Self-Reliance

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Staff

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A Word From the Staff

Why "Self-Reliance"?

This newsletter is born of a sense of hope, but also of a sense of urgency. The intensity of the sixties has died away, but so too has the despair which followed. Now the struggle is perhaps more quiet, less media conscious; but the pragmatic realization of the need for positive change has reached beyond the universities to communities of farmers, of factory workers, of men and women in all lines of work.

The daily newspapers still read like a catalogue of horrors. Centralization of the control of production continues as large businesses buy up smaller companies and over one thousand farms close each week. The government subsidizes the construction of nuclear power plants, of advanced and massive sewage and solid waste plants, despite doubts as to whether these technologies work at all, despite phenomenal costs at a time when capital is considered scarce, despite the serious contamination of our environment which may result.

The need for change is urgent. Our country, and the world in which it plays so crucial a role, can no longer afford the growth and development policies of our corporations. When policies which are determined in large part by the one percent of the adult American population which owns 72% of all corporate stock demand the rapid exhaustion of so much of the world's non-replenishable resources and endanger the daily lives of us all, something must be done. When centralization of power and control robs us of our power to protest and our ability to choose, we must act to reverse the trend towards concentration.

People are beginning to see the imperative need to choose and to act; and, spontaneously and with determination, a growing number of communities are moving away from the hazardous tendency towards centralized power and complex, large-scale technology. Like tender shoots coming up in the first spring thaw, these efforts towards rehumanization and self-reliance are vulnerable, yet prophetic.

The Trend

- The city council and city manager of a small city in Texas, whose citizens are tired of their dependence upon an outside utility company for electricity, decide to carefully examine the alternative of a solar-powered electric system, owned and operated by the community.
- The citizens of the company mining town of David, Kentucky, decide to buy their independence and now collectively own their land, their buildings, the whole town.
- The workers in an asbestos mine in Vermont, stunned by the announced intention of the employer to close down the plant rather than to install equipment to clean up the air in the mine, join together and buy the company. They install the necessary environmental equipment and realize record profits managing the mine themselves.
- In fifty towns and cities around the country, neighborhoods are dealing with the problem of waste by establishing community-based recycling systems that are consistently more efficient than the massive, unwieldy city-wide systems with which they compete.
- In a philosophy class at one Pennsylvania college, students study Ralph Waldo Emerson's essay, "Self-Reliance". They proceed to buy, rehabilitate and sell a house, learning the principles of self-reliance while, at the same time, adding to the wealth of the community.
- In one urban neighborhood, a community organization establishes a community housing trust to own property cooperatively with the residents. In another city, several communitees work together to identify their residents' skills and needs and to establish a productive enterprise which would utilize those skills to meet specific needs.

• Neighborhood governments, springing up spontaneously around the country and boldly demanding their rights, are now receiving federal attention. The Hatfield Bill in the Senate would give up to 80% of our tax dollars to locally elected neighborhood assemblies to allocate as they see fit. The Home Rule Charter for the District of Columbia already provides for locally elected Advisory Neighborhood Councils.

Americans are discovering that self-reliance is not only possible, but that it is essential; for without it, a tragic dynamic unfolds. Our dependence upon outside institutions breeds both rage and frustration as we beat our heads against massive walls. We no longer know our neighbors, so we neither rely upon nor trust them; and crime sweeps through our terrified communities. We leave decision-making to outside experts and we forget that there are many decisions about our lives and our communities which we ourselves are best qualified to make. When our last two elected presidents can refer to us as "children" and when the advertising campaigns of the corporations treat us the same way, it becomes clear that too many people feel that Americans can no longer do for themselves.

The Institute

The Institute for Local Self-Reliance was established to investigate the technical feasibility of community self-reliance in high density living areas and to examine the implications of such decentralization. The staff of the Institute is committed to urban life and to the resolution of some of the problems which face the 75% of Americans who do live in urban areas. We are also committed to exploring the potential for self-reliance, not of individuals or of nations, but of humanly-scaled cooperative communities, of neighborhoods and cities. It is on this level that people have the intellectual, financial, human and political resources to make significant advances in the direction of community self-sufficiency; and it is on this level, also, that organized groups of people can take control over their own lives and wealth and begin to effect a transition away from the concentration of political and economic power which characterizes American democracy.

These concerns have guided our research; and the findings are exciting. In terms of providing for our energy needs, the staff has found that rooftop solar power plants will be able to provide most, if not all, of the energy needs of a house within five to ten years for the cost of a new car. New intensive vegetable and fish growing techniques, if practiced in the vacant lots, rooftops and basements of our cities, can enable the production of substantial quantities of food right within our municipal borders. Were the "wastes" of our cities to be recycled efficiently, cities would be valuable mines for fertilizer, minerals and metals. Were real property and productive enterprises cooperatively owned by the community, neighborhoods would be able to expand their flow of income, increase their basic wealth in terms of property and skills, and also protect local properties from the speculative pressures of the real estate market. New technological advances in manufacturing processes enable better products to be made in smaller plants, with less capital, less energy and fewer materials. New sources of credit for neighborhoods, such as municipal or community banks, community development corporations and even community insurance companies, can provide the capital needed to move our cities and neighborhoods towards self-reliance.

The research and demonstration projects at the Institute are continuing. It is crucial to have first-hand information about what we can and cannot do to make our metropolitan areas more productive. We at the Institute, however, do not wish to act alone, independent of other like-minded ideas and experiments. There is a groundswell of interest and experimentation with local self-reliance: the time has come to consolidate this network of people and groups in order to exchange, on a more formal basis, data and experience which can help us all. Hence this newsletter.

