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## Monthly Planet, 1986, April

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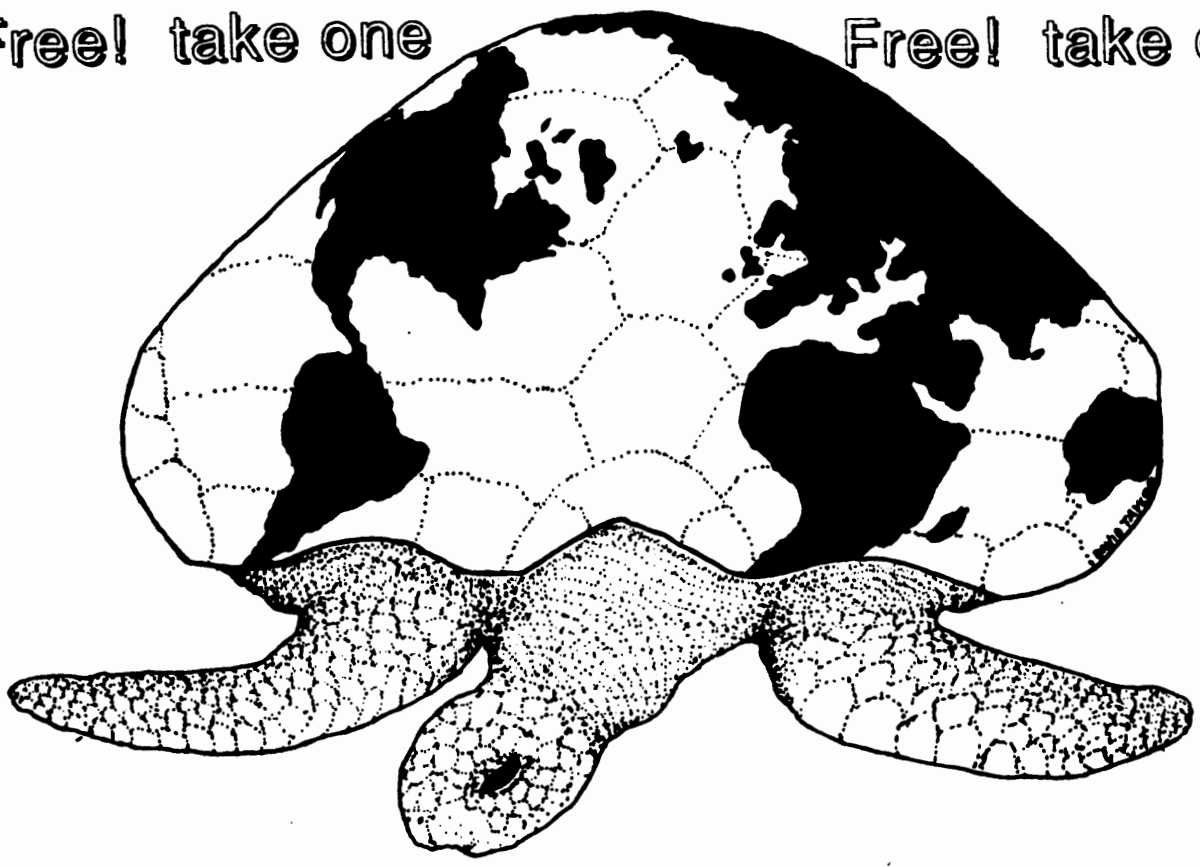
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# Monthly Planet

A PUBLICATION OF THE ASSOCIATED STUDENTS  
ENVIRONMENTAL CENTER WESTERN WASHINGTON UNIVERSITY

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Free! take one



## THINK GLOBAL, ACT LOCAL PART TWO

In this issue:

**Global perspective:** reports on Nepal (p.5), Nicaragua (p.10), China (p.4), the Transboundary Conference (p.3),

**Local action:** our "Frontier Mentality" (p.6), the dangers of smoking wood (p.7), of irradiation (p. 8), poems, and more.

VOLUME VII NUMBER III APRIL 1986

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THE MONTHLY PLANET is published  
twice a quarter by the Associated  
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do not aim to be free of opinion,  
only to print any opinion.** The  
opinions expressed herein are not  
necessarily those of the A.S., the  
Environmental Center or our  
advertisers.

**YOU CAN PARTICIPATE !!**

You are most welcome to submit  
letters-to-the-editor, articles, poetry.  
Your comments and critique are eagerly  
awaited. The deadline for submissions  
to our next issue is April 25th.

**A million apologies** to all our writers  
and contributors for the large number of  
type-Os in the last issue, and  
especially to Douglas Dobyns, whose  
poem appears, in corrected form, on  
page 11.

What we are looking for is what is looking.  
- St. Francis of Assisi

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# Think Global, Act Local

## A Closer Look at Our Theme and the Green Movement

How do we go about thinking globally  
and acting locally? According to many  
people, books, and articles dealing with the  
subject the only way that we can achieve a  
global goals is through change-- not reform,  
but a change in our politics, economics,  
values and goals. And if the world is to  
change, they contend, individuals must  
change.

According to Marilyn Ferguson, (author  
of The Aquarian Conspiracy, 1980 -- a book  
about personal and social transformation)  
individuals change their minds in four basic  
ways: First, there is the "change by  
exception"... a change which maintains the  
old belief system -- yet allows for a  
number of deviations. "An individual" writes  
Ms. Ferguson, " who engages in change by  
exception may dislike all the members of a  
particular group "except" one or two. He  
may think that psychic phenomena is  
nonsense, yet still believe that his great  
aunt's dreams came true." The second  
type of change is "incremental change" -- it  
occurs little by little and the person is not  
aware of having been changed. Then there  
is the third... "pendulum change" ; the  
letting go of one belief system for another.  
"The hawk becomes a dove." writes Ms.  
Ferguson, "the religious zealot becomes an  
atheist, the promiscuous person becomes  
a prude-- and vice versa, all the way  
around." The fourth way of changing , and  
according to many social researchers a  
type of change that is occurring the world  
over, is the "paradigm change". "It",  
according to Ms. Ferguson, " is the new  
perspective, the new insight that allows the  
information to come together in a new  
structure or form."

