Sustainable Suburbs?
Trickle-Down Media
Teledemocracy

Rain
Resources for Building Community

Two Special Features:
Rethinking National Security
Financing Your Ethics

Summer 1986 Volume XII, Number 3
RAIN
Volume XII, Number 3
Summer 1986

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RAIN magazine publishes information that can help people make their communities and regions more self-reliant, and build a society that is more participatory, just, and ecologically sound.

RAIN is published quarterly by the Center for Urban Education. RAIN subscription and editorial offices are at 1135 SE Salmon, Portland, OR 97214; 503/231-1285. Subscriptions are $18/year ($12 if you live on less than $7500 a year). See page 5 for additional subscription information. Writers' guidelines are available for a SASE. RAIN is indexed in the Alternative Press Index.

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Cover illustration: by Diane Schatz from the Peace Trek Family Coloring Book.

RAIN On the Move Again

We're all settled into our new office now (be sure to note our change of address), and though the move was a bit of a disruption in our schedule, there are many benefits to our new location.

The Center for Urban Education (CUE), RAIN's sponsoring organization, wanted to bring all of its dispersed programs under one roof for organizational efficiency. The new arrangement has helped our efficiency, as we no longer need to shuttle back and forth between our office and the computer lab at the Information Technology Institute during magazine production time. (Or rather, we still must shuttle back and forth, but now it's just a matter of running up and down the stairs, instead driving across town.)

Also, we've streamlined some of our administrative work by sharing an office with CUE Administration (an important measure in our current time of cost-cutting). The arrangement also enable CUE staff to be more involved with the magazine on a day-to-day basis.

Rainmaking

We've been fortunate to have two interns working with us these last two months. Elizabeth Rifer, having just completed her first year at Mount Holyoke College in Massachusetts, returned to her home town of Portland to work with us during the summer. And Julia May, our intern during the spring quarter, volunteered to see the summer issue through to completion, working well beyond the time her internship was officially over. Good thing, too, because we needed every ounce of people-power we could muster to get this issue out. We've found that producing an entire 56-page magazine with computers and a laser-printer was a bit more than we bargained for. We hope that you, our readers, are patient with us as we try to smooth out our production schedule.

This Issue

One of the advantages of being a quarterly magazine is that we have more time for designing and compiling special sections that address a particular issue in some depth. As you will note, this issue contains two special feature sections.

The first is an 11-page section that presents a wide range of current thought and work in the area of redefining national (and international) security. Proposals are coming from many quarters for means of enhancing security that are far less expensive and less dangerous than current military methods, and that enhance community conviviality and sustainability at the same time. (In RAIN's early days, we ran an article entitled "A Good Society is the Best Technology"; in this context we might say "A Good Society is the Best Security.") These ideas are just beginning to emerge; we can only hope that presenting them here in RAIN will help them "trickle down" into wider circulation (see page 31).

Our second special section deals with socially responsible investing and banking. Although we have given socially responsible investing a fair bit of attention in the past, this is the most comprehensive treatment of the subject we've done to date. We're planning to use this material as part of a booklet we're preparing on SRI and related concerns.

You'll find other good material in this issue, too. In fact, we had so much good material for this issue that we had to take out two of our regular features—Scattered Showers and Tools for Organizations—to make room. Enjoy! —FLS
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Rethinking National Security

Introduction by F. Lansing Scott

"The trouble with disarmament," writes Salvador de Madariaga, veteran of many early disarmament negotiations, "was (and still is) that the problem of war is tackled upside down and at the wrong end. Nations don't distrust each other because they are armed; they are armed because they distrust each other. And therefore to want disarmament before a minimum of common agreement on fundamentals is as absurd as to want people to go undressed in the winter. Let the weather be warm, and people will discard their clothes readily and without committees to tell them how to undress."

Is there a way to promote a "warming of the weather" in international relations through personal and local action? Can we enhance our own security without threatening the security of others and without undermining the very things we are seeking to protect by diverting resources to military production?

From Protest to Proposal

In spite of many dire warnings about the unprecedented dangers of nuclear war, in spite of what once appeared to be a promising Nuclear Freeze movement in America, in spite of all the insightful research and intensive activities on the part of many dedicated individuals and organizations in the American peace movement, the arms race continues unabated. How can this be?

One reason may be the heavy emphasis of the peace movement on what it is against. It is against nuclear weapons, it is against foreign intervention, it is against the arms race. But in a country that equates nuclear weapons, a strong military presence abroad, and "being ahead" in the arms race with national security, the peace movement runs the risk of appearing to be against national security.

However, some voices are emerging that take a different approach to the problem. Instead of simply taking sides in the debate between more weapons and fewer weapons, they are seeking to change the basic terms of the debate. Instead of beginning in opposition to the status quo, they are taking a strong stand in favor of national security, while redefining what constitutes true security in today's world. Several of these perspectives are represented in the following pages.

Although many of these approaches are just beginning to take shape, and by no means could be said to constitute a single coherent school of thought, it is possible to see some general themes emerging. Here are some of the important ones:

- We must broaden our definition of security, if we are to have anything worth protecting from foreign threats. Many of today's most serious threats come from within.
  - Real security means enabling all people to meet their basic needs. That increased levels of military spending is diminishing our ability to meet social needs is well-known and well-documented.
  - Real security depends on ecological sustainability. Our national preoccupation with military defense diverts attention and resources from coping with ecological dangers. The fact that military production is demanding ever-increasing amounts of limited resources presents an ecological problem in itself.
  - Real security means protecting democratic principles and free access to information. Increased militarization demands withholding access to important governmental information in order to "protect national security."
  - Instead of relying solely on our ability to win (or even "deter") a military conflict, we can minimize the conditions that lead to conflict.
  - Decrease dependence on far-flung resources. The need to protect our access to "strategic" resources all over the globe is one of the central driving forces of current U.S. military policy.
  - Decrease America's share of world resource consumption. Should we use military might to protect a level of consumption unattainable by most of the rest of the world?
  - Shift military arsenals to a strictly defensive posture. Reducing threats to potential adversaries eliminates much of the fuel for the arms race.
  - Improve international relations through better communications. "Citizen diplomacy" efforts, international networking, and new communications technologies help break down political and cultural barriers and continue to bring us closer to a "global village."
  - Make America more defensible through non-military alternatives.
    - Minimize vulnerability by decentralizing life support systems. Our present highly centralized systems for the provision of vital needs, such as energy, water, food, data processing, and telecommunications, are very vulnerable to terrorist and other kinds of military attack.
    - Develop a policy of nonviolent civilian-based defense. A strategy of widespread citizen noncooperation can deter and defeat invasions without resorting to violence.
More Weapons or More Community? Toward a Stronger, Safer America

by Wendell Berry

The present situation with regard to "national defense," as I believe that we citizens are now bidden to understand it, is that we, our country, and our governing principles of religion and politics are so threatened by a foreign enemy that we must prepare for a sacrifice that makes child's play of the "supreme sacrifices" of previous conflicts. We are asked, that is, not simply to "die in defense of our country," but to accept and condone the deaths of virtually the whole population of our country, of our political and religious principles, and of our land itself, as a reasonable cost of national defense.

The absurdity of the argument lies in a little-noted law of the nature of technology: that, past a certain power and scale, we do not dictate our terms to the tools we use; rather, the tools dictate their terms to us. Past a certain power and scale, we may choose the means, but not the ends. We may choose nuclear weaponry as a form of defense, but that is the last of our "free choices" with regard to nuclear weaponry. By that choice we largely abandon ourselves to terms and results dictated by the nature of nuclear weapons.

Our nuclear weapons articulate a perfect hatred, such as none of us has ever felt, or can feel, or can imagine feeling. In order to make a nuclear attack against the Russians we must hate them all enough to kill them all: the innocent as well as the guilty, the children as well as the grownups. Thus, though it may be humanly impossible for us to propose it, we allow our technology to propose for us the defense of Christian love and justice (as we invariably put it) by an act of perfect hatred and perfect injustice. Or, as a prominent "conservative" columnist once put it, in order to save civilization we must become uncivilized.

But the absurdity does not stop with the death of all our enemies and all of our principles. It does not stop anywhere. Our nuclear weapons articulate for us a hatred of the Russian country itself: the land, water, air, light, plants, and animals of Russia. Those weapons will enact for us a perfect political hatred of birds and fish and trees. And they will enact for us too a perfect hatred of ourselves, for a part of the inescapable meaning of those weapons is that we must hate our enemies so perfectly that in order to destroy them we are willing to destroy ourselves.

I understand hatred and enmity very well from my own experience. Defense, moreover, is congenial to me, and I am willingly, and sometimes joyfully, a defender of some things—among them, the principles and practices of democracy and Christianity that nuclear weapons are said to defend. I do not want to live under a government like that of Soviet Russia and I would go to considerable trouble to avoid doing so.

I am not dissenting from the standing policy on national defense because I want the nation—that is, the country, its lives, and principles—to be undefended. I am dissenting because I no longer believe that the standing policy on national defense can defend the nation. And I am dissenting...
because the means employed, the threatened results, and the economic and moral costs have all become so extreme as to be unimaginable.

It is, to begin with, impossible for me to imagine that our "nuclear preparedness" is well understood or sincerely meant by its advocates in the government, much less by the nation at large. What we are proposing to ourselves and to the world is that we are prepared to die, to the last child, to the last green leaf, in defense of our dearest principles of liberty, charity, and justice. It would normally be expected, I think, that people led to the brink of total annihilation by so high and sober a purpose would be living lives of great austerity, sacrifice, and selfless discipline. That we are not doing so is a fact notorious even among ourselves. Our leaders are not doing so, nor are they calling upon us or preparing us to do so. As a people, we are selfish, greedy, dependent, negligent of our duties to our land and to each other. We are evidently willing to sacrifice our own lives, and the lives of millions of others, born and unborn—but not one minute of pleasure.

We must ask if the present version of national defense is, in fact, national defense.

A defensible country has a large measure of practical and material independence ... and is generally loved and competently cared for by its people.

To make sense of that question, and to hope to answer it, we must ask first what kind of country is defensible, militarily or in any other way. And we may answer that a defensible country has a large measure of practical and material independence: that it can live, if it has to, independent of foreign supplies and of long distance transport within its own boundaries; that it rests upon the broadest possible base of economic prosperity, not just in the sense of a money economy, but in the sense of properties, materials, and practical skills; and, most important of all, that it is generally loved and competently cared for by its people, who, individually, identify their own interest with the interest of their neighbors and of the country (the land) itself.

And even today, against overpowering odds and prohibitive costs, one does not have to go far in any part of the country to hear voiced the old hopes that moved millions of immigrants, freed slaves, westward movers, young couples starting out: a little farm, a little shop, a little store—some kind of place and enterprise of one's own, within and by which one's family could achieve a proper measure of independence, not only of its own economy, but of satisfaction, thought, and character.

That our public institutions have not looked with favor upon these hopes is sufficiently evident from the results. In the twenty-five years after World War II, our farm people were driven off their farms by economic pressure at the rate of about one million a year. They are still going out of business at the rate of 1,400 farm families per week, or 72,800 families per year. That the rate of decline is now less than it was does not mean that the situation is improving; it means that the removal of farmers from farming is nearly complete.

But this is not happening just on the farm. A similar decline is taking place in the cities. According to Jack

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**Rocky Mountain Institute Seeks Real Security**

The Rocky Mountain Institute, headed by Amory and Hunter Lovins, has pioneered research in the efficient use of energy, water, and other resources. Its recently formed Security Program is applying the least-cost/end-use methodology developed by RMI to the question of national security. This program is a way of following up on the research the Lovinses did for the Pentagon in 1981 on the vulnerability of national energy systems and other life support systems. This research led to their book, Brittle Power: Energy Strategy for National Security (Brick House, 1982).

The following is excerpted by permission from the RMI newsletter.

Traditional arms control efforts continue to fail. Not one treaty between the U.S. and the U.S.S.R. has made either country relinquish any weapon system which its possessor really wanted. Each arms-control treaty has been both preceded and followed by an intensive buildup of both nuclear and non-nuclear arms. Today, American military spending alone is costing nearly ten thousand dollars per second, yet is not visibly making anyone more secure, either militarily or economically.

Traditional arms controllers have become managers of an unabated arms race. The Freeze campaign swayed some public opinion but has not eliminated any weapon system nor changed the public's concept of security. The anti-bomb movement capitalized on a fear of apocalypse, but has neglected Americans' real and pervasive fear of Soviets. Neither effort has crystallized an alternative vision within the public consciousness. Why? Because, we think, Americans will reject time and again the reactive, gloomy, and limiting in favor of the visionary, optimistic, and expansive. The Strategic Defense Initiative illustrates the power of visionary politics. The emotional value of a supposed "nuclear umbrella" is overwhelming any concerns about infeasibility, cost, treaty abrogation, and risk. Equally visionary alternative conceptions of security—practical and cheap to implement, simple to explain, heartening in mood, and authentically speaking to people's everyday experience—are the critical missing link in the search for peace. It is this need which Rocky Mountain Institute's Security Program seeks to address.

To do this, we are exploring the fundamental nature of
Havemann, in the Los Angeles Times, December 10, 1983: “The percentage of households that own their own homes fell from 65.6 percent in 1980 to 64.5 at the end of 1982.” Those percentages are too low in a country devoted to the defense of private ownership, and the decline is ominous. Those of us who can remember as far back as World War II do not need statistics to tell us that in the last 40 years the once plentiful small, privately-owned neighborhood groceries, pharmacies, restaurants, and other small shops and businesses have become an endangered species, in many places extinct.

When inflation and interest rates are high, young people starting out in small businesses or on small farms must pay a good living every year for the privilege of earning a poor one. People who are working are paying an exorbitant tribute to people who are, as they say, “letting their money work for them.” The abstract value of money is preying upon and destroying the particular values that inhere in the lives of the land and of its human communities. For many years now, our officials have been bragging about the immensity of our gross national product and of the growth of our national economy, apparently without recognizing the possibility that the national economy as a whole can grow (up to a point) by depleting or destroying the small local economies within it.

The displacements of millions of people over the last 40 or 50 years have, of course, been costly. The costs aren’t much talked about by apologists for our economy, and they have not been deducted from national or corporate incomes, but the costs exist nevertheless and they are not to be dismissed as intangible; to a considerable extent they have to do with the destruction and degradation of property. The decay of the “inner” parts of our cities is one of the costs; another is soil erosion, and other forms of land loss and land destruction; another is pollution.

It may be, also, that people who do not care well for their land will not care enough about it to defend it well. It seems certain that any people who hope to be capable of national defense in the true sense—not by invading foreign lands, but by driving off invaders of its own land—must love their country with the particularizing passion with which deeply settled people have always loved, not their nation, but their homes, their daily lives and daily bread.

Our great danger at present is that we have no defensive alternative to a sort of hollow patriotic passion and its inevitable expression in nuclear warheads; this is both because our people are too “mobile” to have developed strong local loyalties and strong local economies, and because the nation is thus made everywhere locally vulnerable—indestructible except as a whole. Our life no longer rests broadly upon our land, but has become an inverted pyramid resting upon the pinpoint of a tiny, dwindling agricultural minority critically dependent upon manufactured supplies and upon credit.

Moreover, the population as a whole is now dependent upon goods and services that are not and often cannot be produced locally, but must be transported, often across the entire width of the continent, or from the other side of the world. Our security through a new lens: advanced techniques for the efficient and sustainable use of resources. Our end-use/least-cost methodology points to actions which can make a society truly secure. This approach builds on empirical fact and market economics, and should appeal to both left and right. Consider, for example, two links between energy and security:

- Just one year’s budget for the Rapid Deployment Force, if well spent on weatherization, would about eliminate imports of Mideast oil the United States.
- Just the increase in annual U.S. energy supply from renewable sources since 1979 exceeds all the Arab oil which Americans burned in 1984.

These examples illustrate how transcending a military perspective can reveal practical security options which are stabilizing, peaceful, consensus-commanding, and highly cost-effective. Building on such resource-efficiency insights in many fields, we plan to construct a comprehensive approach to building real security, in the sense of its dictionary definition: freedom from fear of privation or attack.

What makes people safe? What makes people feel safe? Real security starts at home: with reliable and affordable supplies of necessities (water, food, energy, shelter, materials), being healthy in a healthful environment, having a sustainable local economy and a legitimate system of government, enjoying basic human rights and certain cultural and spiritual assets. (Of course, anyone who enjoys these elements of Life, Liberty, and the Pursuit of Happiness can keep them only by ensuring that others have them too: that is, one becomes more secure by making one’s neighbors more secure, not less, whether on the scale of the village or the globe.) RMI has shown that some of these assets which define a secure society can be gotten far more cheaply and reliably through a least-cost/end-use approach than the way it’s done now: least-cost provision of energy and health, for example, could together save trillions of dollars by 2000. Our initial Water/Agriculture research and the Economic Renewal Project have also found anecdotal evidence suggesting similar least-cost approaches in other resource areas...
national livelihood is everywhere pinched into wires, pipelines, and roads. A fact that cannot have eluded our military experts is that this "strongest nation in the world" is almost pitifully vulnerable on its own ground. A relatively few well-directed rifle shots, a relatively few well-placed sticks of dynamite could bring us to darkness, confusion, and hunger. And this civil weakness serves and aggravates the military obsession with megatonnage. It is only logical that a nation weak at home should threaten abroad with whatever destruction its technology can contrive. It is logical, but it is mad.

I have been arguing from what seems to me a reasonable military assumption: that a sound policy of national defense would have its essential foundation and its indispensable motives in widespread, settled, thriving local communities, each having a proper degree of independence, living so far as possible from local sources, and using its local sources with a stewardly care that would sustain its life indefinitely, even through times of adversity. But now I would like to go further, and say that such communities are not merely the prerequisites or supports of a sound national defense; they are a sound national defense. And it is not as though the two kinds of national defense are compatible; it is not as though settled, stewardly communities can thrive and at the same time support a nuclear arsenal. In fact, the present version of national defense is destroying its own supports in the land and in human communities. It is doing this in the apathy, cynicism, and despair that it fosters, especially in the young, but it is directly destructive of land and people by the inflation and usury that it encourages. The present version of national defense, like the present version of agriculture, rests upon debt—a debt that is driving up the cost of interest and driving down the worth of money, putting the national government actively in competition against good young people who are striving to own their own small farms and small businesses.

In spite of all our propagandists can do, the foreign threat inevitably seems diminished when our drinking water is unsafe to drink, when our rivers carry tonnages of topsoil that make light of the freight they carry in boats, when our forests are dying from air pollution and acid rain, when we are sick from poisons in the air.

**New Threats to Security Come from Within**

**by Lester Brown**

Throughout most of the postwar period, an expanding economy permitted the world to have both more guns and more butter. For many countries, however, this age has come to an end. As pressures on natural systems and resources build, as the sustainable yield thresholds of local biological support systems are breached, and as oil reserves are depleted, governments can no longer both boost expenditures on armaments and deal effectively with the forces that are undermining their economies.

The choices are between continued militarization of the economy and restoration of its environmental support systems. Between continued militarization and attempts to halt growth of the U.S. debt. Between continued militarization and new initiatives to deal with the dark cloud of Third World debt that hangs over the world's economic future. The world does not have the financial resources and leadership time and attention to militarize and to deal with these new threats to security.

"National security" has become a commonplace expression, a concept regularly appealed to. It is used to justify the maintenance of armies, the development of new weapon systems, and the manufacture of armaments. A fourth of all the federal taxes in the United States and at least an equivalent amount in the Soviet Union are levied in its name.

Since World War II, the concept of national security has acquired an overwhelmingly military character, rooted in the assumption that the principal threat to security comes from other nations. Commonly veiled in secrecy, considerations of military threats have become so dominant that new threats to the security of nations, threats with which military forces cannot cope, are being ignored.

The new sources of danger arise from oil depletion, soil erosion, land degradation, shrinking forests, deteriorating grasslands, and climate alteration. These developments, affecting the natural resources and systems on which the economy depends, threaten not only national economic and political security, but the stability of the international economy itself.

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Defense Without Violence

by Gene Sharp

Civilian-based defense ... is a defense policy which utilizes prepared civilian struggle—nonviolent action—to preserve the society's freedom, sovereignty, and constitutional system against internal usurpations and external invasions and occupations. The aim is to defeat such attacks. This is to be done not simply by efforts to alter the will of the attacker, but by the capacity to make effective domination and control impossible by both massive and selective nonviolent noncooperation and defiance by the population and its institutions. The aim is to make the populace unrollable by the attackers and to deny them their objectives. A genuine capacity to do that, if accurately perceived, could deter both internal takeovers and foreign invasions.

It is possible to exert extreme pressure and even to coerce by nonviolent means. Rather than converting the opponent, civilian struggle has more often been waged by disrupting, paralyzing, or coercing the opponent by denying the cooperation he needed, and upsetting the normal operation of the system. This is a foundation for civilian-based strategies.

An attack for ideological and indoctrination purposes, for example, would likely involve noncooperation and defiance by schools, newspapers, radio, television, churches, all levels of government, and the general population, to reject the indoctrination attempts, and reassertion of democratic principles.

An attack aimed at economic exploitation would be met with economic resistance—boycotts, strikes, noncooperation by experts, management, transport workers and officials—aimed at reducing, dissolving or reversing any economic gains to the attackers.

Coup d'etat and executive usurpations would be met with noncooperation of civil servants, bureaucrats, government agencies, state and local government, police departments, and virtually all the social institutions and general population as a whole, to deny legitimacy, and to prevent consolidation of effective control by the usurpers over the government and society.

There will undoubtedly always be a need to resist aggression, but now, surely, we must think of changing the means of such resistance.

possibly effective defense against the ultimate weapon is no weapon at all. It may be that the presence of nuclear weapons in the world serves notice that the command to love one another is an absolute practical necessity, such as we never dreamed it to be before, and that our choice is not to win or lose, but to love our enemies or die.

