollution industries, but the level of air pollutants can be cut by increased cullet use. Currently, glass manufacturing uses natural gas as its primary fuel. If, as the price of natural gas rises, companies shift to "dirtier" fuels, then the problem of sulfur oxides, nitrogen oxides and particulates will become more significant.

The growing problem of energy use and conservation is the major reason that careful consideration is being given to increased recycling of glass. When cullet is added to a batch of raw materials, it increases the rate of heat gain by the batch, thereby reducing the furnace temperature - and the fuel use - required for production. Lowered furnace temperatures not only reduce energy consumption but can also extend the six-to-seven year life of refractory furnance linings by a year. Glass Containers Corporation of Dayville, Connecticut, claims that if it used 60 percent cullet in the manufacture of glass, the company could save as much as one million gallons of fuel oil each year, reducing energy costs by over 30 percent.

Moreover, the use of cullet reduces the amount of energy required to extract and transport the soda ash and the sand that is used in glass manufacture. Harold Samtur in his 1974 study *Glass Recycling and Reuse* explained, "The energy required to mine and transport raw materials for manufacture of container glass is about 650 kilowatt hours per ton of glass produced. Substantially less energy is required to process and transport waste glass or to prepare glass products for reuse."

Impediments to Glass Recycling

There is definite interest among glass manufacturers for increased recycling of clean glass cullet. Owens-Illinois paid out $2.9 million in 1978 for the return of 193 million pounds of glass - an increase of 15 percent over the previous year. But the need for pure cullet - i.e., almost no metal, ceramic or other impurities in the recycled glass - makes recycling from municipal wastes difficult and costly. When returnable bottles dominated the market, cullet dealers, like Jersey City Cullet Supply in Jersey City, New Jersey, depended primarily upon returnables rejected at the bottler as their source of supply. The advent of nonreturnables changed the supply patterns, and many cullet dealers have closed operations. Now, glass manufacturers depend largely upon in-house glass trimmings and waste glass for their cullet supply.

The problem is this: for cullet to be usable, it must be sorted by color and be free of impurities. If there is even as little contamination as ceramic from five dinner plates in 25 tons of container glass, the batch is not pure enough for reuse. Widespread reuse of cullet will not happen until the sorting and cleaning technology is improved - or unless the local demand for cullet is so great that expensive handsorting of glass is

(Continued on page 10)

Methods for Measuring Community Cash Flows

(Continued from page 1)

scale since then points to weaknesses Schaffer revealed in the neighborhood cash flow approach.

Schaffer's premise was that cities and urban neighborhoods are poorly understood because researchers are "unwilling to engage in the 'dirty work' involved in new data collection." Unfortunately, much of the dirty work in neighborhood data collection is closer to guess work. In some cases, specific data is available, but not broken down by neighborhood. In other cases, data is gathered, but not available to the public, or is expensive to obtain (particularly with computer data). Most often, data that would be important to a neighborhood cash flow study has simply never been gathered, or is largely inaccurate. This is particularly true in low-income neighborhoods, where census counts are incomplete, and where income that is unreported or illegal is often a big factor.

When leakages are substantial, traditional economic development largely benefits residents outside of the community.

Community cash flow studies pose other problems in addition to data gathering. One is the difficulty of assigning value to various cash flows. There is really no way to measure the quality of goods and services received by neighborhood residents, whether or not they value government services, notions of exploitation and racism, or the relative impact of certain flows (narcotics and housing disinvestment may mean more than the numbers suggest). All of these factors, however, can affect a neighborhood economy.

Still another problem involves the goals of a community cash flow study. Although these studies can take many forms (see box, page 5) their purpose should be to uncover new information, and to point to real strategies for change. It is not surprising, for example, that most people work outside of their neighborhood. This is as true for wealthy "bedroom" suburbs as it is for innercity ghettos. The difference, of course, is that those in wealthy neighborhoods earn far more for their "exported" labor than those in poor neighborhoods. Similarly, it may be interesting to discover that many people outside of a community have jobs in it, but not very useful unless it can be learned what kind of jobs these are.

Tying Cash Flows to Development Strategies

Considering all these difficulties, do community cash flow studies have any value? Yes, assuming that specific questions are asked and a reasonable amount of data is available to answer them. A new community cash flow study points to some interesting possibilities.

An Income and Capital Flow Study of East Oakland, prepared by the Community Economics Organization of Oakland, is a broad-based approach modeled after the Schaffer study. Four basic cash flows are analyzed: resident incomes and consumer spending, housing, community businesses and credit. Where possible, numbers are identified to reinforce specific strategies for improving the neighborhood economy. By analyzing who owns East Oakland's rental housing stock, for example, the study found that more than half of the rents paid in 1978 went to absentee landlords. The study also found that continued resale and refinancing of owner-occupied housing at rising prices and interest rates will result in a substantial outflow of community dollars as well. By comparison, the study found that conversion of a thousand units of East Oakland's rent housing to cooperative ownership can save almost $4 million in housing expenses for community residents over the next five years.

Predictably, many of the study's findings do not lead to simple solutions. East Oakland's income base, like many poor communities, is very weak. East Oaklanders earn less for their labor than residents in many nearby communities. But the problem is compounded because few of the jobs in East Oakland match the skills of local residents. Also, most of the highest paying local jobs are held by outsiders. This classic imbalance between worker skills and job opportunities means that a considerable amount of money is leaking out of the local economy. But plugging job leaks requires creating new resources, while leaks in housing and local businesses involve better management of resources a community already has.

The overall thrust of the East Oakland study points to the need for new approaches to community economic development. "When leakages of income and capital from a community are substantial," the study concludes, "the benefits of traditional economic development strategies will accrue largely to residents outside of the community. As an alternative, East Oaklanders can pursue strategies for locally-based, community-controlled economic development."

The Big Roadblock: Finding Data

Finding data is probably the most difficult part of a community cash flow study. A tremendous amount of relevant data is available, but choosing specific sources will largely depend on the particular kinds of community activity to be analyzed. A good place to start is *The Statistical Abstract of the United States* and *The County and City Data Book.* Both are available from: **U.S. Government Printing Office, Washington, D.C., 20402, 202/783-3238 or from regional U.S. Government Bookstores.**

The U.S. Bureau of the Census is also a primary source for information on population, employment, income and housing. Information at the census tract level is provided in *Census of Population and Housing, Census Tract Reports,* Series PHC (1), for each Standard Metropolitan Statistical Area (SMSA). Census reports can be obtained from the Government Printing Office and Bookstores, and are included in the reference or documents sections of many libraries. Census information aggregated for areas within a city may be available from local city planning departments. In addition, *Employment Profiles of Selected Low-Income Areas,* Series PHC (3), may be available for the area of your study. These reports provide special census information on low income neighborhoods in 54 cities and seven rural poverty areas.

The main limitation of the census data is that it is collected at ten year intervals. However, some cities contract to have mid-decade censuses conducted, and occasionally, the Bureau of the Census conducts special censuses to test revisions of census questions and procedures. Beginning in 1985,

the U.S. Census of Population and Housing will be conducted every five years.

A second problem with census data is that tracts do not often correspond to particular neighborhoods. Data from the 1980 census, however, will be made available to groups involved in neighborhood-based revitalization through the Neighborhood Statistics Program. Neighborhood groups can outline their boundaries and receive corresponding demographic statistics. Groups must have their boundaries approved by their city government and submit them on appropriate maps before December 31, 1980. For more information, contact: **JoAnne Eltzen, Office of the Director, Bureau of the Census, Washington, D.C., 20233, 301/763-1818.**

For current population data, the U.S. Census conducts a national *Current Population Survey* every month. *Current Population Reports* Series P-20 reports on population characteristics and Series P-25 reports on populations estimates and projections. Available from the U.S. Government Printing Office and regional bookstores.