Paradigm change integrates the right or  
desirable of an old view into the new, and  
accepts the notion of the continual refining  
of the new way. In paradigm change we  
realize that our previous views were only  
part of the picture and what we know now is  
only part of what we will know later. It is this  
change that many say must take place if we  
are to deal with the global crises of  
environmental degradation, economic  
chaos, social inequality and exploitation.  
(To name just a few!).

"The first step in overcoming the global  
crisis" writes Fritjof Capra and Charlene  
Spretnak (authors of "Green Politics-- a  
global promise", 1984), " is to recognize a  
new 'paradigm' - a new vision of reality."  
"During recent decades", they continue,

"all of the old assumptions : unlimited  
material and technological growth, the view  
that the universe is a mechanical system  
composed of elementary building blocks,  
the view of life as a competitive struggle for  
existence--- have all been found to be  
severely limited and in need of radical  
revision. The emergence of Green politics  
in many countries is part of that revision...  
it is an ecological, holistic movement that  
transcends the old political framework... it  
emphasizes the interconnectedness and  
interdependence of all phenomena, as well  
as the imbeddedness of individuals and  
societies in nature. It calls for social  
responsibility and a sound, sustainable  
economic sytem, one that is ecological,  
decentralized, equitable and comprised of  
flexible institutions, one in which people  
have significant control over their lives." Green politics in short, is the political  
manifestation of the cultural shift to a new  
paradigm -- through *change*.

Think globally, act locally -- the Green  
movement does just that..."It is a  
movement" writes Capra and Spretnak,  
"which grows from below, manifesting itself  
first locally in the form of green alliances  
and coalitions and subsequently in the  
formation of national green parties." Green  
politics, with parties emerging in Austria,  
Belgium, Britian, Denmark, Finland, France,  
Ireland, Luxembourg, Spain, Sweden,  
Switzerland, and Canada-- is a global  
phenomena. The German green party (die  
Gruenen) achieved its integration into an  
existing political system in 1983 by winning  
27 seats in parliament through popular  
vote.

The Green movement, offers a new  
perspective, and a new way of dealing with  
old problems... think globally , act  
locally...imperative to which is personal  
change.

What follows is a brief excerpt of a  
conversation the author had with Dr. David  
Clarke (professor of Political Science and  
Environmental Studies at Western) on the  
topic of change, the Green movement, and  
the environment.

"Environmental problems have two main  
causes: population growth and economic  
growth.

We live in a society whose central  
values are growth, productivity and

➔ continued on page 11

# Transboundary Conference

## Students Talk Bioregionalism and Tactics

Participants in the "Transboundary Conference" earlier last quarter considered the practical side of environmental protection. Highlights from the conference included workshops on the successful protection of Mt. Baker, Hopi-Navajo relocation, dilemmas facing environmentalists in Canada, synergetics and making bioregionalism work in Montana. Discussion at the conference, hosted by the WWU Associated Student's Environmental Center, focused on accomplishing goals.

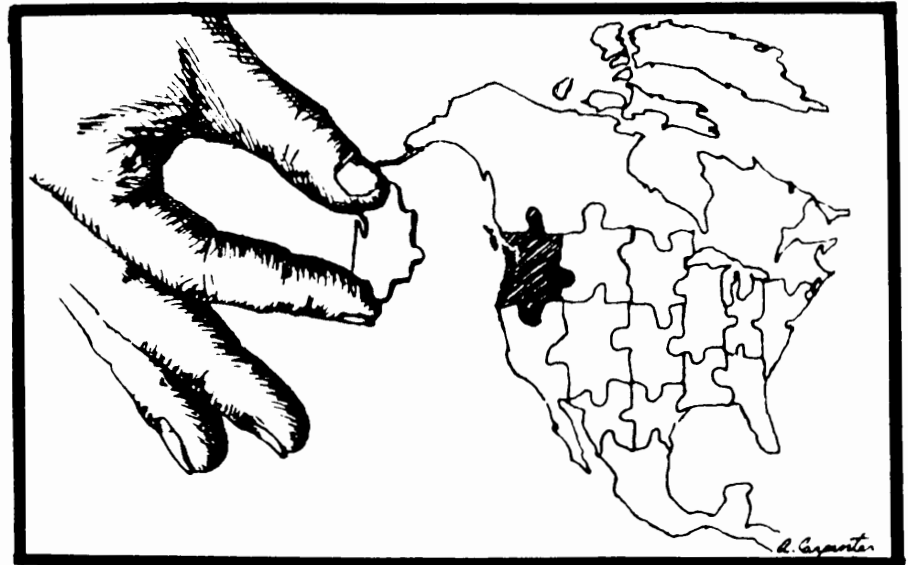
How can individuals or groups influence environmental decision making? Conference participant Frank Ancock was active in getting the Mt. Baker Wilderness Area established. Ancock said that honesty and accuracy were vital in establishing a working relationship with decision-makers. "Understate your case if you have to," he said. "We gave them an honest answer -- even if it didn't make us look good." Ancock worked with Representative Al Swift's environmental aide and got to be known as "a regular". "People began to respect the Mt. Baker Wilderness group, which was obviously biased, but reliable" Ancock said.

Ancock talked with his opponents, Off-Road vehicle enthusiasts, who were against designating Mt. Baker as a Wilderness Area. "By showing up we proved we were responsible. It took some of the emotion out of the conflict. They (O.R.V. people) saw that we were just regular folks like them, and not 'freaks', or 'wierd granola-eaters'," he said.

Students from universities in Montana, Victoria, and from Western shared their perspectives on bioregionalism at the conference. Long-term changes they would like to see include a re-drawing of boundaries to reflect ecological regions (as opposed to political regions) and the development of regional conservation strategies.

Bioregionalism is a growing environmental view that emphasizes making decisions at the local level while trying to solve common problems with other groups in a bioregion. Activities such as operating a factory, logging a mountain-side or diverting a river have an impact on the rest of a region. That impact needs to be considered because sometimes those who are receiving benefits from an activity are not assuming all of the costs of it.

The Columbia Basin could be thought of as a single bioregion, including southern B.C., Washington, western Montana,



northern Idaho, and northern Oregon. Although bioregions encompass a much larger scale than most people are used to thinking on, they reflect more than arbitrary political boundaries do.

"Realistically, boundaries won't disappear ... but we can work and think around them," said Danny Packer, a University of Montana graduate student. Packer cited the Waterton-Glacier International Peace Park as an example of environmental protection that circumvents political boundaries.