The Newsletter

The SELF-RELIANCE Newsletter reflects the staff's concern with urban problems and with the application of small-scale, appropriate technology and social organization in overcoming these problems. The pages of SELF-RELIANCE will be filled with information about a wide variety of related activities, from worker-managed factories to small-scale production systems, from municipal banks to cooperative housing experiments. The newsletter will report on developments in politics and economics, in energy, agriculture and waste recovery, which have implications for the move towards decentralization and self-reliance. When appropriate, SELF-RELIANCE will report on international events and will delve into our own past for instructive examples of new directions.

Undoubtedly, the newsletter will grow and evolve as the Institute itself evolves and as more municipalities and neighborhoods, groups and individuals around the country experiment with small-scale alternatives. The success of the newsletter will depend as much upon input from outside the Institute as from the input of the staff. We would like to know what others are doing, what has worked and what has not, so that the information which is now in the heads of a few will be put down on paper and circulated to many. We have hope and optimism for the newsletter: it is the hope and optimism which we have for those who are struggling towards the future, for those many people with whom we wish to open up useful, practical dialogue with the publication of the SELF-RELIANCE NEWSLETTER.

SELF-RELIANCE is your magazine. Its success depends upon you as much as it depends upon us. Let us know what is happening in your community, especially if your experience may be of help to others. The sharing of knowledge is a powerful tool and is what SELF-RELIANCE is all about.

We welcome news items related to decentralization and to the struggle of communities towards self-sufficiency. Send us the raw information and tell us how to get in touch with you. We'll do the writing and check with you for clarification.

Do We Need Large Companies?

America's wealth is based on small production units. Contrary to popular wisdom, there has been no tendency in the last half century for the factory to increase its productive work force.[1]

There has been tremendous growth in the administration and managerial job sectors. A small number of large national and multi-national concerns have won control of the marketplace, aided by the growth of computer technology and motivated by the increased profits which accompany such control. Even the conglomerates, though, while they are the largest business enterprises in the world today, have only slightly more employees per production unit than other businesses.[2]

The largest of our manufacturing enterprises are generally little more than assembly facilities for the work of thousands of small producers. One study conducted in Britain found that almost two-thirds of the factory value of a car is represented by components bought by the manufacturer from outside suppliers, including brake drums, water pumps, oil seals, fuses, gaskets, connection rods, dynamos, gasoline tanks, shock absorbers, carburetors, ball bearings, axles, springs and hundreds of other items.[3]

If this is true, why is it, then, that big business is more successful than small business? The critical factors lie outside the production process. As long ago as the late nineteenth century, the Russian Prince Peter Kropotkin wrote that the major difference between smallness and bigness was the latter's ability to obtain "more advantageous conditions for selling the produce and for buying the raw" material. Kropotkin added, basing his remarks on empirical evidence, that once "this difficulty has been overcome, either by means of association, or in consequence of a market being secured for the sale of the produce, it has always been found: first, that the condition of the workers or artisans immediately improves; and next, that a rapid progress is realized in the technical aspects of the respective industries."[4]

According to one economist, "One of the greatest difficulties that small business has in competing with large business has to do not with great economic efficiency, but rather with the unavailability or huge cost of credit."[5] Banks actively solicit large loan applications, offering low interest rates to large borrowers. The banks prefer the stability and sizeable accounts of long-term corporate customers to the short-term, variable accounts of smaller customers. Further, if the large company is a good customer for the bank, a symbiotic relationship will develop between the two, complete with interlocking directorates, extended loan payments when problems arise, and personal assistance of the banker in the acquisition of further loans for the company from other financial institutions. Small businesses, whose capital requirements are more modest, pay for their size not in higher production costs as much as in higher interest rates or the inability to raise needed capital.

Another advantage of large companies is their ability to spend huge amounts of money on advertising and write it off as a business expense. A company which spends $500,000 on advertising reaps benefits far in excess of 100 times those of a company which spends $5,000. Advertising creates a need in one breath and then offers the perfect solution in the next. As a result, the housewife does not see that she only needs a detergent: she sees that she needs all-purpose *Fab*. As one observer notes, "As a general rule, 'heavy' advertising, ranging from 5% of sales revenue up, is ordinarily found as a basis for great product differentiation where other bases are weak or largely lacking, as in the case of soap, cigarettes and liquor."[6] Revlon may sell one brand of cologne, Max Factor another and Avon a third, and each may swear to its product's uniqueness; but there is a good

In short, efficiency is certainly not the main drive to growth, although American values and traditions make it mandatory that big business claim greater efficiency, because it has no other acceptable reason for existence. In consequence, large industry devotes much energy to rhetorical demonstrations of its economic effectiveness.

In reality, large firms exist for quite different but persuasive reasons that explain why their size tends to increase, and why so many persons, groups, and institutions prefer to associate with them. First, large firms have power and visibility, in which employees, suppliers, and customers all wish to share, since they are thought to confer status and other social benefits. For this reason, people will pay a premium, even explicitly, to gain them. Second, power provides security. Employees feel more secure than they would in smaller enterprises, whether efficient or not. Indeed, from an individual point of view, efficiency is irrelevant. What is relevant is income, position, and continued assurance of both. This both requires and helps firms to accumulate power above that characteristic of a competitive market. This power in turn becomes the basis of large firms' impact both on the market and on society in general.

Dr. Barry Stein of the University of Massachusetts in Boston before the Senate Select Committee on Small Business, December 2, 1975.

1. J. Jewkes, "Are the Economies of Scale Unlimited?", in E.A. Robinson, *Economic Consequences of the Size of Nations.* New York: St. Martin's Press, 1960.