Expect a comprehensive cash flow study to take about a year.

For employment data, the U.S. Census conducts a number of economic censuses providing information on employment and characteristics of businesses every five years. The most recent, conducted in 1977, will soon become available. The major censuses of interest include the census of retail trade, census of wholesale trade, census of selected services, census of manufacture, and census of governments. The annual *County Business Patterns* is also a useful source. Available at U.S. Government Printing Office and bookstores.

For income data, the U.S. Census provides information on total, mean and median income for families and unrelated individuals by census tract in the Series PHC (1) previously mentioned. More recent figures for states and regions on median income are available in *Current Population Reports*, Series P-60 on consumer income. Available from the U.S. Government Printing Office and bookstores. The Bureau of Economic Analysis of the U.S. Department of Commerce prepares annual estimates of personal income by source and per capita income for states, counties and SMSAs. Printouts of the data can be reviewed at U.S. Department of Commerce libraries.

Data on transfer payments (Social Security, SSI welfare and unemployment) can usually be obtained from the agency administering each program. For Social Security and Supplemental Security Income, both federal programs, information on the number and amount of payments by zip code area can be obtained from the Department of Health and Human Services (formerly HEW), Social Security Administration, Office of Research and Statistics, and *Social Security Cash Benefits and Supplemental Security Income: By Zip Code Area*, published annually. Copies are located at regional offices of the Social Security Administration. Information on welfare and unemployment benefits, usually broken down by city and sometimes by county, are available from state offices which administer these programs. Information on Section 8 Housing Assistance Payments may be obtained from local housing authorities.

The primary source for consumer spending and prices is the *Consumer Expenditure Survey: Integrated Diary and Interview Data, 1972-73*, published by the Bureau of Labor Statis-

(Continued on page 11)

References for Community Cash Flow Research

Richard L. Schaffer
Income Flows in Urban Poverty Areas: A Comparison of the Community Income Accounts of Bedford-Stuyvesant and Borough Park
1973 116 pp. $13.50
Lexington Books
125 Spring Street
Lexington MA 02173
This book includes over 50 pages on the author's methodology and an extensive bibliography.

Laura Hanna, Edward Kirshner, Linda Lilliow
An Income and Capital Flow Study of East Oakland, California
1979 115 pp. $10
Community Economics
6328 Telegraph Avenue
Oakland CA 94609

William Batko, Patricia Connor, James Taylor
The Adams Morgan Business Sector: Paying for Other People's Development
1975 13 pp. 75 cents
Institute for Local Self-Reliance

Steven Morley
Neighborhood Economics and Technology Workbook
Scheduled to be published in the fall of 1980
Center for Urban Affairs
Northwestern University
2040 Sheridan Road
Evanston IL 60201
312/492-3396
According to the Center, this workbook will help groups estimate capital flows and develop alternatives for keeping income in the community.

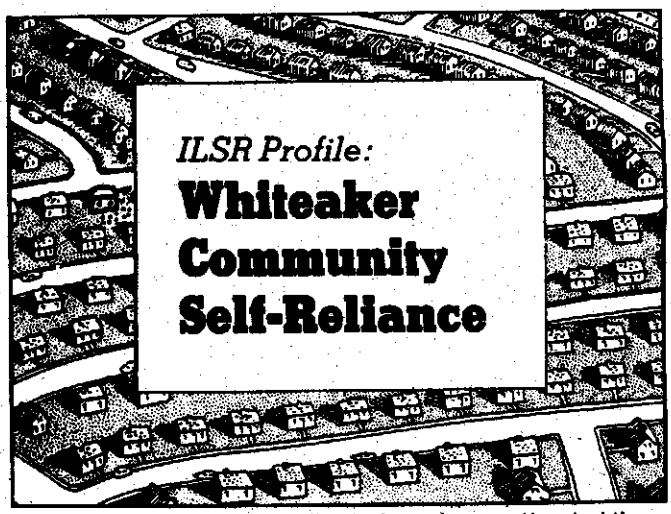
Bennett Harrison
Ghetto Economic Development: A Survey
Journal of Economic Literature
XII: 1 March 1974
This article summarizes a variety of alternative cash flow studies.

William Oakland, Thomas Sparrow, H. Louis Stettler
Ghetto Multipliers
A Case Study of Hough
Journal of Regional Science
XI: 3 (1971)

Philip Friedly
Retail Trade Multiplier and Residential Mobility
Journal of Regional Science
VI: 1 (1966)

Charles Tiebout
Community Income Multipliers
A Population Growth Model
Journal of Regional Science
II: 1 (1960)

Craig Moore, Gerald Karaska, Deborah Bickford
Impact of Banking on the Regional Income Multiplier
1978 17 pp. $2
Regional Science Research Institute
Box 8776
Philadelphia PA 19101



ILSR Profile:

Whiteaker Community Self-Reliance

The concept of local self-reliance has always attracted the notion of master planning. Many scenarios for self-reliant communities have attempted to link a wide range of community development projects, each relating to and reinforcing the other. This kind of thinking has been encouraged by an often frustrating reality, where isolated and fragmented work in local self-reliance—a small energy project here, a recycling center there—makes one wonder how the many pieces add up.

A tendency in this approach, to create decentralization with a centralized plan, leads to obvious contradictions. But the biggest obstacle for local self-reliance master planning is a lack of community consensus on what should be done. Without this consensus, a community cannot commit the resources needed to do comprehensive local self-reliance planning. As a result, when plans of this scope have been attempted, they have been imposed on communities, usually with the support of some of its members, but depending on some outside force.

In Portland, Oregon, for example, a $371,000 CETA grant paid staff salaries for a one year, large-scale neighborhood revitalization project. For several reasons, the project was less than a success (see *Self-Reliance*, #22).

In Eugene, Oregon, another attempt at master planning local self-reliance was initiated by a $146,000 grant last July from the National Center for Appropriate Technology. More focused and less ambitious than the Portland project, NCAT's grant produced a series of studies in energy, health, housing, food and recycling for the Whiteaker neighborhood in Eugene. Given what the government pays for other studies, the NCAT grant can be considered a bargain. If anything, the grant was probably not large enough for the scope of work attempted.

Nevertheless, no study is worthwhile unless it leads to other things. Here, the Whiteaker project runs into a typical problem. The more beneficial the information is to Whiteaker—in terms of specific data and options—the less useful the information will be to other communities. Although some attempt has been made to draw general conclusions, most of the information in these studies is site specific. The studies, therefore, are examples, not roadmaps, of how to plan a local self-reliance project.

For Whiteaker itself, the pressing question is what happens next. Who will finance the projects which have been proved to be feasible? What constraints are beyond the power of the planners to change? How does the Whiteaker project go on now that the NCAT money has run out?

A final note of concern: typical to projects of this kind, no

Notes

Two new urban forestry booklets have been published, but one is worth the trees it's printed on and the other is not. The *Hip-Pocket Urban Tree Planter* is a guide to community organizing using trees. It describes successful community-based tree planting projects, why they are important, how they work, and how others can get started. There are sections on job creation in urban forestry, basic tree care, and dozens of resources, including government programs, private support groups, a bibliography, and a list of forestry and horticulture schools (ideal for low-cost or no-cost expertise). The one hitch is the booklet is geared to the state of California. Free copies are available from: **California Department of Forestry, 1416 Ninth Street, Sacramento, CA 95814, 916/445-9920.** *The Greening of Boston: Trees and Shrubs in the City* is a picture book, printed on glossy, heavy stock paper. Included are thumbnail descriptions of a few dozen trees and shrubs suitable for planting in Boston, as well as some basic planting tips. Inexpicably, the skimpy resources section leaves out the Boston Urban Gardeners, one of the country's most active urban greening groups. Except for some pretty illustrations, this booklet is worthless.