"I think recreation and development are compatible uses of wilderness," he said. Packer worries that our present system of government agencies deciding how to use wilderness puts too much emphasis on development. "The Forest Service is a subdivision of the Department of Agriculture. That ought to tell us something about how they (agencies) view wilderness -- forests are just tree farms to them," he argued.

Students from the University of Victoria, B.C. identified obstacles in Canada to participation in environmental decision-making. They said Canadian laws make it difficult to take something they are against to court. Noreen Clayton said that one group she was involved with had trouble having its position acknowledged at public hearings conducted by the Wilderness Committee in B.C.

"It was a public forum," said Clayton, "but they only allowed one speaker from each environmental group. Even then, we were scheduled to speak late at night after the Wilderness Committee had been

listening to testimony all day, and people had started to leave." Clayton said that the committee was obviously pro-development, the majority of members representing the lumber industry.

Bill McCord, Environmental Center director, said that environmentalists should not fall back on working through the federal government, but instead concentrate on accomplishing goals locally. "We can scare the shit out of state governments," he said. McCord suggested that if environmentalists from Washington, Oregon, Montana and British Columbia continued to have meetings, the coordination to accomplish specific tasks would be forthcoming.

Change won't come without most people understanding that there are problems. "People can recognize that they have some strong common issues to resolve," said McCord. But he added, "You've got to have a vision of a bioregion before you can make plans and set priorities."

John Pavitt

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**ROOM NINE w FEAST**

SUNDAY, APRIL 20, 8pm VU LOUNGE  
**10,000 MANIACS\***

FRIDAY, APRIL 25, 9pm VU LOUNGE  
**THE WIPERS w U-MEN**

SUNDAY, MAY 4, 8pm VU LOUNGE  
**RED HOT CHILI PEPPERS\***

\* with special guest to be announced

# An Introduction to China

## Politics, Culture and Their Effect on China's Environment



"There was a time when the trees were luxuriant on the Ox mountain. As it is on the outskirts of a great metropolis, the trees were constantly lopped by axes. Is it any wonder they are no longer fine?"

- Mencius, 600 BC

Mainland China is an environmental laboratory wrapped up in a centuries old experiment. There, on a relatively small portion of the world's land, live one quarter of the world's people. The geography is more varied even than the U. S., with grassy plains in the North, a tropical south, the world's tallest mountains, desert, and the long silt-laden Yellow River. The land has been intensively cultivated for over 3000 years. Since 1949, a socialist government has been managing and modernizing China.

What are the results? What lies in the future for the Chinese people and the earth that supports them?

Information on China's environment is scarce and conflicting. For example, the book Gaia - an Atlas of Planet Management. (Ed. by Norman Meyers), published in 1984, celebrates the "garden landscape" of China, discussing a typical commune - ecologically harmonious and self-sufficient. (Large communes no longer exist in China.) The same year, Vaclav Smil's book, The Bad Earth, came out decrying extensive deforestation, desertification and pollution in China. Smil argues that China may experience "within a generation, major environmental disasters."

The conflicting statements occur perhaps because of political constraints on information coming out of China these last 40 years, and perhaps because both scenarios are true.

Because the great number of China's people have always been peasants,

depending on the land for their existence, the Chinese view of the world has evolved earth-centered. In ancient times, emperors were thought to receive heaven's blessing only if they took great interest in agricultural affairs and successfully managed the flooding of China's rivers. The much talked about philosophical concept of "Feng Shui" (wind and water) teaches people to build their homes, and live their lives in careful consideration of the surrounding geography. It was also considered auspicious however if the population increased under an emperor's reign. Population growth pushed back the wilderness. As a magnificent culture built palaces and cities so entire forests were brought down. Both traditions persist into the modern age.

Poverty too, had its impact. Recycling is a way of life in China as among most poor peoples. In order to sustain intensive cultivation China's fields must be continuously fertilized. Human and animal waste is carefully collected for use on the fields. Food scraps and grain stalks go to feed animals. Will these attitudes change with modernization? Smil reports the growing demand for chemical fertilizers, and our newspapers document China's growing consumer culture.

But China's most talked about environmental variable is politics. The forty year history of the Peoples Republic of China has been marked by vicious swings in policy and program. The effects on the environment were mixed. In the Great Leap Forward campaign of the late Fifties, China tried to rapidly increase the output of its crops and industry. Through massive mobilization of the populace, dams were built, hills were terraced and the water supply improved. But the gung-ho government also made mistakes. In an effort to increase China's steel production, every village was instructed to make iron -



and many a hill lost its trees to the furnaces. An emphasis on industrial growth discounted pollution, rewarding increased output at any cost.

During the Cultural Revolution of the Sixties and early Seventies, scientific study of the environment came to standstill. Schools and research institutions were disbanded so that the intelligentsia could study revolution.

At the same time China took a stance unusual to a third world country. It renounced dealings with foreign business and governments. Even now China carefully reviews proposals for outside development. Some would argue that this saves China from importing the environmental hazards of the industrial world; factories that are unsafe, chemicals that have been banned in U.S., etc.

Since 1975, when China adopted its thirty three article Law on Environmental Protection, much effort has been given to an honest appraisal of China's environment and a scientific attack on its troubles. But the massive bureaucracy required to run a socialist government, and a country with a billion people, is often slow to learn and to change.

Chinese scientists today are optimistic. Xi Cheng-Fan, a soil scientist in the PRC writing for the Environment December, 1985, says "I cannot agree with Vaclav Smil's conclusion that 'its mistreatment of the environment is the most fundamental check in China's reach for prosperity'. Science expounds objective truth, predicts the future and may be tested by reality. Some time in the not far distant future Smil's conclusion will be tested by trends now under way. History is inexorable." ♦

Miriam Ellard

"The work concerning environmental protection shall be done in accordance with the principles of overall planning, rational arrangement, multi-purpose utilization, changing harmful things into beneficial ones, relying on the masses and engaging everybody in protecting the environment"

- Article 4, Law on Environmental Protection of The PRC - Sept. 1 1975

# Thoughtful Journey

## Memoirs of a Lone Traveler

"Would you like to work for our family in Switzerland next winter?" After two years of college in the United States, this job offer sounded like a great escape. I accepted it without hesitation, with visions of tidy villages, Swiss chocolate and freshly churned butter every morning. The reality, however consisted of sixteen rooms to clean to Swiss perfection, dinners for twelve and unending frustration with the language.

