



challenge for change / société nouvelle presents

The New Alchemists

28 minutes 40 seconds color 106C 0174 157

"Here the energy of the wind runs the windmill that pumps the water that waters the garden that grows the carrots that feed the rabbits that fertilize the earthworms that feed the fish along with the carrot tops. And carrots, rabbits and fish all feed the people."

Can people have control over the food they eat? Do they have the power to change things? Can they develop non-polluting energy sources? Is it possible to live in harmony with the environment?

The New Alchemists think that it is and are doing it. Here they share their enthusiasm and scientific experiments with the hope that others in rural and urban communities will be inspired to do the same.

Their vision is one of interrelated food and energy producing systems using human scale technology.

Their work is a model for others with a vision of a greener kinder world and a taste for "inventing the future."

Their message is simple and optimistic. You needn't be afraid to try... You needn't only rely on experts... You can make alternatives work for you.

Distributed by the National Film Board of Canada

Who are they?

The New Alchemists are a group of Canadians and Americans. They share a common concern for the future of humankind and the planet earth. They are ordinary people – a few are scientists. All are working together, adapting and creating a productive means of existence.

What are they doing?

They are experimenting using safe, renewable, inexpensive, non-polluting methods of producing food, energy and habitation on a small scale. They are studying and learning from systems that have been in practice over the centuries throughout the world. Windmills, solar energy, backyard fish farms and intensive biological gardening can be the means by which families and communities may be self-sufficient. Some of these can also be adapted to backyards and alleys in cities and suburbs. At the same time people can be growing more in touch with themselves, each other and the land. The New Alchemists show it can be done.

Why are they doing it?

Disenchanted with power politics and unwilling to believe that "technology will find the way", they know that solutions must be found for the food and energy crisis we are now facing. Instead of relying on the oil companies and energy conglomerates for survival, they feel that people need options – from small farms in rural areas to city gardening on plots or rooftops. The possibilities are endless.

How the film can take you further

For concerned citizens, educators, community organizers, environmentalists, professionals, planners and you – film can be a powerful catalyst. It can stimulate, motivate or integrate your group and frequently results in action.

The *Journal of the New Alchemists* (Vol 2) contains the philosophy and the practical analysis of the many experiments occurring in the film. It includes the description and design of the windmills, fish ponds and gardens as well as New Alchemy's Ark: a proposed solar heated and wind powered greenhouse and aquaculture complex adapted to northern climate. The Journal is strongly recommended for use with the film for a greater in depth knowledge and comprehension of the many facets of the project. It may be obtained from the **New Alchemy Institute**, P.O. Box 432, Woods Hole, Mass. 02543



The range of topics "The New Alchemists" suggests include:

Environmental concerns, pollution, recycling, waste disposal

Organic farming, composting, companion planting

Land use and management (urban and rural)

Alternate energy concepts and technology

Cities – transportation, housing, land, water and air pollution

The politics of food, agribusiness, profits

Small scale technology, food production in the city or country

Conservator society applications, curbing the demand for energy

The problem of existing energy sources – nuclear power, fossil fuels, hydro-electric power

Resource development and management

Priorities of government spending and the need for citizens' involvement

Planning for the future

Human and social needs in a society

The role of children in a small scale society

The questioning of value systems

The film can be a communicator for people and groups who share a common interest. These are a few examples of how the film has been used:

For elementary grade students to plug into a local anti-pollution group

An urban community centre to add impetus to a roof and city gardening project –

A local community service centre to initiate the formation of an environmental group.

An urban anti-pollution association to inspire citizens to action.

An organization concerned about nuclear energy and the disposal of radioactive wastes, to open to public discussion the range of options available to the public. Discussion centered around the need for citizens to be involved in decision making.

Counsellor training programs to inspire fresh ideas for children's summer camps.

A university sociology class as a lead into the problem of feeding an urban population dependant on present government policy and agribusiness patterns.

A community college social work class concerned with growth and values, to stress the interconnectedness of the social, economic, environmental, energy, food and population problems and try to evaluate some alternative options.

A group of city people concerned about spiritual values and social change, to obtain land in the country and begin to build a cooperative existence.

We would like feedback from your experiences. Write us at Challenge for Change, P.O. Box 6100, Montreal, Quebec, H3C 3H5

What can I do now?

Know your community's resources. Most city and university libraries have lists of environmental, educational, social and political organizations, women's groups and cooperatives.

Find the groups in your area with similar concerns.

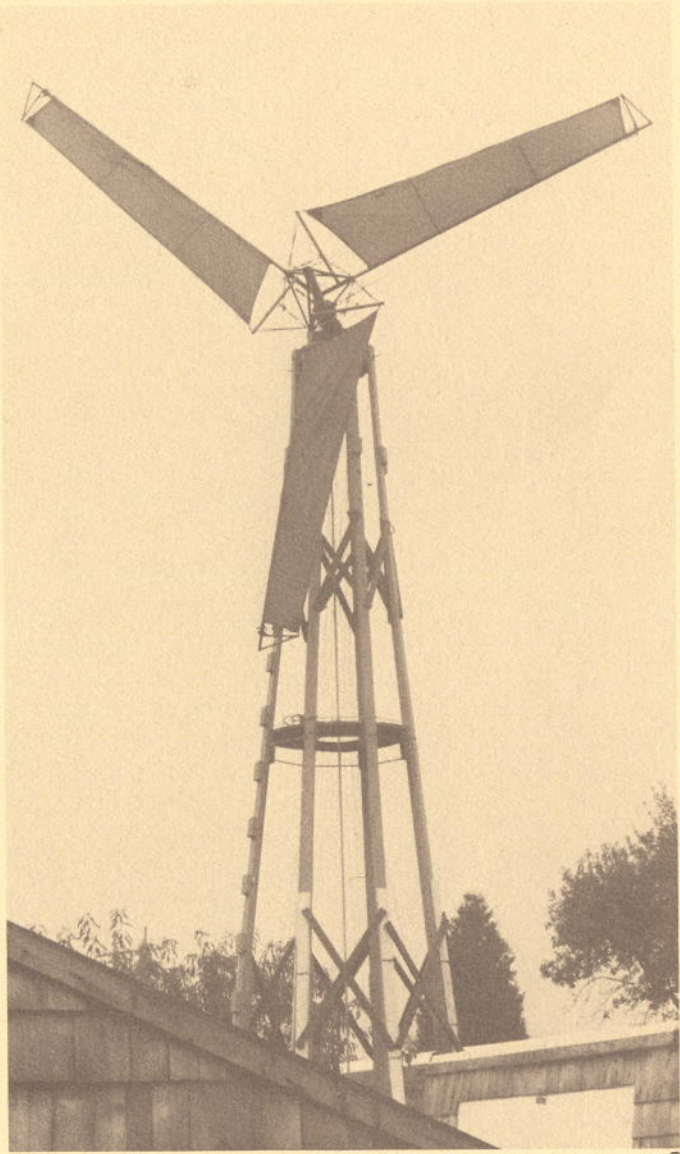
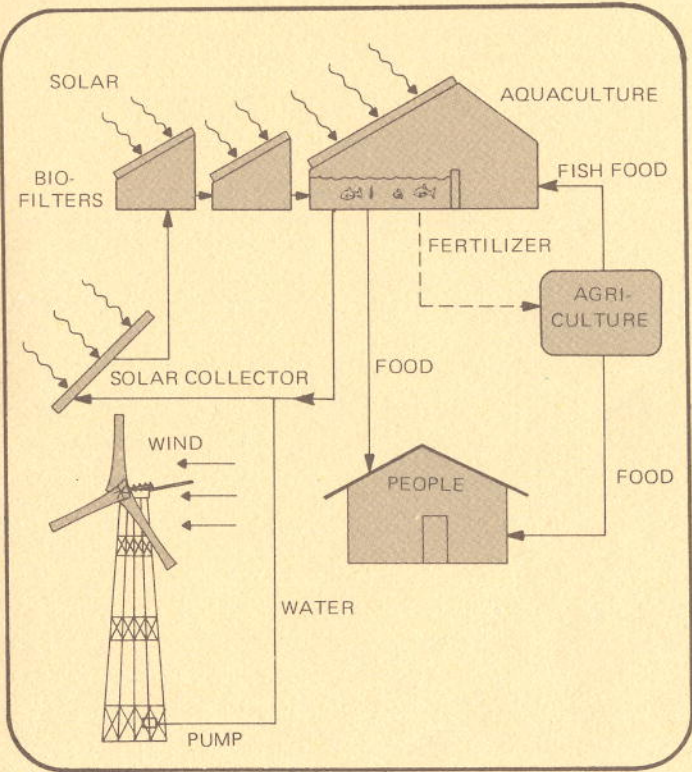
Find out what's going on, where to relate it to, and whom to work with. Be informed of the issues and act with others who are trying to effect change. **Organize.**

Write or phone your local, provincial and federal representatives about your concerns. They can't ignore their constituents.