* * *

Urban forestry advocates may also want to contact their state forestry office for information on state and federal assistance in urban forestry. Publications include *Federal Assistance for Urban Forestry, National Organizations Involved in Urban Forestry,* and *Analysis of Some Municipal Tree and Landscape Ordinances.* If state forestry offices are unhelpful, contact: **U.S. Department of Agriculture, Forest Service, Box 2417, Washington DC 20013.**

Training in business skills—accounting and finance, management, economic studies—is being offered by the New School for Democratic Management. The structure of each New School program is worked out in collaboration with local co-sponsors. For more information, contact: **New School for Democratic Management, 589 Howard Street, San Francisco CA 94105, 415/543-7973.**

Some twenty residential and commercial buildings using the sun as a primary energy source are described in *Present Value.* For the most part, these are not low-cost, do-it-yourself projects. But they do point to the potential for incorporating solar design into housing developments and larger businesses. Copies are $5.95 from: **Friends of the Earth, 124 Spear Street, San Francisco CA 94105.**

***Self-Reliance* #21 carried two illustrations and failed to credit their owners.** The sketch of the neighborhood solar facility in San Bernadino was done by Bill Mastin for *Planning and Constructing Integral Neighborhoods,* published by Urban Ecology of Berkeley, California. The sketch of Village Homes in Davis, California, was done for *Present Value,* published by the California Office of Appropriate Technology in Sacramento. Our apologies for the omission.

funds were budgeted for distribution of this information. As a result, the Whiteaker staff is charging for the 12 studies, which together cost a whopping $112. Even individually, most of the reports are priced higher than one might expect for Whiteaker to cover reproduction and handling costs.* If NCAT wants to advance the state-of-the-art in appropriate technology, it should repackage the information (many of the appendices are unnecessarily long) and subsidize the cost of distribution at a reasonable price.

For the record, the studies include the following:

Energy

Rental Weatherization Proposal, 71pp. $9
Concludes that voluntary weatherization incentives are not enough to help the 70 percent of Whiteaker residents who are tenants. Proposes a mandatory city-wide weatherization program, financed by the local utility and paid off through savings on energy bills.

Business Plan for Whiteaker Energy, Inc. 40 pp. $6
Builds off the weatherization program described above. Eventually expands to solar installations on weatherized homes and a retail storefront for sales of solar components, kits and systems.

Solar Report: Analysis and Strategy for Whiteaker Neighborhood, 72 pp. $9
A block-by-block survey of building styles and rooflines found that almost half the single family homes and virtually all of the apartments were suitable for easy installation of solar hot water systems, enough to provide 61 percent of their total hot water heating needs.

Planning for Energy Efficient Land Use in the Whiteaker Neighborhood 54 pp. $8
Landscaping, clustering homes, protecting solar access and reducing paved areas found to produce potential energy savings of 30 to 40 percent.

Housing

Final Report: Cooperative Housing Component 76 pp. $10
A viable cooperative with more than 50 units can be organized for a project cost of about $2 million. Four sites examined for financial feasibility.

Health

Health Component Final Report 67 pp. $9
Expands work of an existing Community Health and Education Center to include a Health Action Council, training in nutrition, medical self-help for parents with infants, and senior self-care. Recommends pre-paid Health Maintenance Organization and surveys attitudes on existing health plans and preventive medicine.

Recycling

Whiteaker Recycling Center: A Feasibility Analysis 146 pp. $17
Estimates that amount of recyclables needed to finance a center serving 50,000 people. Concludes that site and equipment must be donated and that a publicity and marketing program must be capitalized in advance.

Garbaglo's Business Analysis, 87 pp. $11
Strategies for improving one of the nation's only garbage collection cooperatives. Concludes that 6,000 households (out of 40,000) must participate for the cooperative to survive.

Organic Reclamation Feasibility, 91pp. $11
Surveys sources of organic waste and techniques for composting. Identifies potential markets for compost and constraints posed by competition from other sources of soil amendments.

Lumber Salvage Feasibility Study 41 pp. $7
Cost of insurance for an employer-employee structure would be prohibitative, but such a business could be established by workers operating as independent contractors.

Food

Whiteaker Neighborhood Edible Tree Program 76 pp. $10
Gleaning of tree and shrub stock would not provide an adequate re-sale income for a single-person business.

Planting Seeds for the Future: The School Farms Program 67 pp. $9
A curriculum for elementary school children in gardening and farming with materials appropriate for each season. Program implemented in the Whiteaker Elementary school and two neighborhood day care centers.

*All reports are available from: Whiteaker Community Self-Reliance Project, 21 North Grand, Eugene OR 97402.

Progress Reports

Dump Becomes 'Recovery Depot'

The city of Berkeley, California has turned its municipal dump over to a couple of ecologists. Charles O'Loughlin and Bob Beatty have had years of recycling experience, so when Berkeley's contract to operate the dump came up for renewal last year, the two devised a plan that would both save landfill space and provide the city more revenue from the operation.

After winning the city contract, O'Loughlin and Beatty first changed the name of the dump to the Bay Cities Resource and Recovery Depot. They are now employing eight people, many of them working on their first job. The crew is recycling, among other material, seven tons of iron a day. O'Loughlin and Beatty say they could eventually employ as many as 30 people to work on materials gleaned from the city's solid waste. They'd like to repair appliances, reupholster furniture, and put bicycles back on the road. Such programs would not only recycle useful objects; they would provide people with training and experience.

There are more ambitious plans for the future. Tons of lumber that used to be pulverized and pushed into the San Francisco Bay is not kept aside. Beatty wants to use wood chips as fuel for the production of steam and electricity. He would also like to make use of the wind that averages 12 to 15 miles per hour across the landfill.

Not all of the projects at the Resource and Recovery Depot have gone well. An experimental composting program was closed for "reevaluation," last June and never reopened. Some blame difficulties with a mechanical chipper provided by the state. Others say management was inefficient. Berkeley city officials seem unenthusiastic about composting because they want to close the entire site in a few years when the dump is full, and they feel the composting should be done elsewhere. Likewise, a program to recycle concrete and asphalt has yet to process an ounce of pavement. This material is now used to create hills and windbreaks for a park that is proposed to eventually cover the site.

Depot operators hope the city will be more flexible with its plans for the park. They suggest that recycling operations be incorporated into the design, along with plans for producing energy. For more information contact: **Dan Knapp, 2020 10th Street, Berkeley, CA 94710, 415/841-1090.**

Maine Pushes for Food Self-Reliance

The state of Maine provides a good example of the growing dependency on imported food, even in agricultural states. Fifty years ago, Maine produced about 70 percent of its own food. Now the state imports about 75 percent. Though Maine has an agricultural gross of about $400 million a year, half of farm sales go to inputs produced out of state (machinery, feed, fuel, fertilizer, etc.) A once highly diversified agriculture is now concentrated in four commondities (eggs, broilers, potatoes and milk) produced primarily for export. Meanwhile, the number of farms have been cut in half in the past decade alone, while two-thirds of Maine farms generate only poverty level incomes.

This and other research into Maine's agriculture are the first part of an effort to increase the state's food self-reliance. Future research will include a study of the problems and possibilities involved in expanding local food purchasing by state institutions, a study of ways to strengthen marketing links between Maine farmers and local food cooperatives, investigating the conversion of food byproducts into compost, community land trusts and anti-speculative approaches to land ownership, cooperative purchasing of farm supplies, and small-scale farm management.