Disillusionment and loneliness led me to plan a new adventure: after my job ended I would trek in Nepal. By spring, armed with carefully - saved Swiss francs, I bought a ticket to New Dehli and on March 27, 1985, I landed in India. Standing alone in the heat and dust of Dehli, I sensed the real adventure was about to begin.

For two and one-half months I traveled through India and trekked in Nepal. My journal brings back some of the experiences:

**April 4.** Buddhist monks with shorn heads and crimson robes are droning prayers in this hilltop temple. The moon has risen, full orange, blurred by haze from cooking fires in Kathmandu valley. I see Kathmandu spread out, between silhouettes of trees and sitting monkeys, with the moon in perfect center above the horizon. Now finished with praying, monks and city dwellers alike prostrate themselves before golden images of the Buddha. At this moment I begin to get an inkling of how deeply these people's worship is embedded in their every day lives. The world, for these people, is a constant reminder of the work of the gods. It is their belief that the creation of, and prayer to, images of the gods will encourage the gods to continue their work on earth.

**April 16.** The wind in this valley is like the mistral. Cold, unceasing, it drives you mad. Hills are stripped for firewood; the high population growth forces the Nepalese to turn forest valleys into barren corridors. Yet I only saw one human being the whole morning, an old man driving two yaks in the opposite direction. "Where are you going?" He asked, and then, "alone?" They always ask if I'm alone. Now I realize that there is no reason to hide trekking by myself, so I smile and reply, "yes, alone." This produces raised eyebrows but a smile in return.

**April 18.** Luckily I found a tea house to stay in last night, after losing my way yesterday. How strange it all was, not seeing a single soul all day, only the enormous peaks on all horizons. I knew I



was lost, but I couldn't tell how. It seemed so certain that I would arrive somewhere and the disappointment at arriving nowhere was heavy. The altitude soon sapped the novelty out of the situation. I didn't care so much for being in a remote part of the Himalayas.

**May 16.** Fantasies of food kept me going today through the muggy heat and then rain. First I just dreamed of the things I could get in the next village: tea, rice, eggs and bean curd. Then I turned hard core. All the way up the Manidingma, a single vision guided me: me in a swimming pool with a hot pizza and six icy bottles of Coca-Cola on the edge of the pool. Maybe I've been at high altitude too long. Kathmandu is only one more week away.

**May 25.** What a bus ride. Why should it take six hours to go two hundred kilometers in Nepal? But if more roads were built, fewer traditional villages would survive and disintegration of the barter economy would follow. At least I'm back in my old hotel in Kathmandu. The hotel is not famous for its rooms, which is why I like it. The Nepalese owner remembers me whenever I return.

On the bus ride I had time to think. Hiking in the mountains has meant everything to me on this trip. Every day, my endurance and mental powers seemed to increase. Suddenly I was constantly exceeding my ordinary capacity. I only wish that this intensity could continue even after I return to the United States.

*Now back in the States, the whole trip takes on an ethereal quality. I have no photos or souvenirs, only access to a different realm of thoughts and ideas. In addition to the personal payoff of traveling, I think there is a practical benefit to society of possessing one more committed, reflective inquirer. In the end, travel was not an escape: it was an extension of the mind. You may leave behind your physical surroundings, but you take yourself where ever you go.*

◆ Allison Carpenter

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There are no passengers on Spaceship Earth. Everybody's crew.

- Marshall McLuhan

There is no captain !

- AI

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# Escaping the Frontier Mentality

## Our responsibility doesn't end when the garbage is emptied.

Hundreds of years ago when this land was being settled, who would have thought that America would run out of resources? The land was plentiful and its resources abundant. From that point on, the majority of Americans have been living as though our resources were unending. This "Frontier Mentality" has produced a "throwaway" society in a world that is no longer a land of plenty. Our responsibility doesn't end when the garbage can is emptied. We can't just throw it away any more, because there is no "away". Most of the nation's solid waste landfills are filling up at a rate faster than alternatives can be found. The decisions we as consumers make affect not only what we buy, but what we throw away as well. By making wise decisions about what we consume, and through recycling, we can save energy, conserve natural resources, and reduce the pollution we create. However, any change in attitude or behavior toward careful consumption begins with awareness and knowledge of the problem.

The purpose of this article is to show that the solution to our solid waste problem and depletion of our natural resources lies with us, the consumers. Because each of us is responsible for the problems of solid waste, we can each contribute to solving the problem.

Bill Englander, a Bellingham Public Works Department employee, is dedicated to getting this message out. He believes careful consumption begins with a change of habits. "It's a lifestyle change which I encourage people to begin slowly," he said, "because those who dive right in to it too quickly may get discouraged." The best way to contribute to the problem's solution is by practicing source reduction and by recycling.

Source reduction should be approached with the goal to continuously decrease the amount we discard. 119 billion consumer items advertised as "disposable" are used once and thrown out each year in the U.S. When shopping look for products made of abundant, renewable, or recyclable materials. Make sure they are long lasting, and able to be repaired. Make an effort to buy in bulk because this means less packaging, as well as saving you money. For every 100 dollars you spend, 10 dollars goes to pay for packaging. A large amount of this discarded packaging is plastic, which is made from non-renewable petroleum. Also watch out for materials that are bonded together such as aluminum and steel, or paper and foil, because these aren't recyclable. Try not to buy plastics,

because although some are recyclable, such as plastic milk jugs, most are not (for technological and economic reasons).

Avoid styrofoam whenever possible. not only is it not recyclable, but it is ending up on our beaches where sea birds are mistaking it for food and dying of malnutrition. Try to bypass eating at fast food restaurants. If you do, ask for less packaging, because the use and especially large amount of styrofoam.

Most importantly, don't get discouraged.

Recycling prolongs our resources and saves money at the same time. It is senseless, therefore, to lose forever in landfills the valuable materials and energy contained in solid waste. According to Englander, "many third-world countries recycle more than the U.S. because they don't have the resources we take for granted." We're learning the hard way that natural resources are limited. Over the past several years we have had to depend on other countries for 33% of the iron ore we need to make steel. By recycling old steel we can decrease our dependence on foreign nations. Using scrap instead of iron ore to make new steel means a 74% energy savings.