2. Barry Stein, *Size, Efficiency and Community Enterprise.* Cambridge: Center for Community Economic Development, 1974.

3. Colin Ward (ed.), Peter Kropotkin's *Fields, Factories and Workshops Tomorrow.* New York: Harper and Row, 1975.

4. Peter Kropotkin, *Fields, Factories and Workshops Tomorrow.*

5. Robert Eisner, Professor of Economics at Northwestern University, before the Joint Hearings of the Select Committee on Small Business and the Subcommittee on Financial Markets of the Committee of Finance, U.S. Senate, June 17-19, 1975.

6. Joe S. Bain, *Barriers to New Competition.* Cambridge: Harvard University Press, 1962.

More than half of the significant inventions of the twentieth century have been made by individuals rather than by institutional research groups at large universities and corporations. This was the conclusion of a study conducted by John Jewkes and two co-workers in England. A large number of scientists and engineers were asked what they considered to be this century's most significant inventions. The list that was compiled was examined and the inventions were grouped by whether they had been the creation of individuals or of institutions; by far the greater number of significant inventions had been made by individuals.

Below is a partial listing of the inventions included in the study:

Individuals — air conditioning, automatic transmission, ball-point pen, catalytic cracking of petroleum, cellophane, chromium plating, cinerama, cotton picker, cyclotron, domestic gas refrigeration, electron microscope, gyrocompass, hardening of liquid fats, helicopter, insulin, jet engine, Kodachrome, magnetic recording, penicillin, Polaroid Land Camera, power steering, radio, safety razor, self-winding wrist watch, streptomycin, synthetic light polarizer, xerography, zip fastener.

Institutions — acrylic fibers, continuous hot strip rolling, crease-resisting fabric, DDT, flourescent lighting, freon refrigerants, polymers, silicones, nylon, neoprene, synthetic detergents, polyethylene, television, transistors.

chance that all three come from the same small or medium sized production plant, which simply puts different labels on each. Advertising is an important factor in winning market control and size is an important factor in advertising power; but size does not improve and rarely even changes production methods.

Recent studies have shown that, as a result of the introduction of new technologies, even the relatively minor economies of scale in traditional manufacturing may be declining. Recent breakthroughs in electronics and in the use of new materials such as plastics favor small manufacturing units. As John Blair was the first to emphasize, these new production processes are more knowledge-intensive, relying on sophisticated theory, and are less dependent upon large expenditures of money and labor. A good example is the process of thermoforming, also called injection-molding. Using this new technology, it is now possible, for example, to make car or boat bodies with much less initial capital investment; this development encourages further decentralization of the industry.

The energy crisis may also provide new cost incentives for the decentralization of production. The cost of transportation is becoming a significant item in many industries, so significant that companies are being forced to locate production facilities closer to consumer markets. Further, solar energy technologies, which will represent a large fraction of our energy-generating facilities by the turn of the century, can be used in on-site application and can be manufactured locally. As Bruce Anderson testified before the Senate, "Due to the high cost of transportation, it is likely that the most economical choice of solar components will be those which are manufactured close to the point of use. The widespread manufacturing is not only economical, but also likely given the relatively non-complex (albeit not simple) design of solar equipment. It will be difficult to patent many of the simple but effective devices and the result will be widespread manufacture of similar designs."[7]

The myth of bigness is pervasive in America; yet it is clear that the basic producers of primary wealth in this country are small factories. The size of productive units remains relatively small; and now the economics of production seems to favor further decentralization. These facts are significant for urban neighborhoods looking to improve their economic well-being; this potential for small-scale manufacturing to be incorporated into the concept of urban self-reliance will be discussed in a future issue of this newsletter.

—David Morris

7. Bruce Anderson before the hearings on Small Business and Solar Energy of the Senate Select Committee on Small Business, May 1975.

In Maine

Communities Confront the State

New Englanders are, according to tradition, hearty individualists with a healthy distrust of authority. Recent developments in the small towns of Maine give credence to the tradition, but also give a sense of what can happen when communities organize to fight for something they feel important.

Some time last year, the state of Maine asked all towns and cities to increase their property assessments. Soon thereafter, the communities were told to increase their educational budgets on the basis of the new assessments. The town of Castine, at the head of Penobscot Bay, had been spending $125,000 for the education of its children in its 114-year old, four-room schoolhouse. The state wanted the town to spend another $91,000 and, if it didn't, to send the surplus to the state so that another town could upgrade its educational system.

In a town meeting called to discuss the issue, the townspeople of Castine instructed the tax collectors not to collect the $91,000 which the state had asked for. John Vogel, one of the town's three selectmen, complained, "We're just totally fed up with the state coming down and telling us what to do, you know . . . Why do we have a town meeting and why do we have selectmen and all these people if they're coming down and telling us what to do?" Ken Eaton, the harbor master, added, "And when the state funds something, it costs more for them to do anything, believe me, than it does a little town like this."

So the townspeople of Castine joined people from thirty-two other towns to form the Maine Towns for Fair Taxation and they started telling the state how *they* saw things. Before long, a brief had been filed; the towns are now in the process of suing the state over the taxation issue. Castine town manager Oskar Peterson feels that the towns can win, just because "God, it looks so inequitable when you sit down and figure it."

Peterson, like others involved in the fight, was upset— upset enough to take action. Along with several others from the thirty-two towns, he is running for a seat in the state legislature this fall. These people want to be sure that local concerns are heard loudly and clearly in Augusta from now on.

In Milo, Maine, an inland town of 2600, a similar battle is being waged. Two years ago, the state told the townspeople that their nine-bed hospital would have to close and that the town would have to help foot the bill for a new regional hospital thirteen miles away. Townspeople were also told that if they didn't go along with the state's request, the hospital would lose its Medicare-Medicaid money.

The town didn't go along. At a town meeting, it was decided to renovate the old hospital rather than to close it down. The renovation was completed; the hospital re-opened. Then the pressure came down from above: Medicare and Medicaid funds were withheld, Blue Cross-Blue Shield coverage was stopped. The centralizers tried to drive the Milo Community Hospital out of business.