For more information, contact: **Maine Consortium for Food-Reliance, c/o Center for Human Ecology Studies, Richards Lane, Freeport ME 04032, 207/865-4338.**

Solar Coop Cuts Costs

Five New Jersey families pooled time and money to put solar collectors on each of their homes, saving about $800 per system over going it alone. The savings come from buying the systems in bulk and volunteering time to help each other install them.

Solar Coop I (named because it is the first of its kind in the state) was the brainchild of Neil Hatcher, an energy specialist at the Burlington County Office of Appropriate Technology. Neil helped the families choose a good solar system and assisted the coop members in each installation.

"After we did the first system," said coop member Dan Rita, the rest were no problem. The five systems went up in five weekends." Although none of the coop members had ever worked with solar, the group does include an engineer, a mechanic and a teacher.

The systems cost about $1700 each and were financed up-front by each coop member. Government rebates and tax credits, however, lowered the net cost by $890.

Dan is now organizing a wind generation coop, looking for four or five homes suitable for hooking up to one wind generator. Meanwhile, Neil has opened a storefront in Camden, selling solar and other appropriate technology equipment and running workshops in solar installation. Eventually, Dan and Neil would like to form a statewide coop, with enough money bankrolled to run a program paying Neil's salary off the interest.

For more information, contact: **Dan Rita, 30 Tinker Drive, Mount Holly NJ 08060, 609/267-7258 or Neil Hatcher, Burlington Office of Appropriate Technology, LaGource Square, Route 130, Burlington NJ 08016, 609/386-5800.**

Composting Municipal Organic Waste

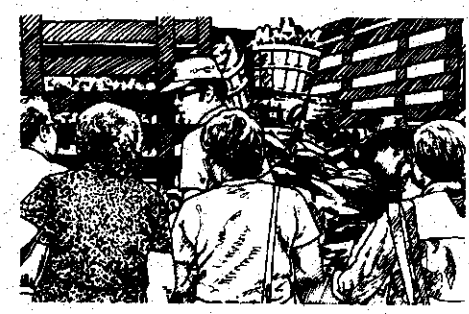
This summer, as many as 12,000 people in the Columbia Heights neighborhood of St. Paul, Minnesota, will be given a chance to separate and recycle household organics. Each household will receive a three or five gallon plastic container, which will be picked up by sanitation crews at the same time as other refuse. The organics will be mixed with dewatered sewage sludge and composted in outdoor windrows. City officials estimate that 8,000 people in 3,000 households may eventually participate, producing 27 metric tons of organic refuse per week. For more information, contact: **Mark Weisberg, Minnesota Pollution Control Agency, 1935 West County Road, B-2, Roseville MN 55113, 612/297-2706.**

In another refuse composting project, Boston Urban Gardeners (BUG) processed organic wastes from several sources last summer to produce soil conditioner for 12 urban community gardens. BUG used a forced aeration technique, originally designed for composting sewage sludge. The process produced about 80 cubic yards of compost before the project ended last September.

Vegetable wastes were obtained from Boston's major produce distribution center in nearby Chelsea, Massachusetts. A local apple juice mill donated leftover pulp. A local supermarket chain agreed to participate, but vegetable wastes from this source were found to have too high a non-organic content from packing mixed in with the organics. Wood chips, used as the bulking agent, were donated by three yard and landscaping firms.

To haul the waste, the group rented a five-cubic-year truck for the duration of the project. In some cases, hauling costs were saved when organic material that would have been hauled to a landfill was simply diverted to the compost site.

Composting was done on a large field owned by the University of Massachusetts and took about one-quarter acre of the site. Three piles of approximately 120 yards each were composted.



Boston Urban Gardeners is currently seeking funds to run a full-scale composting project next year, processing up to 200 yards of organic material a day. They feel that preliminary figures from this year's operation indicate that such a composting project could be self-sustaining within a few years. A 120-page report on the BUG composting project is available for $6 from: **Boston Urban Gardeners, 66 Hereford Street, Boston MA 02115, 617/267-4825.**

Texas Town Feeds Waste to Worms

A unique sludge composting project in Lufkin, Texas is providing encouraging data for the growing field of vermicomposting (using worms to break down organic waste into stable compost). Recently, the U.S. Environmental Protection Agency cited the Lufkin project as one of the most promising vermicomposting models.

With a population of 32,000, Lufkin produces only 75,000 gallons of sewage a day. Because alternative small-scale sludge treatment processes would be relatively expensive, vermicomposting on a small scale has an economic advantage. Several other factors make the Lufkin operation attractive:

* applying liquid or thickened sludge to worm beds, as is done in Lufkin, is cheaper than applying organic refuse or dewatered sludge, as has been tried in other vermicomposting projects.

* small cities like Lufkin typically have less of a problem with heavy metal content in sludge (cadmium and lead can be toxic to worms and make compost unsuitable for agricultural use).

* worms work most efficiently in warmer climates like Lufkin's (between 55°F and 75°F)

As the nation's only municipally operated sludge vermicomposting project, Lufkin currently processes about 10 percent of its sludge in an experimental program funded by city, state and federal grants. For more information, contact: **Harvey Westerholm, City Manager, Box 190, Lufkin TX 75901, 713/634-8881.** For a copy of the U.S. EPA report, Engineering Assessment of Vermicomposting Municipal Wastewater Sludge, contact: **Roland Villires, Municipal Environmental Research Laboratory, U.S. EPA, Cincinnati OH 45268, 513/684-7664.** A companion report on vermicomposting municipal organic refuse will be available in the fall.

West Side CDC Wins Contract for Photovoltaics

The San Bernadino West Side Community Development Corporation (CDC) has received a $1.2 million contract from Sandia Laboratories to develop a photovoltaics training program and install a photovoltaic array on a new industrial building in San Bernadino.

The West Side CDC has conducted over 100 housing rehabilitation and retrofit projects since forming in 1968. It now manufactures and sells its own solar equipment, employs close to 60 people, and trains students in several vocational programs.

The photovoltaics curriculum will include electronics to give students wider options for employment. For more information, contact: **Dwane Burgess, energy project manager, West Side CDC, 1736 Highland Avenue, San Bernadino CA 92411, 714/887-2546.**

Drop-Off Centers, Curbside Collection, Bottle Bills

(Continued from page 3)

economically feasible. In New England, where Glass Containers Corporation, the largest user of recycled cullet in the country, has created a very strong market, several viable glass recycling enterprises already exist. It is possible that, when new uses for cullet such as spun insulation or glass bricks—which could use cullet to replace more expensive raw materials - are perfected, then the economics of glass recycling will change drastically. Until either the market or the technology changes, though, we should not expect the glass tonnage recovered by source separation to be much greater than its current level of three percent of the waste glass produced annually.

Technological improvements are being developed. Froth flotation is one method of sorting out glass that was first tested in 1971. It is a highly technical minerals processing technique whereby a solution of water, glass, and nonglass is treated with a fatty compound that affects glass differently than it does other waste stream fractions. When air is blown through the mixture, the glass rises to the surface with the air bubbles and forms a froth which is then skimmed off. This method requires heavy machinery and harsh chemicals and does not color sort. It also has not yet been proved in a large scale test.

A second method of mechanical separation is called optical sorting. This process, which has been used experimentally in an EPA-sponsored plant in Franklin, Ohio, uses photo cells to measure the intensity of light transmission through individual glass and nonglass particles and to trigger the mechanical separation of glass from nonglass. To date, however, the process has not produced a clean enough cullet to meet glass container industry specifications. There may be other alternatives: Peter Karter of Resource Recovery Systems in Branford, Connecticut, recently received an appropriate technology grant from the Department of Energy to perfect the design of an automatic tri-color sorting machine which he has invented.