Tin is also a very scarce resource that we import from other countries. It should be recycled as much as possible because this is our only domestic source of it. You can do your part by simply recycling the tin cans you buy your food in. When recycled, the tin in the cans (1%) is removed, and the steel (99%) is recycled as scrap.



All aluminum should be recycled because the energy savings are outstanding. For example, to make one ton of aluminum from bauxite ore requires 16,000 kilowatt hours of electricity, while it takes only 187 kilowatt hours to make the same amount from recycled aluminum.

Potential energy is also wasted when oil isn't recycled. The two million tons of oil wasted annually in Washington by do-it-yourself mechanics is worth between 200,000 and 600,000 dollars as used oil. These savings are apparent when we consider that 60 gallons of crude oil is required to produce one quart of motor oil. Only three gallons of used oil produce the same amount.

Recycling oil is as easy as putting it in a container and dropping it off at the gas station when you need gas. The Chevron stations around town all take used oil.

Although the energy savings in recycling paper and glass aren't as overwhelming as the above figures, they are significant and so paper and glass should also be recycled.

It is no secret that when people are set in their ways it's often difficult to convince them to change without incentives. Englander feels that the government should create incentives to recycle by changing certain policies.

"It costs the same amount of money to ship recyclable products as it does non-recyclable ones," he said, "but if manufacturers of recyclable products paid less for shipping, their profit margins would increase and others would be motivated by this." **cont. on 8** ➡

# Smoking Wood Can Be Dangerous to Your Health

Higher costs for electricity and other fuels have resulted in a larger number of American households turning to firewood as a less expensive solution to their home heating requirements. The popularity of fireplaces, inserts and air-tight wood burning stoves have also contributed to large numbers of old and new users who select wood for fuel.

The need for home heating is not questioned, nor is the importance of firewood to lower income households. In most areas where the trees have been harvested, rejected logs that are unfit for lumber can make excellent firewood rather than be left to decompose. Since we can replace trees over a period of time, wood is a renewable resource. Unfortunately, with the benefits come some problems.

There are strict laws against outdoor burning. Yet, we compromise those laws by moving the fire indoors where it still releases its pollutants into the air. Air-tight stoves in particular, are known to emit large amounts of carbon monoxide, particulates and unburned hydrocarbons, many of which have been identified as carcinogenic substances. As populations increase, the problem is further aggravated. In residential areas, one may detect the odor of burning wood on almost any cool evening or morning.

Many cities and towns recognize the dangers of excessive wood burning and are taking positive steps to alleviate the problem of air pollution. One such example is the town of Beaver Creek, Colorado, where each of a total of 2500 fireplaces is equipped with a red warning light that is connected directly to a centrally located air monitoring station. During times of poor air quality, an attendant throws a switch that turns on these warning lights throughout the town. When lit, no one is to use his fireplace until the light is once again turned off. Failure to comply can result in fines as high as 500 dollars. No wood burning stoves are allowed under any circumstances.

In Missoula, Montana, whenever air quality reaches 150 micrograms of particulates per cubic meter of air, only the very poor, with no other means of heating their homes, are allowed to burn wood. During the period 1983-1984, there were eighteen such instances. Here also, a lesser fine of 100 dollars was levied against any violator.

After June, 1986, the State of Oregon will permit the sale and/or advertising of only those stoves which have a demonstrated clean-burning capability. Many other states are expected to follow this approach.

In the town of Vail, Colorado, local laws prohibit more than one wood or coal furnace or fireplace in any new home. Smaller wood stoves were exempted -- perhaps because of their portability and common use as heating appliances.

If your household uses wood heat, what can you do to help reduce this growing threat to clean air? Aside from the usual heat saving techniques of more insulation, dual and triple-glazed windows, storm doors, turning back of thermostats, and the closing off of unused room space, etc., you might try the following:

1. Install a retrofit catalytic converter in the stove pipe. This will help burn off most of the otherwise unburned gases, and at the same time, generate additional heat for the home.

2. Use only a size of log that will burn efficiently. Try to avoid large pieces that tend to smolder rather than burn.

3. Build as small a fire as practical so that the stove can be safely operated at a higher temperature without over-heating the system or the room. Hotter burning wood fires tend to reduce air pollution.

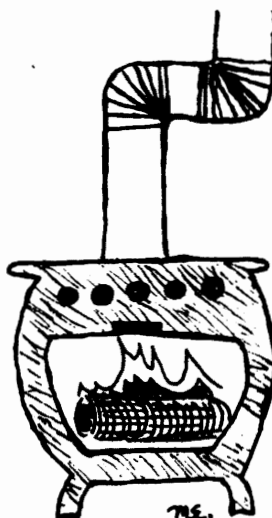
4. Keep the fire hot by repositioning the wood and by maintaining an adequate draft opening.

5. Avoid excessively wet or dry wood. Wet wood tends to smolder and burn unevenly while wood that is too dry may cause the stove to over-heat, creating a fire hazard.

6. Burn less wood, where possible.

The next time you are tempted to "keep the home fires burning", try not to be an "Old Smokey"!

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# What does this symbol mean?

What does this symbol on your food represent? It is the proposed symbol for irradiated food. Irradiated food is subjected to massive doses of gamma rays from radioactive Cobalt-60 or Cesium-137. This exposure is used as an alternative to chemical preservatives.

Irradiation causes biological and chemical changes in the food. The biological effect - of killing insect larvae and micro organisms that can cause the food to decay - is desirable. The chemical changes are a scarcely understood side effect.

When food is irradiated, radiolytic products are formed. These begin as unstable, chemically reactive free radicals, which usually combine into forms that are already present in the food and are safe. Some radiolytic products, however, are new chemical arrangements. These radiolytic products, called URP's, may be toxic.

Some of the specific questions about the irradiation of foods are: Can irradiated food increase the chance of cancer among those who eat it? Is the nutritional destruction caused by radiation processing any worse than that of other forms of processing?

Some tests indicated that feeding humans irradiated food can cause aberrations in cell growth, but they are inconclusive.

Some nutritionists worry that if food is first irradiated, reducing its nutritional value, and then further processed and prepared in a conventional manner, the combined nutritive losses could be great.