Read as much as you can. Use other films that are useful to inform, stimulate and motivate action. The "Challenge for Change" series and "NFB Environment Films" are particularly useful. Obtain the catalogues and use the films. Obtain back copies of ACCESS, the Challenge for Change newsletter to learn how others have used media for social change.

For information on environmental groups across the country see Canadian Conservation Directory 1975-76 published by Canadian Nature Federation - 46 Elgin Street, Ottawa, \$2.50. Also Canadian Citizens Environment available from Environment Canada (free of charge).

Flow Chart: New Alchemy Institute



The Canadian Perspective

.... The Interconnectedness of everything

Unlike the isolated events of the past, today's crises have national or global impacts. Because the non-renewable resources are quickly being depleted, our present rate of consumption can no longer be sustained. We are at a turning point in history – which way shall we go? Toward economic and social chaos or toward a rational restructuring of our value systems.

In Canada, there are those with a positive vision for the future.

The Government of Prince Edward Island has established the "Institute of Man and Resources" which will play a coordinating and leadership role in the creation of demonstration projects as models. The New Alchemists' Ark – proposed solar heated, wind powered, greenhouse, aquaculture and living complex adapted to northern climates – is to be part of this scheme. The Institute will share information locally, nationally and internationally in the testing and evaluation of alternate energy and food production systems. It will advise governments on energy, land use, community planning and food production as they relate to renewable natural resource policies and programs.

At Environment Canada's Advanced Concepts Centre, the search has gone beyond the conceptual stage. There they talk about the challenge of developing these technologies to a practical level and applying them widely in Canada. Curbing growth in cities, improving efficiency of transportation, reducing and recycling wastes, use of renewable sources of energy are all part of the process of these changes. See "Environmentally Appropriate Technology, Developing Technologies for a Conserver Society in Canada" by Bruce McCallum. Send for it to Bruce McCallum, Advanced Concepts Centre, Environment Canada, Fontaine Bldg. 7th Floor, Ottawa. See also "Conversations with Canadians about the Future" by Cathy Starrs – to be available December 1975 from Information Canada bookstores.

Energy Probe associated with Pollution Probe in Toronto at 66 Melborne Ave, Toronto is connecting information and people concerned with appropriate sources of energy and lifestyles for the future. Their concerns are directly related to real energy needs of society. They aim to demystify and popularize these issues to citizens at large.

The Solar Energy Society, P.O. Box 1353, Winnipeg, Manitoba is facilitating the accumulation, classification and development of information concerning the collection and use of solar energy. They distribute information and act as a coordinating body of representatives of business, government and universities to objectively appraise the use of solar energy.

The Biomass Energy Institute, 304-870 Cambridge St. Winnipeg, Manitoba was established in 1971 to study and research the production of biomass energy (energy derived from plant and animal materials). The sources and areas of production of this renewable energy resource have many potential applications in reducing the dependence on fossil fuels.

At the Agriculture Economics Research Council, 100 Bronson Ave. Ottawa they are proving that waste is an economic resource to be utilized for fuel, fibre, food and fertilizer. They are demonstrating the technical, environmental and economic feasibility of waste in many areas of agriculture. At the University of British Columbia they are already producing vegetable feedstuff for animals from sewage. Some animal wastes, particularly chicken manure, have high nutritional values which can be transformed to feed. A paper shredding process yields excellent bedding for cows. Wood sugars, a waste product of the forest industry, are another nutritional source for livestock. Where wastes were previously seen as costs, they are being recognized by farmers as assets to be utilized. Waste Recycling in Canada – available from the Agriculture Economics Research Council (above address) – is the result of the recent "Symposium on the Utilization of Wastes from Animal Feed." The application for urban use as well will be invaluable in the future. (See also Compost Science).

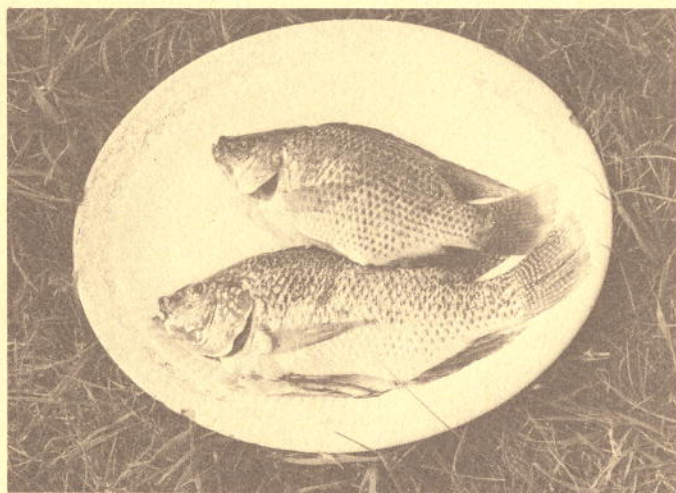
At Brace Research Institute of McGill University, St. Anne de Bellevue, Quebec there is ongoing investigation in the field of appropriate technology such as wind and solar power, greenhouses for northern climates, and shelter systems for developing countries. (See suggested reading).

At the Science Council of Canada, 150 Kent Street, Ottawa a Conserver Society Study Group has begun to examine how individuals, industry, governments and institutions can begin the transition from a resource-draining consumer society to one where the world population is in long-term ecological and resource equilibrium. This group is concerned with the economic, social, political and cultural aspects of the changes in values necessary to create an optimum quality of life in harmony with nature.

The **Gamma Group** (Le Groupe Associé Montréal McGill pour l'étude de l'avenir) – based at the Dept. of Economics at the University of Montreal – is an academic interdisciplinary group studying a series of blueprints for the future which are in direct contradiction to the present consumption growth ethic of today's society. These blueprints are defined in terms of resource use and management, social and economic value systems. Composed of economists, demographers, social scientists, engineers etc. they are working to establish economic models which they expect to extend beyond the academic to the public domain. 'Bulletin Gamma' may be had by writing: **Gamma, Dept. of Economics, University of Montreal, CP 6128, Montreal.**

Habitat. The United Nations conference on Human Settlement will take place in Vancouver in 1976. Since 1972, international UN conferences have examined many issues such as the environment, the law of the sea, population and food, trade and development and international economic cooperation. These conferences have been organized with the hope of improving the living conditions of people the world over – most of whom live in poverty and degradation. The conference intends to examine the causes – the national, international, economic and social systems that create and live off poverty. It is seeking citizen participation from non-government organizations as well. For more information: **The Habitat Bulletin, Canadian Participation Secretariat, Ministry of State for Urban Affairs, Ottawa.** For Citizens' Input: **Geoffrey Grenville-Wood, Chairman of the Canadian Non-governmental Organization Participation Group (Same address).**

The Federal Government's **Energy Research and Development Program** is aiming towards Canada's self-reliance in energy supplies in the future. Of their some 30 programs toward this goal, **Exploit Renewable Energy Resources, Solar Energy of Task V** contains the program outline recommended for implementation by the federal government. They are examining solar heating and cooling of buildings, water heating, and the direct conversion of solar radiation into electricity as well as wind, biomass and hydraulic manifestations of solar energy. **CMHC (Central Mortgage and Housing Corporation)** is also developing policies and activities to solar heating. More information available from: **Technical Information Service, National Research Council, Canada Institute for Scientific and Technical Information, Ottawa K1A 0S2 Tel: 613-993-1753.** Also, **Office of Energy Research and Development, Dept. of Energy, Mines and Resources, 580 Booth St., Ottawa, Ont.**



What's Happening Regionally

Saskatchewan

Canadian Plains Research Centre, coordinating research and information on appropriate technology. There are many on-going projects in solar, wind power, methane gas, self-sufficiency, agriculture etc. underway. Contact: Ewan Coxworth of the Saskatchewan Research Council, 30 Campus Drive, Saskatoon, Saskatchewan, or Peter Catania of the Faculty of Engineering, University of Regina, Regina, Saskatchewan.