Adapted with permission from "Property, Patriotism, and National Defense," by Wendell Berry—poet, novelist, essayist, and farmer—to be published in a collection of his essays by North Point Press in 1987. © 1986 by Wendell Berry

FROM: Peace Trek Family Coloring Book—see page 14
(Illustration by Diane Schatz)
To End War: A New Approach to International Conflict, by Robert Woito, 1982, 755 pp., $12.95 from:
The Pilgrim Press
132 West 31 Street
New York, NY 10001

Ending war is a task of such great magnitude that a person naturally feels powerless in the face of it. On the other hand, it has become clear that we must end war (and soon!) or war will end us. The question—what can I do?—which is asked rhetorically and emphasizes the futility of any undertaking, can be changed to: what can I do? If this latter question appeals more to you, this book is a good place to begin. If you’ve already begun, it’s a good place to learn some things you didn’t know.

This is the sixth edition of a work first published in 1967 as an annotated bibliography. It’s much more now.

Robert Woito, Director of the World Without War Council—Midwest, in Chicago, contends that “although conflict between people and groups is in the nature of things, organized mass violence is not.” The six conditions essential to a world without war are enumerated as: law, community, development, disarmament, human rights, nonviolence. An extensive annotated bibliography covers these subjects as well as prevalent concerns in world politics—power, military strategy, the national interest, and nationalism. Each section has an introduction which gives an analysis of the topic. The problems raised are always accompanied by specific, practical solutions. The book includes a list of world affairs organizations, with a short description of each, and listings of international peace institutes and American peace studies programs in universities.

Most of the obstacles to creating a world without war have been theoretically addressed in great detail, and the practical steps that need to be taken are also known. Now it remains for us to take those steps. —Johnny Stallings

Johnny Stallings is active in the Portland Greens.

Beyond the Bomb: Living Without Nuclear Weapons, by Mark Sommer, 1985, 180 pp., $7.95 from:
Expro Press
The Talman Company
150 Fifth Avenue
New York, NY 10011

Relatively brief and very readable, this book begins to bring together many pieces of the peace puzzle that are not commonly known. In a sense, the title is misleading, seeming to suggest a narrow preoccupation with eliminating nuclear arsenals, as if nuclear weapons could be removed in the same way we cut out the bad part of an apple, leaving the rest intact. However, Sommer’s “field guide to alternative strategies for building a stable peace” takes us far beyond the relatively familiar territory of nuclear disarmament.

Sommer surveys 10 different approaches that seek to lead us “beyond the Bomb,” devoting a chapter to each: 1. alternative defense (“protection without threat”), 2. alternative security (“not by arms alone”), 3. world order (“as if people mattered”), 4. disarmament (“the road not taken”), 5. nonviolence (“strengths of the weak”), 6. peace research (“beyond permanent pre-hostilities”), 7. economic conversion (“sword into services”), 8. negotiation (“tying to bring?”), 9. game theory (“nice guys last longest”), and 10. alternative futurism (“toward more practical utopias”). He concludes by responding to Robert Fuller’s provocative question, “Is there a better game than war?” (i.e., can we find something in peace to provide the exalation, social unification, and glory that war seems to bring?), and discussing the psychological fallout of living with the Bomb.

Sommer discusses several prominent thinkers, think tanks, and organizations in each chapter, liberally sprinkling the text with quotations. Although the book attempts no tidy synthesis or Unified Peace Plan, a fair amount of convergence emerges among various approaches that may have had little or no previous contact with each other. The puzzle pieces may not all fit neatly together, but putting them side by side like this suggests the outlines of a new peace gestalt.

If you’re looking for new approaches toward a more peaceful world, start here. —FLS
Deterrence and Defense, in theory and in practice, is readily admits that policy research is needed. (Although from Civilian-Based Defense, several historic precedents exist, approaches civilian-based defense less identifying 59 areas where further Civilian-based defense is briefly described in the box on page 9. Gene Sharp holds that converting an entire population to defense is a moral standpoint than from a strategic and pragmatic one. He holds that converting an entire population to pacifism is not necessary for civilian-based defense to work; people only must be united in their desire to defend their country in an effective manner. Sharp claims that civilian-based defense is "a policy, not a creed," and is very wary of tying the strategy to any particular type of philosophy.

These two documents are Sharp's most recent writings on civilian-based defense. Each provides a good introduction to the strategy. National Security Through Civilian-Based Defense is a concise general overview, providing basic definitions and descriptions, and identifying 59 areas where further policy research is needed. (Although several historic precedents exist, Sharp readily admits that civilian-based defense, in theory and in practice, is still in its early stages.) Making Europe Unconquerable is a more thorough discussion of the various elements of a civilian-based defense strategy, along with proposals for how the shift from a military strategy to a nonviolent one might be effected, set in the context of defending Western Europe. It is not so specific to Western Europe, however, that the general principles could not easily be applied elsewhere.

These two documents are an important contribution to widening the security debate, and represent a growing interest in non-military alternatives for defense. -FLS


Working for peace is no easy task. Unless you take good care of yourself, develop communication and organizational skills, and find ways to have fun while doing an otherwise thankless and not-so-lucrative job, you're likely to subject yourself to some psychological violence along the way. Working for Peace is designed to help you make peace with yourself while being an effective agent for peace in the world.

Thirty-five essays by almost as many writers offer suggestions for preventing burnout, improving your personal appeal, overcoming feelings of helplessness and depression, building coalitions, making group decisions, resolving conflicts, communicating to the public, and bringing art, music, theater, and humor into the work for peace.

You don't have to be a peace activist to find this book useful. For anyone doing demanding, sometimes frustrating, work that requires effective communication, decision-making, and organization, Working for Peace offers a wealth of guidelines and practices to bring you peace of mind. -FLS


Looking for information on national peace organizations? Trying to compile a list of local peace groups in your area? Looking for peace-oriented educational programs? Compiling a bibliography of peace-related literature? Look here first.

Peace Resource Book from the Institute of Defense and Disarmament Studies is indeed a comprehensive guide. It contains a brief overview of peace issues and strategies, surveying the full spectrum of activities from traditional disarmament and anti-war efforts to more alternative approaches such as those we discuss in this issue of RAIN. It lists 384 national peace groups, complete with full contact information, brief descriptions, and key words. In addition, it offers a telephone directory, alphabetical index, and zipcode-ordered list of 5700 national and local groups from across the country. Over one hundred college programs in peace education are listed and described, and an...
extensive annotated bibliography is included. Multiple indexes are included for easy cross-referencing.

Peace Resource Book 1986 is the second in a series of such books prepared by the institute, following the American Peace Directory 1984. The institute is headed by Randall Forsberg, author of the "Call to Halt the Nuclear Arms Race," which launched the Nuclear Freeze Movement. —FLS

"Constructing Peace as a Whole System," by Mark Sommer, in Whole Earth Review, Summer 1986, $4.50 per back issue from:
Whole Earth Access
2990 Seventh Street
Berkeley, CA 94710

Mark Sommer, author of Beyond the Bomb (see page 10), goes beyond the material in his book in this article to outline a comprehensive plan for peace. The primary insight is contained in the title—seeing peace as a whole system, a tangible set of institutions and practices that we can construct, rather than the mere absence of war.

The military-industrial complex is a whole system. It is composed of elements such as the Pentagon, defense contractors, government policy-makers, and university researchers. These elements complement and reinforce each other in a synergistic system. While most peace and disarmament activity concerns itself with the destruction of this war system, Sommer contends that we need to be equally concerned with the construction of a peace system. War and militarism must be replaced with something else. Peace needs a positive identity.

Somer identifies four primary elements of a global peace system:

1. Military transarmament—In contrast with disarmament, "transarmament" is concerned not so much with a quantitative reduction of weapons systems as a qualitative "transformation of the arsenals of all nations from weapons of attack to technologies and strategies (both military and non-military) that protect all sides from harm." This includes both the elimination of all offensive weapons while retaining only those purely for protection, and the development of mutually protective defense systems, such as crisis control networks and international monitoring agencies for treaty compliance. It also includes increased nonviolent civilian-based defense (see Gene Sharp's books, page 11) and détente practices such as cultural exchange and scientific cooperation.

2. Political integration—To avoid both "the final shootout" and "ultimate tyrant" (world government gone awry), Sommer recommends establishing "only that minimal degree of global organization required to handle problems that are irreducibly global in character and scale," "a global legal system that becomes essentially a headless leader, enforcing the law without also making it." He identifies several elements of this legal system, many of which already exist in some germinal form.

3. Economic conversion—The restriction to minimal defensive weapons systems demands a major restructuring of those economies now highly dependent on military manufacturing. To prevent massive unemployment and other dislocations, a carefully planned process of conversion to other industries is necessary.

4. Cultural adaptation—"In addition to its various institutional components, a global peace system will necessarily include a nonmaterial dimension, a set of subtle but fundamental shifts in attitude and behavior to make it possible for irreconcilably different societies to coexist." Universal love isn't necessary, just an agreement to tolerate and live with differences. Sommer doesn't seek to eliminate conflict (an obviously unrealistic goal), but rather to "make the world safe for conflict." —FLS

"Force Without Firepower," by Gene Keyes, in CoEvolution Quarterly, Summer 1982, $3.50 per issue from:
Whole Earth Access
2990 Seventh Street
Berkeley, CA 94710

In this article, Canadian theorist Gene Keyes (rhymes with "guys") proposes 10 ways to use military forces for—what?—unarmed, nonviolent actions. He defines his "Unarmed Services" or "disarmies" as "men and women ... forming an entire military command without weapons; well-equipped for mobility and logistics; trained to accept casualties, never inflict them."

Keyes identifies three "military missions" for his "disarmies" in times of peace (rescue action, civic action, and colossal action), four missions in times of conflict (friendly persuasion, guerrilla action, police action, and buffer action), and three mission in times of war (defense, expeditionary action, and invasion). For each mission, he gives a definition, set of precedents, and further ideas of a more speculative nature regarding possibilities. All proposals are well-researched and well-documented.

Keyes' proposals extend nonviolent actions beyond non-cooperation and defense into a realm of constructive social action. They also extend the notion of "economic conversion" to include military personnel as well as industries, preserving some of the challenge and noble sense of mission of military forces while eliminating the
aggressive and violent aspects.
Preposterous speculation? Perhaps. But the prospect of transforming the function of military services is more conceivable with a thoughtfully articulated vision such as this one. —FLS

$4 per back issue from:
Nuclear Times
Room 500
1755 Massachusetts Avenue, NW
Washington, DC 20036

Alternative approaches for seeking peace and security are in the air. Just look at recent issues of this leading voice in the nuclear disarmament movement. The March/April issue heralded a change of format and expansion of circulation, as the magazine began working with eight major national organizations: Architects, Designers, and Planners for Social Responsibility; Citizens Against Nuclear War; Coalition for a New Foreign and Military Policy; Educators for Social Responsibility; the Nuclear Weapons Freeze Campaign; Peace Links; Physicians for Social Responsibility; and SANE.

The first two issues of the new, expanded Nuclear Times demonstrate an expanded analysis and vision in the special feature sections of each issue. March/April’s “Search for Solutions” offers an article on how peace organizations are developing long-term visions alongside short-term plans, an activist/academic dialogue on “getting there from here,” and an article by Mark Sommer on non-nuclear defense.

May/June’s special feature on “Real Security” describes how many organizations (including many of the eight listed above) are seeking to define what they are for ("real security") as well as what they are against (more weapons). It also includes an article by Lester Brown (see box on page 8) on redefining national security. —FLS

“Arms Control, Disarmament— or ‘Alternative Defense’?,” by Mark Satin, in New Options, March 31, 1986, $2 per back issue, from:
New Options
PO Box 19324
Washington, DC 20036

New Options newsletter, edited by Mark Satin, has done much to publicize alternative approaches to defense and security, with several pieces on what he calls "post-liberal" perspectives and organizations in recent issues. Many of the resources in this section of RAIN were first discovered in the pages of New Options. This lead article in issue number 26 offers Satin’s most cogent overview of these "post-liberal" alternative defense approaches. —FLS

FROM: Peace Resource Book
(Illustration by William Harsh)

“Slow Scan to Moscow,” by Adam Hochschild, in Mother Jones, June 1986, inquire for price from:
Mother Jones
1886 Haymarket Square
Marion, OH 43306

The work Joel Schatz has done to promote visualizations of a peaceful world (he and his wife Diane created the Peace Trek poster) and the use of new technologies for U.S.-Soviet communications is well-known to longtime RAIN readers. This recent cover story in Mother Jones has brought news of his innovative work in high-tech citizen diplomacy to a much wider audience.

The article describes the same trip to Moscow that Schatz described in the September/October 1985 issue of RAIN, from a journalist's point of view with more narrative detail. We learn of how Schatz and his Soviet counterpart, Joseph Goldin, are working to enhance citizen-based U.S.-Soviet communications through technologies such as computer teleconferencing, slow-scan television (sending a still picture over a telephone line), and big-screen television linked by satellite. The article gives a good feeling for the sense of adventure that comes from pioneering the use of cutting edge communication technologies to break through barriers of cultural misunderstanding and political animosity. In a time when official relations between the U.S. and Soviet Union leave much to be desired, visionary non-governmental efforts like this give us cause for hope. —FLS

Association for Transarmament Studies
3636 Lafayette
Omaha, NE 68131

ATS promotes the concept of civilian-based defense through its quarterly newsletter, Civilian-Based Defense: News and Opinion, and the sale of books by Gene Sharp. An introductory packet on civilian-based defense is available for $2. Annual membership dues are $5 (includes subscription to the newsletter). —FLS

The Exploratory Project for the Conditions of Peace (Expro)
Room 519
McGuinn Hall
Boston College
Chestnut Hill, MA 02167

Expro is a new organization made up of 25 distinguished academics, theorists, and activists who seek to envision the minimum political and cultural conditions required for a world without war. These conditions together constitute a "peace system" which must gradually replace the war system that currently prevails. Expro seeks to identify and promote the elements of such a system.

Expro was the sponsoring organization for Mark Sommer’s book, Beyond the Bomb (see page 10). Sommer recently founded the group, along with anthropologist W. H. Perry. Other members include Gali Alperovitz, Elise Boulding, Dietrich Fischer, Johan Galtung, Patricia Mische, and Kirkpatrick Sale. —FLS

Business Executives for National Security (BENS)
Euram Building
21 Dupont Circle, NW
Suite 401
Washington, DC 20036

Several professional associations have emerged in recent years to promote peace and disarmament. We have Physicians for Social Responsibility (1601 Connecticut Avenue, NW, Suite 800, Washington, DC 20009), Educators for Social Responsibility (23
Center for Innovative Diplomacy
644 Emerson
Suite 30
Palo Alto, CA 94301

"Think globally, act locally" is a good slogan for many types of activity, but when it comes to determining foreign policy, it seems that we need to leave it to federal officials. Or do we? Not according to Michael Shuman, founder and president of Center for Innovative Diplomacy.

Shuman believes that one of the basic problems with foreign and military policy is that it is essentially undemocratic. He founded CID to promote the participation of citizens and local governments in foreign affairs.

CID encourages such participation on several levels. At the individual level, CID encourages "citizen diplomacy." Citizen diplomats promote peace and understanding between nations through travel, scientific and cultural exchanges, and improved communication channels (Samantha Smith, Jesse Jackson, and Joel Schatz are some examples). CID offers an educational package on citizen diplomacy to its members.

At the local level, CID encourages the development of municipal foreign policies through the equivalent of municipal "state departments." Recent precedents for municipal foreign policy include local government endorsements of nuclear freeze resolutions, nuclear free zones, and divestment of city funds from South Africa. CID is currently lobbying for a "global affairs council" in its home town of Palo Alto to expand on these types of activities. The council would be funded with one percent of the city budget to address such issues as studying the impacts of military spending on Palo Alto, developing cultural relations with the Soviet Union and China, and offering legal assistance to political refugees.

Shuman's vision doesn't stop with Palo Alto, however. He believes that if CID can establish one good model of a municipal state department in Palo Alto, this could catalyze the creation of such agencies throughout the country.

This leads to the next level of CID activity, fostering national and international networks of local officials. At the national level, the groundwork for this is being laid through CID work with Local Elected Officials of America (LEO), a national organization of local officials dedicated to reversing the arms race and rechanneling military money back to America's cities. LEO and CID have hosted workshops for local officials and are working on a handbook entitled Building Municipal Foreign Policies.

CID entered into the arena of international coalition-building through Shuman's participation in the First World Conference of Mayors for Peace through Inter-City Solidarity, held in August 1985 in Hiroshima and Nagasaki, where 200 officials from 100 cities in 30 countries gathered to plan for peace.

CID publishes a newsletter, The CID Report, available for a $20 membership contribution. —FLS

Search for Common Ground
Suite 403
1701 K Street, NW
Washington, DC 20006

The Pentagon sees the world as "us against the Russians"; peace activists see the world as "us against the Pentagon"; Search for Common Ground seeks to go beyond both of these views to find common ground.

Executive Director John Marks notes that what makes conservatives feel more secure (more and bigger weapons) tends to make liberals feel less secure, and vice versa. Similarly, what makes the U.S. feel more secure tends to make the Soviet Union feel less secure, and vice versa. In both areas, no resolution to the problem is possible on its own terms; reframing the issue is necessary. Working toward such reframing is the mission of the "Security Without Insecurity Project," a program of Search for Common Ground co-directed by Andrew Bard Schmookler, author of Parable of the Tribes, and Scott Thompson, a Reagan appointee to the newly formed U.S. Institute of Peace.

Other projects include television productions, consultation, and the promotion of U.S.-Soviet cooperation such as a joint immunization program for children around the world. Search for Common Ground has Citizen Action Project groups in several cities across the country. In all of its work, the organization promotes a shift from adversarial, win-lose ways of interacting toward non-adversarial, win-win approaches. —FLS

Peace Trek Family Coloring Book, by Joel and Diane Schatz, 1986, 44 pp., $5.95 from: Ark Communications Institute 250 Lafayette Circle, Suite 202 Lafayette, CA 94549

Peace Trek is a poster created last year by Diane and Joel Schatz to depict visions of a peaceful world seemingly emerging from a world dominated by violence, greed, and fear. Although the poster itself is richly colored, scenes from the poster are now available in coloring book form to allow you and your family to add the colors and participate in creating the vision yourselves.

Scenes from the book are shown on the cover and elsewhere in this issue of RAIN. A facing page of text accompanies each section to get children (and adults) to ponder issues raised in the pictures. Each page provides space to write in answers to such questions as, "What toys would be most popular in a peaceful world?" and "What could students from different countries learn from each other?"

If you think that children need more positive images than what they get on TV, here's a healthy alternative. —FLS

FROM: Peace Trek Coloring Book (Illustration by Diane Schatz)
Financing Your Ethics

Awareness of socially responsible investing (SRI) — the application of social as well as financial criteria to investing — is on the rise. Major financial publications and TV news programs have carried stories on the subject, stockbrokers and financial planners at least recognize the concept, and press coverage of divestment surrounding the South Africa crisis has brought the issue to the attention of the general public.

Media attention has focused on screening stocks and bonds to exclude companies considered objectionable. A recent report by the Social Investment Forum states that over $100 billion was socially screened in 1985, up from $40 billion in 1984. Increasing numbers of individuals and institutions are deciding that if they would vote against more nuclear power plants or more weapons systems, why should they profit from the companies that make them?

The "Guide to Socially Responsible Investment Funds," which follows the interview below, provides an overview of the social criteria and financial performance of the screened money market and mutual funds which most investors would use.

A second type of investment opportunity is community investing. This is a newer area that has the potential for a more direct impact on society. Revolving loan funds borrow from investors and finance projects that generally cannot get loans from traditional sources, such as housing rehabilitation or small business development in low-income areas. The track record so far indicates that they are safe, but the financial returns are generally (but not always) less than the usual returns on investments.

Community investing raises questions about who controls capital and how it is used. In the article on "Socially Responsive Banking" (page 21), we take a look at how traditional lending institutions direct their (our) money. The South Shore Bank of Chicago is a rare example of how a bank can have a powerful positive impact in the community in which it operates.

The underlying theme of the SRI movement is that we have the right to expect that our money, wherever we put it, is used in a way consistent with our values. Baby boomers, whose values were crystalized in the 1960s and early 1970s, are now advancing in their professions and have money to invest. As people of this generation, as well as those in other age groups, look at how their money is invested, including their pension, college, and church endowment funds, there will be the potential for a dramatic change in the way capital is used in the U.S. economy. — Rob Baird

Rob Baird, a former RAIN staffer, is now an account executive with the Anderson Financial Group in Portland.

SRI: Issues and Trends

The following interview provides a look at the SRI "movement" from the perspective of some of its best known practitioners. The McKenzie River Gathering Foundation, based in Eugene, Oregon, recently sponsored the 1986 Socially Responsible Investors Conference. RAIN had the opportunity to interview some of the conference speakers including:

Joan Bavaria: Founder of the Social Investors Forum, the field's trade association, and President of Franklin Research and Development Corporation (Franklin), an investment management firm in Boston;

Amy Domini: Author of Ethical Investing (see RAIN XI:3) and an investment counselor and Vice President of Franklin;

Chuck Matthei: Director of the Institute for Community Economics, which operates the largest revolving loan fund in the country;

Darrell Reeck: Chair, Department of Religion, University of Puget Sound in Tacoma, Washington; and Vice President of Franklin.

RAIN: What is socially responsible investing (SRI)?

Matthei: The most basic definition is the application of social as well as financial criteria in making an investment decision. In practice it means different things to different investors. Social values and priorities differ from case to case. The one issue that has clearly drawn the greatest attention and investor response is divestment in South Africa. At latest count, 80 billion dollars has been ordered divested from companies doing business in South Africa. The volume of capital managed with more extensive social screens is much smaller, but still significant — in the hundreds of millions — and growing quite rapidly. Social investing ranges from the application of social screens to conventional stocks and bonds to the other end of the spectrum of loans for investments in community development.