Irradiation does not destroy all forms of bacteria. Since Clostridium Botulinum, the bacteria that causes botulism is perversely resistant to gamma radiation, a dose sufficient to wipe out other bacteria would leave it whole and hearty without any competition to impede its growth. Further, removing the organisms that noticeably decay food serves to disguise the fact that the food has spoiled.

Much of the controversy over the safety of irradiated foods lies in the reliability of the testing that has occurred.

A major blow to the integrity of some early studies was the revelation that Industrial Bio-Test Laboratories had conducted some of them. In a major scandal in 1983, IBT was found guilty of defrauding the government in drug research; three IBT executives were convicted on charges, among others, of falsifying test data. In 1982, the FDA rejected some seventeen studies done on food irradiation by IBT between 1959 and 1977. Eleven of these were important

tests meant to determine the long term toxicity of irradiated foods. Five years earlier, the Army found IBT in default of its contract on two food irradiation studies it was doing for them, due to missing records, departures from testing protocols, and poor quality work.

In a similar review of 413 food irradiation studies, the FDA found only 5 that clearly support the safety of irradiated foods.

Another important question is - Why pursue irradiation as means of food preservation?

Promoters of the process argue that up to 25% of the world's food crops spoil before they are consumed. The irradiation industry argues this could be eliminated, thus irradiation could be an aid in ending world-wide starvation. An admirable goal, but is irradiation the right means to solve the problem of hunger?

The principle sources of gamma radiation, Cobalt-60 and Cesium-137, are by-products of nuclear weapons production. Figuring out what to do with cesium 137 is a primary function of the Dept. of Energy's Nuclear By-Products Utilization Program. Most Cesium-137 in the U.S. comes from the Hanford Nuclear Reservation, where they produce plutonium for various weapons programs. Through the Plutonium and Uranium Recovery and Enrichment Program, the DOE recycles radioactive waste. For instance they will make Cesium-137 available to food irradiators at a discount rate compared to other radiation sources.



The proposed symbol to indicate that a given food has been irradiated. The FDA has thus far required no labeling of irradiated food, arguing that consumers would be "confused."

Thus, acceptance of gamma radiation as a method of food preservation would mean a great deal to the troubled nuclear industry, which is aggressively marketing the process.

Irradiation leads to even further concentration of the food production process. Irradiation facilities are costly and thus available only to corporations large enough to afford the start-up costs.

Irradiated food is well suited to long-distance shipping and long term storage. Many question if we want the food we eat to be delivered to us, preserved by radiation, from a distant point of origin.

Irradiation of foods is one more issue illustrating our continuing struggle with technology.

Randall Brower

## Recycling cont.

Another measure Englander is in favor of is a system where by consumers would get money back when they return bottles and cans to their stores for recycling. Oregon has such a system and it is working. A bill to introduce this system in Washington has been struck down four times. The recycling industry is against it because it would remove them as a middle man, and the stores don't want the hassle. Englander feels that we need more long term thinking. "It's a selfish attitude as far as resources go" he said.

It is vital that children be taught the importance of careful consumption. "if we teach children, we won't have to spend time in the future coming up with incentives to change the thinking and habits of adults, which is more difficult." Englander said. A-Way With Waste is a curriculum devised by the Department of Ecology to help teachers meet their

traditional responsibility of preparing children for the future. Englander will be trying to get it into the Bellingham schools in the fall.

The future severity of our solid waste problems will be determined by how well students are taught that each individual's understanding and responsible action is the answer to the problem. It will also be determined by how well we adults do our part in source reduction and recycling now. It is a fact that the old "out of sight out of mind" attitude doesn't work anymore.

Teresa Hertz



# Letters

Dear Friends and Fellow Earthlings:

I wish to tell you about an issue which I am currently involved in, which is timely, educational, and very much in need of support. I am speaking of aboriginal rights, the fundamental right of the native peoples of any land to live on their ancestral homeland without being molested or having their land desecrated and destroyed around them. Of course, as most of us are aware, it is already too late for the support and protection of the majority of the aboriginal on this Earth.

The Arawak, for example, were a race of people living happily in the Carribean Islands up until 1492, when the celebrated Christopher Columbus arrived on his exploratory mission. Columbus related to his superiors in Europe that these beautiful people had no knowledge of weapons, and gladly traded their most prized possessions in order to secure friendship. He added that with just a few well-armed men he could "conquer" them and claim the islands for the European Empire. Which is what he did, of course. The Arawak people were brutally denied their culture, forced to work in the European mining operations and on sugar cane plantations.

By 1500, nearly half of the original 25,000 Arawak people were dead of disease, starvation, slaughter or exhaustion. By 1550 only 500 Arawak people could be found. A report from the early 1600's shows no Arawak people left in existence. So think of this next time the flag-wavers are celebrating Columbus day, and realize that the fundamental structure of imperialism has changed little since 1492. Native peoples are still dying to feed the European sweet-tooth and to continue mining operations.

I am working on the Big Mountain issue here in the "United States", and I am urging other American citizens to get involved. In the face of an all-out media cover-up and blatant harassment by the U.S. Government, the traditional Dine (Navajo) elders at Big Mountain and the Hopi from nearby villages are denouncing the action of the Tribal Councils in opening sacred homelands to industrial strip-mining for coal and uranium (This is where bombs start, brothers and sisters). They are protesting the forced relocation of some 14,000 Dine people from their ancestral homeland into the cities. Many of these people don't speak English and have no idea of how to survive in the "cash economy". The deadline for this forced removal plan is July, 1986 and the Reagan Administration has threatened National Guard action.

The elders are warning the people of the Earth that this destruction of our sacred places and the rape of the Earth Mother must be stopped at all costs. They explain the Gaia hypothesis, which our scientists are only now beginning to examine, with great clarity and the wisdom of many generations of direct experience. That is, that the Earth is a living organism, like a cell, and everything in Her body performs some function in supporting life on Her surface. The coal seams and uranium veins are like the nerve fibers in our bodies. These minerals balance the weather patterns and air currents in the atmosphere. When we allow the Earth's body to be torn and abused, we are only inviting our own eventual destruction and ruining the chances of future generations. In this perspective the techno-industrial, city-based existence is utterly insane. It cannot continue.