Alberta

Faculty of Environmental Design, University of Calgary, Calgary offers on-going program in environmentally appropriate life support systems. Contact: Dixon Thompson, Trudy Kamphius.

Ploughshare. A cooperative farm at Alderflats, Alberta has a base of actively involved people concerned about community development and appropriate technology for Canada and the developing countries. They are investigating developing tools for cooperative market gardening, tanning hides and other practical skills while doing research in energy and its demands, and social responsibility in corporation practices. Contact: Barb Palm and Neil White at Ploughshare, 9915-89th Avenue, Edmonton, Alberta, and Edmonton Cross Cultural Learning Centre, Box 7689, Station "A", Edmonton, Alberta.

Manitoba

See: Solar Energy Society and Canadian Biomass Institute in 'The Canadian Perspective'

Northern Housing Committee is investigating and building dwellings in the north using indigenous material and skills to solve northern housing problems. "The residents of the north consume what they don't produce and produce what they don't consume." They have an abundance of wood which they want to use in a labour intensive program. Taking much from the ancients in log cabin building, working with the native community, using local sawmills, they want to demonstrate that appropriate technology can work for them in the region. Contact: Dr. Al Landsdowne, University of Manitoba, Dept. of Civil Engineering, Winnipeg, Manitoba and David Johns, Planning Secretariat to the Cabinet, Rm 132, Legislative Bldg., Winnipeg, Manitoba.

Nova Scotia

Resources Exchange Project – Information Exchange Network for Social Action, Monthly Newsletter, Telephone and Library Service, P.O. Box 612, Middleton, Nova Scotia 902-825-4902.

S.A.F.E. Society for Alternative Food and Energy, 1815 Hollis Street, Halifax, Nova Scotia. Contact: Marilyn Manzer, Margot Sorrel.

The Nova Scotia School of Art and Design, Halifax, Nova Scotia: Prof. Robert Parker and others are involved in environmentally oriented planning of new communities.

New Brunswick

Maplevale Organic Farm, Cross Creek, New Brunswick (30 miles north of Fredericton) offers 7 day summer earth skills workshops "Earthwise Learning Labour, Leisure" – they teach organic gardening, cheese making, weaving, bee-keeping, pottery, herb lore and home brewing on their 150 acres. They strive to be as self-sufficient as possible. For those who plan to farm or want to learn these practical skills, arrangements can be made for longer apprenticeship programs than the week long workshops. They welcome families and people of any age or walk of life who want a farm experience. The proprietors Judy and Hal Hinds publish **NORTHWIND**, a quarterly homesteading newspaper particularly relating to the situation in the Maritimes. Information sources and recipes are also featured. Subscription \$3.00 a year.

Newfoundland

Biology Dept. at Memorial University, St. Johns, Nfld. Contact: Dr. John W. Evans. Course on practically applied ecology. They are teaching self-sufficiency skills – bee-keeping, goat raising, sheep to sweater skills, food storage and butchering in a series of workshops. Wind, solar power, greenhouses, methane conversion, humus toilets are all part of the scheme in an integrated way. They are teaching the means with which to make the theory of the New Alchemists work. Will use video to take the program to some 20-30 communities throughout Newfoundland.

Quebec

The University of Sherbrooke, Sherbrooke, Quebec has a wind energy research program and is interested in the communication of information on wind energy. Contact: Professor Robert Camarano.

At MacDonald College of McGill University, St Anne de Bellevue, Quebec there are plans for an Alternate Energy Institute. It will examine how biological agriculture, nutrition, and preventative medicine can be incorporated into research, teaching, and extension programs. **Contact:** Dr. Stuart Hill or Joan Hodsman.

The Movement for Organic Agriculture (MAB) – Le Mouvement pour L'Agriculture Biologique, Clement Boulanger, 340 Willowdale, No. 2, Montreal, Quebec, was founded by people interested in promoting organic agriculture in Quebec. They are organized to help with education, mutual economic assistance, information sharing and cooperative regional grouping. They are working towards methods of efficiently supplying consumers and the greatest reduction of costs of production, storage and marketing.

They are working with the regional school boards in setting up agricultural programs which include apprenticeship suited to local needs. They are using video as a teaching aid.

They want to ensure that the costs of setting up and running small farms are not prohibitive to organic farmers. They want to ensure that Quebec legislation will not be an obstacle to this kind of food production.

Le Mouvement pour l'Agriculture Biologique publishes a bulleting of information about theory and production of food grown with a respect for the natural order of the earth.

University of Montreal School of Architecture, Montreal, Quebec. Individuals there are planning communities with citizen input and involvement. That space is a rare non-renewable resource and must be used carefully is the idea they want to get across to all people concerned with building and planning. They want more public involvement and participation so that real needs may be met. They expect to create a citizens' guidebook for planning and design. **Contact:** Peter Jacobs.

McGill University, School of Architecture, has the "Minimum Cost Housing Group" and "Shelter Systems for Developing Countries" which are trying to incorporate environmentally appropriate design and technology in planning dwellings and communities.

The Minimum Cost Housing Group set up the Ecol House made of sulphur blocks at the Brace Research Institute as well as experimental sulphur housing for native people in Alberta. They are working on designs for self composting toilets as in "Stop the 5 Gallon Flush" with the government of India and other international agencies. In addition to developing ideas, they are putting them into practice.

Shelter Systems for Developing Countries, with citizens who will occupy them, has been designing and building houses for the North Shore of Quebec and Native communities. They will use the sun and wind as sources of energy, the traditional materials of the area, peat moss for insulation, and self-composting toilets to minimize the need for sewage systems. **The Brace Research Institute** already referred to in the 'Canadian Perspective' has been developing technologies in these areas.

Community Garden Project at the University Settlement, 3553 St. Urbain St. Montreal, an inner city community centre. Rooftop and backyard gardening, and greenhouse experiments are underway in Montreal as part of the Urban Demonstration Program of Urban Affairs for the U.N. Conference on Human Settlement. They are growing food in the city, employing methods of biological agriculture.

Farm and Sea. The Naeve Farm, R.R. No.1, North Hatley, Quebec is a 'back to the land' summer experience for children. Their full program includes organic gardening, bread and "goodie" baking, healthy outdoor activities, a two-week trip to the sea, pottery, and an education in the respect of nature. **Contact:** Virginia Naeve.

Eastern Townships, The Corner Store, R.R. No. 3, Cookshire, Quebec 819-875-5171 is a food, crafts, furniture, marketing cooperative which represents farmers and homesteaders in the area. They are educating themselves in organic farming on a human scale, sharing information. (Newsletter available from above address).

Ontario

Energy Probe associated with Polution Probe in Toronto at 66 Melborne Ave., Toronto, is collecting information and people concerned with appropriate sources of energy and lifestyles for the future. Their concerns are directly related to real energy needs of society. They aim to demystify and popularize these issues to citizens at large.

At the School of Architecture at Carleton University, Ottawa, Ontario there is a course in Environmentally Appropriate Life Support Systems and communities. They are trying to integrate the technology, construction techniques and human elements to bring together hardware and social needs. **Contact:** John Flanders.

Nature's Way, R.R. 2, Godfrey, Ontario. Nature's Way is a community striving for an exchange commodity local economy. They grow their own organic food, build their dwellings from recycled materials and utilize appropriate technology for their energy sources. They have an integrated relationship with the farming community where they pool their resources. **Contact:** Joel Loken.

York University, Faculty of Environmental Studies, Toronto, Ontario has been studying low impact housing using appropriate technology. They are planning to begin actual building in the near future. **Contact: Rob MacDonald.**

Twin Valleys School, an Educational Community, RR No.1 Wardsville, Ontario. The school is teaching people to live in "harmony with nature" while teaching them how to make a living. Solar heating, windmills, biological agriculture (they grow 80% of their own food) biodynamics, methane gas conversion and many other forms of appropriate technology are applied on 100 acres of pasture land. Their new family energy unit like the ark will use no external sources of power. **Contact: George Bullied.**

St. Claire College of Applied Arts and Technology, Windsor, Ontario LIFESKILLS is a program that includes learning alternative technology and lifestyles. It offers a credit course available to all regardless of academic qualifications. It is an individualized program, which seeks problem solving by group process of self, family, job, leisure and recreation. The 'coaches' are skilled people from non-traditional backgrounds who are working with people who do not fit into traditional systems. **Contact: Gareth Lucier.**

The Waterloo Research Institute, University of Waterloo, Waterloo, Ontario is working on ways of reducing heat loss from solar collectors, a project funded by the Energy Research and Development Administration (ERDA) in the United States. **Contact: Blair Bruce.**

The University of Western Ontario, London, Ontario, in the Faculty of Engineering, Professors Robert Swartman and James Bolton are actively involved in solar energy research and communication. Dr. Swartman is a key figure in the Canadian Solar Energy Society.