RAIN: Why is there a growing interest in SRI?

Domini: What usually gets people interested is this kind of realization: I work three afternoons a week for Physicians for Social Responsibility and I'm getting dividends from General Electric. This doesn't make sense. If I looked at
your checkbook, I'd know you pay $110 for a pair of shoes and give $10 to the Girl Scouts. I'd have an idea of your priorities. If I looked at your stock portfolio, you would be a rare person if I could get any idea of what you cared about. Money is very personal. The last thing you will tell anyone is how much money you make or how much is in your stock portfolio. It's that intimate, yet you haven't integrated it into your life.

RAIN: Rather than SRI, why not make as much money as possible and then decide where to give charitable donations?

Bavaria: We are a total system. In the end there is no way to divorce the ethical decisions from your investment portfolio. At some level people are making decisions on a social basis anyway. It becomes a question of whether you can have the same results in an ethically integrated portfolio.

Who benefits from that housing? Two hundred and fifty households, 36% black, 23% hispanic, 40% white, 41% single-parent women heads of households.

We think that question will be resolved irrefutably with a resounding yes. You can definitely have the same performance, so why not integrate your social values?

Matthei: Many people are skeptical of the results. What is happening now is that all the funds of all different types are building a track record that will overcome that skepticism. The fact is that the Franklins, the Calverts, the Working Assets are posting returns comparable to unscreened portfolios.

RAIN: In your experience, are you seeing that companies that have a more progressive approach outperform others?

Bavaria: It would be presumptuous to draw that correlation. What you can say is that they are smart companies. They aren't ignoring the bottom line, but they are sensitive to what's going on around them and sometimes they are survivors because of that.

RAIN: It is often difficult to site relationships of cause and effect. Can you site instances where a company has been motivated by the SRI movement to change some of its policies?

Bavaria: One of the more recent and most outstanding is that AT&T has divested from South Africa and is offering its employees a South-Africa-free pension alternative. They have a very broad employee base and the employees and shareholders gave them a lot of trouble.

Reeck: In the Puget Sound Area, a company that has just gone public is Microsoft. They have done some innovative things. When they had investments in South Africa, they donated their profits from South Africa to the American Friends Service Committee so that it went back to work for change in South Africa. More recently they decided to pull out of South Africa.

RAIN: What would you suggest for the small individual investor?

Bavaria: When you are just starting to save money you naturally start at a bank, and it gradually becomes big enough until you think of more creative investments. You might think about credit unions rather than the international bank. Credit unions are by definition neighborhood organizations that keep capital in the same neighborhood. There are some banks that are neighborhood-oriented. When you have several thousand dollars, the next step is a mutual fund. Unless you have $100,000 or closer to a quarter of a million its very difficult to be an investor in the stock market.

RAIN: How can people dealing with a Board of Trustees convince them to shift principle investments for which they are responsible?

Bavaria: If they are trying to convince a board or individual trustee, one of the first parameters is to remember that the money doesn't belong to the trustees—it belongs to you or to a church or to a pension. The ownership is really not with the Board, the Board is to serve the owner. If you're
We ought to be looking at how public agencies dispose of publicly held property.

we haven't had a single loan loss yet and we've never been a day late in payment to a lender. The social performance has been just as exciting. We did a brief survey of our housing loans. We found that in $500,000 of housing loans we've leveraged at a rate of five to one. That means that for every dollar that we put directly into those projects comes more than $5 from conventional sources that would not have flowed unless we came up with the missing piece of the financing package. Who benefits from that housing? Two hundred and fifty households, 36 percent black, 23 percent hispanic, 40 percent white, 41 percent single-parent women heads of households. Look at the complexion of deep poverty in the United States; we are building houses for those people and successfully financing them.

RAIN: There was a recent meeting to form a national association of community loan funds; are more of them popping up?

Matthei: The proliferation of community investment funds is particularly exciting. We at ICE convened the first national conference of community loan funds. We assembled representatives of 23 operating funds and 12 developing funds.

This month we will incorporate the National Association of Community Development Loan Funds. The association will provide technical assistance, information, and peer evaluation to member funds to safeguard and strengthen their performance. It will be a national focus for these efforts, working on media relations and presentations to constituencies of major investors such as the insurance industry, churches, foundations, and individuals. It will be involved in research and advocacy. We are now working on an amendment to the 1984 tax law which will make it easier to become involved in community investing.

We are also looking at the development of several new financial mechanisms that will expand the flexibility and volume of community investment activity. We are in the process now of developing a national secondary mortgage market in community investment. We're also negotiating with a bank for a line of credit that would allow them to function as something of a federal reserve bank for community loan funds to give us more liquidity and flexibility. The growth in this community investment field is indeed very dynamic.

RAIN: What can be done to keep capital in the local area?

Matthei: What's needed is both public and private activity. We've spent most of the day talking about what investors can do in the private sector. The social investment movement is also in some sense a grassroots political movement. This movement can help build a constituency that can build more effective public policy. We ought to be looking at how public agencies dispose of publicly held property. We should insist that every public agency give first consideration to economic institutions that have the greatest benefit for the community over the long term.

We should be willing to take even more aggressive action if that's what required. In New Bedford, Massachusetts, the mayor threatened to use eminent domain power to seize a factory to protect it from becoming a runaway shop to Taiwan, leaving the community in shambles. We need to recognize where the community has created value and assert our legitimate interests as a public body.

Finally, I think we need to hold the private institutions more accountable. In Massachusetts we have an organization called the Massachusetts Urban Reinvestment Advisory Group. It monitors bank compliance with the Community Reinvestment Act [CRA]. CRA doesn't go far enough, but it at least says that banks have some responsibility to the communities in which they are taking all that money. A CRA challenge in Chicago resulted in a $135 million settlement from the major banks and a commitment to mortgage money to neighborhood housing development.

It's a movement on several levels. It's a movement on the grassroots level wherever it's conducted. It's a movement of accountability to private institutions. It's a
many more people in the standard investment business are going to see that they have to start investment specialities in their business. They are being asked to do it, but they are holding it at arms length because they don’t believe in it.

RAIN: What efforts are being made to expand interest in SRI?

Bavaria: The Social Investment Forum has engaged in a public relations effort where we are appearing on television programs. The media has been very kind to us and written good things about us. Some less than good things, too, but that’s just part of public debate. There are various kinds of educational seminars. Amy wrote a book; there are some of us who are publishing. There is a lot of outreach, networking, and public relations involved. Last, but not least, we are striving to achieve excellent performance and be wonderful professionals.

Matthei: I think this movement is moving out of its infancy, but is still a very small child. We’ve achieved the goal of putting the concept before the public—at least there is initial recognition in quite a number of quarters. Clearly the next step is a lot of promotional activity—spread the word and debunk the myths. Over time there are going to be some legislative issues, particularly regarding pension fund investments. Pension funds, in the foreseeable future will account for about half the value of the American economy. There is the potential to redirect the economy in fundamental ways. It’s important for us to grow as a movement, not simply to look outward but to look inward. There are a lot of difficult and challenging questions about the nature of wealth, where it comes from, how it is used. What would a just economy look like and how will we get there? We need to look outward and publicize the very credible record we’ve assembled, but we also need to look inward and be willing to challenge ourselves and one another.

RAIN: What directions are emerging in the SRI movement?

Bavaria: We are beginning to see a mainstream interest in what we are doing. I don’t think anything gets done in this country unless it reaches the mainstream. We are a middle class society. Any invention is started by “mad artists” and then others pick up the idea. I think that’s what’s happening now. It’s hitting people it never hit before. It’s not just on the fringes.

Reeck: What we have now is a decade of experience. The discipline has been invented and at present it is being refined. The hard core of social investment counselors is maybe 50 people, but this is a growing area. What’s going to happen is that existing social investment counselors are going to attract more business. Second, many more social investment counselors will come into the business, and third, I think

We need to look outward and publicize the very credible record we’ve assembled, but we also need to look inward and be willing to challenge ourselves and one another.

many more people in the standard investment business are going to see that they have to start investment specialities in their business. They are being asked to do it, but they are holding it at arms length because they don’t believe in it. I don’t think there is any standard ideology of social investing. I see that as a potential weakness. Right now it is a movement-based coalition and like all coalitions it could fall apart. It’s working together now. A great deal of thought needs to go into this issue of what constitutes social investment. The other side is that there is a great deal of freedom for the expression of many different values. No one is going to impose an ideology. The one single value that holds the social investment movement community together is this: we affirm the right of investors to make investments using social criteria.

RAIN: Has the Social Investment Forum considered setting up guidelines, so that as the SRI movement grows it has a credible reference?

Bavaria: Yes, the Social Investment Forum does have a code of ethics that is reasonably broad, but asks members to subscribe to certain disclosure and honesty requirements. What the forum is not equipped to do is evaluate members. The only mechanism we have now is reports of other members. Certainly over time we hope to refine those processes. I think it is very important.

Reeck: The Social Investment Forum is the start of what we need—a social investment professional organization. What I look for in the future is the establishment of credentials in the field. The credentials are, first, that they must have adequate financial analytical training. Second, the person also has to have commensurate social skills. I simply do not believe that any old MBA in finance can become a social investment counselor. That person also has to have a track record in social commitment. Without both social and financial skills, a person is not a qualified social investment manager.

RAIN: Will SRI have an impact beyond an individual’s investments being “clean”; will it have a social impact?

Bavaria: The South Africa situation has been impacted by the divestiture movement. There is not much question that it surprised us. These things have a natural energy, and at some point they take off. I think that what has happened because of South Africa is that people are much more aware of the way corporate America acts in other countries. You can see the research beginning to broaden to the Third World. Are corporations abusing or taking advantage or are they supporting the local economy?

Domini: Money is power. The investment of money can become the exercise of power. The first woman who chained herself to the courthouse door didn’t get the vote. She didn’t get the respect of her family. She didn’t get anything. It takes a lot of people to make a major social change. It takes people doing it from all directions. It takes people who are willing to chain themselves to the courthouse door, build shanty towns on campuses, work through the court system, a shareholder action group, a divestiture group, direct investment—whatever it takes—a multi-pronged approach is needed to create social change.
Guide to Socially Responsible Investment Funds

This brief guide includes a chart of financial information and a description of investment guidelines for funds that screen their investments based on social as well as financial criteria. Note that the term "socially responsible" is very relative. Each fund applies a very different set of criteria.

The New Alternative Fund, South Shore Bank, and the Parnassus Fund seek out a particular type of positive investment (such as solar energy), which tends to exclude negative investments (such as weapons or nuclear power production, operations in South Africa). Other funds also seek positive investments, but are more specific on what they exclude. An example of how different these funds can be is that Pax World Fund is the most thorough of all in excluding military and weapons related products, while Dreyfus Third Century Fund does not specifically screen this area. Calvert Social Investment Fund and Working Assets have the most comprehensive social screens.

Some funds have partial screens, such as Pioneer II. However, its long term financial record is better than the other funds. The Washington Mutual Investors Fund, part of the American Funds Group, has a screen similar to the Pioneer Group. An unusual example is the Colonial Funds, which has a gold fund that does not invest in South Africa.

Some funds do not have a policy of using a social screen, but are fairly free of negative investments. An example is the Over-the-Counter Securities Fund, which invests in small emerging companies. Only a small percentage of its investments are negative, but since it has no policy of excluding certain investments, this could change. This fund does have a policy of not investing in companies operating in South Africa that have not signed the Sullivan Principles.

Mutual funds pool the money of many small investors to buy a portfolio of stocks and bonds. Advantages include that the fund is managed by a professional money manager, securities purchases can be diversified into a wide range of investments, and they are fairly liquid—you can get your money in seven days. Stock mutual funds are generally recommended as long term investments and are judged on long term performance (see Average Annual Total Return). Keep in mind that some of the funds on this chart are only one to three years old—that is a short time to make a judgement about their track records. Looking at the results of the last 12 months alone can be a bit misleading, since almost all mutual funds had impressive returns in 1985 and into 1986.

Money market funds use short term investments to maintain principle and earn a modest rate of return. Returns fluctuate with interest rates, which have fallen over the past year. The chart provides the rates of the last 12 months and the current yield. All three funds provide free limited checking.

The minimum investment is a bit high for some of these funds and may exclude some people. The sales fee or "load" is a factor. It is a one time fee deducted at the time of an initial investment to pay brokers commissions and fund expenses. Some so called "no load" funds do subtract fees in other ways than a front end charge, so you need to look carefully at the fund prospectus.

Investors need to match their own social priorities and financial needs with the socially screened funds. As interest in this area grows, we are likely to see new funds established to offer socially responsible investors more options.

Socially Responsible Funds: Social Screens

Calvert Social Investment Fund, 1700 Pennsylvania Avenue, NW, Washington, D.C., 20006; 800/368-2748

Both a mutual fund and money market fund are available. The fund invests in companies that deliver safe products and services in ways that sustain our environment; are managed with participation throughout the organization; negotiate fairly with workers, provide a good work environment and opportunities for women and minorities; and foster human goals such as creativity and responsibility. It excludes companies primarily engaged in nuclear energy, business activities in South Africa and the manufacture of weapons systems. Investment objective: growth and income.

Dreyfus Third Century Fund, 666 Old Country Road, Garden City, NY 11530; 800/645-6561

One of a large family of funds, this fund invests in companies that show evidence in the conduct of their business, relative to other companies in the same industry, of contributing to the enhancement of the quality of life in America. A company's record is considered in the areas of protection of the environment, occupational health and safety, consumer protection, and equal employment opportunity.

Dreyfus recently decided to exclude companies operating in South Africa. There is no screen for the defense industry. Investment objective: growth.

New Alternatives Fund, 295 Northern Boulevard, Great Neck, NY 11021; 516/466-0808

Invests in companies that have an interest in solar and alternative energy development. The fund states that alternative energy by its nature is an affirmative investment that tends to exclude atomic weapons, South African investments, and environmental polluters. Investment objective: long-term growth.

Parnassus Fund, 1427 Shrader Street, San Francisco, CA 94117; 415/664-6812

Started by Jerome Dodson, the founder and former President of the Working Assets Money Fund. The fund takes a "contrarian" approach by buying stocks that are out of favor with the
### Socially Responsible Funds: Financial Information*

<table>
<thead>
<tr>
<th>Mutual Funds:</th>
<th>Minimum Investment</th>
<th>Date Started</th>
<th>Ave. Annual Total Return+</th>
<th>Total Return—12mo. through 6/86</th>
<th>Sales Fee</th>
<th>Total Assets</th>
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</thead>
<tbody>
<tr>
<td>Calvert Social Investment Fund</td>
<td>$1,000</td>
<td>1982</td>
<td>14.9% (3 yrs.)</td>
<td>32.9%</td>
<td>4.5%</td>
<td>52.4 mil</td>
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<tr>
<td>Dreyfus Third Century Fund</td>
<td>$2,500 (IRA-750)</td>
<td>1972</td>
<td>17.8% (10 yrs.)</td>
<td>18.4%</td>
<td>0%</td>
<td>176 mil.</td>
</tr>
<tr>
<td>New Alternatives</td>
<td>$2,650 (No IRA)</td>
<td>1982</td>
<td>16% (3.25 yrs.)</td>
<td>35.4%</td>
<td>6%</td>
<td>1 mil.</td>
</tr>
<tr>
<td>Parnassus Fund</td>
<td>$5,000 (IRA-2000)</td>
<td>1985</td>
<td>N/A</td>
<td>29.0%</td>
<td>3%</td>
<td>1.9 mil.</td>
</tr>
<tr>
<td>Pax World Fund</td>
<td>$250</td>
<td>1970</td>
<td>14.2% (10 yrs.)</td>
<td>25.2%</td>
<td>0%</td>
<td>40 mil.</td>
</tr>
<tr>
<td>Pioneer II (IRA-250)</td>
<td>$50</td>
<td>1969</td>
<td>24% (10 yrs.)</td>
<td>26.5%</td>
<td>8.5%</td>
<td>2.8 bil.</td>
</tr>
<tr>
<td>Lipper General Equity Fund Average (Lipper Analytical Services)</td>
<td>—</td>
<td>—</td>
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<table>
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<tr>
<th>Money Market Funds:</th>
<th>Current Yield</th>
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<tr>
<td>Calvert Social Investment Fund</td>
<td>$1,000</td>
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<tr>
<td>Working Assets Money Fund</td>
<td>$1,000</td>
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<tr>
<td>South Shore Bank</td>
<td>$2,500</td>
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<tr>
<td>Donoghue’s Money Fund Average (Donoghue’s Money Fund Report)</td>
<td>—</td>
</tr>
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</table>

*This information has been obtained from sources we believe reliable, but cannot be guaranteed. In addition to the above information, an investor should examine a fund’s social screen (see social screens below for a summary) and a fund prospectus.

**Ave. Annual Total Return—Calculated for the number of years in existence up to a maximum of ten years as of Dec. 31, 1985. Assumes reinvestment of income dividends and capital gains distributions.

investment community. This is done when a company is financially sound and also has a good record in these five qualitative "renaissance" factors: 1) the quality of products and services; 2) market orientation, staying close to the consumer; 3) sensitivity to the community where it operates; 4) treatment of its employees; and 5) ability to innovate and respond well to change. Investment objective: long-term growth.

**Pax World Fund, 224 State Street, Portsmouth, NH 03801; 603/431-8022**

Started by two United Methodist Church ministers and a Quaker during the Vietnam War, the fund invests in companies that are not engaged in manufacturing defense or weapons-related products, or in liquor, tobacco, or gambling industries. Seeks out companies with fair employment and pollution control policies. Excludes companies operating in South Africa with the exception of those providing food and medicines. Investment objective: income and, secondarily, growth.

**Pioneer Group, 60 State Street, Boston, MA 02109; 800/225-6292**

A family of funds that started in 1928, now includes three stock funds and one bond fund. In the 1960s it initiated an unwritten policy not to invest in alcohol, tobacco, or gambling, and more recently South African companies. Investment objective: growth and income.

**South Shore Bank, 71st & Jeffery Streets, Chicago, IL 60649; 312/288-1000**

South Shore Bank has a Development Deposits program that seeks deposits from all over the country to support its innovative lending program (see "Socially Responsive Banking"). Accounts available include savings, checking, money markets, and certificates of deposits at competitive rates. Every depositor is insured up to $100,000 by FDIC.

**Working Assets Money Fund, 230 California Street, San Francisco, CA 94111; 800/223-7010**

The fund seeks investments that create jobs and develop the American economy, such as housing and small business, promote the advancement women and minorities, and bargain fairly with employees. It avoids firms that pollute the environment, manufacture weapons as a principle business activity, generate electricity from nuclear power, or have a substantial presence in a foreign nation controlled by a repressive regime such as South Africa.
Socially Responsive Banking: One Out of 14,500 Ain’t Good

by Rob Baird

• How many U.S. banks seek advice from a Bangladesh banker on how to make “micro-loans” to low-income women?
• How many banks put more money into low-income neighborhoods than they take out?
• How many banks have a long term commitment to improving the low and moderate income neighborhoods in which they operate?

The South Shore Bank of Chicago is the only one out of approximately 14,500 commercial banks in this country that is doing all of the above. And it still turns a good profit.

Why would a U.S. bank even consider making “micro-loans” to low-income women? It started with Ronald Gryzwinski, who was president of another bank on the south side of Chicago, and three colleagues. They were concerned that government and nonprofit organizations were unable to adequately address the problem of pervasive urban decline. He left the bank in 1968 and went to the Adlai Stevenson Institute, then part of the University of Chicago, to try to find an appropriate business structure for an organization that could successfully promote urban reinvestment.

Gryzwinski fixed on the 1970 amendments to the Bank Holding Act, in which a key provision states, “Bank holding companies possess a unique combination of financial and managerial resources, making them particularly suited for remedying our social ills.” Gryzwinski was convinced that a bank holding company was the model he was seeking. He and his team then needed to find a bank and a neighborhood in which to test the idea.

By the early 1970s, South Shore Bank was a declining bank in a declining neighborhood. Formerly a white affluent neighborhood, in less than 10 years South Shore became a predominantly black low and moderate income community. Systematic disinvestment in such neighborhoods by banks and insurance companies precipitated the decline. The owners of the South Shore Bank had no experience or interest in figuring out how to respond to this new clientele. After an unsuccessful effort to move the bank downtown, they put it up for sale.

Gryzwinski and three associates assembled 11 investors, formed a bank holding company in 1972 and purchased the South Shore National Bank in 1973. In addition to the bank, the holding company has three affiliates. City Lands

Ronald Gryzwinski, Chairman of South Shore Bank's holding company (Photo courtesy of South Shore Bank)
Cecil Lawrence, of Genesis housing co-op, and his children (Photo by Shlomo Crudo)

Corporation is a real estate development company that is rehabilitating low-and moderate-income housing with emphasis on cooperative ownership, and is promoting commercial development. The Neighborhood Fund is a venture capital firm that finances minority business. The Neighborhood Institute (TNI) is a nonprofit organization that seeks public and private grants to provide assistance in job creation and housing rehabilitation.

The South Shore Bank and its affiliates have developed effective mechanisms for making credit available to low-and moderate-income people thereby stimulating urban development. Since 1973, almost $65 million has been dispersed in "development loans." Bankers have traditionally avoided such lending, assuming they would lose their shirts. Yet the repayment rate on these loans is 98 percent. The total capital invested by the four divisions of the holding company combined will exceed $160 million by the end of 1986.

Funding Housing Cooperatives

Genesis is an example of South Shores's success. Initiated by TNI, Genesis is a "sweat equity" project in which community members worked eight hours a week for one and a half years to renovate an abandoned 26-unit apartment building. Once completed, workers would be members of the cooperative owning the building.

Cecil Lawrence, a bus driver since 1976, was the first to apply for membership in Genesis. He had doubts when he saw the building. "It was dirty. The place was boarded up and a section was burned out. It was a total disaster. I didn't believe anyone could transform a place that looked that bad."