Many scientists and engineers believe that new uses for waste glass could improve the economics of glass recycling. They point to glasphalt (glass use in an asphalt mixture), glass tiles, fibreglass, and glass wool as possible new products. Some progress has been made at the Brookhaven National Laboratories on the development of glass-polymer composite materials for use as pipes. Other research has been done on the use of foamed glass as a core material for building panels and insulation. But, as Steve Howard of the Glass Packaging Institute explains, the use of recycled cullet in many of these products does not replace costly enough resources for the substitution to spur significant recycling. Glass used in roadbed aggregate, for example, commands only $2-3/ton, compared to $30/ton for cullet recycled to bottle manufacturers.

Types of Glass Recycling

Despite these problems, though, there are many glass recycling operations in existence. Glass manufacturers sponsor well over 100 recycling centers at their various plants. Hundreds of other reclamation centers and collection systems also recycle glass.

Many of these centers are drop-off facilities that also handle newspaper and aluminum. For these, glass is usually not the highest volume or highest revenue recyclable. A good number of these centers were begun in the Earth Day enthusiasm of the early 1970's. These drop-off centers have to overcome three constant problems in recycling glass: unpredictable and insufficient participation (and hence glass volume); contamination from foreign materials such as rocks and bottle caps; and inadequate color separation.

Equipment needed for a simple drop-off system is relatively inexpensive. Bins for collection and storage of glass must be built or purchased. These can be as simple as paper sacks (which hold about 15 pounds of whole bottles or 50-60 pounds of crushed glass), but are more often made of sturdier 55-gallon drums (holding 125 pounds of whole bottles or 700 pounds of crushed glass) or 50 cubic yard refuse containers. Glass crushers currently in use range from home-made $25 versions to standard $500 bottle-smashers to more complex $12,000 combination can and bottle smashers mounted on trailers and equipped with dumpers and magnetic pulleys for on-route processing. Some centers, like those run by the Beverage Industry Recycling Program, have found that glass smashers are not even needed, since the glass breaks into sufficiently small pieces during transportation and dumping.

Drop-off centers may be easy to set up, but they are certainly difficult to run as profitable enterprises.

Drop-off centers may be easy to set up, but they are certainly difficult to run as profitable enterprises. Most drop-off centers are undercapitalized, cannot attract experienced management, and cannot generate enough revenue internally to expand services and increase efficiency. A notable exception is the Beverage Industry Recycling Program (BIRP) which is sponsored by the bottling industry. The non-profit program began in Arizona in 1971 and has expanded in the last eight years to Maryland, New Mexico and Nebraska. The program is self-sustaining and now generates expansion capital internally. But BIRP is unusual. The industry provided significant capitalization in 1971, enabling the development of an efficient handling system and early inroads into marketing. And, by locating the Arizona centers on railheads, BIRP has been able to ship aluminum in bulk, taking full advantage of the relatively high flow of aluminum in Arizona's waste stream. Finally, high capitalization enabled BIRP to pay good salaries from the outset, thereby attracting expert management to the program **(BIRP, 2650 S. 22nd Avenue, Phoenix, AZ 85009).**

Drop-off centers and systems that collect recyclable containers at curbside are most prevalent along the East and West Coasts and in the Upper Midwest. According to Steve Howard, this is due to the combined effect of higher disposal costs in the Northeast and Midwest (as much as $25 a ton in New England) which have sparked municipal officials' interest, and the higher concentration of citizens who would be interested and concerned enough to participate in those areas. Even in these areas, though, success is dependent upon a variety of factors, including supply, capitalization, efficiency and - usually - a good deal of luck.

(Coming up in part two: Intermediate Glass Processors, bottle bills, curbside collection systems.*)*

Methods for Measuring Community Cash Flows

(Continued from page 5)

tics of the U.S. Department of Labor. In addition, budgets for a typical household for each SMSA are updated on an annual basis and available from the Bureau of Labor Statistics offices. A composite and detailed consumer price index is compiled monthly for each SMSA and may be obtained from the national or regional Bureau of Labor Statistics.

Information on number and types of housing units, tenure, rents, house values, vacancy rates and housing conditions is available from the U.S. Census at the tract level in *Census of Population and Housing—Census Tract Reports,* Series PHC (1), for each SMSA. Selected housing information at the block level is available for urbanized areas in Series HC (3). Information and statistics on public housing are published in the annual *Statistical Yearbook* by the U.S. Department of Housing and Urban Development.

Consult Private Sources

For data on local businesses, a number of sources should be consulted. Dun and Bradstreet computes cost of doing business ratios for over 100 lines of business. Single copies are available free from: **Dun and Bradstreet, Public Relations and Advertising Department, 99 Church Street, New York, NY 10007, 212/285-7000.** *The Dollars and Cents of Shopping Centers,* published annually by the Urban Land Institute, provides figures on receipts and expenses, including sales and rents per square foot, for regional, community and neighborhood shopping centers by line of business. Contact: **ULI, 1200 18th Street NW, Washington, DC 20036, 202/331-8500.**

Information on deposits held at individual branches of savings and loan associations is available by region in the *Federal Home Loan Bank's Savings Balances and Accounts,* published quarterly. Quarterly Summary of Deposits information for commercial banks can be obtained from: **Federal Deposit Insurance Corporation, Data Request Service Section, 550 17th Street NW, Washington, DC 20429, 800/424-9475, ext. 701.** Under the Community Reinvestment Act of 1977, banks and savings and loans associations are required to furnish Community Reinvestment Act statements to the public which define the local lending area and provide a list of the specific types of credit the institution is prepared to extend to the community. Call the manager of a local branch to arrange to read or obtain a copy. Two resource manuals on using the Community Reinvestment Act are *Assessing Community Credit* and *Neighborhood-Based Reinvestment Strategies,* available from: **Department of Housing and Urban Development, Office of Neighborhoods, Washington, DC 20410, 202/426-1872.**

Much of the dirty work in neighborhood data collection is closer to guess work.

Much useful information can also be found from state and local government offices, and from private associations. To locate regional government councils, contact a local city planning department. Private sources include realtor, business, and housing associations. The East Oakland study used a community survey to fill in gaps in available data. Though information obtained from surveys can be specifically targeted, surveys are expensive if done in statistically reliable numbers and can be inaccurate if poorly designed.

Tips for Cash Flow Researchers

Based on its experience with the East Oakland cash flow study, Community Economics offers the following suggestions to groups planning their own studies.

Set clear objectives. Is it more important to develop a general picture of the major income and capital flows within the community, or bettr to focus the study on a particular sector? Review other cash flow studies to look at the range of approaches that have been taken and the kind of information each provides. (See box, page 5).

Define the study area. In many cases, this will correspond to a group's target area. But different areas may be selected, depending on how most data is broken down, or if a comparative study would make the findings more significant, or if a smaller area would be more economical to study and more statistically reliable.

Select a specific time frame. Data must be adjusted so that comparisons can be made for the same time period, usually the preceeding year. Presented data for the past three, five or ten years points to underlying trends, while projecting data at various times into the future gives a sense of the impact of various development strategies.

Prepare a detailed budget, schedule and staff workplan. Expect a comprehensive cash flow study to take about a year, while a study focusing on one sector may take a couple of months. A full time project coordinator will almost certainly be needed, as well as research staff, and consultants. University students and volunteers can reduce research and survey costs.