British Columbia

Resources Exchange Project, P.O. Box 195, Victoria, B.C. Tel: 604-382-9898 Information exchange networks for social action, telephone, newsletter, library services.

Video Inn, a library and resource service. Video and tape catalogue 261 Powell St. Vancouver, B.C.

The School of Architecture at the University of British Columbia has a library and bibliography of material on solar power and its use. Research is being done on environmentally appropriate life support systems in this department. **Contact: Prof. Dino Rapanos.**

The Greenpeace Experimental Farm, offers a 10 week living-working-studying summer program which enables people to learn a variety of subjects and skills towards developing a personal lifestyle in harmony with the land. Subjects to be covered include basic applied ecology, development of manual skills and use of tools, principles and practices of organic gardening toward self-sufficiency, small scale natural energy resources and microclimatology. their philosophy and understanding of "Stewardship of the Earth" runs parallel to that of the "New Alchemists." **For information write: Tom Lang, The Greenpeace Experimental Farm, RR 1, Denman Island, B.C.**

Northwest Territories

North Wind Research & Communication, Box 72, Hay River, NWT, Tel: 403-396-2340. Works closely with the Territorial Farmers Association, Native Peoples, fishermen, hunters and trappers, in the organizing of a Renewable Resource Association. They are working towards implementing change and trying to meet the food production needs of their communities. **Contact: Don Dean.**

The Business and Development Sector, Dept. of Economic Development, Government of the Northwest Territories, Yellowknife, NWT. Tel: 403-873-7115 **Contact: Doug Billingsley.**

Assists projects which optimize energy use. There are experiments with greenhouses, windmills (used quite a lot in the north) and the use of waste heat from generators to heat buildings.

They offer assistance with gardening by testing the soil and giving seeds and tools. The delta has good soil. The concepts of the New Alchemists' Ark for a northern climate sound exciting to them as lettuce costs \$3.00 per head. There is a furniture making, crafts and general self-sufficiency encouragement which will "help anyone to try almost anything." Their Arts and Crafts Development section has assisted in the Spence Bay Craft Co-op.

C.O.P.E. (Committee for Original People's Entitlement), Box 2000, Inuvik, NWT Tel: 403-979-3510, has a series of on-going community projects and workshops which include cultural, educational and cooperative ventures.

Carcross Community Education Centre, Carcross, Yukon. Tel: 403-942-4391. Self-sufficiency and survival education are part of an integrated program where students acquire wide dimensions to their personal and academic development. They grow food, bake bread, and learn wilderness survival while learning decision-making and developing responsibility. They look to exploring appropriate technology in the north. **Contact: Dave and Ann Love.**

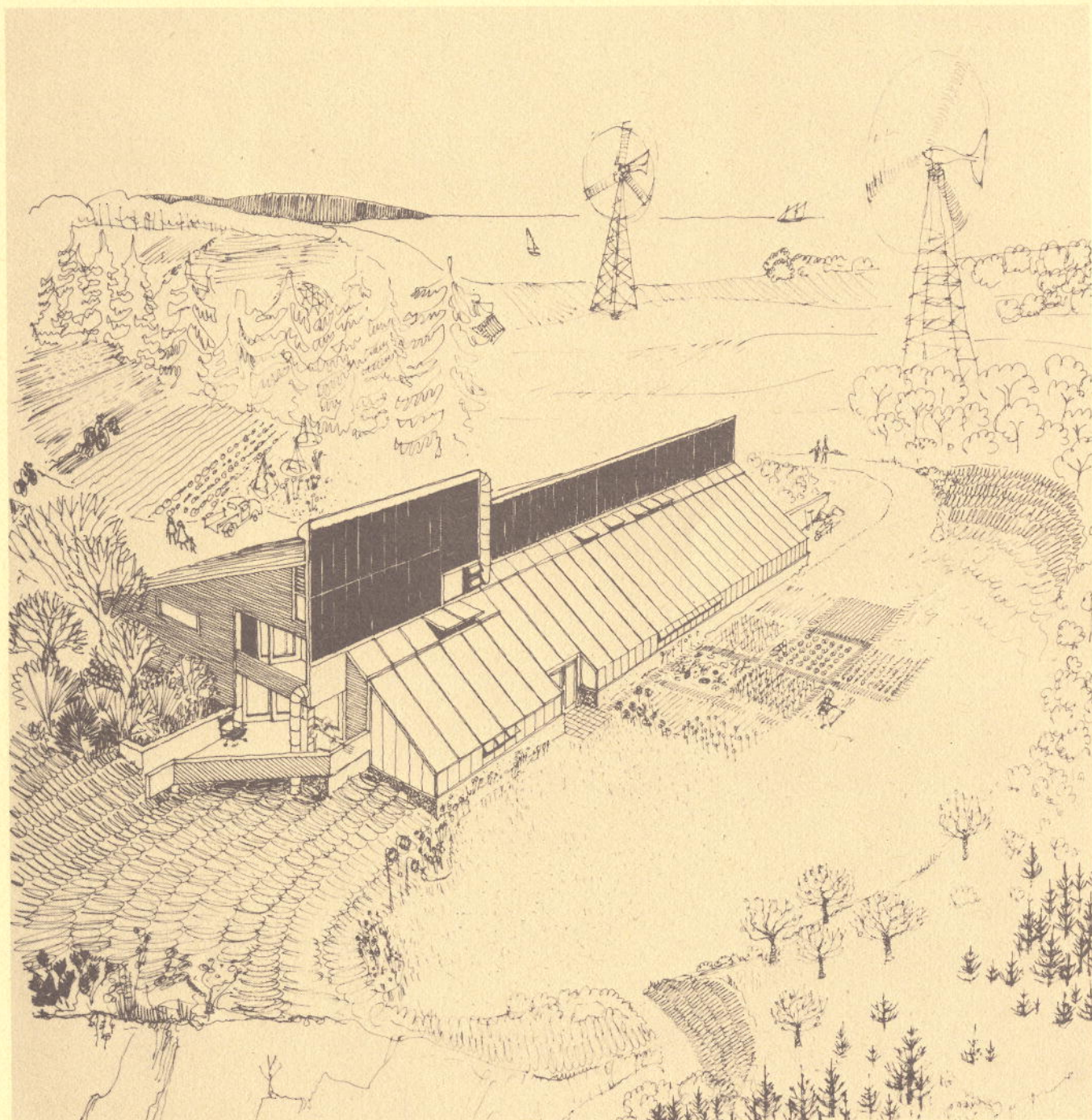
South of the Border

Social Ecology Program, Goddard College, Murray Bookchin Program Director, Plainfield, Vermont. 05667 USA. A 12-week summer program can lead to a Bachelors or Masters program in social ecology, environmental science or urban studies. On a 40 acres farm participants work and learn the theory and technology of alternatives. They are building solar collectors, low energy housing, testing agriculture, aquaculture, methane digestors. They are studying social aspects of ecological technologies in cities, health, nutrition, homesteading skills.

Post Script

Obviously this list is incomplete. We realize that there are many innovative people and projects across the country we should know about, however, it was decided to list projects of long standing or permanent nature so they could still be referred to in the longer range. Please let us know what you are doing.

WRITE: Challenge for Change
National Film Board
Box 6100
Montreal 101, Quebec



Architect's drawing: Prince Edward Island "Ark" for a northern climate

Companion Films to "The New Alchemists"

Bates Car – Sweet as a Nut (15 min 33 sec color 16mm 106C 0174 017) A delightful inventor from England uses methane gas from animal wastes to fuel his car.

Bill Loosley's Ground Heat Pump (9 min 52 sec colour 106C 0175 068) A man from Burlington, Ontario uses the principles of a refrigerator to take the heat from the ground to fuel his home.

Poisons Pests and People – in two parts. (29 min 25 sec each B&W 106B 0160 044) Long but good explanation of the chemicals used on foods with vivid demonstration of the destruction they cause – Part 2 shows the safe options for specific insect and pest control, leaving harmless ones intact.

Thoughts on the Future with George McRobie (28 min 40 sec color 16mm 106C 0174 118) The Intermediate Technology Group in England – values, ethics are discussed and technology illustrated at the Brace Research Institute of McGill University.