Lawrence and 14 other members, with instruction and training from professional carpenters, hammered, painted, re-finished floors, and hung doors. With the building completed in 1982, Lawrence was elected the first President of the Genesis cooperative. "When you become a member of a co-op, your responsibility changes. You're not just a renter any more. You have to be able to take care of your own building and its problems because nobody else is going to do it for you," says Lawrence. Lawrence's building has become one of the cornerstones of a new TNI program for improving the entire block.

Lawrence recently lead training sessions for Genesis Two, a 27-unit TNI cooperative being rehabed. Because of the experience, he may pursue professionally the training of co-op members in building management.

Reversing the Money Drain

Gryzwinski and his associates founded the South Shore Bank with the dual goal of initiating a permanent community renewal process and making a profit. The bank has been profitable since 1973 and in 1985 had a 1.1 percent return on average assets (the industry's norm is 1 percent). This has been done while bringing a net inflow of capital into the South Shore area. Banks are generally considered to be doing an adequate job if 50 percent of deposits go to loans. Increasing criticism is leveled today at financial institutions because much is loaned outside the community—often in real estate or foreign loans. Other deposits go into the securities portfolio to boost shareholder profits. South Shore's innovation is to reverse the flow of capital. At least 65 to 70 percent of its deposits, many of them from outside Chicago through its "Development DepositSM" program (see "Guide to Socially Responsible Investment Funds"), are in loans of which half are within its community. The remaining assets are kept liquid and are used for normal bank management.

South Shore Bank's success has led it to expand its operations to meet the credit needs of other deteriorating communities. A new branch is being opened in Austin, a large (138,000 people) far westside community in Chicago. The bank and its affiliates will bring their expertise to provide homeowner loans, rehab large-scale multi-family buildings, and make loans to small business. Expansion to a depressed rural area is under discussion.

Bankers have traditionally avoided such lending, assuming they would lose their shirts. Yet the repayment rate on these loans is 98 percent.
Benevolent Banking in Bangladesh

In 1983, Gryzwinski and Mary Houghton, the President of South Shore Bank's holding company, were invited by Dr. Muhammed Yunus to come to Bangladesh and advise him on establishing a bank based on South Shore's experience in community development. Gryzwinski and Houghton were skeptical at first, but after a few visits they realized that the problem in both countries was the same: how to make credit available to low-income people.

Dr. Yunus was raised in an upper class Bangladeshee family. Educated in the United States, he returned to Bangladesh to teach classical economics at Chittagong University. As he walked from his classroom to the village where he lived, he saw extreme poverty. Eighty percent of the people live on a subsistence diet. The benefits of classical economic theory do not reach most Bangladeshes.

Yunus confronted local and national bankers. The vast majority of loans, with rare exceptions, went to wealthy families and industrial enterprises, and defaults were far in excess of American standards. Why not loan to small enterprises and people in villages?

The Grameen Bank was started by Yunus with the goal of creating a credit system that would meet the needs of Bangladesh's poor people. A group loan technique was developed. To receive a loan, individuals must join a group of five unrelated villagers who "supervise" each other, resulting in a default rate under two percent.

To receive a loan, individuals must join a group of five unrelated villagers who "supervise" each other, resulting in a default rate under two percent.

South Shore Bank is this country's model of a community development bank. There are other types of smaller financial institutions that are successful in promoting community development. Dwelling House Savings & Loan Association is located in the Hill District area of Pittsburg, one of the city's poorest neighborhoods. Over 760 home mortgage loans and 180 home improvement loans have been made to low-income people who could not get loans from traditional lending institutions. Dwelling House has 3,500 investors in 45 states who have insured savings accounts earning 5 1/4 percent. The founder, Robert R. Lavelle, and the black majority board, view Dwelling House as a Christian ministry.

Credits unions are socially responsive by their nature in the sense that they invest in the local community, making loans (generally consumer loans) only to their members. Small banks and savings and loans also tend to keep money in their community. Many credit unions go beyond local investing and concentrate specifically on community development lending. The National Federation of Community Development Credit Unions (NDFCDU) in New York is an information clearinghouse for credit unions which serve predominantly low-income communities. NFDCCU helps start new credit unions and assists its 100 members in building their management capacity and in obtaining capital for community development loans. The Self-Help Credit Union in Durham, North Carolina, is an excellent example of a community development credit union. It provides loans and technical assistance to worker-owned businesses and loans for low-and moderate-income housing. Accounts are federally insured and offer competitive rates.

In the last few years, revolving loan funds have sprung up around the country to address the problem of unmet credit needs. These are usually nonprofit organizations that take

Dr. Muhammed Yunus, of Bangladesh's Grameen Bank (Photo courtesy of South Shore Bank)
loans from investors, who often set their own terms, and provide below market rate loans to community development projects. There are now approximately 35 funds most of which belong to the National Association of Community Loan Funds. The Institute for Community Economics in Greenfield, Massachusetts, has the largest fund. ICE has made $3.5 million in loans to community development projects in 20 states.

Some traditional banks are now funding community development projects, but seldom take the initiative. A coalition of organizations in Chicago, led by the Woodstock Institute and the National Training and Information Center (NTIC), collected data on the lending practices of three of Chicago’s largest banks. They found that the banks were not adequately meeting the credit needs of their community. In 1984, they negotiated with the banks to provide over $170 million in community development loans. In the first two years of operation the banks have had no defaults and are very pleased with the results. Richard Hartnack of First National Bank which made a large commitment, said “We’re not going to end it when we reach $120 million.”

Since the Chicago success, NTIC and the Woodstock Institute has provided technical assistance to citizen groups in other cities around the country including St. Louis, Philadelphia, and San Antonio. Over $200 million has been allocated by some of the major banks for community development loans.

People who care how banks use their money should go to their banker and say: “I want to see the way you lend your money and where you lend it.”

Community Reinvestment Act: Encouraging Local Input

The tool being used by community organizations is the Community Reinvestment Act of 1977. CRA requires federal regulatory agencies to encourage financial institutions to help meet the credit needs of their local communities and assess how well they meet those needs. If a bank or savings and loan association wants to open a branch office, relocate, or acquire or merge with another company, CRA requires regulators to consider the views of any interested party. Community groups that feel a bank is not meeting local credit need can directly participate in the review process. Banks are required to make public a CRA statement outlining its local community and the types of loans available.

Hopefully, the banks that are now committing money to community lending due to CRA challenges will continue their programs. Becoming a permanent source of urban redevelopment is difficult. According to Joan Shapiro, Vice President of Development Deposits at South Shore Bank, “It’s not easy. You need a long term commitment. Bankers see much quicker and easier short term profit opportunities. You need to have committed management in there for the long term and shareholders that buy into it. If your shareholders demand profit maximization and no deviation from standard commercial lending practices, this isn’t going to happen. A major barrier is the lack of experience and lack of availability of loan officers sensitive to these issues.”

Dozens of bankers have toured South Shore Bank and a few say they are planning to initiate similar programs. Although South Shore bank staff have been generous with their time, Shapiro says that it is not a bank priority to convince other banks to meet the credit needs of their community. She suggests, “People who really care about the way banks use their money should go to their banker and say: ‘I want to see your CRA statement. I want to see the way you lend your money and where you lend it. What is the percentage of your assets in loans, rather than your securities portfolio? Of those loans, what percent are actually in our community? What kinds of loans? What percentage of your board or officer core are women or minorities? In nine out of 10 cases the answers to those questions won’t be satisfactory.”

If a bank is not meeting its community’s credit needs, depositors can move their funds to a more responsive institution, possibly a smaller bank or savings and loan, a credit union, or a socially screened money market account. In the long run, a commitment to community development lending by traditional institutions is needed, whether it comes as a result of a CRA challenge or by the example of successes such as South Shore Bank. Shapiro asks, “Can you imagine what would happen if the big money center banks put half of their resources back into their communities”? 

Socially Responsible Plastic Money

Would you like to help stop the arms race and feed the hungry every time you say “charge it”? It’s now possible. The managers of Working Assets Money Fund have established the Working Assets VISA card.

When someone signs up for a card, $2 of the $22 annual fee goes to nonprofit organizations such as Sierra Club, Oxfam, and Amnesty International. Each time you use your card, five cents goes to the same groups. The interest rate is 17.5 percent.

The Working Assets Money Fund is a money market account that avoids investing in firms that manufacture weapons or pollute the environment and seeks investments that create jobs. Once the money fund was well established, shareholders were surveyed to find out what other financial services were desired. The number one response was a credit card. Although some of the Working Assets board members felt that they should be creating ways to save money rather than spend it, the shareholders got what they wanted.

For more information, contact: Working Assets, 230 California Street, San Francisco CA 94111; 415/788-0777.
ways to reverse this pattern and foster healthy urban communities. One recommendation was to redirect public funds to aid small businesses, which have local loyalties and less tendency to relocate than large, externally owned businesses.

One indication of the potential of small businesses for job creation was identified in Santa Monica. The Pico Neighborhood Association's jobs program had no success placing people with large firms that were recipients of public subsidies and which had entered into hiring agreements. On the other hand, the response from local firms which had nothing to gain from the city was overwhelming. Over 85 percent of the program's placements were with these small businesses.

Another recommendation was for cities to secure enforceable commitments when large companies do receive subsidies, as well as making sure that new jobs will match local skills, or that training programs will be offered.

This report is valuable in raising consciousness of city officials and the public. The citizens groups are working to change local city policy, but perhaps this report will also influence other American cities. —JM

Employee Ownership in America is the first book to provide an overview of employee ownership that is simultaneously broad, factual, and insightful. The authors describe an ambitious research project conducted between 1982 and 1984, which attempted to measure the success of 37 employee-owned firms ranging in size from 15 to 7080 employees.

What did they find? They may disappoint advocates of more democratic strains of worker ownership with their conclusion that monetary reward and management's commitment to employee ownership are stronger determinants of employee satisfaction than structural elements such as minority versus majority ownership and voting rights. (How-

company terminates the plan or sells the factory without allowing its non-voting 'owners' any say in the matter.)

The authors describe different programs to attract large investors and building costs, usually mostly go to skilled non-residents, or city residents, and display how they work to destroy the support structures of low-income communities.

Cities spend millions in programs to attract new industries and subsidize them with grants and building costs, usually with the rationale that new jobs will be created to keep the cities healthy. Promoting Colonialism at Home documents renewal projects in these cities, with research done by local citizens groups. The results overwhelmingly establish the failure of the projects to improve the quality of life for city residents, and display how they work to destroy the support structures of low-income communities.

Not only do residents not gain jobs, many lose them. Local industry which employs most locals is pushed out when land values and rents increase, as large companies buy up land. Low-income residents themselves are pushed out as housing is lost to large firms' space requirements, and residential rent rises.

Population drop, median income changes (which can accompany either gentrification or worsening unemployment), decreases in number of occupant-owned housing, and drops in availability of affordable housing are documented. By putting these into the context of the cities studied, Promoting Colonialism at Home demonstrates the direct relation between worsening conditions in low-income neighborhoods and municipal programs to attract large businesses.

The monitoring groups recommended
Building the Green Movement,
by Rudolf Bahro, 1986, 211 pp., $9.95 from:
New Society Publishers
4722 Baltimore Avenue
Philadelphia, PA 19143

Rudolf Bahro, one of the leading theorists of the German Greens (die Grünen), resigned from the party in June of 1985. In his resignation speech, which is included in this book, he said that he was not getting out of politics, just out of party politics. What went wrong?

This book, which is a collection of articles, interviews, and speeches, traces Bahro's growing dissatisfaction with the compromises that Greens are increasingly willing to make with the Social Democrats (SPD). He is opposed to an alliance with the SPD because they are unwilling to question the basic economic goal of production for world markets and are committed to military defense. Bahro advocates immediate unilateral disarmament. He thinks that our industrial civilization needs to be abandoned, rather than reformed. It is, in his words, "a train heading for the abyss." He does not believe that concerns about unemployment should be allowed to compromise plans for radical social and economic change. This is because the longer we participate in the "Megamachine" the more irreparable will be the damage done to the ecosystem, or which all living beings are a part and upon which we all depend.

Bahro urges the creation of a "postmodern, post-industrial" way of life. This presupposes "the existence of a network of interlinked base communities.... These would produce their basic needs in the way of food, clothing, housing, education, and health care to a large extent by their own labour [and] decide on some specialized production mainly for exchange in the immediate locality...." He thinks that the government should provide the start-up capital for these communities.

Bahro says that "we should be prepared to entertain the idea that in the last two hundred years evolution has gone wrong." He states his case zealously: "You want participation in government and joint responsibility for this richest, most powerful European province of the empire with which the white man, irresistible through his capitalist system, has overrun the whole of humanity and driven it towards the end of history. We on the contrary would like to dissolve the empire, to liquidate it in the same way that one liquidates a bankrupt business, in order to save something for a new start."

Bahro is a student of history. He believes that we are at a time of dramatic historical change, and maintains that our society is "extremist" in character. This analysis poses a radical challenge to people active in the environmental and peace movements who want to achieve their goals without fundamentally transforming our civilization. According to Bahro industrial society doesn't have problems, it is the problem. —Johnny Stallings

Johnny Stallings is active in the Portland Greens.

Pacific Shift, by William Irwin Thompson, 1985, 197 pp., $15.95 from:
Sierra Club Books
730 Polk Street
San Francisco, CA 94109

Put on your thinking caps and pack your best dictionary—its time for another journey through the landscapes of Western culture with our guide, William Irwin Thompson. Our trip stretches from the "first cultural ecology of the West," when Neolithic villages and towns in Mesopotamia were transformed into cities in the fourth millennium B.C., through the second cultural ecology of empire, centered on the Mediterranean, through the third cultural ecology of industrial civilization, centered on the Atlantic, to the fourth, emerging ecology of planetary culture, focused on the Pacific Basin and space. Along the way, we encounter such cultural manifestations as the Enuma Elish, the Babylonian creation myth; Homer's Iliad and Odyssey; Biblical prophets and priests; the Gutenberg Galaxy; Newton's mathematics; Don Quixote; Finnegans Wake; punk fashions; the Talking Heads; Zen Buddhism; Disneyland; and Ronald Reagan.

"The considerable skill of Ronald Reagan seems to come from his actors sensitivity to an audience. Jimmy Carter and Ted Kennedy were seriously intent—the one pious, the other fervent—but both failed to appreciate that in a media culture, ideas don't count, or vote. Reagan is always wrong but never mistaken in his understanding that the American presidency is a role and not a task.... The content of Ronald Reagan is small-town, mid-western, Protestant, and fiscally conservative America, but he, much more than the threatening Zen Governor Brown, has been the one to effect the shift from New York to Los Angeles, from Europe to the Pacific Basin, from steel mills to space shuttles and Star Wars. Just as Nehru put Gandhi picture on every wall in India and then led the nation away from cottage industries to capital-intensive economies of scale and nuclear reactors, so Reagan invoked every platitude of the Reader's Digest in the very act of calming Middle America as he put them to the side of history." Thompson is a cultural historian, so he deals with meta-history, or myth. He is an extraordinary thinker who lets his vivid imagination play with thought-images until they fall into place, creating a wonderful story.

Thompsons story describes the evolution of Western culture through the present. As for the future, Thompson is wise enough to know his limitations. He describes the direction of culture, but recognizes that conjectures of the future are "narrative fictions" that tell us more about ourselves now than about the actual future. Still, he does indulge a bit here and there: "When I encounter a culture like that of the Hopi, where there is no religion but where the whole way of life is sacred, I tend to think that the future will be more like that: not sacerdotal, but sacred; not institutional, but universal. Imagine a life like that of the traditional Hopi lived in an environment of aerospace technologies and micro-electronics that permit the machines to be, not large, industrial, and threatening to the trees, but small, tuned to a different scale, and symbiotic with living things."

The "fourth cultural ecology" will also see the emergence of an "enantiomorphic polity," an opposite-encompassing society. "Precisely because pollution cannot go away, we must generate only those kinds of pollution we can live with. Precisely because enemies won't go away, ... we have no choice but to love our enemies. The enantiomorphic polity of the future must have capitalists and socialists, Israelis and Palestinians, Bahais and Shiites, evangelicals and Episcopalians." —Jeff Strang

Jeff Strang is a student of cultures and a former RAIN staffer.
by Duane Elgin and Ann Niehaus*

The U.S. democracy is at a turning point, and the ability to communicate effectively will play a pivotal role in determining our destiny. To build a strong democracy, we must move from the Information Era (with its one-way flow of information, or monologue) into the Communications Era (with a two-way flow of information, or dialogue).

This article discusses this transition from two perspectives. First, it discusses the challenges we face in building a communicating democracy capable of responding to urgent domestic and global problems. Second, it presents a practical response that takes full advantage of new communications technologies capable of transforming citizen dialogue: Electronic Town Meetings.

The Challenges:
Building a Communicating Democracy

- Effective power in a modern democracy is the power to communicate effectively. Without effective communication among individuals and communities, there is relatively uninformed choice among citizens. This is the case today.

* With editing contributions by Carol Dilfer, Ted Becker, and Frank Nuessle. © May, 1986 Duane Elgin and Ann Niehaus, All Rights Reserved
Thus, communication is not "just another issue"—it is the basis for understanding and responding to all issues. Lack of effective communication is a primary cause of widespread citizen dissatisfaction with many governmental processes and policies.

- **The single most critical problem of our times is the lack of systematic vigorous and sustained two-way communication within our democracy.** Nearly all the current major concerns in America are communications challenges. The pivotal choice of our times is between effective communication (and informed decision-making) and ineffective communication (and uninformed, ineffective, vacillating decision-making). For example:

  - The continually spiraling arms race is symptomatic of a vast gap in communications in the U.S. and the U.S.S.R.—both among and between the peoples of these countries about their own, and each other's, national priorities and intentions.
  - The environmental crisis is, in large part, a communications crisis. We will not eliminate toxic wastes from our world until we can visualize their destructive magnitude and impact. Acid rain, the greenhouse effect, nuclear waste, and the like are severe, growing problems that require mutual understanding between government, industry, and the American public on the relative values of health, jobs, and national security.
  - The U.S. will not mobilize a large-scale response to poverty at home or abroad unless we continue to see compelling images of human suffering and need. The challenge to achieve sustainable economic development is also a communications challenge.

- **Our democracy is in a race between communication and catastrophe.** We require a new level of communication if we are to respond democratically to the unyielding problems of the nuclear arms race, toxic wastes, resource depletion, etc. Without a quantum leap forward in our collective capacity to imagine and communicate, there is little reason to think America can respond to the ever-proliferating pattern of domestic and global problems.

- **What is required is a broadening, deepening, and intensification of our democracy.** We need a conscious democracy, where citizens deliberately attend to emerging issues and conditions, debate their options, and then, in an ongoing process of social learning, choose their preferred pathways into the future. We currently have a reactive democracy, where citizens are uninvolved and preoccupied until a crisis compels momentary attention and a reflexive, ill-informed response.

- **What is required is a new national consensus.** Without a shared sense of national purpose and vision collectively conceived, we cannot establish clear national priorities. Without broad-based priorities to guide us, we neither can choose among the many competing claims on national resources nor make plans for the future without fear that they will be met by fierce resistance or massive indifference. A new national consensus enthusiastically supported by the American public can only emerge from vigorous and sustained dialogue among the American people.

- **These challenges demand that we fundamentally reconsider how we want to use broadcast television, our primary tool of mass social communication.**

**The Immense Power of Television is Being Wasted**

- **Broadcast television is the most potent information source in our country.** Surveys show that:
  - Two thirds of the American people get most of their news from television; roughly one-half receive all of their news from TV.
  - Ninety-nine percent of all American homes have a TV set (more than have indoor toilets, stoves, or refrigerators).
  - The average American watches TV more than four hours each day.

These data show how television has become the central nervous system of our democracy. If an issue does not appear on television, it—for all practical purposes—does not exist in our social awareness.

- **On a national basis, 95 percent of prime-time hours is allocated for entertainment programming; less than five percent is devoted to informational programming.** Americans are, as a result, entertainment-rich and knowledge-poor.

- **Leading television journalists are fully aware that television is not meeting the informational needs of our democracy.**

  "... we fall far short of presenting all, or even a goodly part, of the news each day that a citizen would need to intelligently exercise his franchise in this democracy... This clearly can lead to disaster in a democracy." —Walter Cronkite, 1976

  "If people are given baby food when they are hungry for a meal of information, they will be undernourished and weakened—and then what will become of the country that is the last, best hope of man?" —Charles Kuralt, 1982

- **To devote 95 percent of prime-time television to fantasy-based programming is to cripple the capacity of our democracy to comprehend and respond to critical challenges.** We are being lulled into a false sense of security and continuing our steady drift toward collapse.

**Americans Want a New Generation of Informational Programming**

- **National polls by reputable firms (for example, Gallup, Roper, and Harris) show Americans are dissatisfied with current programming.**
  - Roughly half of U.S. adults are dissatisfied with current TV programming.
  - A majority rate news and public affairs programs as the "most enjoyable" on TV.
  - A majority believes that lack of access to TV for communication about important issues is a serious problem.
A majority thinks that the public should have the most to say about what we see and hear on TV.

Choosing Our Future's 1984 poll findings confirm national findings. An in-depth scientific poll was conducted in the San Francisco Bay area in the spring of 1984. Key findings include:

- People said they wanted an average of thirty-five percent of prime-time hours devoted to reality-based programming. This contrasts sharply with the average of three percent currently available in the San Francisco Bay Area.
- Ninety-four percent of those polled said that TV stations should do more to learn what kinds of issues the public wants to know about.
- A substantial majority (71 percent) thought TV should have more live, citizen debates on important public issues.