The citizens held firm, though, and went about the business of running a hospital without outside support. The town gave the hospital $10,000 from its treasury and over $2,000 has been raised from private sources. Blue Cross is being sued in court and the town is working on signing a "satellite agreement" with a nearby hospital, an arrangement which would allow Milo residents to receive certain services at the other hospital. The townspeople hope that this plan will sufficiently upgrade medical services so as to win back federal monies.

Until then, the hospital will search for $8,000 each month to cover operating expenses. The citizens hope that it will be over soon, but Charles Horne of the hospital's Board of Directors is realistic: "This has been going on for two years now. It's far from over; but we have no choice but to stay in it."

These developments in Maine are encouraging. Individuals are banding together to fight for their community's right to determine its own priorities and needs; and groups of communities are also uniting to fight for common goals. Change is not being legislated from above; rather, it is being sought from below, from the people whom it most affects. These skeptical New Englanders are asserting the power which comes out of organization and cooperation. They are certainly not alone: in cities and towns around the country, around any number of significant issues, people are working hard toward the goal of local decision-making power and self-reliance.

—Richard Kazis

The state of Maine may demand changes from its towns which the towns are unwilling to make, but the state legislature in Augusta is not the only villain in the story. Maine is a fine example of how states, too, suffer from their colonial status. 43rd in per capita income, Maine's population suffers from chronic unemployment. The state's most important resource is its commercial timberland, which takes up 86% of the land area; but the forests are owned by multinational paper companies and the people of Maine benefit little from the corporate profits. The people suffer because the companies are interested primarily in short-run profits rather than in the welfare of the state. As a result of corporate lumbering, timber waste is a serious problem in Maine. A more serious economic problem is the preference of the companies for pulp production over production for lumber or furniture. A shift away from pulp production would provide more jobs, would raise per capita income, would encourage new wood-related industries to develop, and might even help relieve the financial burden which the state is forced to pass on to towns like Milo and Castine. The companies, though, do not view the change-over as part of their responsibility. Their concern is with what they can get out of Maine; the impact of their policies on Maine's forests and residents is, for the paper companies, largely irrelevant.

Progress Reports

These two pages of short reports are a regular feature of SELF-RELIANCE. Some of the other topics which will be covered include: housing, food production, communications, land use, waste utilization, and neighborhood government. If you have information which could be included in these pages, please let us know.

Finance

Can a neighborhood bank become the focus for development activities in an urban area? The South Shore National Bank of Chicago is trying to find out. The bank sees itself as more than an institution where people put money for safe-keeping and interest yields; more, even, than a bank which primarily loans money in the neighborhood. Rather, South Shore National is becoming an active participant in the development of the South Shore community. Bought in 1973 by a group of investors committed to establishing a model for decentralized urban development, the bank is now systematically surveying the community to discover the financial and technical needs of the residents. The bank managers believe that the more data they get from neighbors, the better the bank will be able to contribute to the economic development of the community.

A provincially-owned bank was created last year in British Columbia in response to the exportation of the financial resources of the province by privately-owned banks. This new bank will serve both rural and urban parts of British Columbia, loaning deposit monies within the province rather than outside it. The bank hopes to work closely with local credit unions, providing additional capital to these decentralized institutions. Legislators in Washington D.C., Washington state and New York, seriously considering the creation of their own public banks, are watching the B.C. bank with interest.

Banks determine loan policy by the concept of "creditworthiness": they give money to people who they think will repay the loan. Some urban communities, faced with declining housing stock and cooption of local business opportunities by national chains, have objected to the whole concept of creditworthiness, claiming that it is based on unfair stereotypes and prejudices and that it allows profiteering at the expense of the poorer neighborhoods. Under strong community pressure, the largest banks in Philadelphia have formed the Philadelphia Mortgage Plan, whose purpose it is to redefine creditworthiness. Some immediate results of the new policies are significant. Neighborhoods with strong organization and community cohesion are now rated more favorably for mortgage loans than previously; and whole neighborhoods can no longer be "redlined" and refused mortgage loans by these big Philadelphia banks.

Local Initiative

Some 300 citizens in the Northside of Brooklyn, faced with the city's plan to close the local fire station in the hopes of saving money, protested the city's decision by occupying the station themselves the night before it was to close. The group, which included many irate senior citizens, left the station the next day to pursue negotiations with the city; when the talks broke down, though, they moved back in. Three months later, they are still there. The city has threatened to arrest anyone who attempts to use any of the fire-fighting equipment. To date, the occupiers have not had to use equipment at any of the calls which they have answered; they have announced, though, that if the need does arise, they will not hesitate to use the equipment. To underscore their seriousness, the organizers of the People's Firehouse are actively trying to involve more people so that they will be able to settle in until their demands for the restoration of service are met. For further information on the People's Firehouse, write to the Northside CDC, 197 Bedford Street, Brooklyn, New York 11211.

Faced with a rapidly deteriorating water main and very little interest in or experience with bond issues, the townspeople of Jerome, Arizona, population 600, decided three years ago to finance a new main by writing a cookbook filled with intriguing recipes from the town's copper mining boom days. The first 24,000 feet of the main, financed with the profits from the $3.50 book, were laid this past fall. *Community Planning Report* January 21, 1976.

The train from Inverness, Scotland still stops six times a day at the railway station in the small Highland town of Duncraig to pick up and discharge passengers, in defiance of an order given eleven years ago by the British government that the station be shut down. Said one Scottish trainman, "many local folks would have been stranded"; and besides, he added, "we thought that if the English wanted to close a railway station they should pick one in England." *Community Planning Report* December 22, 1975.