Edge of the Barrens (13 min 40 sec color 16mm 106C 0159 058/35mm 106C 0159 058) The exquisite beauty and fragile systems of the north before the pipelines, dams and "development" by the energy-gobbling southerners.

Wilf (20 min 41 sec color 16mm 106C 0168 076) In the beautiful Canadian countryside small farms have been dying due to the pressures of agribusiness and high costs. Question: Can options like those of the 'New Alchemists' reverse the cycle?

Niagara for Sale: (106C 0175 056 Color 50 min 2 sec.) What's happening in the Niagara fruit belt is happening everywhere in Canada. Should the most fertile agricultural land be "developed" into shopping centres, housing projects and industrial parks? Who should make the decisions? What will be the long term human costs? Where will we grow the food we eat?

Hard Times in the Country (PBS Public Broadcast Service) Small vs. big farms, agribusiness, control systems in the marketing process. Available from International Tele-Film Enterprises, 47 Densley Ave., Toronto, Ontario M6N 5A8.

Cities

The Innocent Door (29 min 27 sec color 16mm 106C 0173 551) The intensive planning that must go into making a city a place for people – in this case Jerusalem with architect Moishe Safde.

The Cold Spring Project (27 min. 20 sec color 16mm 106C 0174 506) Cold Spring is a new community being planned and built. The film deals with the rationale behind the project and follows the debate between interest groups seeking to modify it according to their views.

Urban Transportation Series:

Where Do We Go from Here? (22 min 15 sec color 16mm 106C 0173 081)

Regina Telebus (19 min 20 sec color 16mm 106C 0173 022)

A Bus for Us (14 min 35 sec color 16mm 106C 0172 093)

Urban transportation – part of a complex range of issues – social, environmental and political.

Encounter on Urban Environment (108 min B&W 16mm 106B 0171 022) A marathon town meeting intensively explores the issues that make up a city.

Chairs for Lovers (28 min 32 sec color 16mm 106C 0173 575) Citizens planning their own community in Vancouver.

City Limits with Jane Jacobs (28 min 45 sec color 16mm 106C 0171 092) What cities can and should be for urban dwellers, what they are not for most.

Co-op Housing: The Best Move we Ever Made 16mm color 106C 0175 050 22 min 25 sec/106C 0175 051 23 min 15 sec and **Getting it Together** The first film describes the co-operative alternative. The second outlines the experience of developing a housing co-op.

Ratopolis (56 min 40 sec color 16mm 106C 0173 097) A study of a rat colony with implicit analogies for all animal behaviour including man's.

Boomsville (10 min 12 sec color 16mm 105C 0167 064/35mm 106C 0167 064) A quick overview of the growth of the continent from a virgin territory to stifling contaminated cities of progress: After planet earth, man can go on to 'civilize' other planets.

Like Rings on Water (16 min 11 sec B&W 16mm 106B 0170 084) An English version of a Swedish film questioning the way our cities grow.

Organizing

The Man Who Can't Stop – The Sutton Plan (57 min 50 sec color 16mm 106C 0173 138) The film focuses on the problems of sewage wastes and one man's struggle to change systems and minds.

Organizing for Power: The Alinsky Approach Series

People and Power (17 min 21 sec B&W 16mm 106B 0168 068)

Deciding to Organize (34 min 5 sec B&W 16mm 106B 0168 069)

Building an Organization (37 min 28 sec B&W 16mm 106B 0168 070)

Through Conflict to Negotiation (45 min 36 sec B&W 16mm 106B 0168 071)

A Continuing Responsibility (42 min 35 sec B&W 16mm 106B 0168 072)

– Techniques and tactics for community organizing.

Challenge for Change (24 min 21 sec B&W 16mm 106B 0168 102) A film about the Challenge for Change program, how it is designed to improve communications, create greater understanding and provoke social change.

General

Hunger (11 min 22 sec color 16mm 106C 0373 087/35mm 105C 0373 087) Award-winning animated film satire of self-indulgence in a hungry world.

What on Earth (9 min 35 sec color 16mm 106C 0166 033). Animated film from a Martian viewpoint, showing life on earth as one long line of cars which they deem to be the true inhabitants.

The Sunny Munchy Crunchy Natural Food Shop (9 min 57 sec color 16mm 106C 0173 027 35mm 105C 0173 027) A world of food untouched by chemical additives or sprayed by poison.

The Earth and Mankind Series – made in 1961 but still relevant.

People by the Billions (27 min 53 sec B&W 16mm 106B 0161 061)

Man and His Resources (27 min 53 sec B&W 16mm 106B 0161 062)

To Each a Rightful Share (28 min 1 sec B&W 16mm 106B 0161 063)

The Global Struggle for Food (28 min 1 sec 16mm 106B 0161 064)

Can the Earth Provide (28 min B&W 16mm 106B 0161 065)

Challenge to Mankind (27 min 55 sec B&W 16mm 106B 0161 066)

A survey of world population and food supply showing that the problem transcends national boundaries, threatening man's survival as seriously as the Bomb.

The NFB Environmental Films Package. Fred Riche, NFB, P.O. Box 6100, Montreal, Quebec. Headings include children's films, human settlement, Canadian northland, conservation and nature, water, lifestyles and environment.

Canada's Water for Sale by Richard Bocking for the CBC. Who are Canada's resources for? Who makes the decisions and why? Available at the Visual Education Centre 115 Berkeley St. Toronto. Full Version: 55 min, shorter one 21 min.

Water from the Sun – The Cooper Pedy Solar Still (14 min 16mm) Good description of how the solar distillation process works on a large scale.

Solar Water Heating (13 min 16mm) Explanation and examples of this process. Both of these available free of charge from Brace Research Institute, MacDonald College of McGill University. St. Anne de Bellevue. Shipping costs must be paid by the receiver.

Diet for a Small Planet (28 min 16mm color). Can be rented from: MacDonald College, St. Anne de Bellevue, Quebec c/o Joan Hodsman, Box 86. Tel: 514-457-6581 (local 360) or purchased from: Bullfrog Films Inc. Box 114, Milford Square, Pa. USA 18935 Tel: 215-536-9060.

Explores the nutrition of protein, the ecological cost of meat protein and cooking with complementary protein.

The Environment Film Review: A Critical Guide to Ecology Films. From Environment Information Centre, Film Reference Dept., 124 East 39th St. New York, N.Y. Describes the film content and quality, each review lists film lengths, whether B&W, whether free, rental or purchase costs.

In the summer of 1974 the British Columbia government hosted the **Alternate Energy Show** of which a film was made.

"Alternate Energy" (22 min 16mm color) contains two themes – 1. a survey of alternative energy systems, i.e., solar, wind, geothermal, alternative vehicle 2. changing lifestyles from a consumer society to a conserver society. Available from: B.C. Hydro and Power Authority, 970 Burrard St. Vancouver, B.C. 604-683-8711

Native People and Resource Development

Our Dear Sisters (14 min 40 sec 16mm color 106C 0175 048) Alanis Obomsawin a native North American singer and filmmaker talks about her culture and its attitudes to children among other topics. It emphasizes a value system which is disappearing from white society.

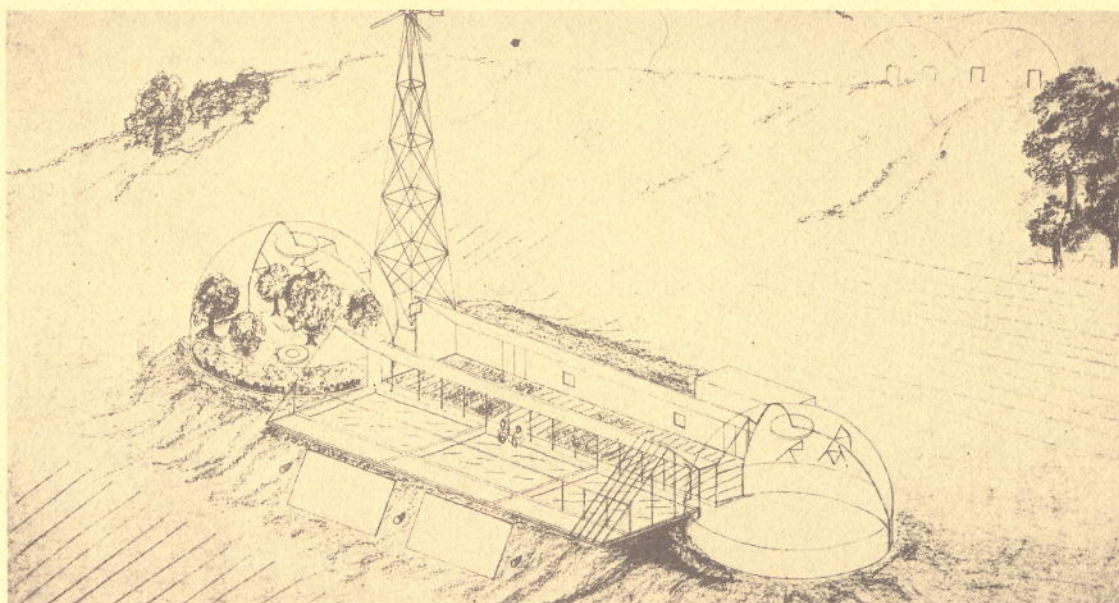
Like the Trees (14 min 30 sec color 16mm 106C 0174 006) A Métis woman long suffered from society's pressure that she be 'somebody else'. Oppressed peoples have much in common whether they be members of an actual minority or of the minority of 51%.