FCC Deregulation Has Pushed Control of Programming to Local Stations and Communities

- Sweeping deregulation of TV programming, in 1984, coupled with continued requirements for broadcasters to serve the public interests, have produced a new situation of local control over television programming. Formerly, the FCC served as "watchdog" of the public interest; now, all responsibility for programming rests squarely with local stations and communities.

- TV deregulation presents citizens with a golden opportunity for bringing democracy swiftly into the Communications Era. New rules governing broadcast communication are still being invented. The situation is ripe for creative social innovation. Our challenge is for local communities to awaken themselves, muster their social will, organize fairly and effectively, and then represent their communication needs directly to local broadcasters who have a strict (but never before effectively enforced) obligation to the community.

Addressing the Challenges: Building a Communications Model For the Future

Electronic Town Meetings could reinstate the ideals and results of the New England Town Meeting on local, regional, and national scales. They also could provide a new format for Americans to exercise their Constitutional rights to assemble and petition for redress of grievances. The people of the United States are fully capable of building the technological and social system that can support Electronic Town Meetings. The physical technologies required to conduct Electronic Town Meetings are simple, familiar, and readily available: television sets, telephones, and computer hardware and software. Powerful systems already have been developed for business, and it is a straightforward task to apply them to the needs of our democracy.

How Electronic Town Meetings Might Work

Imagine that you have just seen a compelling, well-balanced documentary on an issue of great concern to you. An Electronic Forum follows in which a pre-selected, random sample of citizens are asked to give their "vote" on questions raised by a program moderator in the TV station. The citizens are in their homes throughout the community and are watching the Forum on TV. Their telephones are linked to the computer in the TV station, and they "vote" by dialing the number that corresponds to their chosen response to the question. A number of studio discussions, phoned-in ideas, and follow-up votes ensue. The moderator can thereby "talk with" these community representatives and rapidly get their responses to key questions like:

- How many care about the issue being raised?
- How strongly?
- Is more information about the options wanted?
- What other ideas, compromises or creative solutions are acceptable?
- Has a working consensus emerged?
- Does the community wish to petition for policy changes?

Mobilizing Social Awareness and Social Will

- Everything required to move the U.S. democracy rapidly into the communications era already exists. We have the technology of communication, the clear legal obligation of stations to serve the public interest, the creative talent, the push of hard necessity, the pull of enormous opportunity, and more. What is now needed is the broad social awareness of our opportunity, coupled with the social enthusiasm and will to realize it.
An Illustrative Menu of Interactive Programs

For all our experience with entertainment programming, "citizen feedback" television represents an unexplored frontier. This brief menu just begins to explore the potentials for interactive communication.

Electronic Town Meetings—A "democratic sample" of randomly-selected citizens responds to issues, candidates, or choices in a live, "dial-in" dialogue. If consensus is strong, citizens can decide to send an electronic petition to elected officials that respectively expresses community sentiment and requests change.

Viewer Feedback Forums—With massive TV deregulation in 1984, individual communities now have a new responsibility to work with local broadcasters to meet their changing communication needs. Viewer Forums would enable each community to give direct feedback to broadcasters.

Regional and National Forums—Electronic gatherings to enable two or more communities to discuss key issues of regional or national concern (for example, toxic wastes, hunger and homelessness, the arms race, budget priorities, etc.)

Candidate Forums—Electronic meetings where candidates for all levels of government offices meet, discuss issues, and respond directly to citizen viewers. This enables direct interaction between candidates and voters on a variety of issues.

International Dialogues—These programs could open the electronic window of television to let us communicate with our neighbors around the world and see their living circumstances, viewpoints, hopes, and fears. People-to-people dialogues can build new trust, understanding, and shared visions for the future.

Local "Live Aid"—This could be a local equivalent to the "Live Aid/Farm Aid" programming, but with an important difference. This program mobilizes the community on an ongoing basis to respond to crisis situations selected by the community, and uses local talent and resources to do so.

Alternative Views of the Future—To build a sustainable and meaningful future, we must first imagine it. Electronic meetings could help us do that. For example, programs might dramatize major choices for the future and use feedback to explore citizen preferences and expectations. They could invite a variety of people—children, experts, presidential candidates, everyday citizens—to portray their hopes and fears for the future.

These examples illustrate the wide range of programming innovation that is now possible. We need to shake ourselves free from habitual limits of thinking about television and begin to imagine the dozens of different types of feedback programs that have the promise of being engaging, interesting, and powerful. A whole new generation of communication is waiting to be created.

The situation is ripe for a "win/win" outcome. Broadcasters and advertisers would profit from a loyal, interested, and growing audience of citizen-viewers. The public would benefit from innovative and socially relevant programming. Governments would benefit from an accurate, timely assessment of informed and deliberated public opinion on high priority issues and problems selected by the public itself. Working together we can achieve rapid and productive changes in the ways we use our primary tools of mass communication.

We need to act boldly and creatively. Now is not the time for timidity. We need to reclaim every ounce of our ingenuity and social entrepreneurship as communities and as a nation. This is not the time to imitate the past, but to dare to invent a communications system that can support us in building a sustainable future.

The strongest nations in the communications era will be those that communicate most effectively. The U.S. seems to have enormous evolutionary potential: a heritage of free speech, remarkable tolerance for diversity, and the most advanced system of mass communication on the planet. It would be a tragedy to waste this potential. The social, economic, and political costs of not utilizing this system are already great and promise to increase in the near future.

Each generation must renew its contract with democracy in ways that respect the unique demands of the times. In this generation, our contract with democracy presents citizens with the unprecedented challenge of developing tools and skills for mass social communications to support a new level of citizen dialogue, imagination, and consensus. Our challenge, literally, is to "communicate our way through" these perilous times and build the foundation in human trust and understanding for a sustainable, satisfying, and secure future.

Summary

Our democracy faces a choice between communication and catastrophe. We have the technology and responsibility to move our society beyond the Information Age and into the Communications Era where two-way, or interactive, communication using broadcast television can enable us to build together a workable and meaningful future.

This is a sample of the work of Choosing Our Future, a non-partisan, national "communications advocacy" organization based in Menlo Park, California. For more information, contact Choosing Our Future, 109 Gilbert Avenue, Menlo Park, CA 94025; 415/853-0600.

The U.S. seems to have enormous evolutionary potential: a heritage of free speech, remarkable tolerance for diversity, and the most advanced system of mass communication on the planet. It would be a tragedy to waste this potential. The social, economic, and political costs of not utilizing this system are already great and promise to increase in the near future.
A Trickle Down Theory of Media

by Walter Truett Anderson

This was written as a background paper for a U.S. Association for the Club of Rome meeting. The two-day conference in Washington DC was aimed at promoting effective coverage of long-term global issues in the communications media. The Association can be contacted at 1325 G Street NW, Suite 1003, Washington, DC 20005. —FLS

We are living in a time in which the basic dimensions of politics are changing—moving toward a global scale and producing exponential change in many areas of life. In this new framework of political space and time, new “problems”—such as acid contamination, terrorism, what to do about biotechnology—emerge regularly and require social responses. Sometimes they fit into pre-existing categories of thought, but more often they require new ways of thinking. Without ideas and concepts of a different kind from those that have governed thought in the past, we are unlikely to be able to cope with the challenges of the years ahead.

Over three decades of working as a professional journalist while observing the media from the outside as a political scientist, I have come to the conclusion that the American media are open to new ideas, but that this is subject to certain cultural ground-rules that we should try to understand to be effective.

The first is that we are a genuinely anti-intellectual society in which ideas are consistently undervalued. Americans on the whole place a high priority on “action” and do not ordinarily think that actions are motivated by abstract ideas. “Doing something” is invariably preferable to “talking” or “head tripping.” As a result, journalists frequently are not aware of their ideological biases, because they think they don’t have any. While ideas may be popularized in the mass media, they never originate there. As a general rule, the larger the circulation or audience of a given communications medium, the more its content is likely to be borrowed from other sources. The mass media generally want ideas that are instantly recognizable, and are not interested in trying to present new or unfamiliar ideas—such as, “soft path,” “global problematique”—that have not already gained some currency and/or respectability.

Hence the “trickle-down theory”—that new ideas are more likely to be formulated and expressed first in more specialized media and picked up later in the mass media. The hierarchy is roughly as follows:

- Specialized print publications;
- Books;
- Newspapers and general magazines;
- Movies and television.

At the bottom of the list is commercial advertising, which is more or less devoid of ideas as such but highly imitative and quite sensitive to whatever is going on in the general culture. The current increase in health consciousness, for example, is reflected in ads which sell the health or nutritional benefits of their products.

There are of course many refinements to this. Some newspapers are more interested in ideas than others, an op-ed page is more likely to have new ideas than a news section. Magazines follow other magazines. A Hollywood promoter I used to know said that if he wanted to get a picture spread on something in LIFE he would first get an article in Time, which was easier to do and would set up the LIFE pitch.

And there is some trickling up, but not of ideas. The “Where’s the beef?” slogan found its way into a presidential campaign, but its effect was to distort rather than clarify the debate on issues. It was a non-idea that substituted for an idea.
Suburban Renewal: The Task Ahead

I attended a workshop in 1983 where Sim Van der Ryn made a passing comment that the design challenge of the 1990s would be “suburban renewal”—redesigning the suburbs along more ecological lines. Given the pervasiveness of suburban development in recent years, it’s clear that any vision of a sustainable society must come to terms with suburbs. Being a suburban-raised boy who had written off the suburbs as fundamentally anti-ecological and unconvivial, I was fascinated by the suburban renewal concept. However, it had remained only a vague desideratum for me until the recent publication of Sustainable Communities.

In addition to strategies for suburban redesign, Sustainable Communities includes design and redesign ideas for cities and new suburban development as well, complete with several case studies. Also included are essays by other writers, such as Paul Hawken, David Morris, and John Todd.

The following is excerpted by permission of Sierra Club Books from Sustainable Communities: A New Design Synthesis for Cities, Suburbs and Towns, by Sim Van der Ryn and Peter Calthorpe, 1986, 238 pp., $29.50 (postpaid) from: Sierra Club Store Orders, 730 Polk Street, San Francisco, CA 94109. —FLS

by Sim Van der Ryn

Suburbs have always been with us, but the modern idea of the suburb grew out of reaction to the ugly, crowded, inhumane nineteenth-century cities and towns that quickly expanded to accommodate the dispossessed peasantry who became the industrial work force. The suburban city is a late twentieth-century version of the nineteenth-century frontier town built to exploit the bountiful resources of a then virgin continent. Modern suburbs are truly ‘pioneer’ urban ecologies where little time or thought has been given to the subtleties of place, shared amenities, a sense of community, permanence, long-term costs, or sustainability. The emphasis is on speed (‘time is money’), short-run profits, standardized products, mobility, and mass.

England, with its tradition of modest villages and commons, individual gardens and cottages, spawned both the Industrial City and the romantic reformist countermovement toward garden cities. The Garden City, with its curving streets, broad lawns, open space, and horizontal form, was a guiding model for the earlier suburb. In the United States, where the primacy of the individual and family is held supreme, the miniaturized estate that suburbia promised held immediate appeal to the growing middle class. The earliest suburbs developed in the first several decades of this century, but real momentum and the extension of the ideal into the dominant urban form developed after World War II. The war probably had a lot to do with it. Millions of men experienced a mass-produced environment for the first time. Moving became a way of life, and one outpost was much like the last one, even though they were at other ends of the continent, or the world. National corporations and advertising media, fresh from their success in the war effort, asserted a new dominance over local and regional tradition.

In the 1940s, American productive capacity and technological know-how were the mass-industrialized engine that won the war and rebuilt a devastated European economy. That capacity, coupled to the pent-up demand for housing, the dollars saved by families during the war, and the formation of new families, all came together to demand massive amounts of new housing quickly. With generous government mortgage insurance programs and other forms of assistance, experienced builders and new entrepreneurs entered the market, building vast communities almost overnight.
The suburban boom was born, and through the next thirty-five years changed the face of America.

There were also forces that fueled the boom during these next years. Government policy favored decentralization through such programs as the highway building program, the most massive public works program in history. Increasing mechanization and larger units of production in agriculture and improved transportation and food processing reduced the need for the traditional truck farming base around central cities. Farmland was converted to housing and shopping centers with no apparent ill effect on the food supply or cost. For producers, suburbs offered convenient, predictable markets for their products. Indeed, modern marketing researchers can predict consumption patterns from zip codes. The suburbs demanded massive new investments in new energy-supply and distribution facilities, but with plentiful supplies of oil and natural gas, and with favorable long-term returns, utilities eagerly geared up to service the new markets. Their strategy was to encourage consumers to use more energy so that that new capacity would be fully used. (In the 1950s, utility company offices gave away light bulbs.)

For a long time, the suburban pattern seemed to be the perfect expression of the American ideal: a healthy, secure, convenient, and pleasing place for young families to fulfill their aspirations for the good life. The frequent moves demanded by the job meant that one could move from one familiar environment to another three thousand miles away. The goal was few surprises, a ready-made community of people with similar backgrounds and jobs, and steady progress toward material well-being: a mass participation in the American dream. Our basic premise is that the present form of the suburban city is grossly wasteful in its use of energy, materials, and land; and thus—under conditions of increasingly scarce and expensive resources—its form must adapt to more frugal and sustainable patterns. Changing demography and living patterns render the present form increasingly unstable and dysfunctional.

Perhaps it is the persistence of the forces that brought the suburban form into being—forces that are embodied in both ideals and values, as well as physical form and functioning mechanisms—that makes the transformation of suburban form such a challenging problem.

Redesigning the Suburban Fabric

How can existing suburban form begin to adapt to another set of values—conservation, cooperation, place-centeredness, more expensive basic activities—values which we believe will become more important in the coming years? The acceptance of these values and their expression in built form are the basis for the creation of sustainable communities.

We have articulated the most basic building blocks of the suburban city: (1) the limited-access highway linking together an entire metropolitan region of suburban cities and providing commuter access to industrial and commercial workplaces; (2) the strip arterial lined with commercial services; (3) the regional shopping mall and commercial center; and (4) the block pattern of detached houses designed for nuclear families.

We started by considering the residential pattern and suggesting some adaptive strategies for redesign.

The Suburban Block

A first strategy is aimed at deemphasizing the importance of the street. In the typical suburban block, much of the total land area is wasted. Streets that serve only local traffic are usually oversized. Typically, there are two lanes for traffic, each 12 feet wide, and two parking lanes each eight feet wide, for a total width of forty feet, not including sidewalks. In most cases, streets transect neighborhoods until they reach arterials. One design solution is to remove many of these through streets, limiting parking to clusters at the end of the now dead-ended streets. Solutions similar to this have been carried out in Europe, while Berkeley, California, pioneered the reduction of through traffic in residential neighborhoods by installing traffic barriers. The results of this redesign of streets are fewer accidents, a better use of outdoor space, and a greater neighborliness, in addition to making land available for other uses such as food production and common outdoor activities. A similar approach is illustrated in the Village Homes community in Davis, California. The intention of the designer-developers, Mike and Judy Corbett, was to provide narrow streets and allocate the space saved to commonly shared backyard areas. Their plan was compromised to meet local standards. The houses, instead of being oriented to the street, generally have a small private fenced
The addition of a solar greenhouse provides multiple benefits such as lower heating costs, a place for plants, improved thermal comfort. (FROM: Sustainable Communities)

area off the street, with primary private and shared space along common areas in back. These design principles can be applied to suburban redesign with relative ease (see title-page illustration). The use of narrower and fewer through streets also encourages the use of walking and bicycling within the neighborhood, particularly since, with many streets closed, foot and bicycle paths would offer the most direct path between points. Another implication of narrower streets is the use of low-speed mini-vehicles for many types of local trips that are now performed by full-sized automobiles.

Density and Diversity Within the Block

As we have seen, the idea of the suburb was to provide separate homes for nuclear families, once the dominant social form in the country. However, social structure has been changing rapidly, with some regional variation. While the family consisting of man and woman and one or more children is with us to stay, the number of households composed of unattached individuals of one or both sexes has increased dramatically, as has the number of single-parent households. Combined with a vast increase in the number of women in the work force, a lower birth rate, and housing costs that have risen far more rapidly than real income, this is having dramatic effects on housing patterns in the suburbs and elsewhere. People can purchase less space today for the same proportion of their income. Yet, much single-family housing is underused, when it is still occupied by parents whose children have left. Single parents band together to share child-rearing, and singles find that they must share housing and use facilities cooperatively. All of these trends point to opportunities to redesign the suburban block pattern toward greater density of use and more adaptable housing forms. In many parts of the country, housing costs, economic pressures, and changing demography are already producing changes, though perhaps they are not well documented, because they largely exist within what economist Scott Burns has called the 'Household Economy.'

Owners eager for some added income, or to accommodate the housing needs of a child or relative, turn basements, attics, and garages into 'in-law' units, which are generally not permitted in 'single-family' neighborhoods. People increasingly run small businesses out of their home, again violating single-use zoning dictums that were intended to keep 'harmful' or conflicting uses out of exclusively residential neighborhoods.

What we advocate is to indeed encourage these kinds of densification and diversification of the suburban neighborhood. From the point of resource use and sociability, the suburban density of six to eight houses to the acre, or about fifteen to twenty people per acre, means a high per-capita cost of building and maintaining services such as roads, utilities, and any form of transportation. From the point of view of sociability, it is a density that is too low to support corner stores, cafes, and all the kinds of places we associate with conviviality. In the suburb, the locus for the neighborhood becomes the backyard potluck and the Saturday TV football game. In the Sunnyvale case study, we proposed that in exchange for closing streets and clustering parking (which might mean in some cases that people would have to walk several hundred feet to their houses), zoning would permit 'zero lot line' additions to dwellings and the addition of second units.

Increasing density within the block pattern goes hand in hand with remodeling to add space and improve energy use by reducing energy losses, as well as making direct use of the sun for heating. At the residential scale, conserving energy is always more cost-effective than redesign to capture additional sources of energy supply. So the cycle of remodeling and adding on to the suburban home will be combined with conservation measures such as insulating walls and ceilings, replacing single glazing with double glazing, reducing infiltration by adding vestibules, and providing air-to-air heat exchangers. Once these basic steps to increase comfort and reduce energy loss have been taken, the stage is set to further reduce the need for external energy by capturing the sun. The solar techniques that work best in remodeling or 'retrofitting' existing small buildings include the 'solar attic' and solar greenhouses. The solar attic approach works in houses that have pitched roofs. The rafters and ceiling are superinsulated and lined with black plastic. Double-glazing panels are installed in the southern slope, together with 'heat rods': plastic tubes filled with salts that have (20x) times the heat-retention capacity of dense materials often used for heat storage such as concrete. The heat captured in the attic is then distributed through a conventional duct and fan system to other parts of the house. The advantage of this system, besides its relatively low cost, is that it makes use of space that is already built and cannot be used for living. The solar greenhouse consists of a wood-framed, plastic enclosed addition—often only four feet to six feet wide, built off a south side of the house. It acts as an extra wall, reducing heat loss and capturing heat when the sun is shining. This simple addition, which also serves as a place to grow salad vegetables year round, can be built for less than a thousand dollars. A more elaborate solarium room provides additional living space and thermal capacity in mass walls or floors which hold onto the sun's heat.

In summary, a move toward 'living in place' brought about by a slower growing, more localized economy and persistently high fuel costs will have profound effects on the traditional form of the suburban block. Cars will no longer be the exclusive means of transportation for all trips, and the
space devoted to the car will be reduced and turned over to more productive uses, such as gardens or playing areas. People will spend more time at home and spend more of their ‘leisure’ time on activities such as maintenance, gardening, and improvements. People will band together in cooperative projects involving the use of common space, such as a sauna, or a home cannery, or a basketball court, on what was once street. More people, representing more diverse age grouping and income mix will be living there in a greater variety of living accommodations.

The Strip

The strip consists of generally one-story establishments lining each side of four- to six-lane arterials filled with constantly flowing traffic. The buildings typically cover only a small portion of their site, with perhaps 80 percent of the area reserved for parking in front, on the sides, and in back. The strip is totally designed to cater to auto access. In addition to easy parking, strip buildings use large signs, bright lighting, and large display windows for maximum visual attention from passing automobiles. The strip is the purveyor of goods and service to the mass automobile culture. Auto supplies, sales, and repair are well represented, along with fast food, gas stations, one-stop shopping stations, leisure, and recreational supplies, and often neighborhood convenience shopping. Older strips often evolved from their earlier function as neighborhood shopping streets, and often still contain a large proportion of local small business, while newer strips present use with a complete catalogue of standardized nationally franchised services and sales operations.

The opportunities for redesign of the strip arise from its low density, its relatively high turnover of businesses (particularly in the older, more marginal locations), and its inherent structure as a channel for movement. The redesign of the strip is closely linked to the redesign of residential neighborhoods previously discussed. One strategy is to make it possible for people to walk to neighborhood shopping, rather than getting into a car and cruising the strip for a number of miles, stopping here and there. This can be accomplished by concentrating housing density in the blocks directly behind the arterial, and turning what is now “the back door” of strip-oriented facilities into a front door that is reached by foot or bicycle from the residential neighborhood behind it. We have previously discussed closing and interrupting residential through streets. This begins to provide the space to create pedestrian access to shopping and additional housing sites. As neighborhood shopping becomes more oriented to the neighborhood behind it, buildings can begin to cluster together into nodes rather than as isolated elements on a linear auto access route. As activities shift more toward pedestrian, bicycle, or neighborhood mini-vehicle access, need for devoting so much space to parking is severely reduced.

A second strategy involves the gradual restructuring of the single-purpose sparsely-covered strip into a dense linear mixed-use zone that integrates light industry, offices, places of employment, community facilities, housing, neighborhood shopping, and possibly energy and food production. This concept was explored in the redesign of the Sunnyvale El Camino strip into a multi-layered linear mall. The typical width of the strip (600 feet in the Sunnyvale case) provides plenty of room for different configurations. In the redesign, activities are gradually separated from the street, points of auto access are concentratred, and redundant streets are closed. Thus, the arterial becomes ‘exclusively’ a traffic

A diagram of a rehabilitated strip center to include pedestrian links to the surrounding neighborhoods and to add recreational facilities.