Energy

Bridgeport, Texas, population 4500, located near the panhandle of Texas, may be the first city to go completely solar. The city owns its own electric distribution system, and has balked at paying the higher prices the regional wholesaler is demanding. City officials are pursuing the possibility of solar thermal electric facilities, using mirrors to concentrate the heat onto a tower, a process which would produce enough steam to power a turbine and gen-

erate electricity. City officials see the system costing $40-50,000 to operate each year. The city is being aided in its analysis and planning by engineers from Texas Tech.

Large power plants of all types are increasingly unreliable, a study by the Edison Electric Institute has found. In a statement December 23, the utility trade organization said that a survey revealed that the reliability of all types of power plants larger than 600 megawatts had declined in recent years. Fossil-fuel burning plants greater than 600 megawatts were available only 58% of the time in 1974; fossil-fuel units smaller than 600 megawatts were available 79% of the time. *Environment* January/February 1976.

A tenement house on East 11th Street in New York City has been rehabilitated with financing from HUD. Under a sweat equity program, the residents work on the rehabilitation and receive an hourly equity wage. In this way, residents who could not afford to invest money in such a project are able to acquire a share in the project by investing their labor. The HUD money was used primarily to buy excellent insulation materials and an array of solar collectors which will be used to provide 75% of the hot water energy needs of the multi-unit apartment house. Director of the program, Travis Price, reports that the response has been so favorable that four other tenements on the same block are considering similar projects.

Ivan Illich, in his book *Energy and Equity*, notes that Americans spend an average of 1500 hours a year in car-related activity in order to go an average of 6200 miles. This means that when the hours spent working to pay for and service a car are included as well as the hours actually spent on the road, the average speed which Americans travel in their automobiles is a little over four miles an hour. The Chinese spend significantly less time in travel-related activity and work than do Americans, but average the same rate of speed. Illich's argument is that since 4/5 of travel time in America is spent going from home to work to market, we should be planning transportation systems which emphasize mobility in terms of the "ease and freedom with which people move in their own community" and not in terms of how quickly one can get from Boston to San Francisco.

The city of Santa Clara, California plans to heat and cool its 27,000 square foot Community Recreation Center by solar energy. Under a grant from the National Science Foundation (funded jointly by NSF, ERDA and the American Public Power Association), a system is being constructed which will provide 75-80% of the building's heating and cooling energy requirements, and which will save $5,000 worth of natural gas a year at current prices. The city is also conducting a study on the possible use of solar energy by a public utility, such as the city-owned electric and water utility.

Appropriate Technology

A plan to lease a farm at nominal cost to train young people to become energy-efficient farmers is nearing reality in Pennsylvania. Former State Secretary of Agriculture, Jim McHale, said, "For four years we have worked on a plan to train young farmers through a living experience rather than the usual classroom-textbook approach. And now we are ready to act on that plan." A site has been selected and the Department of Community Affairs is preparing to lease the 300-acre property in Chester County. The program will include such appropriate technology as the powering of some machinery by methane gas produced from manure and the fertilization of fields with sludge. Said McHale, "We want to encourage a labor-intensive agriculture that can depend on varied energy sources. This is the type of agriculture that may be best suited for family farming."

The Recreation and Parks Department of the city of Berkeley, California has successfully initiated a system of natural control over insects harmful to the city's 123 species of shade trees. The result has been the reduction of complaints from citizens about toxic chemicals and a savings of $22,500 a year in labor and pesticide costs. The program, supervised by a group of scientists which included Bill and Helga Olkowski of the Farralones Urban Center, relied upon "judicious use of chemical controls when needed," but used no chemical toxic to animals. Other control measures included the introduction of natural enemies of the offending insects, high-pressure water spraying, selective pruning, and a training program for parks employees. For information on the Berkeley program, contact Walter Toney, Director, Recreation and Parks Department, City Hall, City of Berkeley, CA. For data on the biological control concept and the possibility of its application in other cities, contact William Olkowski, Division of Biological Control, University of California, 1050 San Pablo Avenue, Albany, CA 94706.

On a small and experimental basis, Hong Kong has begun to export nightsoil, solid human waste, to China where it will be used not only for fertilizer but also for making methane gas for lighting homes. Last June, *People's Daily* called for a mass movement to build more methane tanks fed by "human feces, guano, animal droppings, weeds, plants, stems and contaminated water". The paper said that it costs only $20 to produce a tank that can make cooking and lighting gas for a family of five. *The Elements* February 1976.

Neighborhood cable television is a reality in the Corbett-Terwilliger/Lair Hill section of Portland, Oregon. Of the 1400 housing units, 1100 are hooked into the cable system. Residents do not just watch television together: with production assistance from salaried staff and student interns, neighborhood residents are scripting, shooting, and editing their own broadcasts for a weekly show about their neighborhood. Called *Community Focus*, the hour-long show has featured interviews with residents, discussions of the proposed location of a new power substation and the merits of the local zoning regulations, and resident feedback on the direction of the program itself.

Toward Sewerless Cities

This article is excerpted from an Institute report, "Sewage Treatment Technology and Our Urban Communities," by Neil N. Seldman and Patti Nesbitt.

Recent reports from government agencies and private research groups give an alarming picture of the country's municipal water and sewage situation.[1] It will take $342 billion to install the most advanced wastewater treatment technology throughout the country; but the Federal government, which funds 75% of all sewer construction, simply does not have the money.[2] Exotic high technology treatment facilities rely on massive energy inputs, which cause staggering operating and maintenance costs. The technology is dependent upon chlorine, which in 79 of 79 cities tested created cancer-causing agents as it reacted with organic elements in the water.[3] To date, the varying super-technologies applied to our waste treatment have been costly, wasteful and unreliable. These technologies cannot be guaranteed to clean our water, yet we pay more, at spiralling rates, for water and sewer services.