The Land is the Culture and their culture has a future. Produced by the B.C. Indian Chiefs. The B.C. Indians talk about the destruction of their land, the recognition of their rights and land claims. Available from the union of B.C. Indian Chiefs, 2140 West 12th Avenue, Vancouver, B.C.

Cree Hunters of Mistassini (57 min 53 sec color 106C 0174 001) and **Our Land is Our Life** (57 min 50 sec color 106C 0174 152). The James Bay Cree explain the environment as their mother, how it nurtures and sustains them physically and spiritually. They show their culture and lifestyles before the flooding takes place and their struggle to maintain them, in the face of environment.

The Other Side of the Ledger (42 min 22 sec color 106C 0172 067) Native people in the north talk about their side in dealings with the Hudson's Bay Company.

Death of a Delta (16mm color 27 min) documents the urban industrial aspects of the WAC Bennett Dam on the Peace River as well as the human, ecological and financial losses being suffered by the Métis and Indian peoples who live downstream in the Peace Athabasca Delta of North-Eastern Alberta. Available from Film Frontiers Ltd., 3, 12062 Jasper Avenue, Edmonton, Alberta 403-488-6788, New Cinema, 35 Britain St., Toronto, Ont. and Melnyk Association Ltd. 464 McNichol Avenue, Willowdale, Ont.



Twin Valleys Family Energy Unit

Some Reading Suggestions

The Journal of the New Alchemists. Vol 2. available from P.O. Box 432, Woods Hole, Mass. 02543 USA Published several times a year.

Environmentally Appropriate Technology – Developing Technologies for a Conserver Society in Canada – by Bruce McCallum, advisor Conserver Society, Advanced Concepts Centre, Office of the Science Advisor, Environment Canada. 7th Floor, Fontaine Building, Ottawa, Ontario

Small is Beautiful by E.F. Schumacher. A study of economics as if people mattered. Abacus Edition. Paperback.

Toward a Steady-State Economy. Edited by Herman E. Daly. Pub. W.H. Freeman and Company, San Francisco. Paperback.

Energy for Survival – The Alternative to Extinction. by Wilson Clark. Anchor Books, Anchor Press, Doubleday. Paperback.

Energy Ecology and Economics. by Howard Odum. From Environmental Information Centre, 935 Orange Avenue, Winter Park, Florida. Paperback

Nuclear Energy in Canada. Potential and Problems by Thomas L. Perry Jr. in *Nature Canada*. Vol 3 No 2 April/June 1974.

Nuclear Power in Canada. Fact Sheet. The Nuclear Committee. 1907 River Drive, New Westminster, B.C.

Poisoned Power: The Case Against Nuclear Power Plants. by John W. Gofman and Arthur R. Tamplin. Pub. Rodale Press Inc. 1971 Emmaus, Pa. About the US reactors but important none the less.

Cantdu – A Case for Alternative to Nuclear Power – as prepared by Cantdu. 171 Essex St. Goderich, Ontario. Tel: 524-9801 (8016)

Direct Use of the Sun's Energy by Farrington Daniels. Pub. Ballantine Books, N.Y. Paperback.

Energy and Man: The Need for Alternatives. by Robert K. Swartman. Faculty of Engineering Science, University of Western Ontario, London, Ont.

Solar Energy Society of Canada Inc. P.O. Box 1353, Winnipeg, Manitoba R3C 2Z1. Literature and newsletter on solar power.

Task Force On Energy Research and Development: Solar Energy R&D Program outline. March 1975. From office of Energy R & D, Dept. of Energy Mines and Resources, 580 Booth St. Ottawa, Ont. K1A 0E4.

Cloudburst. A handbook of Rural skills and Technology. \$3.95. Box 79, Brackendale, B.C.

The Smallholder. c/o General Delivery, Argenta, B.C. Monthly bulletin local to the west in appropriate technology.

Handbook on Appropriate Technology offers small scale practical ideas for resource-poor communities, suggests tools, equipment, and methods appropriate to their needs and resources. Write: The Canadian Hunger Foundation 75 Sparks St. Ottawa, Ontario.

Wind Energy Bibliography. from Windworks. Box 329, Route 3, Mukwango, Wisconsin. 53149.

Stop the Five Gallon Flush – A Survey of Alternate Waste Disposal Systems from minimum Cost Housing Group, McGill University, Montreal.

Methane Gas from Animal Wastes. 1974. Publication 1528 available from Agriculture Canada, Ottawa, Ontario.

Environmentally Appropriate Housing. 25 pages. sections on: Ecological design principle, energy systems-heating and electricity, waste recycling, equipment distribution in Canada. Advance Concepts Centre-Bruce McCallum. Available late fall 1975.

Alternate Sources of Energy – Practical Technology and Philosophy for a Decentralized Society. Edited by Sandy Eccli. Pub. Rt.2, Box 90 A, Milaca, MN. 56353.

Mother Earth News P.O. Box 70, Henersonville, N.C. 28739.

The Energy Primer. Portola Institute 1975. Available in bookstores or from the Whole Earth Truck Store, 558 Santa Cruz Ave. Menlo Park, Cal. 94025 \$4.50 Has extensive bibliography of biological agriculture, appropriate energy and technology.

Peter Harper's Directory of Alternate Technology, in Architectural Design, Nov. and December issues 1974 contains a vast number of world wide references in "the field" for people with all kinds of interests. His introduction, states "the social versus the technical, is in one sense speaking of 'alternate technology'" as an emphasis on 'software', patterns of organization, social relationships and ways of seeing things as opposed to an emphasis on 'hardware', 'technology in its vulgar sense of gadgets and technical fixes.' Another sense in which 'alternative' could be better understood, is that of de-institutionalized, small-scale, make-do 'from below' situations as opposed to centralized export – dominated 'from above' solutions. The directory is in two parts – one covers A.T. material, the second special areas, i.e. food, energy, shelter, tools, materials and waste use; third world; organization. 28 Bloomsbury Way, London WC1 England.

Alternative Technology and the Politics of Technical Change by David Dixon. Fontana Books (England). Paperback. Also article in Architectural Design. 26 Bloomsbury Way, London. 44.7 July 74. 401-402.

Sources by Theodore Roszak, an anthology of contemporary materials useful for preserving personal sanity while braving the technological wilderness. Publisher Harper and Row. Paperback.

Appropriate Technology, a quarterly journal, published by the **Intermediate Technology Development Group**, Parnell House, 25 Wilton Road, London SW1, England, with which E.H. Schumacher and George MacRobie are associated, is a very important source of advice and material on small scale technologies for the third world.

Annotated Bibliography of New Alchemy Information includes publications on agriculture, energy, land use and ongoing work of the group. Send for it at Box 432, Woods Hole, Mass. 02543 USA. free.

Aquaculture: The Farming and Husbandry of Freshwater and Marine Organisms. J. Bardach, J. Ryther and W.O. McLarney. John Wiley & Sons 1972. Paperback. The definitive English text in this field.

Brace Research Institute at MacDonald College, St. Anne de Bellevue 800, Quebec, has a number of 'How To' booklets available to the public. They can be obtained in French and Spanish as well.

How to Make a Solar Still (for the distillation of water)

How to Make a Solar Steam Cooker (for boiling foods)

How to Heat Your Swimming Pool Using Solar Energy

How to Build a Solar Water Heater

How to Construct a Cheap Wind Machine for Pumping Water

How to Make a Solar Cabinet Dryer for Agricultural Produce

Post-Scarcity Anarchism by Murray Bookchin. Ramparts Press. Berkeley 1971. Contains the well-known essay "Towards a Liberatory Technology." Paperback.