An overview of the “strip” renewed as a “Lifebelt.” Activities are clustered at major nodes lined with parking and a greenbelt. (FROM: Sustainable Communities)
The Asphalt Eater

As we all know, we live in a technoculture—a landscape filled with sophisticated tools and large machines. The usual image of Appropriate Technology is of a scaled-down, human-sized, slightly funky technology in the hands of smiling neighborhood folks with granny glasses and clean overalls: Western versions of the happy folk you see on the covers of *China Reconstructs*. However, in order to realize the solar biological vision, we need tools that are at least as awesome as the icons of the technofantasy culture. Today we have huge machines to turn living soil into concrete ribbons, and, lo and behold, we have concrete everywhere. So we designed a machine that eats roads and turns them back into productive landscapes. Here's how it works: Up front is a tool like a sod cutter that rips up the roadbed into chunks. Behind it, a chisel plow prepares the subsoil for agriculture. An asphalt catcher and conveyor belt carry the material onto a heating bed or perforated griddle that softens the asphalt, separating it from the gravel. The asphalt oil is burned in the gasifier unit that powers the entire machine, and the waste heat is fed back into the griddle to melt the asphalt. The separated gravel is conveyed off to trucks for reuse in construction.

Behind the gasifier unit is the auger unit, which drills holes for trees. Each hole is automatically injected with sewage sludge from a tank on the machine which is filled at the local sewage plant. Behind the auger boom is the planting platform with workers who are busy placing tree stock in the new holes.

(Excerpted from Sustainable Communities)

FROM: Raise the Stakes, Planet Drum Foundation, Box 31251, San Francisco, CA 94131. (Illustration by Leonard Rijs.)

channel, without the hazards and distractions of the present strip, where cars are constantly pulling in and out of traffic, visual chaos confuses and pollutes the eye (see Peter Blake's *God's Own Junkyard*) and traffic lights impede traffic flow.

The final stage in the redesign of the strip is a reduction in the number of vehicle lanes and a conversion of one or more lanes to exclusive or light rail use. Once again, the key to more efficient transportation is achieving a density that can support it.

The suburban city embraces the automobile with exu-

berance and the single-minded devotion of the truly religious. The resulting pattern is a linear horizontal grid that is diffuse and uniformly low-density and undifferentiated. As we shift from total reliance on the automobile to a greater mix of modes, the sprawl begins to coalesce into more distinct nodes and neighborhoods, and the grid and surrounding land uses configure into a clearer hierarchy of density and function and pattern within the existing local fabric. In its complete transformation, the strip becomes a horizontal linear city of mixed-user housing, community services, offices, shopping, and industry serving local 'consumer sheds' behind it, while efficient transit provides access to workplaces and other nodes of activity along its length.

The Shopping Mall

Another feature of the suburban city is the shopping mall. These centers—an innovation of the 1950s—are designed to serve regional markets and always include several 'anchor' tenants: major national and regional department stores carrying a wide variety of merchandising. Around the anchors are other major tenants specializing in various kinds of consumer hardware. Rounding out the center are local specialty shops and often a sprinkling of business and professional offices.

The first malls sprang up around the new suburbs and were designed as a convenient central alternative to city shopping areas, which typically were congested, and difficult to park in. The malls quickly brought together a wide enough selection of goods and services so that consumers could buy in a car-free, relaxed environment. The shopping mall became the closest thing to a town center for many suburbanites.

Our strategy is to turn the mall into precisely that: a town center. The commercial heart is there; what is lacking is housing improvement and a greater variety of activities to provide sufficient diversity. © ©

© by Sim Van der Ryn and Peter Calthorpe
ACCESS: Ecological Cities

The Urban Ecologist: The Ecocity Adventure, edited by Ariel Rubissow and Richard Register, 1986, 68 pp., $4 from:
Urban Ecology
1939 Cedar Street
Berkeley, CA 94709

This is the tenth anniversary publication of Berkeley's Urban Ecology Inc. Unfortunately, it's a kind of swan song for an organization that has contributed as much as any to the development of the "eco-city" vision and, in bits and pieces, to the manifestation of that vision. The booklet describes the history of Urban Ecology, its achievements, and its slow decline in recent years. In addition, it documents the experiences of five other projects that have attempted the wholesale design, planning, and creation of ecological cities.

All of these eco-city projects were begun less than 20 years ago amidst the flush of sixties idealism and ecological awareness; most have been in decline or have transformed their mission in recent years. The documentation of the various visions, organizational processes, achievements, bad breaks, and mistakes along the way is very useful. A budding urban ecologist has much to learn here.

These are the projects described:

• Arcosanti—This ambitious construction project, seeking to build a super-high-density, integrated, three-dimensional city in the middle of the Arizona desert, is the brainchild of visionary architect Paolo Soleri. At its inception, Arcosanti was planned to have more than 1,000 residents by now and 5,000 by the year 2000. Although Soleri's vision and design principles have inspired many, few people are left building the vision, and construction is far behind schedule. Some attribute this to Soleri's single-handed control over the project.

• Marin Solar Village—In 1979, Sim Van der Ryn, Peter Calthorpe, and other urban designers announced plans to create an integrated, energy-conserving subdivision of 1,900 dwellings on the site of an abandoned Air Force base in Marin County, California. Although the plan had several brilliant people working for it and hundreds of active supporters, political and organizational difficulties prevented it from ever getting off the ground.

• Experimental Cities—This plan to build a humane and ecological community/ university of 30,000-50,000 inhabitants once had as many as 40,000 supporters. However, the organization's vision changed over time toward a belief that human relationships needed to change before a large-scale community was possible. Now it operates a center for education about male-female relationships.

• Cerro Gordo—This plan to build an "environmentally sound, human-scaled new town" for 2,500 people on 1,200 acres near Eugene, Oregon, met with many frustrations as its supporters waited for over 10 years to get clearance to build on the land. However, with the clearance received last year, Cerro Gordo's members who stuck with the project through hard times now have the chance to begin building their dream.

• Auroville—This community of 500 in India centers around a spiritual focus, and incorporates environmental restoration into its philosophy and practice. Although Auroville has had its share of difficulties over the years, the community perseveres.

The booklet concludes with a thoughtful assessment by Richard Register of various eco-city building strategies, some thoughts about what lies ahead for urban ecological design. —FLS

discusses the transformation of some of these lots from debris-strewn eyesores into projects in which the neighboring community has participated in developing gardens, playgrounds, or parks. Carefully documented, yet still lively, the book begins by tracing the history of urban spaces in both the U.S. and Europe. It then describes 10 community open space projects in New York City. Each is discussed in terms of group characteristics, neighborhood context, site design, use and maintenance, funding, control, and permanency.

Finally, the problems and successes of each project are consolidated into general recommendations for groups wishing to launch similar efforts. As the book notes, community open space projects are no longer considered fringe developments, but are even institutionalized in some cities. —Cherry Britton

Cherry Britton is part of the RAIN Reading and Dining Salon.

The Fruition Project
PO Box 872
Santa Cruz, CA 95061

The Fruition Project is dedicated to promoting public access to food trees. Surplus trees are donated by nurseries, and given to anyone who will plant them in a spot accessible to the public. Besides the tree give-away, the project puts out a newsletter, Fruition ($10/year), which gives information about which tree varieties do well under what conditions, how to start from seed, and so on. Other articles tell about tree planting in different parts of the world.

Long-time closet tree planters surface in the interesting and substantial letter section, supporting the work of the project from around the globe. People offer stories about starting their own fruition projects or getting a tree to survive under adverse conditions.

Some commercial growers, however, are opposed to public planting of fruit trees that are unsprayed, fearing the possibility that they could host pests that would spread to commercial orchards. The Fruition staff consequently changed their California tree recommendations to no longer include domesticated species that can't grow without cultivation (like peaches, plums, cherries), but instead natives (like avocado, fig, loquat, hazel/filbert) that are more adapted and resistant. —JM
ACCESS: North American Bioregionalism

Bioregionalism—the rooting of human communities in their natural communities—has been around as a word and a self-conscious movement on this continent for about a decade. (Of course, the indigenous peoples of this continent rooted their communities in natural communities for thousands of years, but this was done without either the word or the movement.)

The bioregional movement took its first major step toward continent-wide support, networking, and planning with the first North American Bioregional Congress (NABC I) in May 1984, in Kansas City, on the tallgrass prairie north of the Missouri River.

The next big step in furthering bioregionalism in North America will be NABC II, to be held August 25-29 at Camp Innisfree on the Leelanau Peninsula of Michigan. The event will be divided between a conference-style period (August 25-27) and a working congress for the remainder of the time. The conference will include speakers, workshops, slide shows, panels, informal networking, and a bioregional fair with exhibits. The exact format of the congress will be determined by consensus of the participants, but will probably include focus group meetings and plenary sessions.

Registration materials may be obtained from the NABC II Office, Box 3, Bixey, MO 65618. The registration deadline is August 12.

With this watershed event on the horizon, we felt it appropriate to survey the territory of bioregional publications in North America. The following list is by no means exhaustive, but does represent some of the more significant voices bringing a new "reinhabitory" sensibility to their respective regions.

The New Catalyst, quarterly, in Canada $12/year, in the U.S. $18/year (Canadian) from:
The New Catalyst
PO Box 99
Lillooet, BC V0K 1V0
Intelligent and graphically pleasing, this recently established quarterly tabloid from British Columbia has quickly become a favorite. Each issue offers a breadth of perspectives on a given theme. Content is primarily, though not exclusively, centered on life in the mountainous region of southern British Columbia. —FLS

Siskiyou Country, bimonthly, $10/year from:
THE SISKIYOU Regional-Educational PROJECT
PO Box 989
Cave Junction, OR 97532
For four years Siskiyou Country has served the mountainous region of southwestern Oregon and northwestern California. Each issue contains about 10 pages of news briefs, keeping readers well-informed of local dangers and opportunities in such matters as forestry, fisheries, mining, toxics, and economics. Feature-length articles, poetry, and thought-provoking editorials round out the content. Siskiyou will soon be switching from a magazine to a tabloid format. —FLS

Ridge Review, quarterly, inquire for price from:
Box 90
Mendocino, CA 95460
This handsome magazine serves all "ridge dwellers" of the Northern California coastal ridges. Each issue contains several articles and a few poems organized around a theme. We haven't seen a recent issue, but what we've seen has been first rate. —FLS

The Drift, quarterly, $8/year from:
Driftless Bioregional Network
Route 2, Box 103
Viroqua, WI 54665
This brief newsletter reports on the activities of the Driftless Bioregional Network, serving the unglaciated ("driftless") area of the upper Mississippi River Basin, including southwest Wisconsin, southeast Minnesota, northwest Iowa, and northwest Illinois. —FLS

Kindred Spirits Journal, quarterly, $5/year from:
PO Box 542
Lewisburg, PA 17837
Serving the Pennsylvania area, this tabloid mixes theme features, practical how-to, and local news into a balanced bioregional blend. —FLS

Katüah, quarterly, $10/year from:
Box 873
Cullowhee, NC 28723
Invoking the Cherokee name for its area, this "bioregional journal of the southern Appalachians" contains a wealth of visionary and practical information for local reinhabitation. —FLS
ACCESS: Architecture


"If, as architects, we have profound disagreements with the human reality shaped by contemporary society, how are we to build?" asks C. Richard Hatch in his introduction to The Scope of Social Architecture. This book is an effort to show how architecture can contribute to liberation—how it can provide a counterform for a society that does not yet exist.

Through 26 case studies and critical/analytical commentaries, from both Europe and the Americas, Hatch makes an excellent argument for democratic control of the built environment and the architect's role in providing it.

First comes the critique of the role of the architect. Since building costs money, the architect "has always been on the side of money: the wrong side," says Amsterdam architect Herman Hertzberger.

The book focuses on the process architects and planners have used to promote user involvement in places as diverse as Delft, Holland; Harlem, New York; Paris, France; Mexicali, Mexico; Roanoke, Virginia; and Bologna, Italy. But the book goes well beyond user participation in design to examining content and form as well. Social Architecture helps people rediscover both their need and their ability to shape the world they live in.

The array of authors is wide-ranging. Christopher Alexander and others discuss "The Production of Houses" in Mexicali, Mexico while John F. C. Turner criticizes SAR's (Stichting Architecten Research) Papendrecht and Adelaie Road projects. Community organizer Jaime Bordenave, architect John V. Mutlow and landscape architect Frank Villa Lobos discuss the continuing story of Cabrillo Village, a cooperative developed with 90 farmworker families of Mexican origin near Saticoy, California. Pier-Luigi Cervallati, Chief Planner, City of Bologna, discusses historic preservation with participation and without displacement while Manuel Castells and Bruce Dale comment on its relevance to American cities. Roberto Segre discusses the development of a socialist approach to the built environment in revolutionary Cuba—form, content, and process creating and reflecting the emergence of a new society.

The book is well-illustrated with photographs of the projects discussed, yet in looking at these pictures, I couldn't help but be struck by how male these visions for our built environment seemed. Women's particular problems with male-defined environments are not dealt with—or are some of their very creative solutions. Jody Gibbs and Virginia Yang are the only women to discuss their work in the book. With the exception of Cabrillo Village, the vision is highly urbanized and highly industrialized. Little attention is paid to designing with solar energy and locally indigenous materials. Little attention is paid to the movement towards a decentralized, resource conserving, post-industrial society in greater harmony with the earth.

Yet, despite these shortcomings, this is a thought-provoking treatment of the complex question of whether architecture can be an instrument for transforming both the environment and the people who live in it. —Mary Vogel

Mary Vogel, a long-time student of alternative architecture approaches, is a frequent RAIN contributor.

ACCESS: Education

Planet Earth, by David Lambert, 1985, 64 pp., $9.95 (hardback): Facts-On-File, Inc. 460 Park Avenue South New York, NY 10016

Planet Earth, one volume in the series Your World 2000, explores current environmental problems. Lambert's text and highly colorful graphics articulate causes of environmental degradation and suggest solutions as well as opportunities for individual action.

The impact of the issues raised challenges the reader to confront our global tomorrow. Population, vanishing forest, wildlife preservation, and energy consumption are just a few complex topics which Planet Earth's in-depth explanations and informative diagrams, charts, and pictures illuminate.

Author David Lambert should be supported for offering young readers such conceptually advanced topics. While much more development of appropriate global ecology material is needed, the technical nature of Planet Earth may stimulate additional resource material in this vital area. —Rob Larsen

Rob Larsen is president of the Environmental Education Association of Oregon.

Toxic Chemicals In My Home? You Bet!, compiled and edited by Golden Empire and Sacramento County teachers, $8.50 with three ring binder, $4.50 without, from: Golden Empire Health Planning Center 2100 21st Street Sacramento, CA 95818

This well-developed, very informative curriculum teaches children about toxins in their everyday lives. The lessons include health awareness, proper disposal of toxins, and alternatives to using toxins. These complete lesson plans can be used independently or as a week-long study. Background information for the instructor is plentiful.

The information for the student is easy to understand, and fun activities for each concept reinforces the material. Teachers can easily alter or add to the existing lessons to fill the needs of their classroom. Very little preaching or talking-down attitudes, so prevalent in other similar curriculums, are present.

I recommend teaching this unit to all students, to create in them an awareness of the toxins used daily in their homes. Separate curricula have been developed for grades K-3, 4-6, 7-8, and 9-12. Specify grade level when ordering.

—Georgina Dalrymple

Georgina Dalrymple is a fourth grade teacher in Shreveport, Louisiana.
The condition of "underdevelopment" was coined by Harry Truman in 1949. From this spouted the stream of development vocabulary used to describe categories of nations: countries were either "developed" or "underdeveloped," then "developed" or "lesser developed," then "developed" or "developing," and now "industrialized" or "industrializing."

Coming up with further euphemisms only masks the problem of placing a higher value on industrial, capital-intensive technology than on labor-intensive technology. John Timberlake, Susan George, Frances Moore Lappé, and Gustavo Esteva recognize this problem and suggest ways to overcome it. The AT Reader seeks appropriate middle ground between capital-intensive and labor-intensive technologies.

For more on this subject, see "The Do-Gooder Dilemma: Inappropriate Technology Transfer," by Laura Stuchinsky, in RAIN VII:2. — Jeff Strang

Jeff Strang, former Rainmaker, has a degree in international studies, has served with the Peace Corps in Ghana, and has worked with Southeast Asians in Portland.


Twenty years after E.F. Schumacher founded the Intermediate Technology Development Group comes the publication of The AT Reader, a substantial collection of some of the best thinking and down-to-earth experiences in appropriate technology. The more than 200 selections range from excerpts of Jacques Ellul's The Technological Society to lessons learned from banana chip production in Papua New Guinea, from Rachel Carson's Silent Spring to cycle rickshaws in India. They cover society and environment, food production, health, water, housing construction, recycling, small-scale mining, and many more concerns.

While the pieces are interesting and cover a lot of ground, it seems that appropriate technology is still mostly thought about in the North and done in the South. The Reader would make an excellent handbook for those involved with social development projects. For the rest of us, it makes for some fascinating reading. — JS


Africa in Crisis is a broad yet thorough study of the environment, the people, and the issue of development in Africa. It begins with some good (?) news: government-affiliated development groups are finally beginning to recognize their failures. Even a senior World Bank official admits, "We ... have failed in Africa, along with everybody else. We have not fully understood the problems. We have not identified the priorities. We have not always designed our projects to fit."

Then comes the bad news: the famine, the poverty, the environmental degradation. These conditions are interconnected, as are their causes, among which are warfare, over-reliance on cash crop production, disease, overpopulation, climate, the international economic system, and inappropriate development assistance. (For some reason, examples of the latter hit me particularly hard in the gut: "Advising Africa has become a major industry, with European and North American consulting firms charging as much as $180,000 [per] year of an expert's time. More than half of the $7-8 billion spent yearly by donors goes to finance these people.") Timberlake does a superb job in weaving all these factors together to present a well-balanced tapestry of the ecology of the African crisis. He devotes sections to important aspects of life in Africa: health, overcultivation, cash crops, food crops, irrigation, overgrazing, forests, firewood, energy, soil, fish, war, aid, development, and project scale. Case studies abound. As with other Earthscan books, a vast amount of information is brought together and boiled down into a digestible jam.

I appreciate Africa in Crisis for the sense it gives us of how little we in the industrialized North have known about the situation in Africa and how to help. But "at precisely the same time that agency officials and academics are admitting their own ignorance, there is a growing insistence on tying long-term development aid to sweeping political changes recommended by donors. It is called conditionality, and it is
unprecedented. 'In a sense, we are talking about a kind of recolonization—about sending smart white boys in to tell them how to run their countries,' said one unnamed Northern aid official.'

What's needed? "Grassroots, community-participation rural development." How can we help? "The main bodies involved in this sort of aid are the non-governmental organizations (NGOs).... The African crisis, while it has highlighted the failures of the government and multilateral aid agencies, has also highlighted the success of the NGO approach." And, finally, what should we keep in mind? "...[I]t is the African peasant who best understands how and why he or she has been forced to damage the environment on which they depend, and it is he or she who is the key to rebuilding their continent." —JS

*Ill Fares the Land: Essays on Food, Hunger, and Power,* by Susan George, 102 pp., 1984, $5.95 from: Institute for Policy Studies 1901 Q Street, NW Washington, DC 20009

Susan George, author of *How the Other Half Dies: The Real Reasons for Hunger,* continues to focus the spotlight on the rich and powerful as the primary reason for world hunger in *Ill Fares the Land*, a collection of six of her papers and talks. As she bluntly puts it, "Hunger will never be vanquished unless we can strengthen the weak and weaken the strong."

Concerning the strong, George notes: "That all governments are concerned for, and representative of, the majority of their people is patent nonsense. Plenty of governments are most concerned with enriching those who keep them in power. Human rights, including the right to food, run a poor second." The strong in the industrialized North provide heavily biased aid to the South. Food aid alters consumption patterns and destabilizes a society by fostering dependence. Agricultural aid carries with it the Northern bias of maximizing yields per person, rather than per land unit. Development aid mainly benefits businesses of the grantor country and urban elites of the grantee.

To weaken the influence of the strong, George advocates measures ranging from wiping clean the Third World debt slate ("Without relief, countries can't even make a choice between food crops and cash crops.") to supporting "alternative agronomic and ecological research" rooted in a local context.

To strengthen the weak, George has more general recommendations. Southern nations should develop "a food system which (a) is environment enhancing and ecologically sustainable, (b) provides enough [culturally and nutritionally appropriate] foodstuffs at reasonable cost to the entire population ... and (c) provides great enough quantities to ensure national food self-sufficiency...."

In essays on research and technology "transfer," George highlights the Northern biases and recommends ways to neutralize them. Purchasers of Western technology need to understand that they are "not just buying a product, but rather a distinct set of social relationships which have now become so embedded in the technology that they are nearly invisible."

George has heavily researched the wealth and power structures lying behind the global food system. Her criticisms are forceful and to the point. Suggestions for improvement, however, tend to be idealistic, dependent on a change of heart on the part of elites. —JS

"Development is Dangerous," by Gustavo Esteva, in *Resurgence,* Jan/Feb 1986, $3 from: Rodale Press 33 East Minor Street Emmaus, PA 18049

This article, written by Mexican "de-professionalized intellectual" Gustavo Esteva, criticizes the past three "development decades" for what they have done to the vast majority of Mexico's people. Esteva, an economist and coordinator of a national network of 400 grassroots organizations, notes that "for the Mexican poor, the term 'development' now appears mainly in jokes.... Most peasants are aware that development has undermined their subsistence on centuries-old diversified crops. Slum dwellers know that it has made their skills redundant and their education inadequate."