To support the elders at Big Mountain, you can examine your own life and see just how healthy your relationship with the Earth is; Where does your food and warmth come from? Where does your waste go to? You can write letters to your political representatives. You can join a support group, or even go to Big Mountain yourself and support the elders with your presence. There are many ways to help solve this terror-full predicament, but they all begin with reconnecting ourselves to the Earth-Body. Either you're with Her or you're not!

If readers would like to get more involved in the Big Mountain struggle, They can call the Whatcom Big Mountain Support Group at 384 1929m or write to the central support office in Flagstaff at: Big Mountain Legal Defense / Offense Committee, 2501 4th St., Flagstaff, Arizona 86001 (602) 744-5233.

Thank you for your attention,  
grassroots healing--

Brian Clouthopper



## HARMONY MOTOR WORKS

GERMAN AUTO REPAIR

930 N. STATE  
BELLINGHAM  
671-2420

"We can fix most anything  
but a broken heart"



1059 N. STATE  
734-8158

*The Food Co-op*  
*Quality From The Ground Up!*

MONDAY-SATURDAY  
9:30-7  
SUNDAY 11-6

1140 North State Street  
733-4927

*Oasis Cafe*

A great place to  
goof off.... or eat.



KULSIAN CYCLES

TREK BRIDGESTONE  
PEUGEOT MIYATA  
RALEIGH

1130 Cornwall

733-6440



# For the People, By the People

## Appropriate Technology in Nicaragua



The following article is excerpted, with permission, from the November / December issue of *RAIN* magazine.

In the village of Santa Cruz, the people are building a new kind of water pump. In one small house, the *Senora* stands on her packed earth floor and explains that the rope pump does away with the need to buy a bucket, and saves her household money. In his garden, her neighbor proudly describes how the production collective improved the pump design. Up the hill, the technicians and peasants who work at the government-sponsored Center for the Investigation of Appropriate Technology are smiling. They built the first rope pump, but the project has been taken out of their hands by the local people, and is now organized by the village Defense Committee.

The county is Nicaragua, and the scene is an example of the exciting changes that the Sandinista Revolution is bringing to the technological planning and design process.

After making two trips ( a total of three and a half months) to Nicaragua in the last year, I am convinced that the popular democracy there is creating a unique potential for the development of truly appropriate technological systems.

By an *appropriate technology*, I mean one that works to solve a problem defined by the local people, uses local resources, and functions in support of local social goals.

The Center for the Investigation of Appropriate Technology (CITA) is officially a part of the Ministry of Agriculture and Agrarian reform in Nicaragua. CITA has a broad range of projects, including agricultural and construction techniques, and energy conservation. The rope pump in use today in the village of Santa Cruz is one of several water pumping technologies CITA has worked on.

Many of the families in this area have wells, providing drinking water and a bit of irrigation (this makes them relatively affluent compared to some areas of the country). People raise water from the wells with buckets. If you ask anyone from town about this task they'll probably tell you that it's hard, tedious work - some of the wells are quite deep, up to 60 feet or so. And then they'll probably tell you that the buckets get holes in them - from banging on the sides of the well - and need to be replaced about every six months. The cost of the bucket is a big bite out of a rural family's income.

Looking for a solution to this problem,

one of the technicians at CITA built a rope pump, modifying a design he found in a book. A wooden wheel, about 18 inches in diameter is mounted on a crank above the well. A long loop of rope goes around the wooden wheel, down the well, into the water, and back up. One leg of the rope comes up through a plastic pipe. Every meter or so on the rope there is a rubber disk that is just a hair smaller in diameter than the pipe. The disks are cut of old tires and held in place with knots. When the crank is turned, the wheel is turned, pulling the rope and the disks up through the pipe, bringing a column of water with them. It's a very simple pump. The test pump was installed at the house of a worker at CITA who lived down the hill in the village. It turned out to be much easier and faster than using a bucket.

This man's neighbors were instantly interested - they wanted a pump just like this! Not only was the pump easy to understand, but so were its economics. The cost of the materials that needed to be bought was only slightly more than the cost of a bucket. The pump would pay for itself in less than six months. People started coming to CITA asking for pumps. But CITA is primarily a design facility, and couldn't

just start making pumps for everyone in the village.

However, the villagers were not about to give up. Somebody brought up the issue of the pumps at a meeting of the village Defense Committee, the CDS. After a discussion, the CDS decided to do a house-to-house survey to find out how many people would be interested in some kind of a pump project. Thirty families were located. These families proceeded to form what was essentially a buying cooperative, and bought in bulk the materials to build the pumps. Then they set up a production collective, and started making the pumps!

Also, they started changing the design. Everyone seemed to have an idea about how it could be built " a little better ". People wanted the younger children to be able to use the pump so that adults could be freed for other tasks. This was a problem overlooked by the technician who had originally put the pump together. Not living in the village, he simply hadn't thought of the need for a child-operated pump.

Today, these pumps can be seen in many yards in Santa Cruz. The project probably would not have taken off as it did without the level of self-organization the people have. The CDS provided a forum for the information gathering and decision-making necessary to get the project off the ground. The readiness of the people of Santa Cruz to take the initiative in the project is one of the most important results of the Sandinista Revolution - people have learned that they have the power to change their own lives.

Mira Brown

### NICARAGUA pop: 3 million

**POLITICS** - Multiparty system with the Sandinista National Liberation Front playing the leading role. In 1979 the Sandinista's lead the overthrow of the 40-year old Somoza family dictatorship. In 1984 the Sandinista's took 61 seats in the National Assembly elections. The opposition took 29 seats in an election judged by independent observers to have been free and fair. The Sandinista President is Daniel Ortega.

**THE ECONOMY** - Under Somoza, 41% of the land was controlled by big landowners; after the Sandinista land reform program it is down to 11%. They have tripled the health and education funds that Somoza made available. The economy is mixed with 40% still in private hands. A recent US trade and credit embargo has aggravated shortages and black market activity.

**THE MILITARY** - CIA support for the Reagan-sponsored *contra* guerrillas has forced the Sandinistas to dramatically increase defense spending, from 7% in 1980-81 to 40% of spending in 1985.

**HUMAN RIGHTS** - Mixed picture. Some censorship although the anti-government daily *La Prensa* continues to publish. Amnesty International reports political prisoners, many ex-Somoza National Guards. Tensions with the Miskito Indians on the Atlantic coast. Capital punishment abolished by Sandinistas.