All of these troublesome problems would not exist in the first place if we did not contaminate our drinking water with our wastes. Appropriate technology, in the form of in-house toilet systems, is available and promises to minimize the problems inherent in large, centralized wastewater systems by substantially reducing the need for such systems.

Americans use an average of 100 gallon of water each day; and fully half of this is used to carry away toilet wastes. By adopting a sewerless approach to wastes, we would save drinking water for drinking, eliminate the need for chlorine disinfectant, and no longer require added high technology treatment capacity.

There is an array of waterless toilets on the market: among them, compost toilets, incineration units, bacterial toilets, aerobic tanks, and oil-flush systems.[4] The states of Maine, Kentucky, Maryland, Virginia, California and Oregon are already involved in testing various models; and there will be a conference in Portland, Oregon this May of manufacturers, community and ecological research groups, and innovative individuals with the goal that the exchange of ideas there will lead to solutions to remaining sewage problems and to the retrofitting of entire communities with waterless toilets.[5]

A preliminary case study, focusing on the Washington D.C. metropolitan area, demonstrates the critical need for "sewerless city" research and implementation. Area residents, who have had to deal with suburban sewer moratoriums, land dumping site selection, court suits and bonding fights, have recently been hit with dramatic sewer and water rate increases. Rates for an average household in the District will be $100 this year, after a 40% rate hike. An average suburban household will pay $230 this year, or roughly four times the average rate of two years ago. There is no end in sight to these increases. When the massive 309 million gallon per day plant at Blue Plains in Washington is completed in 1979 at a cost of $1.5 billion, operating costs will run $56 million a year. A new 60 million gallon per day plant which will cost $400 million is slated for Dickerson, Maryland; and the 10 million gallon per day plant at Occoquan, Virginia, needs $82 million for improvements and expansion. This means that total construction costs for the technology needed to serve two million people will be nearly $2 billion and operating costs each year will be about $70 million.

Americans use an average of 100 gallons of water each day; and fully half of that is used in flushing toilets.

Residents would have been much better off had they installed biological toilets instead of opting for this technology. Compost toilets (in which wastes are naturally degraded in a container below the toilet, leaving a dry, earthy, odorless substance called compost) currently cost about $800, but are not yet being mass-produced.

Two million people would need some one million units at an initial investment of $800,000, or $400 for each area resident. But annual operating costs would be minimal, about 6.8% of the cost of the energy needs of the Blue Plains plant. In addition approximately 365 million lbs. of compost would be produced for local use.

Compared to Blue Plains' per capita construction and annual operating costs of $1000 and $35 respectively, the compost toilet seems like a much better investment.

There is a range of options when choosing among in-house systems. Some, like the incineration toilet, are not efficient from an energy standpoint but still compare favorably in overall comparisons with Blue Plains' technology, which will annually consume 320,867,600 KWH to pump and treat sewage, 3.7 million gallons of fuel oil to incinerate sludge, 85,000 gallons of gasoline to haul incinerator ash to landfills, and thousands of gallons of fuel oil and thousands of tons of chemicals to run treatment operations.

One further consideration must be kept in mind: in-house systems accomplish what they are supposed to while centralized systems do not. They preserve water supplies and keep so[illegible] rivers and oceans free from waste and chemical contaminants.

Prior to any further upgrading or expansion of existing wastewater treatment facilities, local governments must carefully explore the sewerless alternative. The environmental and financial well-being of urban communities is at stake.

1. General Accounting Office Report, *Federal, State, Local and Public Roles in Constructing Waste Water Treatment Facilities,* 5 December 1975, RED-76-45; also see Environmental Defense Fund petition to review drinking water standards recently announced by EPA.

2. *Potomac Prospects,* December 1975. Newsletter of the Potomac Basin Inter-League Committee of the League of Women Voters.

3. EPA Report to Congress, *Preliminary Assessment of Suspected Carcinogens in Drinking Water,* December 1975.

4. Harold H. Leich, "The Sewerless Society", *The Bulletin of the Atomic Scientists,* November 1975.

5. Co-sponsored by Rodale Press, the Oregon Department of Environmental Quality and RAIN. For details, contact Ms. Mildred Lalik, Rodale Press, Emmaus, PA. 18049.

Off the Shelf

In each issue of SELF-RELIANCE, we will present an annotated bibliography on some aspect of decentralism, beginning this issue with a booklist which presents the general case for a decentralized society. Whether these authors approach societal problems from the standpoint of economics, environment, politics or philosophy, they all reach the same conclusion: power must be returned to smaller units of organization.

Decentralism:

Murray Bookchin,

The Limits of the City.

Harper Colophon Books, 1973. $2.75.

Chronicles the development of the urban concept, lamenting today's attempt to substitute design for the kind of social community exemplified by the Greek *polis*. Argues that nothing short of "dissolving" the megalopolis into neighborhood-scale "eco-communities" can restore the quality of life in our cities. By the author of an important collection of essays entitled *Post-Scarcity Anarchism.*

Ralph Borsodi,

The Ugly Civilization.

Out of Print.

Upon seeing his wife's home-grown tomatoes, Borsodi, who was trained as an economist, commented, "They're beautiful; but is it worth it?" Pursuing that question, he proceeded to show that it costs less to grow your own than to go to the store and purchase canned tomatoes. This book lays out Borsodi's basic philosophy, emphasizing the waste inherent in our factory system and in our tendency to concentrate production far from consumer markets.

Ernest Callenbach,

Ecotopia.

Banyon Tree Books, 1975. $2.75.

An anarchist utopian vision, in which a reporter at the end of the century becomes the first U.S. visitor to the states of Oregon, Washington and Northern California since their secession twenty years before. It is warmly familiar to see many of this decade's decentralist dreams translated into reality; but the author sidesteps too many important economic questions for our taste.