Outreach to other organizations. Contact other community groups with a standard letter of introduction describing the project. Once a study is completed, results can be circulated through a comprehensive report, a summary report, or a series of articles highlighting key aspects of the study. Tailor the goals of the study to include follow-up on proposals generated from the data.

Community Energy Studies

Energy consumption and production analysis has grown into a separate field of community economics research. One type of energy study measures the consumption and production of various energy types in a particular community. Summaries of the dozen or so studies of this kind appear in the June-July 1980 issue of *Soft Energy Notes* ($4 from IPSEP, 124 Spear Street, San Francisco, CA 94105). A second kind of energy study analyzes energy dollar flows and compares job creation and multiplier impacts of various energy delivery mechanisms. More than 70 studies of this kind have been reviewed in a report prepared by Environmentalists for Full Employment ($3 from EFFE, 1638 18th Street NW, Washington, DC 20009).

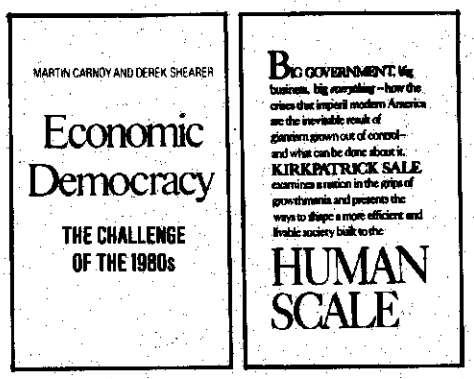
Off the Shelf

Martin Carnoy and Derek Shearer
Economic Democracy: The Challenge of the 1980s
ME Sharpe, Inc., White Plains, NY, 1980.
436 pp. $7.95.
Distributed by Pantheon Books, NY NY.

The loosely-knit and multi-colored movement of activists that have toiled through the 1970s and now look ahead to the 1980s have had in common the sense that political and economic change in America will be unique and will have few guiding models. With no strong labor party as in Europe, without a tradition of fuedalism, with a two-party system that tends to stifle political diversity and with a deeply-ingrained ideology of individualism, competition and mobility, America challenges activists to create a new model for change that can address the social and economic concerns of the populace and still remain compatible with a decentralist, democratic urge. For many, the tradition of American populism provides more inspiration than does the centralist bent of European or Third World socialism.

This broad analysis—which focuses on the public control of investment capital, on worker and consumer control of production decisions, on governmental support for technologies that have a decentralizing potential, on "the transfer of economic decision-making from the few to the many"—has been labeled "economic democracy" and is the subject of this carefully argued blueprint by Martin Carnoy and Derek Shearer. The authors see the 1980s and 1990s as holding the potential for the development of a broad movement based on the principles of "economic democracy."

Carnoy and Shearer make numerous assumptions that can and should be debated. They argue against a national third party effort and for work within the Democratic Party. They advocate the strategy of building city-wide coalition organizations that would run slates of candidates on an economic democracy platform. They argue against a strategy of gradual political education based on immediate, modest action and victories, promoting instead a clear program that spells out steps that must be taken to control the corporations, democratize the workplace, the banks and the government and move toward a structural shift in income and power distribution.



One can argue with the author's political strategy—and perhaps with their optimism about the past decade—but cannot help but be impressed by the grasp of issues and concrete economic alternatives they presented. *Economic Democracy's* greatest strength is its clarity in synthesizing the many suggested and attempted programs for increased public and worker ownership and control of the economy—and in analyzing the strengths and limitations of each. This is not a book that breaks new ground for those who have been active and involved in the movement that has fostered producer and consumer cooperatives, encouraged new formulas for worker ownership and control of production, argued for new, more potentially decentralist technologies in energy and food production, and demanded a curbing of corporate hegemony over the decisions that affect daily life. *Economic Democracy* does, however, gather in one place and present in a logical fashion the rationale for and the realistic potential of various programs for increasing democratic participation in the economy.

Where the book does provide new insights is in its comparison of the American economy to that of Sweden and other Western European nations. The contrasts between the post-war pro-labor Swedish strategy for approaching full employment while keeping inflation low and the American strategy of keeping inflation low by keeping unemployment high and wages depressed are examined in eye-opening and fine detail. The experiences of Western European countries with worker self-management and public control of investment decisions are also well-documented and analyzed.

Carnoy and Shearer make numerous assumptions that can and should be debated.

However, at the same time that European illustrations help point out the way toward economic democracy for this country, they also lead the reader back to the problematic American political reality. The examples all come from advanced capitalist countries with strong labor parties and working-class traditions. In America, this tradition and power base is lacking; unless organized labor becomes militantly involved in the movement for economic democracy, and unless poor people's organizations can find direct benefit for their members in this program, the coalition of liberal professionals, co-op activists, local officials and public interest warriors that right now are the backbone of the movement will remain armed with good ideas but an insufficient political base. If that happens, *Economic Democracy* will remain an unanswered challenge. But a book should not be evaluated on the basis of the growth stagnation of a movement it espouses. For the wealth of information assembled and analyzed here, *Economic Democracy* is a welcome addition to the literature.

—Richard Kazis

Kirkpatrick Sale
Human Scale
Coward, McCann and Goghegan,
New York NY, 1980, 558 pp. $15.95.

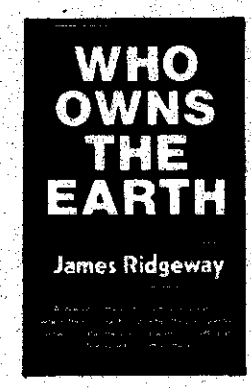
Kirkpatrick Sale's new book will probably leave most readers somewhat bewildered. *Human Scale* is at once too simple and too cluttered, too sketchy and too encyclopedic. The author, whose previous works include *SDS* and *Power Shift,* wants to drive home a simple point: that every being, object, institution and system has an optimal size beyond which it should not grow, and that most serious problems in our country have their roots in the growth mania and loss

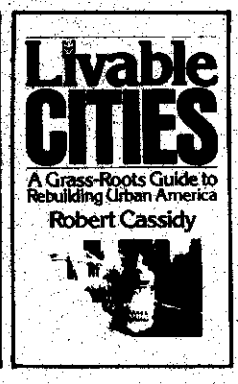
of human scale that have been the hallmark of 20th century America. In making his simple point, though, Sale has written an encyclopedia of lists and stories, of examples from biology, sociology, anthropology and history, from ancient Greece, Africa, contemporary America, prehistoric times and every time and place in between—558 pages in praise of smallness.

The sheer bulk of the book would not be upsetting if it seemed necessary for a full exposition of the argument; but Sale too often opts for illustration in place of analysis. The result is, unfortunately, more exhausting than enlightening. We all know how easy it is to find examples of government and corporate waste, inefficiency and cruelty that result from bigness. And we rejoice in the living (and historical) examples that point to a more humane and efficient scale of production, service delivery and life. But we need more—such as an explanation of how and why big corporations and governments get and stay big, and a realistic discussion of political strategies that can effect increased self-reliance and human scale—and Sale does not deliver these.

It may just be that I disagree with Sale's emphasis. Not that I would not like to see "human scale." Smaller, more controllable, more efficient, people-sized and locally guided forms of social and economic organization are obviously the goal to strive for. But, I think the single-mindedness of explaining good and evil in terms of large and small is neither helpful nor correct.