Esteva also disparages the "new establishment" that has come about in recent years under the name "alternative development." He sees this as a perfume which tries "to mask the stench of 'development.'" He would rather "dismantle development as a goal" and allow the indigenous people to be free to improve their conditions on their own terms.

Esteva relates the following as an example of the opportunity emerging from Mexico's economic crisis with its widespread unemployment and bankruptcy of development institutions: "Production cooperatives are springing up and thriving in the very heart of Mexico City, thanks to the decreasing purchasing power of those formerly employed. Shops now exist in the slums that reconstruct electrical appliances.... Neighborhoods have come back to life, along with a phenomenal increase in next-door catering. Street stands and tiny markets have returned to the corners from where they disappeared years ago. In the midst of inflation, devaluation, so-called unemployment and a decline in the economically-defined national product, the majority of the people among whom I dwell are much better off than they have been for years."

The conclusion Esteva reaches is that "development" is heavily laden with the values of those who consider themselves "developed." "Development means to have started on a road that others know better, to be on the way towards a goal that others have reached, to race up a one-way street. Development means the sacrifice of environments, solidarities, traditional interpretations and customs to ever-changing expert advice." —JS

*Towards a Politics of Hope: Lessons From a Hungry World,* by Frances Moore Lappé, 1985, 32 pp., $3 from: E.F. Schumacher Society Box 76A, RD 3 Great Barrington, MA 01230

This transcript of Lappé's October 1985 E.F. Schumacher Lecture summarizes her position on hunger and its roots. A short excerpt of a similar speech was published in RAIN XI:5. —JS
ACCESS: Women

New Society Publishers
4722 Baltimore Avenue
Philadelphia, PA 19143

Linking women to development issues gives us another way of weaving the threads of global perspective for women who “slice the knot differently.” This well-researched directory provides a vantage point for activists who are exploring the relationships between women and multinationals, rural development, health, migration, and sex tourism. Women’s needs from a policy-making perspective and within international agencies are examined. The spectrum of documentation and resources is phenomenal, including books, periodicals, programs, agencies, and resource centers throughout the Third World, illuminating these vital issues for women in development. Thorough discussions on appropriate technology, education, and communication are also included. As we work toward a global feminist vision, this guide is a stepping stone highlighting the work that has been done, and is yet to be done. —Mimi Maduro

FROM: Women in Development
(Illustration by Liz Mackie)

Women in the Global Factory, by Annette Fuentes and Barbara Ehrenreich, 1984, 64 pp., $4.75 from:
South End Press
302 Columbus Avenue
Boston, MA 02116

As the global restructuring of the economy forges ahead exploring new markets and ways to accumulate capital, the global factory expands. Fuentes and Ehrenreich detail the landscape for women in that global factory, whether it be “south of the border” or in east Asia. The fate of the “factory girl” is portrayed in the midst of the reign of the multi-national corporations and free trade zones. There are currently more than 100 free trade zones in the Third World, which for the most part means more freedom for multi-nationals and less freedom for people—particularly women.

This well-designed and easy-to-read volume analyzes the economic, equity, and social issues for women, and documents the history and role of the multinationa; corporations. The challenges that the global restructuring of the economy presents for women are presented along with descriptions of the organizing efforts that are underway.

A comprehensive bibliography and resource list are provided, making this a powerful, highly informative book that you can read in an hour. If you don’t know much about the issues concerning the exploitation of women and the global restructuring of the economy, this is a great place to start. All the avenues are covered including incisive portraits of the international trafficking of women and how the global assembly line affects “made in the USA.” —Mimi Maduro

Mimi Maduro is a frequent contributor to RAIN on issues of women and technology.

ACCESS: Energy

Decommissioning: Nuclear Power’s Missing Link, by Cynthia Pollock, 1986, 54 pp., $4 from:
Worldwatch Institute
1776 Massachusetts Avenue, NW
Washington, DC 20036

Question: What do you do with a used-up nuclear reactor? Don’t feel bad if you don’t know—neither does anyone else. But what we do know is, it won’t be easy and it won’t be cheap.

The process of cleaning up and burying a retired nuclear plant to protect the public from radioactivity is called decommissioning. Current cost estimates range from $50 million to $3 billion per reactor.

Although several reactors are currently ready for decommissioning, the majority of reactors now operating won’t be ready for decommissioning until after 2000. Between 2000 and 2020, nuclear decommissioning may be the largest expense facing the utility industry, outstripping new plant construction. Thus, much of the cost of nuclear power may fall upon a generation that enjoyed none of the benefits. (This is called, “Buy now, let others pay later,” and is an essential principle of modern industrial society.)

Cynthia Pollock assesses the state of nuclear decommissioning worldwide in this incisive Worldwatch paper. Aspects covered include decontamination and dismantlement, high-level and low-level waste disposal, cost estimates, and payment plan options. —FLS

“How Not to Find a Nuclear Waste Site,” by Don Hancock, special feature in The Workbook, 10 pp., $2 from:
Southwest Research and Information Center
PO Box 4524
Albuquerque, NM 87106

The announcement on May 28 of this year of the three possible sites for America’s first high-level nuclear waste repository—in Washington, Nevada, and Texas—has provoked a great deal of protest by all of those potentially affected by the decision. This special feature article in Workbook offers a concise overview of the history of the search for a nuclear waste dump site and
the various issues involved. The tale that emerges is not very comforting.

The article discusses the Nuclear Waste Policy Act passed by Congress in 1982, DOE's poor record in adhering to the stipulations of this law, the technical flaws in DOE's site studies, and DOE's entire history of favoring political expediency over scientifically guaranteed safety in its site search. The article also describes the political, legal, and citizen responses to DOE's process (up through June of this year), and suggests alternatives to the current DOE program. Unfortunately, no simple and safe alternatives are proposed, because there are no simple and safe solutions to the nuclear waste disposal problem. (Isn't this what the anti-nuclear movement was saying a decade ago?) The basic recommendation is: Stop and start over.

A listing of organizations involved with the nuclear waste issue is also included. —FLS

Energy Unbound: A Fable for America's Future, by L. Hunter Lovins, Amory B. Lovins, and Seth Zuckerman, 1986, 390 pp., $17.95 from:
Sierra Club Books
730 Polk Street
San Francisco, CA 94109

Common sense is often a good guide. Despite the fact that billions of dollars are spent on nuclear reactors, common sense will tell you that this technology is simply no good. Yet the "experts" continue to insist that more nuclear reactors are needed. We ordinary citizens are assured that energy issues are too complex for us to understand.

In this fable, a midwestern housewife, Eunice Bunnyhut, is appointed Secretary of Energy. She has a gift for cutting through the technical jargon that befogs the issues, and asking the right questions. As people familiar with the Nuclear Waste Policy Act passed by Congress in 1982, DOE’s poor record in adhering to the stipulations of this law, the technical flaws in DOE’s site studies, and DOE’s entire history of favoring political expediency over scientifically guaranteed safety in its site search. The article also describes the political, legal, and citizen responses to DOE’s process (up through June of this year), and suggests alternatives to the current DOE program. Unfortunately, no simple and safe alternatives are proposed, because there are no simple and safe solutions to the nuclear waste disposal problem. (Isn’t this what the anti-nuclear movement was saying a decade ago?) The basic recommendation is: Stop and start over.

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A Guide to Walking Meditation, by Thich Nhat Hanh, 32 pp., $5.95 from:
Fellowship of Reconciliation
Box 271
Nyack, NY 10960

At times our lives feel fragmented, juggling time for children, family, work, friends, staying in shape, driving around for meetings and errands, and making time for peace or social change activities. Whew! I often wonder as I attempt to strive for peace in the world how much my inner state reflects peace to the outside world. Down deep I yearn to balance and synthesize "doing" and "being" in my life.

As someone with an abundance of energy, sitting still and meditating is often unnerving. But I love to walk. Nhat Hanh’s book, A Guide to Walking Meditation, speaks to my soul. It is clearly written, well-translated, and uses evocative Zen-like illustrations. It is stuff you can read in an hour and practice for a lifetime.

Nhat Hanh is a leader in the reconciliation movement. Since 1966 he has acted as a spokesperson for reconciliation in Vietnam. This poet and Zen master continues to share Buddhist ideas and values with Western readers through his written works. He also holds re-

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San Francisco, CA 94109

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In this fable, a midwestern housewife, Eunice Bunnyhut, is appointed Secretary of Energy. She has a gift for cutting through the technical jargon that befogs the issues, and asking the right questions. As people familiar with the technical flaws in DOE's site studies, and DOE's entire history of favoring political expediency over scientifically guaranteed safety in its site search. The article also describes the political, legal, and citizen responses to DOE's process (up through June of this year), and suggests alternatives to the current DOE program. Unfortunately, no simple and safe alternatives are proposed, because there are no simple and safe solutions to the nuclear waste disposal problem. (Isn’t this what the anti-nuclear movement was saying a decade ago?) The basic recommendation is: Stop and start over.

A listing of organizations involved with the nuclear waste issue is also included. —FLS

A Guide to Walking Meditation, by Thich Nhat Hanh, 32 pp., $5.95 from:
Fellowship of Reconciliation
Box 271
Nyack, NY 10960

At times our lives feel fragmented, juggling time for children, family, work, friends, staying in shape, driving around for meetings and errands, and making time for peace or social change activities. Whew! I often wonder as I attempt to strive for peace in the world how much my inner state reflects peace to the outside world. Down deep I yearn to balance and synthesize “doing” and “being” in my life.

As someone with an abundance of energy, sitting still and meditating is often unnerving. But I love to walk. Nhat Hanh’s book, A Guide to Walking Meditation, speaks to my soul. It is clearly written, well-translated, and uses evocative Zen-like illustrations. It is stuff you can read in an hour and practice for a lifetime.

Nhat Hanh is a leader in the reconciliation movement. Since 1966 he has acted as a spokesperson for reconciliation in Vietnam. This poet and Zen master continues to share Buddhist ideas and values with Western readers through his written works. He also holds re-

Energy Unbound: A Fable for America’s Future, by L. Hunter Lovins, Amory B. Lovins, and Seth Zuckerman, 1986, 390 pp., $17.95 from:
Sierra Club Books
730 Polk Street
San Francisco, CA 94109

Common sense is often a good guide. Despite the fact that billions of dollars are spent on nuclear reactors, common sense will tell you that this technology is simply no good. Yet the “experts” continue to insist that more nuclear reactors are needed. We ordinary citizens are assured that energy issues are too complex for us to understand.

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Peace Games with Globally Interconnected Computers

by Parker Rossman and Takeshi Utsumi

The technology now exists to interconnect hundreds or thousands of personal computers, in different countries, through distributed networks and information processing, into modeling and simulation instruments for playing “peace games” on the scale of Pentagon war games.

To some people, “peace games” evokes an image of a little game played on a computer screen. Here we define peace games as research and planning to manage complex problems and to test alternatives on a global scale. (The term “peace games” was coined by T. Utsumi in 1971.)

It is now possible to combine existing technologies and more holistic explorations of various scenarios in solving global social problems. All kinds of possibilities for waging peace can be explored through computer simulations to see what might work and to project results before risks are actually taken.

Developing expertise in modeling and gaming can be combined in global systems, with a cascading effect, to empower explorations of new international institutions, or to remodel existing ones. New precision can come into the diagnosis of problems and the definition of issues and alternatives.

Society has vast amounts of data that are not adequately brought to bear in solving many kinds of problems because the information is scattered, uncoordinated, and not available when needed. We need tools to put this data together. When the meaningful data is pulled together, computer modeling can be used to help in making important decisions, models which incorporate more and more knowledge about people and institutions.

Computer models can serve as increasingly complex models of governments and of how leaders think. They can be helpful for testing ideas and possible actions. Some preliminary thought about waging peace through simulations was offered by A.D. Carroll, who said we must use these powerful new tools to understand how the human mind functions in peace and war.

FROM: The Peace Resource Book—see page 11 (Illustration by William Harsh)

GLOSAS

The GLOSAS (Global Systems Analysis and Simulation) Project was conceived by Tak Utsumi in 1972. It proposes gaming solutions on a very large scale to help decision-makers deal with interwoven problems.

The GLOSAS Project seeks to construct a “Globally Distributed Decision Support System” for a plus-sum peace game. This involves combining the power of global multimedia communication networks, teleconferencing and computer conferencing, simulation and game systems, computer bulletin boards, and “situation rooms.” It is not computers doing people’s thinking; rather it is mind-empowerment tools to help people do better thinking.

The GLOSAS Project has paved the way for working for deregulations of communication policies in Japan and elsewhere to facilitate the extension of Value Added Networks (VANs) to other countries and the uses of electronic mail and computer conferences via the extension lines. It has also led to experiments to extend U.S. educational courses via computer conferencing to Japan and other countries. (A spin-off benefit of the project is to make possible international activities, such as the Ikego Forest Project reported in the Spring 1986 issue of RAIN.)

Solving global problems, providing justice and welfare, and warning of dangers and threats requires more and more sophisticated models of an emerging global system. The value of such tools will be determined by their success in helping people solve the most desperate social problems.

A great deal of modeling experience is available in political science, economic models, and strategic decision modeling. The Club of Rome is an international group of world modelers that seeks to call major world problems to the attention of
society as a whole through building large-scale simulations. The work of the Club of Rome begins to show how collective work can be undertaken by a "community of minds," by collective intelligence.

World Future Society Demonstration

How are these games, or simulations, undertaken? At the World Future Society Conference to be held in New York City in July 1986, United Nations and American Arbitration Association personnel plan to demonstrate "computer conferencing" and slow-scan TV in New York, using A. Onishi’s FUGI model in Japan.

FUGI is a computer-aided global macroeconomic model on the interdependent world economy. It aims to forecast for 62 countries/regions economic factors, such as economic growth rate, employment, wages, prices, money supply, interest rates, public finance, trade, private capital movement, international balance of payment, and foreign exchange rates.

Other possible uses of simulation modeling for international issues include the creation of scenarios about alternative structures for the United Nations, global police forces, strategies for monitoring potential crises in advance, modeling cases that are not allowed to come before the World Court to see what the outcome might be, and so forth.

Expanding Existing Models

As any given game enlarges and becomes complex, dimensions of it can be divided among groups in different places. As data banks are developed, more and more groups can involve themselves in continuing computer conferences, allowing more and more people to put their heads together. Amateurs, therefore, in a spirit of play, can explore possibilities that are not yet possible for official agencies. By simulating disarmament alternatives, for example, there is no risk of destroying anything in our real world, but the way can be paved to encourage optimism instead of pessimism.

A next step in preparing for large-scale peace gaming is expected to be experimentation with using and expanding the Onishi FUGI model, which already has data bases from many countries. The FUGI model has already been used by the United Nations and various governments for economic and other simulations.

In enlarging the FUGI model, the submodels of individual countries will be distributed to computers located in varying countries. Each data base will be autonomously maintained and improved by experts of the individual countries. The submodels will be interconnected via global VANs in such a way that the integration of them all will act as a single global model. Software can then be developed to make available scenarios and to share experience with, and lessons from, interactive games among experts of various countries.

War games must be secret, but peace strategizing can involve many qualified persons. In time there can be global game plans which groups, large and small, global and local, can plug into and use. An important use will be for educating and training negotiators, political scientists, and students of international affairs. Education, through computer networks and conferencing of this type, can be an important forerunner for world peace and progress. (For a more journalistic introduction to some of these ideas see Computers: Bridges to the Future, by P. Rosman, Judson Press, Valley Forge, PA, 1985.)

Reprinted by permission from Netweaver Newsletter. Parker Rosman, Ph. D. is former Dean of Ecumenical Continuing Education Center of Yale University. Takeshi Usumi, Ph.D., P.E., is President of Global Information Services and Technical Director of the Japan GLOSAS Association.

NEWSBRIEFS

International Worker Communication

A workshop on international worker communication by computer was held in the Netherlands on October 27, 1985. Representatives from Pakistan, India, Yugoslavia, Iceland, the USA, the Netherlands, Sri Lanka, and the United Kingdom were in attendance. The workshop proceedings have been published in a 104 page publication, The Comintercomdoc Papers. Contributions include: "Information and the Construction of Socialism," "From Bartering to Communication: Human Rights Information Handling in the Future," and "Standard Formats for Human Rights Information." Contact Peter Waterman at the Institute of Social Studies, PO Box 90733, 2509 LS, The Hague, The Netherlands.

National Community Computer Training Network

In March, the Information Technology Institute (ITI) participated in a meeting to increase communication and information sharing among the handful of community computer training centers around the country.

The meeting was initiated by ITI, the Benton Foundation, and the Public Interest Computer Association (PICA) in Washington, DC. The Benton Foundation provided financial assistance, as well as guidance in organizing the meeting. The meeting was held at PIACA’s new, well-designed and pleasant computer lab space. Also attending were representatives of Volunteer: The National Center, Partnerships Datanet, the Information Technology Resource Center in Chicago, Southern California Center for Nonprofit Management’s Computer Assistance Program (CHIPS), the Center for Nonprofit Management in Dallas that runs a program called Technical Learning Center (TLC), and Mark Vermillion of Apple Computer Company.

It was an exciting meeting. In an evening and a day, the group accomplished several of its goals. The formation of an informal network of centers to share information and skills, represent nonprofit computer concerns to the computer industry, and provide better local services as well as expand services to communities without community computer training centers, were among several key issues agreed upon by the groups. Participants divided up tasks to implement several proposed joint programs, and will work on them further at a follow up meeting scheduled for July.
Whole Earth Lectronic Link (The WELL)

The WELL is one of the most exciting computer conferencing systems going. Perhaps it's the geographical location (San Francisco and Silicon Valley), the system itself, or the willing and able conference coordinators, or "netweavers." The conferences and bulletin boards are full of useful information. On one conference about laser printers I found several tidbits I had been seeking for some time. The system does what it says it will do, and so far I haven't been sent off into electronic loop land, unable to get out of some obscure corner of the system. What is most striking about the system is the level of conversation, not just that it is intelligent, informed, and witty, but that it's concise (wordiness is a problem on many systems). It's as though someone were providing electronic Emily Post advice. It is $8 per month plus $3 per on-line hour. Direct dial and access via Uninet is available. For more information write to the Whole Earth Lectronic Link, 27 Gate Five Road, Sausalito, CA 94965. Modem, call 415/332-6106, or for a human voice call 415/332-4335.

New Reports from OTA

Originally, the implementation of intellectual property law, and particularly copyright law, was relatively simple. The government granted copyrights to authors and patens to inventors. Today, technological change is complicating the intellectual property system. Authors may involve authors around the world using computer systems to produce dynamically changing materials. Availability of duplicating equipment (computers, copiers, video tape decks, etc.) makes enforcement difficult. To raise some of the issues and possible solutions, the Office of Technology Assessment (OTA) has published Intellectual Property Rights in an Age of Electronics and Information from the U.S. Government Printing Office, stock # 052-003-01036-4, for $15.

Another OTA study, Automation of America's Offices, presents critical information about the impact of office automation on future employment. In the report OTA questions some of the U.S. Bureau of Labor Statistics that show office employment growth. OTA counters that emerging technologies such as optical scanning, speech recognition, and automated data entry should reduce the demand for data entry clerks. A summary of the report is available from OTA, U.S. Congress, Washington, DC 20510; 202/224-9241.

The Microcomputer Electronic Information Exchange (MEIE)

MEIE is a free, no-password computer system operated by the National Bureau of Standards' Institute for Computer Science and Technology. It has hundreds of computer-oriented publications, including many about computer security, which can be downloaded to your computer. By computer and modem you can call 202/948-5717 or 202/948-5718.

The CUSS Fido Network

The Computer Use in Social Services Network (CUSS) is a nonprofit association of professionals interested in exchanging information on using computers in the social services. In previous issues we have reported on its excellent quarterly newsletter. Recently CUSS published a 70-page directory to human services software, available from Walter LaMendola, School of Social Work, University of Denver, Denver, CO, 80208. CUSSnet, a computer network for the CUSS membership using Fido software, is being developed. The network presently has seven nodes and five more in the planning stage. If you have a terminal and modem try it out by calling 817/273-3966, any time except 2-5 am (Central Time). Set your computer system for eight data bits, 300-2400 baud rate, no parity, and one stop bit.

Engineering Bulletin Board

International Advancement, publishers of the American Bulletin of International Technology Transfer, have started an engineering bulletin board system. It contains software and manuals in structural, civil, mechanical and electrical engineering that can be downloaded onto your computer. There is no special cost involved (besides a long distance phone line), but there are hardware and software requirements for receiving some information. The system operates seven days a week, 24 hours a day. For more information, contact International Advancement, PO Box 75537, Los Angeles, CA 90075. With modem and computer call 805/252-4118, or for a human voice call 805/252-4118.

Oregon Arts Foundation Bulletin Board

The Oregon Arts Foundation has received an initial grant from the National Endowment for the Arts to design, implement, and market an arts information service, specifically for educators. The electronic online service will use MIST+ and Conexus Bulletin Board software, and will allow artists and educators around the state of Oregon to share information about arts and education. In addition to electronic messaging, the system will also support several databases including ones to help teachers with field trip planning, skills development opportunities, and a bibliography of information about arts and education. For more information contact Cathy Leedy, the Oregon Arts Foundation, 208 SW Stark, Portland, OR 97204; 503/222-9567.