Sam Dolgoff (editor),

Anarchist Collectives: Workers' Self-Management in the Spanish Revolution.

Free Life Editions, 1974. $3.45.

This collection of essays traces the history of the revolution within the Civil War in Spain during the years 1936-39. Outlines how non-hierarchical associations of people, based around the community and the workplace, took command in organizing the social and productive life of sizeable areas of Spain. Discusses what went right and what went wrong.

Milton Kotler,

Neighborhood Government: The Local Foundations of Political Life.

The Bobbs Merrill Co., 1969. $4.95.

The basic book on neighborhoods. Traces the history of the takeover and exploitation of independent communities by central city governments. Proposes a practical mechanism — the neighborhood corporation — by which local communities can regain self-rule, political autonomy and representation in larger units of government. Discusses neighborhood economics, strategies for gaining self-rule, and the feasibility of community legislation.

Ursula LeGuin,

The Dispossessed.

Avon Books, 1975. $1.75.

Powerful novel, contrasting the anarchist society of Anares, moon of Urras, with the centralized, special-interest dominated states of the mother planet. It is not all black and white, though, for Anares' "permanent revolution" has been slowly ossifying . . . Classed as science fiction, the book is far more than that. A thoughtful, fascinating exploration of non-authoritarian society.

David Morris and Karl Hess,

Neighborhood Power.

Beacon Press, 1975. $3.45.

Shows how a potentially self-sufficient community moves from the initial stages of community awareness to the organization of service networks, to the development of funds which can serve as seed money for new community enterprises, to the development of neighborhood government. It is both a theoretical and a practical book, a tool for bringing economic and political power down to a workable human scale.

People's Bicentennial Commission,

Common Sense II.

Bantam Books, 1975. $1.25.

The most appropriate general introduction to the problems which concentrated economic power poses to American democracy. Concise and well-argued, the book helps Americans to appreciate the moral commitment of the 1776 patriots to democratic ideals and examines the applicability of those ideals today.

E.F. Schumacher,

Small is Beautiful: Economics as if People Mattered.

Harper and Row, 1975. $2.45.

A classic of decentralist thought, countering the current "religion of economics" with the possibility of "economics as if people mattered." Emphasizes the importance of natural and irreplacable capital, such as fossil fuels and the tolerance margins of nature, as necessary determinants of value. Argues for small-scale, appropriate technology and for placing the logic of life and nature above the logic of production. Somewhat repetitious since it is a collection of twenty years' writings, but seminal nonetheless.

Resources

In this issue, we present a list of groups around the country which are involved in exciting and promising activities related to self-reliance. This is by no means a complete list: in each issue of SELF-RELIANCE, we will refer our readers to groups, magazines, and other resources which will help them to keep informed of current information and experiments.

Boston Wind

307 Centre Street, Jamaica Plain, MA 02130

The first alternative energy center in the Boston area, Boston Wind's facilities in the Jamaica Plain Factory are powered by a wind generator on the roof. The group's objectives are to provide an Alternative Energy Educational Center at which individuals may be trained to design, build and install practical energy systems; to disseminate information on alternative sources of energy which is not currently available at libraries or other local centers; and to conduct research on simple, cost-effective alternative energy hardware.

The Center for Community Economic Development

1878 Massachusetts Avenue, Cambridge, MA 02140

CCED is an independent advocacy and research group working to promote the concept of community-based economic development. CCED's work focuses on the use of local economic institutions such as community development corporations, cooperatives and worker-controlled enterprises as tools for achieving local community goals. CCED publishes a newsletter, as well as reports, papers, and monographs based on its work. It also maintains a library, acts as an information clearing house and provides advocacy services.

The Community Ownership Organizing Project

349 62nd Street, Oakland, CA 94618

A research and consulting group promoting local economic control and ownership, COOP places particular emphasis on reducing housing costs for lower-income families. The COOP has developed strategies for cooperative ownership of real estate, utilities and economic enterprises as concrete means towards establishing decentralized and democratic social and economic relations. The COOP publishes a quarterly newsletter, *The Public Works*, and a number of papers and monographs on community ownership.

Conference on Alternative State and Local Public Policies

1901 Q Street, N.W., Washington, D.C. 20009

The major activities of the National Conference Center include: a clearing house of proposed and existent alternative legislation; task forces for developing new programs and model bills around such issues as banking, public utilities, taxation and women's rights; a growing list of publications related to state and local public approaches to social and economic problems; a newsletter which keeps track of alternative legislative developments on state and municipal levels. The second annual National Conference will be held in Austin, Texas in June. For information, contact Barbara Bick.

Farralones Integral Urban House

1516 5th Street, Berkeley, CA 94701

The urban center of the Farralones Institute, the Integral Urban House is now in its second year of operation. Complete with Clivus toilet, aerobic compost bins, grey-water recycling unit, animal pens, food garden, greenhouse and solar water heater, the house is emerging as an exciting demonstration of self-reliance in the city. The center offers classes to the public and is open to visitors on Saturday afternoons. For information about enrollment in undergraduate or master's programs in environmental studies, write to Helga Olkowski at the above address.

Farralones Institute

15290 Coleman Valley Road, Occidental, CA 94564

Founded in 1974, Farralones is building a living, learning and research community with the goal of helping people move towards lighter living more in keeping with finite resources. Their emphasis on "Whole Life Systems" stresses a steady-state relationship between the man-made and natural environments; the development of social, economic and environmental diversity within communities; the development of knowledge- and labor-intensive production systems to replace present capital- and energy-intensive technologies. They accept students for both graduate and undergraduate programs and run workshops on various practical skills.