In their new book, *Economic Democracy*, Martin Carnoy and Derek Shearer grapple with many of the same issues as does Kirkpatrick Sale. Both books try to set an agenda for the future based on a realization of the danger and the failures of concentrated power, and a hopefulness about the groundwork for a more participatory, democratic society that has already been laid. Sale, however, by choosing to focus on size and scale, blurs many of the critical questions that Carnoy and Shearer tackle head-on: the primacy of economic motive and power in the struggle for control of resources and capital; the question of capital and how it is and could be used; and the uniqueness of post-WWII American politics and ideologies. While Carnoy and





Shearer focus their analysis on controlling big business, Sale prefers to excoriate big government, never clearly analyzing the causative links between the two. At one point, for example, Sale argues that governments have wars because wars are centralizing, ignoring the economic and other pressures that usually enter into militarist decisions. It is oversimplified generalities such as this that seriously detract from the yeoman's job that Sale has done in compiling many useful facts, illustrations and examples. In the end, though, it is analysis and strategy that we need—and no amount of clever exposition and eclectic examples can replace that.

—Richard Kazis

Smaller, more efficient and locally guided forms of social and economic organization are obviously the goal to strive for. But explaining good and evil in terms of large and small is neither helpful nor correct.

James Ridgeway

Who Owns the Earth

Macmillan, New York, 1980, $14.95

What do we need to know to do our work? Certainly the information that is found in *Who Owns the Earth.* It is not the kind of book that appropriate technology and community development practitioners keep on their coffee tables. Our mistake. In 149 pages that make you hungry for more, Ridgeway fulfills his intention "to provide an opening look and understanding into the underpinnings of our political economy" by assessing the ownership, geographical and corporate, of 52 commodities. Much of the work is based on articles from "The Elements," a newsletter on resources which continues in abbreviated form in the Nader publication, "Multinational Monitor." Thus, readers should not expect the in-depth analysis found in *The Control of Oil* or *The Merchants of Grain.* Advocates for local self-reliance propose that we reduce our dependence on imported commodities by increasing reliance on conservation technologies and recycled materials, and by rescaling the industrial machine for local production from local resources for local consumption. To get from here to there will require mastery of the reality that is mapped out in this text. Study it.

—Harriet Barlow

Robert Cassidy

Livable Cities

Holt, Reinhart and Winston 1980 $16.95

It hardly seems fair to review this book, since David Morris, co-director of the Institute for Local Self-Reliance, is quoted on the dust jacket as saying, "*Livable Cities* is an impressive achievement. Mr. Cassidy deftly blends comprehensive analysis with individual case studies to present one of the most useful source books on city planning from a human perspective. I recommend it strongly." We will simply add that the book contains one of the more up-to-date listings of references and resources relating to neighborhood revitalization, neighborhood decline, integration and crime prevention, reinvestment strategies, displacement, historic preservation, commercial revitalization, community organizing, neighborhood planning, financing, and periodicals, catalogs and sourcebooks on these subjects.

Off the Shelf

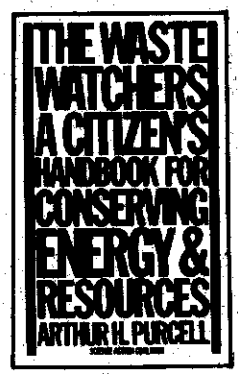
Arthur H. Purcell
The Waste Watchers
Anchor/Doubleday
Garden City NY, 1980, 286 pp. $4.50

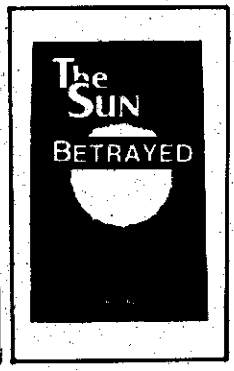
At long last, reliable information on the reduction and recycling of post-consumer solid waste—commonly called garbage—is becoming readily available to the American public. If we had to rely solely on conventional sources—such as trade journals, government reports, and the media—we would hardly be aware of the fact that about 80 percent of the 150 million tons of garbage generated annually can be recycled to create raw materials for industry, significant numbers of new jobs, and energy savings can lessen dependence on foreign oil and domestic nuclear power plants.

Last year, Jerry Goldstein's *Recycling: How to Reuse Wastes in Home, Industry and Society* (Schocken, NY, 1979) appeared as the best general introduction for public consumption. And the U.S. Environmental Protection Agency's source separation staff (Office of Solid Waste) has recently completed an analysis of recycling collection vehicles and ancillary equipment that complements its detailed report on the 220 municipalities which run source separation programs.*

Now, Arthur Purcell, long time waste expert on the side of consumer and environmental groups (Center for Science and the Public Interest, Technical Information Project, Three Mile Island Commission) has produced the most comprehensive work to date on the subject of waste reduction and recycling. It includes "how to" waste-trimmer information for the householder, guides to current legislative initiatives and directories of relevant local and state agencies and of waste issue oriented public interest groups. The bibliographies and glossary are also quite useful.

Purcell explains clearly and succinctly why waste reduction recycling will inevitably become more important to the economy in the next few years, focusing on the economic advantages of energy conservation and pollution reduction. A constant theme in Purcell's book is that for every ton of material diverted from the





waste stream and returned to the manufacturing sector, we not only save on landfill costs, but we also save 20 tons of waste (and the concomitant pollution) generated by the extraction of virgin ores.

Purcell is an engineer and reports on the mechanics of recycling, landfill, and combustion for energy recovery in easy to understand and helpful terms. Unfortunately, the book falls somewhat short in its effort to tell the full story of recycling. Partly because the manuscript was written about a year ago, Purcell leaves out some important new developments. He also does not sufficiently alert the public either to the battle that is currently vying for the control of municipal garbage or to the activities of local and national grassroots recycling organizations.

Purcell's book bases most of its technical information on the Portland Recycling Team (PRT) drop-off center program in Portland, Oregon. PRT has played a significant role in the development of the recycling movement over the past decade. Its report to the Metropolitan Sanitary District in 1975 was the first to carefully document the feasibility of recycling. PRT personnel were also instrumental in forming the effective Association of Oregon Recyclers, which, among other accomplishments, publishes the best recycling newsletter in the nation. PRT's Jerry Powell and Lee Barnett are among the leaders of the national movement.

In 1979, the bottle bill issue almost ended with cooperation between Oregon and Washington recyclers.

PRT's approach, however, may only be of historical significance in a few years. Comprehensive recycling in the U.S. requires curbside pick-up from households to make collection economically efficient, to achieve economies of scale in processing, and to integrate recycling with traditional solid waste management. Compartmented vehicles and off-loading equipment are now available to collect recyclables and non-recyclables in one pass. A recent Canadian study finds that recycling via curbside collection requires 1/10 the energy of a drop-off system. Hundreds of recycling programs have developed from drop-off to curbside collection, including many private hauling companies that now provide source separation collection either because it is economic, is required by licenses, and/or is required by their franchise contracts. *Wastewatchers* would have been a more complete reference had it examined curbside collection more thoroughly.

Perhaps a more important omission is Purcell's decision to sidestep the political contest over who should control waste resources. Aluminum, ferrous metal, glass and paper manufacturers—both traditional companies and technologically innovative companies—want to gain control of a reliable flow of clean, aggregated materials. Increasingly, manufacturers are locating plants near population centers and investing heavily in "reverse channels of distribution" (i.e., consumers supply the manufacturer with raw materials). Reynolds Aluminum will invest $100 million by the end of 1980 for mobile processing units, public awareness campaigns and necessary equipment kits. The aluminum industry has discovered that, by paying 20¢/lb. for recycled aluminum, it can recover secondary stock for less than the cost of virgin extraction. Similarly, newsprint manufacturers are paying $20-30 for newspapers which they then process and sell for $400-600 ton.