S.T.O.P. (Society to Overcome Pollution) Press Vol 4 No. 1, Feb. 1975 issue. 1361 Greene Avenue, Westmount, Quebec.

Canada's Energy Crisis by James Laxer. Pub. James Lewis and Samuel, Toronto 1974. Paperback.

To Live on Earth – Man and His Environment in Perspective – a Resources for the Future study by Sterling Brubaker, Mentor Books. Paperback.

Canada's Energy Opportunities. Science Council of Canada Report No. 23 March 1975. Also a little summary booklet, both available from Information Canada. The Science Council looks at Energy in terms of demand and supply, for today and the future, substitutions, conservation, environment, policy making and technology. Although it completely accepts a nuclear future, it suggests the desirability of appropriate technology, while calling for a National Energy policy and an examination of policies toward curbing energy demand.

Conservations with Canadians About the Future. A report on the Conserver Society Project of the Advanced Concepts Centre Department of the Environment, Ottawa, Canada, by Kathy Starrs (The Public Policy Concern). Contains images of a most likely and those of a most desirable future. It examines the critical issues in terms of the bonds between us, value systems, institutions, decision making, communications, decentralization and suggestions for public policy action. To be available from Information Canada in French and English in December 1975.

Bulletin Gamma (Groupe Associé Montréal McGill pour l'étude de l'Avenir) Vol 1 No.1 Gamma's first project a study of the implications of a "Conserver Society" in Canada founded in 1974. Gamma aims at promoting interdisciplinary, interuniversity and intercultural studies relating to long term exploration and forecasting. The purpose of the Bulletin is to inform the public of the future study activities. (See further in "The Canadian Perspective.")

Futurist Magazine has many good articles on appropriate technology design and lifestyles. The December 1974 is particularly recommended. World Future Society, P.O. Box 30369, Bethesda Branch, Washington, D.C. 20014.

Food

The Business of Food. Articles on who controls the food industry, what we eat, in "Our Generation" Vol 9 No 4. (available from 3934 rue St. Urbain, Montreal

Hard to Swallow by Walter Stewart – publisher MacMillan & Co. about food and agribusiness in Canada.

Diet for a Small Planet. Frances Moore Lappé. Ballentyne. Paperback.

The Politics of Food. Don Mitchell. James Lorimer & Company publishers. Explanation of original production on the farm to distribution to consumers. He offers an alternative approach which could end high prices, private profiteering and the exploitation of farm workers, food industry workers and consumers. Paperback.

Food for Naught. The decline in nutrition by Ross Hall. Harper and Row.

Karl Hess: Technology with a Human Face. Nicholas Wade. Science Magazine. Vi87 Jan 31/75. Cooperative food production innovations in the city.

Cities and Lifestyles

The Future of Canadian Cities. Boyce Richardson. New Press. Toronto 1972. Concentrating on the major Canadian cities, the author demonstrates that there are still options open for the cities. The point is to stop imitating U.S. models of uncontrolled growth. Paperback.

City Magazine, 35 Britain St. Toronto, Ont. M5A 1R7. This is a new magazine about Canadian cities – politics, planning, architecture and citizen organizing, written by activists, academics and planners. Subscription 1 year (8 issues) \$7; 2 years (16 issues) \$13.

The Limits of the City. Murray Bookchin Harper, Colophon Book. If not in local bookstores, available Black Rose Books, 3934 St. Urbain, Montreal. A critical evaluation of what cities have become and why. The purpose of the book is to show a process – the internal connections between different periods of urban history and to recognize that urbanism must be viewed as a development that places us in a unique position to go beyond the city as such and produce a new type of community, one that combines the best features of urban and rural life in a harmonized future society. Paperback.

Highrise and Superprofits by Barner, Penny and Seccombe, published by Dumont Press Graphics, Kitchener Ontario; an explanation of the contradictions in the present system of urban land development it discusses the housing crisis and the anti-developer struggles by tenants and citizens groups in Canada.

The Rules of the Game. A handbook for tenants and homeowners.

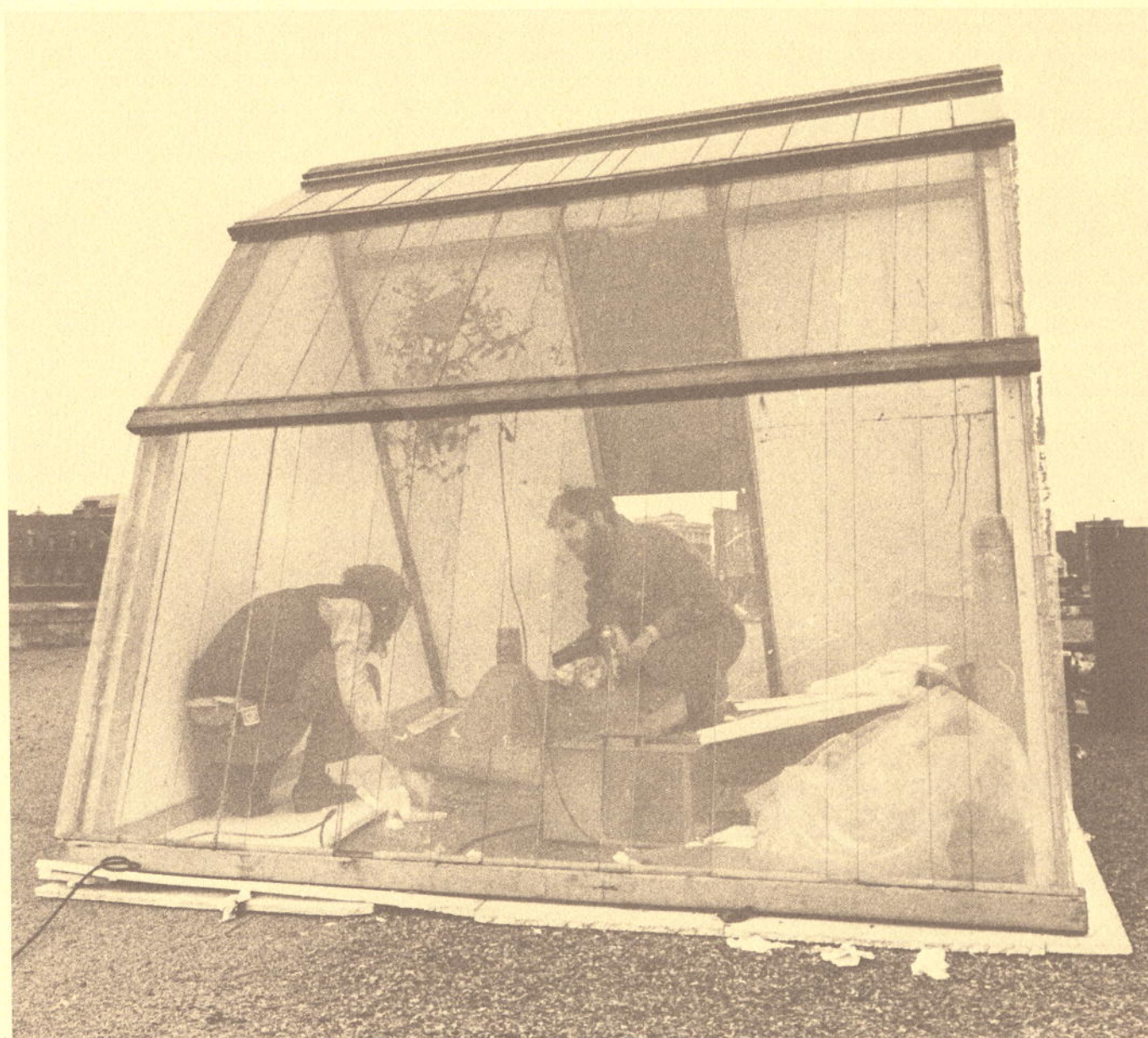
The Tail of the Elephant. A guide to regional planning and development in Southern Ontario.

Both from Pollution Probe, University of Toronto, Toronto, Ontario.

Co-op Housing by Andy Taylor and Cathie MacLeod, published by Challenge for Change/Société Nouvelle as a companion to the two films "**Co-op Housing: The Best Move we Ever Made**" and "**Co-op Housing: Getting it Together**" (see film list). This booklet gives a close look at the development and implementation process of cooperative housing for use as a guide for groups interested in this solution to housing problems.