New Alchemy Institute

P.O. Box 432, Woods Hole, MA 02543

New Alchemy has been one of the pioneers in the development of small-scale, ecologically sane food production systems. Especially strong on aquaculture and integrated systems, the Alchemists work in both northern (New England and Canada) and southern (Costa Rica) climates, developing techniques which are appropriate to each locale. For their part in the upcoming Habitat conference, they are constructing a dwelling unit on Prince Edward Island which integrates food production, energy generation and waste recycling. A smaller prototype is under construction at the Institute's Woods Hole site. Their journal is available for $6; membership in the Institute is $25.

RAIN

2270 N.W. Irving, Portland, OR 97201

RAIN is a monthly publication, an information access and referral center, and a wonderful group of people working together to make it all happen. RAIN focuses on sorting out and publicizing information relevant to the development of creative alternatives in an energy-short future, alternatives based on conservation and the efficient use of resources. The publication is indispensable for anyone wishing to plug into the network of individuals and community groups working towards decentralization and self-reliance.

The Institute for Local Self-Reliance

The Institute for Local Self-Reliance, Inc., explores the potential for, and the implications of, high density population areas becoming independent and self-reliant. The staff of the Institute provides technical assistance to municipalities and community organizations in its several areas of expertise. At present these areas are:

Municipal waste management
Investigating and developing community-based solid waste collection and recycling systems, and examining the possibilities for solid waste processing and manufacturing facilities and for sewerless toilet systems.

Municipal finance
Exploring the role of credit within a city and evaluating the possibilities for community-controlled banking and credit institutions in our cities and neighborhoods.

Urban Energy Resources
Emphasizing decentralizing technologies such as solar collectors for thermal energy and solar cells for electrical generation; providing assistance in achieving the reduction of energy demand through end-use conservation and in increasing the supply of renewable energy sources.

Urban Food Production
Examining food production systems appropriate to high density population areas, among them rooftop hydroponics, greenhouse design, intensive organic gardening, basement sprout and earthworm production; evaluating the impact of air pollution on urban agriculture.

Community Housing
Evaluating and developing programs for community self-help housing and cooperative ownership.

The Institute approaches local self-reliance from many directions: basic research; development of working demonstration models of new institutions, new technologies and small-scale production systems; development of educational materials and dissemination of information.

Some of the recent activities of Institute staff members include:

- technical assistance to municipal agencies collecting data on credit activities of banks and Savings and Loan Associations in Washington, D.C.
- evaluation of the potential for a municipal bank for Washington, D.C.
- planning and development of a rooftop greenhouse appropriate for an apartment house of low-income senior citizens.
- design of a skills questionnaire to inventory a neighborhood's skill and tool base
- consulting in regard to a legal dispute concerning the city of Alexandria, Virginia's solid waste disposal system
- creation of a task force on energy conservation and insulation in a low-income neighborhood in Newark, New Jersey

The work of the Institute is supported in part by foundation grants and primarily by the sale of literature and by technical consulting. The future of the Institute depends upon the support of people who believe in the concept of local self-reliance and who want to actively assist in the promotion, refinement and evaluation of the concept.

New Publications From ILSR

All publications are available from the Institute for Local Self-Reliance, 1717 18th Street, N.W., Washington, D.C. 20009. Please include 25 cents with each order for postage and handling (50 cents with orders for garden charts).

Garbage in America: Approaches to Recycling 36 pp.	$2.00
Kilowatt Counter: A Consumer's Guide to Energy Concepts 36 pp.	$2.00
Gardening for Health and Nutrition	$3.00
This poster joins **The Urban Farmer** in our series of informative gardening charts	
Neighborhood Technology — reprint from **Working Papers** 6 pp.	.25
Poisoned Cities and Urban Gardens — reprint from **The Elements** 4 pp.	.25
The Role of Solar Energy in the Federal Energy Program 4 pp.	.25
How to Research your Local Bank (or Savings and Loan Association) 36 pp.	$2.00
Sewage Treatment Technology and our Urban Communities 10 pp.	.75

Notes

As a public service to gardeners who are serious about growing their own high-quality vegetables and fighting the high cost of catalogue- and store-bought seeds, Environmental Response is offering a set of 35 different family-sized seed packets for $5.50 (plus 15 cents sales tax if you live in Missouri). Quantity orders from community groups or coops are welcome. Send check or money order, made out to Environmental Response, to E.R. National Seed Order, Box 72E, Star Route 287, Steelville, MO 65565.

How to Conserve Energy and Help Prevent a Rent Increase is the title of a report which details steps taken by residents of the Mutual Redevelopment Houses in North Brooklyn in order to cut their energy costs. Realizing that between 1972 and 1974 annual utility bills for the co-op buildings had increased $1,110,000, residents devised a program for saving energy which included replacing incandescent lights with fluorescent lights, reducing peak load demand, pooling elevator rides, abstaining from the use of appliances on Wednesday of each week. The results of the program were a total savings of $410,000 over two years, an amount equivalent to a 7% increase in rents. Copies of the report are available for $1 each from Dick Koral, Building Systems Design, 235 Duffield Street, Brooklyn, NY 11201.

Support Self-Reliance

This is the first issue of our newsletter and we are quite excited about it. Two years ago, the Institute for Local Self-Reliance was incorporated as a tax-exempt, non-profit organization. Since that time, we have attemped to clarify and to spread our ideas through our research, projects and writings. Now, we are pleased to present, to a wide audience, important information and analysis stemming both from our own work and from the work of others. We feel that self-reliance is a concept whose time has come; and we plan to report on developments around the country which confirm that belief. Your subscription to SELF-RELIANCE will enable you to remain aware of current developments and will also help to support the activities of the Institute. You may continue to receive this newsletter every two months in one of two ways:

1) Subscribe to Self-Reliance:

A year's subscription (six issues) costs $6 for individuals and $12 for institutions, libraries, government agencies and private businesses.

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

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

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