*Separate Collection Programs: A National Survey, U.S. EPA 1978 (SW-776) Source Separation Collection and Processing Equipment: A User's Guide, U.S. EPA 1980 (SW-842)

The battle over materials is illustrated most dramatically in the decade-long struggle to implement container deposit legislation or "bottle bills." Six states have such laws, won over bitter and expensive resistance by two of the most highly-concentrated industries in the economy—container and beverage manufacturers. The companies would rather pay "litter taxes"—as they already do in Washington, California and Nebraska—giving money to help finance recycling operations rather than encouraging the reuse of returnable bottles. In 1979, the bottle bill issue almost ended the cooperation between Oregon and Washington recyclers. Oregon recyclers argued that the public should have the right to restrict unnecessary packaging and thereby reduce the cost of local solid waste management. Washington recyclers argued that if industry resources could be used to build the infrastructure for curbside recycling of all materials and not just beverage containers, as the "litter taxes" encourage, then the nation would benefit in the long run.

Garbage technology is rapidly becoming a resource technology, and communities must quickly familiarize themselves with the issues so that they can stake their claim to this expanding sector of the economy which they literally control already. Art Purcell's new book, *Wastewatchers,* helps individuals understand the logic and the imperative for recycling. That is important, for only informed individuals will be able to provide the necessary political pressure to make recycling the community development resource that it can and should be in the coming decade.

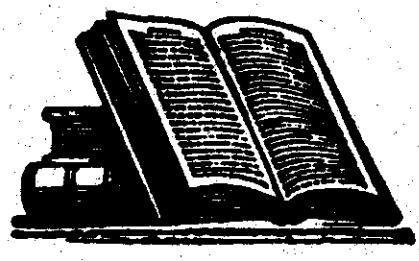
—Neil Seldman

Ray Reece

The Sun Betrayed: A Report on the Corporate Seizure of U.S. Solar Energy Development

1979 234 pp, $5.50
South End Press
Box 68
Astor Station
Boston MA 02123

Ray Reece, an able investigative reporter, now chairs the Austin Renewable Energy Commission. His book paints a bleak picture of big corporate involvement in federal energy policymaking. In rich detail,



replete with names and quotes and biographical background, he shows that conservation and solar energy were never given serious attention, and that the only coherent federal policy was with respect to bigness.

I don't disagree with Ray's thesis. His is an important book. But as a resident of Washington, D.C. for more than a decade, and outside of government, I would suggest some more subtle considerations.

In 1972, for the first and last time, a federal agency laid out the ethical criteria for energy planning. The Atomic Energy Commission stated that neither "institutions" nor "life styles" were to be changed. In the early 1970's, economists believed there was a direct correlation between energy growth and economic growth. Professional economists believed that there was no correlation between consumption and energy prices. Except for Lee Schipper, who learned from Sweden the potential for conservation, no one in the United States lobbied for conservation programs.

Unless the federal government sees itself as a "subversive" force, whose goal is a radical restructuring of American society, we should not fault bureaucrats for choosing what appeared to be the easier route.

Now suppose the director of the U.S. Department of Energy is given a choice: construct 500 nuclear or coal plants, contract with two major companies, and a handful of contractors, thus permitting us to continue within present institutional structures, and present lifestyles. Or, move toward conservation and solar, thereby requiring major changes in local building codes, the architectural curriculum, small business financing, and the way we design our communities. Which option is he likely to choose? Unless the federal government sees itself as a "subversive" force, whose goal is a radical restructuring of American society, we should not fault bureaucrats for choosing what appeared to be the easier route. (It is unclear, however, that the U.S. Department of Energy has been any more successful in pushing coal or nuclear than in pushing solar or conservation.)

Another point. There are, in fact, bureaucratic obstacles to conservation and solar. Take a program that gores no oxes, that the government is publically in favor of, such as conservation on federal buildings. The legislative directive requires this whenever "economical." But the Office of Management and Budget persistently refuses to lower the discount rate it requires all agencies to use in evaluating the costs and benefits of government investments. Currently it is 10 percent, plus inflation. Thus, in 1980 the federal government will invest in conservation (or solar) only when it is repaid in less than three years. This is even worse than the private sector. It is why there are no storm windows on the Department of Energy.

A recent publication from the Lawrence Berkeley Laboratory tells in horrifying detail the difficulties of getting federal buildings to install efficient lights. Or talk to anyone about the four-year process to have Building Energy Performance Standards.

These comments are not to be taken to mean we cannot have an aggressive federal role in energy planning. It does mean that to be successful we need Presidential leadership and a clear understanding that there will be toes stepped on, and changes in institutions and lifestyles.

— David Morris

Notes

A handbook introducing the small industrial energy user to the pros and cons of using wood energy as a fuel has been published by the Solar Energy Research Institute (SERI). *A Decisionmaker's Guide to Wood Fuel for Small Industrial Energy Users* is aimed at managers, engineers and owners of plants with energy needs ranging from 0.5 million to 20 million Btus/hour. The guide discusses key issues surrounding wood fuel conversion, but does not provide instructions on design and installation of a wood fuel system. A directory of equipment suppliers, bibliography and glossary are included. Future guides from SERI are planned on financing and government regulations on cogeneration. Copies of the wood handbook are $5.50 from: **U.S. Government Printing Office, Washington DC 20402 (Stock number 061-000-00387-8) 202/783-3238.**

A feasibility study on establishing potato-fueled ethanol plants on Prince Edward Island, Canada has been done by the Institute of Man and Resources. The study assessed the amount of potato cull and waste available for ethanol production and determined conversion practicality with regard to economics and energy gain. The study found that on Prince Edward Island, only small, onfarm plants were practical. Insufficient amounts of raw material made large-scale plants unfeasible, and a lack of demand for ethanol at the cost of production made intermediate plants questionable. Copies of the complete study are $3 from: **Institute of Man and Resources, 50 Water Street, Box 2008, Charlottetown, PEI, C1A 1A4, Canada, 902/892-0361.**

***People's Firehouse #1* is a film account of a two-year campaign by residents of the Northside neighborhood in Brooklyn, N.Y. to restore fire protection services** when city bureaucrats closed the local firehouse five years ago. Citizen efforts countered a city plan to clear the neighborhood for industrial expansion through "planned shrinkage." Fighting bureaucrats, and sometimes suspicious neighbors, organizers used the Firehouse as a focus for revitalization throughout Northside. Rentals for this 25-minute, 16mm film are $50 from: **Third World Newsreel, 160 Fifth Avenue, New York NY 10010, 212/243-2310.**

What must be learned to advance the level of resource recovery in the United States? A research agenda prepared by more than a hundred waste recycling experts helps answer this question. The agenda, developed in two conferences organized by ILSR waste utilization staff, is now available in a 124-page report which covers government and private industry work, markets, technology and equipment, hazardous wastes and using waste for community economic development. Copies are $8.50 from ILSR.

People living in housing cooperatives will find much useful information in *A Guide for Tenants Who Manage Their Own Buildings*. Sample by-laws, leases, budgets and resources for additional help make this a true "how-to" book. Copies are $7.50 postpaid from: **Urban Homesteading Assistance Board, 1047 Amsterdam Avenue, New York NY 10025, 212/749-0602.**

A booklet has been produced explaining how groups of tenants, homeowners and private landowners can save money by joining together to buy fuel oil in bulk. *Cheaper by the Million* is the result of one group's experience purchasing 500,000 gallons of home heating oil each year for 23 buildings in New York City with a total of 727 apartments. The savings per apartment in the past have ranged from $100 to $150. Copies of the booklet are $3 from: **Association of Neighborhood Housing Developers, 115 East 23rd Street, New York NY 10010, 212/674-7610.**

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