EcoNet: The International Ecology Network

EcoNet is a computer communication system that originally started as an Apple Community Affairs network project, using the Onyme system for communication. Several of the organizers found the Onyme system unsatisfactory for their purposes and began to do some of their own programming to make it more useful. Then with a small grant under the sponsorship of the Farallon Institute, EcoNet took off on its own. The system is now accessible in 600 U.S. cities and over 60 countries. Communication can take a variety of forms such as newsletters, bulletins, mail, conferences, surveys, and mailing lists. Private subnetworks can be established providing custom-tailored environments. The system is rapidly becoming popular among environmental groups, especially those interested in communication with groups working in other countries, specifically in the Pacific Rim. Fees are based on a monthly subscription fee of $15 with no additional charges for conferencing, use of bulletin boards, or file storage. For more information contact Christian Stalberg, EcoNet, 15290 Coleman Valley Road, Occidental, CA 95465; 707/874-3060.
Managing a Nation, The Software Source Book, $30, from:
Global Studies Center
1611 North Kent Street, Suite 600
Arlington, VA 22209

In the last issue we reported on the Global Studies Center computer conference. In response to that notice the center sent us its recent publication, Managing A Nation, The Software Source Book, that reviews software for application to a wide range of national administration and management concerns. The catalog is divided up into sections that include: economy, rural development, energy, agriculture, population, ecology, transportation, security, global models, and modeling languages. Some of the software appears to be easy to use and accessible to the general public, such as "A Model of Growth for the People's Republic of China." For other applications you might have to be pretty specialized to find a use for it—for example, "Dynamic Synthesis of Basic Macroeconomic Theory: Implications for Stabilization." All in all a useful, one-of-a-kind catalog. —SJ

The Women's Computer Literacy Handbook, by Deborah L. Brecher, 1985, 248 pp., $9.95 from:
The Women's Computer Literacy Project
1195 Valencia Street
San Francisco, CA 94110

This book may have saved my life—or at least salvaged a part of my career. Being involved in the publishing of technical literature, I must make it my business to familiarize myself with facts of computer graphics, desk-top publishing, digital typesetting and the like. I read a variety of trade publications, go to conferences, talk to clients and friends. But it has been this book which has enabled me to probe down to that base layer of understanding, grasp some very basic concepts, and begin to work back up from there.

This handbook began as an off-shoot of the Women's Computer Literacy Project in San Francisco, whose aim is to foster computer literacy in women through intensive, hands-on workshops. Recognizing the value of its technique and the difficulty of reaching a wide audience on a one-to-one basis, the project decided that a book was necessary.

The chief beauty of The Women's Computer Literacy Handbook is in its accessible analogies. Beginning with simplified descriptions of what makes a computer a computer, Brecher works her way through short- and long-term memory, peripherals, software, file management, and operating systems. She describes how circuit boards are made (via a batik-like process), how silicon chips have been condensed to hold more memory (like going from whipped butter to regular butter), and how RAM memory works (like a hotel clerk looking immediately for your room key in the correct hotel mailbox instead of having to search every box beginning with the number one). Woven among the descriptions and explanations is a simplified history of computer development from metal cores to parallel 32-bus transmission.

Throughout the book, Brecher also points out social and environmental issues that are offshoots of computer use, such as whether the indiscriminate disposal of chemicals used in circuit board manufacturing makes it such a "clean" industry after all; how the invasiveness of databases threatens our privacy; and the darker side of computer automation which brings "efficiency" to the workplace at the expense of variety and humanity. Interspersed are suggested models to combat these drawbacks.

On the surface, some of the analogies may seem too rudimentary. Why is it that computer concepts need to be reduced to such simplistic terms only for women? Yet it is precisely these clearly worded everyday examples that have excited me and made me want to share my discoveries with friends. As one male friend put it, why can't a book be written that is so easily understood for both women and men? Good point.

Cherry Britton is a technical illustrator who works with computers a lot.

The Women's Computer Literacy Project
1195 Valencia Street
San Francisco, CA 94110
415/821-9276

This project's director, Deborah Brecher, is the author of the Women's Computer Literacy Handbook. The project offers classes designed for women to learn about computers. One of the goals of the two-day class is to demystify computers and to empower women to use this tool. Classes are taught in San Francisco and New York City on a regular basis, and later this year will be offered in other cities (including one at Portland State University, Continuing Education Division, in Portland, Oregon, in fall 1986). Topics covered include computer concepts and terminology, programming, operating systems, database management, and word processing. —Mimi Maduro

Conscience in Computing, available for $60/year from:
Jay Bloombecker
2700 N Cahuenga Blvd., Suite 2113
Los Angeles, CA 90068

The Conscience in Computing newsletter is dedicated to generating a mainstream computer ethic, (or developing ethical conduct in computer use). The newsletter observes that development and its limits, including tracking computer crime and looking at ethical implications of computing developments such as artificial intelligence. —SJ
Pacific Cascadia Bioregion Report

On a rare day of partial clearing clouds separate to reveal the Maritime Northwest.
On the east, the Cascade Range protects it from the thirsty Plateau.
On the west is the Pacific.

"Bioregion—a continuous geographic area seen in terms of similarities of plant and animal life and climatic and geological characteristics ... and a terrain of consciousness—a place and the ideas that have developed about how to live in that place." —Peter Berg

The Pacific Cascadia bioregion is that continuous geographic area roughly bounded by the Pacific Ocean and the Cascade mountains, from southwest Oregon to southwest British Columbia. The Pacific Cascadia Bioregion Report is our attempt to help further the "terrain of consciousness" in this place by tracking community-based efforts to enhance citizen participation, self-reliance, social justice, and ecological sustainability throughout the region.

We hope the information provided here can serve both to increase networking within the region, and to provide useful models for those living in other bioregions.

If you would like to report on a worthy project in your neck of the woods, please write to us.

Compiled by F. Lansing Scott

Portland Seeks to Trim Waste

As landfills fill up and incineration facilities need replacement, communities all over the country are trying to reduce the amounts of solid waste generated. Oregon, like many other states, faces an impending crisis that requires immediate attention. One response to this has been the Oregon Senate Bill 405 which provides curbside recycling to cities of 4,000 or more. The bill was passed in the 1983 legislature and requires that the recycling programs be in place by the first of next year. Now Portland's Metropolitan Service District (Metro) has devised a plan to meet the challenge of SB 405 and go beyond it, combining community and government support in a comprehensive waste reduction program.

Metro's waste reduction plan addresses the particular needs in the Portland area. Portland already recycles 22 percent of its waste, one of the highest recycling rates in the country, but Metro would like to increase the rate to 52 percent. The remaining 48 percent of the waste stream will be landfilled or incinerated.

This two tier system is divided into many more parts. The recycling section consists of three areas. The first is an attempt to "reduce and reuse." Plastics and packaging will be targeted as items to be reduced through consumer awareness and expansion of the bottle bill.

Reusing building materials will be emphasized through salvage at disposal facilities. The second part will concentrate on retail businesses, where a high quantity of paper is generated, and collection of yard debris. Presently, yard debris consists of 13.4 percent of the waste stream and would become 10 percent of the waste reduction. The third part of the recycling plan is the implementation of SB 405. The plan thus covers almost all areas of need.

That which cannot be reused or recycled will be incinerated and landfilled. Regarding incineration, first priority will be given to those technologies that recover materials, second priority to those that provide a fuel to replace a conventional fuel, and the lowest priority will be given to those that generate electricity.

The implications of this new recycling plan are enormous. A goal of a
52-percent recovery rate is very aggressive. Seattle's solid waste disposal plan is similar to Portland's, with a goal of a 40-percent recycling rate. A problem that both Seattle and Portland may face that has been evident in other communities is funding. However, with government and community support, the necessary funding can be obtained. The community has already expressed an interest in recycling. A telephone survey conducted in October 1985 determined that 73.4 percent of the households rated recycling as important.

Another important consideration is markets. Unlike some communities, Portland has the market capacity to accept recycled materials. The problem lies in giving these industries financial benefits to make using these materials a profitable alternative. Metro has addressed this problem through a variety of measures, including a consumer education program to promote the purchase of products made from recyclable materials, research and development of new methods for utilizing recycled materials, and targeting of users of recycled materials to encourage more of this use.

The individual or company that recycles will also receive some sort of "waste diversion credit" for pure recyclable loads (this recognizes the avoided costs of not requiring incineration and landfilling). And finally, the hauler and recycling center will receive direct subsidies for collecting recyclables. For more information on the Waste Reduction Program, contact Metro, 2000 SW First Avenue, Portland, OR 97201-5398; 503/221-1646.

**Salem's Peace Plaza**

Citizens of Salem, Oregon, recently received unanimous approval by the City Council to establish a Peace Plaza in the downtown area. The plaza will include banners and an information kiosk with a bulletin board of current peace events throughout the city and information about Salem's peace-related involvements with sister cities. Later a decorative wall and flower beds, with flowers native to sister cities, will be added.

For more information, contact Peace Park Inc., PO Box 62, Salem, Oregon 97308.

(Recommended by Sariah Loveday, Pacific Cascadia Correspondents Network)

**Better than Food Stamps**

The Home Gardening Project builds complete gardens for low-income people, bringing right to their backyards a trellis, three 5' x 8' soil frames, weed free organic soil to fill them, seeds, plant starts, and low-toxicity pesticides. People start out with everything they need to be successful gardeners.

The project put in 100 gardens in the last three years, for senior citizens, single parents, and people with large families, who can use the independent food source. Since the soil doesn't need to be tilled, the gardens are ideal for seniors or disabled people. The project will be putting in 75 gardens next year for people with multiple sclerosis, through the Multiple Sclerosis Society.

Dan Barker, the founder, wants to publish a book about the project, in order to spur development of new projects in other cities. He started out by himself with a grant from the Bureau of Community Development. Looks like one person can make a big difference. For more information, contact the Home Gardening Project at 7300 SE Stevens, Portland, OR 97215; 503/775-9648.

**Indians and Fisheries on the Columbia**

Four Indian tribes of the Upper Columbia River—the Coeur d’Alenes, Kalispels, Kootenais, and Spokanescame out of the Upper Columbia United Tribes (UCUT) to deal with common problems like fishing. The fishing runs on which they depend have been devastated in the past by construction of dams which prevent fish from returning up river to spawn. Now the tribes are working through the Columbia Basin Fish and Wildlife Program, part of the Northwest Power Planning Council, to influence the decisions that affect them, using their combined numbers to advantage.

Working with the Fisheries Research Center of UCUT through Eastern Washington University, Indians can be trained as fishery biologists, their fisheries can be improved, and hatcheries can be developed to offset the destroyed spawning habitats caused by reservoir fluctuations that flood the tributaries. In these ways, the UCUT Indians are trying to restore what's left of their self-reliant fishing heritage.

**Many Call for N-Reactor Shutdown**

In the wake of the Chernobyl disaster, many regional organizations have called for the shutdown of the N-Reactor at Hanford, which has many similarities to the reactor at Chernobyl, including a graphite core and lack of a concrete and steel containment structure. Organizations that have called for N-Reactor shutdown so far include the Portland City Council, Ecumenical Ministries of Oregon, Oregon SANE, and Physicians for Social Responsibility.

An ongoing campaign to get more groups to endorse a call to shut down the N-Reactor is being sponsored by the Oregon Hanford Oversight Committee, an organization made up of individuals from such groups as Fellowship of Reconciliation, American Friends Service Committee, Sierra Club, and League of Conservation Voters. For more information, contact the Hanford Clearinghouse, 408 SW Second Avenue, Suite 408, Portland, OR 97204.

**Mondragon West**

The Mondragon West Development Group has been meeting monthly since May to develop a system of democratic businesses in the Puget Sound region. The group derives its name and inspiration from the network of cooperatives in the Basque region of Spain, but it is more interested in developing a cooperative economy appropriate to its own locale than trying to duplicate the Mondragon model exactly.

Participants in the group include people involved with EarthBank, the Puget Sound Cooperative Federation, and the Cascadia Green Alliance. Several committees have been formed to work in the areas of "mission and model development," enterprise implementation, finance, outreach, and implementation steering.

For more information, contact Mondragon West, 2128 North 53rd, Seattle, WA 98103.
### Bioregion United by First Cascadia Congress

On the weekend of July 25–27, the First Cascadia Bioregional Congress took place at The Evergreen State College in Olympia, Washington. The event was attended by about 100 participants who represented communities from southern Oregon to southern British Columbia, predominantly west of the Cascade Mountains.

The congress was designed to be an event where people from throughout the bioregion could come together to share visions, make plans, and celebrate the life of the region. There were no keynote speakers, panels, or workshops, only work sessions during the day and play sessions in the evenings.

The congress consisted of seven committees and seven forums, the distinction being simply that the committees met for four two-hour sessions and the forums met for two two-hour sessions.

The committees were as follows:
- Forestry; Land-Based Food Systems: Agriculture and Permaculture; Water Issues: Fisheries and Aquaculture; Waste and Pollution; Energy and Appropriate Technology; Cooperative and Community-Based Economics; Grassroots Democracy and Community-Building.

The forums were as follows:
- Communities and Education; Arts and Culture; Spirituality and Ceremony; Ecofeminism and Post-Patriarchal Values; Water Quality; Peace and Nonviolence; People of Color/Indigenous Peoples.

The Indigenous Peoples Forum was created as a separate forum, but was combined with People of Color due to lack of participation. The absence of Native Americans at the congress was a serious shortcoming.

Statements and resolutions were drafted by the committees and forums and brought to the final plenary session, where the congress as a whole adopted most of them using a consensus process led by Caroline Estes. All statements and resolutions are considered to be in perpetual draft form. All, whether consensual or not, will be recorded in the proceedings, to be made available through the Continuation Committee.

A resolution was passed to encourage local congresses in 1987 and to reconvene the bioregional congress in 1988. The Continuation Committee will be helping local communities in this work.

It was noted at the congress that some people living in the coastal areas of the region do not identify with the name “Cascadia.” Because these areas were not well-represented at the Congress, it was agreed that a special effort should be made to bring people in these areas into a process of naming the bioregion.

For more information, contact:
- Greenet, CAB 305, The Evergreen State College, Olympia, WA 98505.

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### REGIONAL PUBLICATIONS

<table>
<thead>
<tr>
<th>Metro-Net: Networking Resources in the Lane County Metropolitan Area, by Meta Hough, 1986, 52 pp., $2 from: Meta Hough 907 River Road, Suite 185 Eugene, OR 97404</th>
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</thead>
<tbody>
<tr>
<td>In one sense, this is just another local information directory, similar to what has been done in many communities under the guise of “people’s yellow pages,” “green pages,” and so on. It is a comprehensive listing of nearly 300 businesses, human services, and social change organizations in the Eugene area, complete with descriptions of “purpose,” “activities,” “organization,” and “requests” for each one. What makes Metro-Net special is the collection of essays and section introductions by Meta Hough throughout the booklet. The values filter is similar to many other alternative directories, but the clear and systematic articulation of these values in the accompanying text give the directory a sense of mission and direction. If you live in the Eugene area, you’ll find this useful as a reference tool and perhaps a source of inspiration and new perspectives. If you live anywhere else, you may find this to be an worthwhile model for a resource directory in your own area. —FLS</td>
</tr>
<tr>
<td>This directory contains detailed descriptions of over 600 special information collections and unique libraries in five Northwest states (Alaska, Idaho, Montana, Oregon, and Washington). It also lists museums, archives, electronic databases, census data resources, and genealogy collections. In order to put all these resource listings into perspective, the book begins with an insightful and well-researched overview of the “information economy” of the Northwest, discussing past, present, and future of the evolution of the Information Age in the Northwest. This directory is the product of an eight-month research project carried out by RAIN’s sister organization, the Information Technology Institute. The Northwest Information Directory is an indispensable tool for librarians, and will be very useful to writers and researchers seeking hard-to-find information. The listings of historical collections are particularly extensive for anyone delving into the history of the region. For infomaniacs in general, this will be a delight. —FLS</td>
</tr>
<tr>
<td>Discovering Northwest Volcanoes, by Nancy Field and Sally Machlis, 1980; Discovering Salmon, by Nancy Field and Sally Machlis, 1984; Discovering Mt. Rainier, by Nancy Field and Sally Machlis, 1980; $2.75 each from: Dog-Eared Publications PO Box 814 Corvallis, OR 97339</td>
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<td>These three “Learning and Activity” books are valuable tools for Northwest bioregionalists seeking to impart a sense of place and knowledge and love of nature in our children. The books contain games to play, riddles, puzzles and mazes to solve, models to build, and other fun activities. Learn to build a volcano. Draw a food web. What do a can of soda pop and a volcano have in common? How is a salmon like a tree? How is the earth’s mantle like boiling water? Each book also contains accurate scientific information and illustrations, science projects, and activities planned to help educators in a classroom. In Discovering Northwest Volcanoes, we learn the difference between the four volcanoes...</td>
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different types of volcanoes—stratovolcano, cinder cone, shield and lava dome, and the different kinds of material a volcano throws out. Discovering Mt. Rainier introduces us to the names of several wildflowers and wildlife in the park. It also has a good introduction to camping and backpacking with pictures of what essentials to take.

In Discovering Salmon we learn about the life cycle of salmon, how a fish's body is just right for life in water, and the location of some rivers where salmon spawn. Concepts such as plant communities, food chain, and food web are introduced. In this most recent Dog-Eared publication we also learn about issues such as the dangers to salmon from careless human activities from industrial wastes to chemical sprays to destruction of streams by care­less building. These issues are cleverly introduced through the medium of games such as "The Incredible Journey" and "Salmon Story Problem."

Let's hope the authors continue this trend, thereby developing in our children not only a love of the earth and her non-human creatures, but an awareness of their plight and a determination to defend them. —Mary Vogel

Mary Vogel is a frequent contributor to RAIN.

High Places in God's Country, by Lone Wolf Nch'iwana, 1986, 22" x 34", $5 from: Northwest Center for a Future PO Box 13042 Portland, OR 97213

Here in the Pacific Northwest, we are blessed with an abundance of wilderness. These are our wild places that, for a simple hike through a dense forest or along an exposed rocky bluff, can do more to remind us of our place on the planet and its connectedness to the wider universe than any book, lecture or impassioned environmentalist's plea. How ironic, then, that the very experience which might move us deeply enough to further protect this endangered natural heritage is, itself, quickly becoming less and less available to us.

Time is of the essence. That may be the implicit message of the new, annotated wilderness wall map, High Places in God's Country: Wilderness in Washington. With great detail and high production values, this multi-color map denotes both protected and unprotected wilderness in the Evergreen State in a manner that quickly pinpoints where strategic action could not only rescue critical threatened areas, but also do so in a way that helps integrate existing protected areas into a more cohesive wilderness system.

Some of the endangered areas identified are among the unknown jewels of Pacific Northwest wilderness. And they will likely remain unknown unless protective action is taken soon. Several specific areas, such as the mystically titled Dark Divide, between Mount St. Helens and Mount Adams, are specifically singled out as immediate preservation priorities given the imminent threat of destruction through logging and related encroachments.

Time is of the essence, because the Forest Plans currently being drafted for each national forest in the region effectively represent the last opportunity to extend wilderness protection to such areas.

An important part of the High Places in God's Country map is the expansive essay, "Washington's Sacred Places," on the back side. Prodding "tree hug­gers" to acknowledge the spiritual dimension of their connection with wilderness, author Lone Wolf Nch'iwana draws the great spiritual traditions of the planet into our quest to save its most holy shrines. —Steven Ames

Steven Ames, a former RAIN editor, now lives and works in Portland.

"Old Growth Forests," special issue of Wild Oregon, inquire for price from:

Oregon Natural Resources Council
1161 Lincoln Street
Eugene, OR 97401

Oregon Natural Resources Council has been very active in the struggle to preserve old growth forests in Oregon. This recent issue of the group's magazine contains 15 pages covering various angles of the old growth question.

Beginning with a general discussion of the characteristics and the importance of old growth forests, the section proceeds with articles on the Spotted Owl Management Plan, Oregon's "Millenium Grove" with trees nearly a thousand years old, the possibility of another national park in Oregon, the results of 25 years of research on Chinese forest practices, and how federal government subsidies encourage clearcutting.

If all this information isn't enough for you, you might want to get ONRC's 60-page educational packet on old growth forests. Copies are available for $6 from the address above. —FLS
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THE SECOND ANNUAL INTERNATIONAL CONFERENCE ON EARTH EDUCATION at the McKeever Environmental Education Center, Sandy Lake, Pennsylvania, on September 24-28, 1986. For more information contact The Institute for Earth Education, PO Box 288, Warrenville, IL 60555; 312/393-3096.

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LETTERS

We recently had an interchange with a reader that we thought was worth sharing with the rest of our readership.

I'm one of those retired persons who has to live on the income from savings. However, I would like the money to be invested socially, productively, and wisely. Hence I was interested in seeing the current, Spring '86 issue.

I turned immediately to the "Community Loan Funds" article. That seemed to me to be suggestive of a place I could invest a little money, continue to eat, and feel happy about what was being done.

From my point of view the article was terribly disturbing. There was hardly any mention of paying back. There is much talk of raising money, and finding places to spend it, of saying the people who lend money have to be taught social responsibility—but hardly any mention of emphasizing the responsibility to pay back the money borrowed, or of using the ability to repay joyfully and happily as one of the criteria of a loan.

Conclusion? Don't be a fool and loan to a community loan fund unless you are really merely seeking to make a contribution which you will be able to deduct from your income tax someday.

Mr. Johnson in turn responded with this letter:

Thank you for your kind letter. I guess I have a different history from the majority of people. I've been involved with three or four Credit Unions—reasonable facsimilies of Community Loan Funds, I think. Of these, one appears in vigorous health. Two went bust. The last is gasping. In all of these sad experiences there was little attention paid to the payback problem. The theory, or slogan, was "Get the money out so it will build the Community and help the borrower." The managers went crazy trying to collect. Many of the borrowers felt they were doing a public service in spending the money, and, frankly resented the efforts made to get them to pay it back. Most of the money was borrowed for consumptive use. "You deserve the finer things in life." Very little effort was made to restrict the loans to productive uses—i.e. a loan which would make the borrower more productive, and hence able to pay the loan back from the extra income the loan helped get him.

Since I saw little discussion of points like this in the article or in the steps in organizing a Community Loan Fund, I can only conclude that people who follow the advice of the article are likely to follow the path I've followed with the goal of "Meeting Social Needs." Since the agony of paying for a party after it is over is so often very bitter, I was led to write the letter I sent.
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