The Alternative in Canada by Jeff Solway. A study of alternate lifestyle options possibly the vanguard of cultural experience and economic development in Canada. "Doing more with less, doing more for yourself, doing more collectively" has resulted in housing, food, production and marketing co-ops, community services and co-op land purchases. Objectives are community, personal and interpersonal growth and fulfillment, increased self-sufficiency in urban and rural settings. It also includes Eskimo and Indian Cooperative developments in Canada. Available from the Secretary of State Dept. Policy branch – citizenship, Room 1015, 66 Slater St. Ottawa, Ont.

Living the Good Life by Helen and Scott Nearing. Schochen Books 1960. Paperback. The saga of two 'back to the landers' who made it work for themselves while inspiring others to do the same.



Experimental greenhouse design for a northern climate

Agriculture

The Preservation of Agricultural Land, Seminar on Land Use in Canada, by Dixon Thompson, Faculty of Environmental Design and Division of Continuing Education, University of Calgary, Calgary, Alberta. A brief analysis of the problems of land use management, and some recommendations for future policy changes with regard to food production conservation, rehabilitation, transportation, climate and control of land speculation.

Fertility Farming by N. Turner. Available from Bargyla Rateaver, Pauma Valley, California. 92061.

Compost Science (bimonthly magazine \$6/yr) Rodale Press. Emmaus, Pa. 18049. Good journal on organic waste recycling. Describes both experiences and research in popular style with technical back-up.

Down to Earth. Real principles for fertilizer practice. Crosby Lockwood & Son. London.

China's Way with Waste by Orville Schell – The culture factor makes all the difference. The Ecologist Magazine Feb. 1973. Catesby, Molesworth Street, Wadebridge, Cornwall, England.

Organic Gardening and Farming. 1973. Organic Fertilizers. Which ones and how to use them. Rodale Press. Emmaus, Pa. A good simple practical book.

Seaweed in Agriculture and Horticulture by W.A. Stephanson. 1968. Faber & Faber, London. Very good if you live near the sea. Available from Bargyla Rateaver. Pauma Valley, California 92061 USA.

Public Education

The De Energizer. A pamphlet designed to explain to students the need for energy conservation. It also includes mention of the use of renewable sources of energy in Canada. Available free from the Dept. of Energy, Mines and Resources, Ottawa, Ont. – and A Teachers' Guide for its use. This contains an explanation of terms and units and a select bibliography of relevant material.

Environmental Information Referral Centre. A list of publications and audio visual materials on the environment and renewable resources from Canadian Environment Groups, governments and public agencies. Compiled by Environment Canada – available from Information Canada bookstores.

Environmental Education: A Source Book. Troost and Altman – John Wiley & Son, Toronto 1972. A good Canadian guide to environmental and education sources.

100 Ways to Save Energy and Money in the Home. Tips on how you can stretch Canada Energy resources and put money in your pocket – free from Energy, Mines and Resources, Ottawa.

Energy and the Environment. I. Efford and B. Smith (editors) University of British Columbia. 1972. Vancouver, B.C. Paperback.

The Best Present of All. A fairy tale dealing with the pros and cons of various energy sources including the sun. For older children. Available from National Wildlife Federation. 1912 16th St. NW. Washington, D.C. 20036

Mankind at the Turning Point. Second report to the Club of Rome by Mihailo Mesarovic and E. Pestell. Dutton Readers Digest or Clarke Irwin Paperback.

The Technological Society by Jacques Ellul. Publisher Random House. A penetrating analysis of our technical civilization and the effect of an increasingly standardized culture on the future of man. Paperback.

Native People, Energy and Resource Development

James Bay: The Plot to Drown the North Woods. Boyce Richardson. A concerned background: The historical, political, cultural, environmental, energy and resource aspects of the James Bay project.

Sellout. The Give-away of Canada's Energy Resources by Philip Sykes, Hurtig Publishers. Paperback.

The Violated Vision. The rape of Canada's North. by James Woodford. McLelland and Stewart, Toronto 1972. Paperback.

The MacKenzie Pipeline Arctic Gas and Canadian Energy Policy. Edited by Peter H. Pearse, a Carleton Contemporary – McLelland and Stewart 1974. A series of articles covering the native peoples energy needs and environmental impact. Paperback.

Arctic Alternatives. Edited by Douglas H. Pimlott and Kitson M. Vincint, Christine E. McKnight. Canadian Arctic Resources Committee (CARC) 53 Queen St. Ottawa. 1973. Deals with native and environmental questions. Paperback.

Series of Energy Special Reports. by Pollution Probe. Available at Pollution Probe, at the University of Toronto, Toronto, Ont.

Canada's Water for Sale. Richard Bocking, James Lewis and Samuel. Who are Canada's Resources for? Who makes the decisions and why? Paperback.

Akwesasne Notes – Mohawk Nation (via Rooseveltown, N.Y. 13683) A fine native people's newsletter which reflects the native experience in North America often intrinsic to energy development.

How to Make it Happen

How People Get Power by S. Kahn. – Organizing oppressed communities for action. McGraw Hill. 1970. Paperback.

Radicals in Urban Politics – The Alinsky Approach. Robert Bailey Jr. Un. of Chicago Press.

The Power to Make it Happen. Donald R. Keating. Greentree Publishing. Paperback.

Ecotactics. Sierra Club handbook for Environmental activists edited by John G. Mitchell and Constance L. Stallings – introduction by Ralph Nader – Simon Shuster paperback. Has a good bibliography of other sources of material.

Consumer Beware. Ellen Roseman. A guidebook to consumer rights and remedies in Canada. New Press 1974. Paper.

Co-Evolution – a quarterly by Stewart Brand. Follow up to the Whole Earth Catalogue – How to do it yourself and survival philosophy. Box 428 Sausalito, California.

Rules for Radicals. and **Reveille for Radicals,** by Saul Alinsky. Vintage Books. Paperback.

People or Personnel. by Paul Goodman. Paperback from Randon House.

"Last Post", 454 King St. West, Suite 302, Toronto, Ont. M5V 1L6. A Canadian magazine which critically delves into the background of energy, financial, and social concerns. Subscription for 1 year (8 issues) – \$5.00.

"Our Generation", 3934 rue St. Urbain, Montreal, Montreal 131, Quebec has evolved a radical analysis relevant to industrial-technical society. Individual copies – \$1.75. Subscription – 1 year (4 issues) \$7.00.

"Win Magazine" – Peace and freedom through non violent action Box 547 Rifton, N.Y. 12471. \$7.00 yearly.

Environment Program

The Environment Program is a new production unit within the National Film Board of Canada. This program of some 50 films, centred on four major themes, will address important issues of our time.

Food and Agriculture: (first year of production) – looking at various aspects of food production, distribution and consumption.

Energy: (second year of production) – a group of films examining the production of energy, the use of energy, and energy conservation, as well as an analysis of energy resources.

Consumer Society and Appropriate Technology: (third year of production) – What answers can be found in changing lifestyles and attitudes combined with technology more appropriate in scale and design to basic needs.

Environment Ethics, Attitude and Social Responsibilities: (Fourth year of production) – An examination of underlying attitudes and philosophies which connect the variety of concerns in the first three themes.

Format and Audience. The four themes of the program each represent a two and one half hour package of film. Each package contains 10 or 12 short films addressing various subjects within the main theme. The films will be of differing lengths and styles.


In general, the tone of the films will be optimistic. They will demonstrate realistic choices available to a wide range of people, and offer positive examples for action by the individual.

The Environment Program is producing a number of longer films on subjects related to environment, technology, science and society in addition to the program described above.

For further information contact: Environment Program
National Film Board of Canada
P.O. Box 6100, Station A
Montreal H3C 3H5



Rooftop garden



Direction: Dorothy Todd Hénaut
Camera: Martin Duckworth
Assistant Camera: Robert Karstens
Sound: Hugues Mignault
Music: Marsha Johnson, Joe and Lou Mollvaine,
Robert Karstens
Editing: Torben Schioler
Sound Editing: Gérard Sénécal
Still Photography: John Cressey, Hilda Atema
Commentary: Stanley Jackson
Narration: Virginia Slike
Re-recording: Michel Descombes
Producer: Colin Low
Executive Producer: Len Chatwin

Challenge for Change/Société nouvelle is a participation of the National Film Board of Canada with departments and agencies of the Government of Canada.

Brochure researched and written by Dorothy Rosenberg
Cover and design by Tib Beament