There are many grassroots organizations that support AT projects in the third world, and one of them has its national headquarters right here in Bellingham.

The Nicaragua Appropriate Technology Project works to develop technologies appropriate to local needs. It provides a way for people skilled in alternative energy and agriculture to use their skills and information to assist Nicaraguans in their effort to develop a better way of life, based upon local participation and indigenous resources.

Anyone interested in participating in NICAT, or in obtaining more information can contact Gordan Scott at NICAT, 3112 Alderwood Avenue, Bellingham, WA 98225 (206) 671-8303, or can contact Tom Lacher of Huxley College (ES 437, Ext. 3968) here on campus.

Tom Lacher

## Our Theme cont.

efficiency. To challenge any or all of these would be heresy; we hope to get by with out needing to challenge them. This poses the 'Green parties' with a fundamental problem. Either, on the one hand, to work with in the system which implies not changing those values, or at least challenging them quietly and in a fragmenting fashion, or saying that unless these three values are changed, environmental problems will get rapidly worse. This is to say, any measures to mitigate, for example, air or water pollution will be at least palliatives and at worst actions which by masking the gravity of the situation condemn catastrophies to be worse then they need to have been. It is this dilemma which has divided Green parties in Germany into realists and fundamentalists.

The single strongest principle of the Green movement is deep ecology. By which is meant an ecological study which includes humanity and human artifacts within the eco-systems under study, and requires that humanity and human artifacts be compatible with the health of the organic biosphere.

The behavior which the values of growth, productivity and efficiency bring about needs to be replaced by a behavior which is 'umweltfreundlich' (kind to the environment).

One senses that among the thinkers who embrace the principles of deep ecology, there is a consensus emerging, namely that whatever helps bring about this value reconstruction is worth doing and on the right track; whatever condones their retention is a waste of time.

The 'Green Movement' world-wide is working for such value change. The level of success is easy to underestimate. Even though the 'Greens' seem to be in trouble, it is a continual surprise to see how widely entrenched in society the new values are; they are entrenched even in the minds of the people who, for structural reasons, cannot act on them or admit to them. the change, when it comes, will be swift." ◆

Laurie Lancaster

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"Crisis is only change trying to happen"  
- Marilyn Ferguson

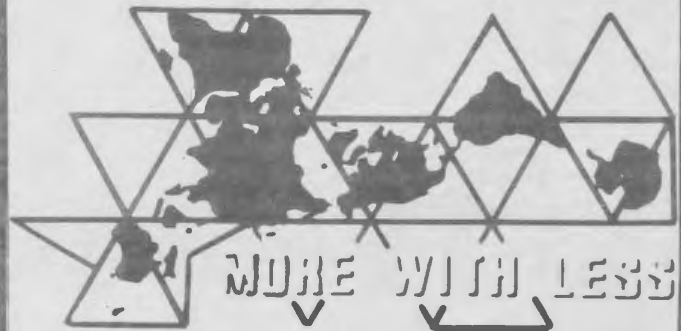
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We are not rehearsing final jestures, we want life and we shall defend it.

- Che Guevera

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# The WORLD GAME



To make the  
World work  
For 100% of humanity  
in the shortest possible time  
through spontaneous cooperation  
Without ecological offense  
or the disadvantage of anyone

—R. Buckminster Fuller—

### *State of the Planet Workshop*

DATE: Saturday, May 10, 1986

PLACE: Western Washington  
University, Bellingham, WA  
Carver Gym D

TIME: 10:00 AM - 10:00 PM

sponsored by  
ASP Social Issues

From One Day: Things Americans Do  
in One Day by Tom Parker

In one day;

- 1) Americans buy 50,000 new television sets.
- 2) We throw out 200,000 tons of edible food.
- 3) 60 people desert the military and almost 200 go AWOL
- 4) Americans buy more than 80,000 pieces of clothing with little alligators on them.
- 5) 2,200 americans find out they have cancer.
- 6) Americans spend 125,000 dollars on tours and merchandize related to Elvis Presley.



## CHANGING FORMS

The dying change their forms. That's all there is to it. New bodies, same soul taking charge of events, but new bodies serving out moments that will always be the moment. And spirit links this all together.

It's taking a lot of spirit to deal with the bodies of 4,000,000,000 human beings. Maybe only 4 human beings, with a billion bodies each. One human flashing red, white, yellow and black. Our aura flashing and this only real when woven into the rest of the blanket of life.

Earth keeps the sun vision warm under its blankets. A very difficult vision to coddle through space, but the art over eons has created some pretty rich visions.

Namaste, belch-stink spume of Gray Whale, namaste, little ouzle under waterfalls--- insect-eater running rapids, nesting high on rockwalled watergates: such a small brown bird, alert and teetering on boulders turning in the currents, rolling down the mountain.

How long to change from the clawed flick of a pebble to a flipper digging out sand shrimps? Great gray blubber bag rolling the sandy bottom --- up and down the 12 fathom line, off Long Beach.

They both fit under one cloud, shadow-sharing the geological crawl of the the flaking cliff face, water-borne down coastal slopes to be pounded into sand by this watchful ocean. And all along the way, tiny insects crawling out to be eaten!

We have the guardian consciousness, we humans. We have been given the gift to see it all. Is not to know enough? We are being watched by the others of those living beings, and now in our restlessness all of life is nervous to know what we might do next.

Flows of time become erratic. Our leaders think of changes for the land, ways to make it better --- and few are those who take the solution of changing themselves--- those who have visions to warm.

The vital energy from the sun, the fresh burst of life, ignored by so many humans locked behind their steel and glass walls, is our shared resource. To use it is to allow ourselves to change. To allow life, we must allow death.

That's all there is to it: The dying change their forms.

Douglas Dobyns

### The song my race makes

The song my race makes pounds in a northern wind.  
It sings of winters in the cold, and yet happy  
Are the hearts which bear ancestral rhythms  
To the tunes of ocean-time; wind gusts  
Unreeling shanties in surviving humour  
Are the salt to live life through on, the  
Arc of our inflections beaming to neighbors  
Who share the sea coast, and its full-bore song.

The song my race makes pounds wooden pegs down  
Through twin curved planks and into oak.  
The spring of verses, carved in beach  
Shanties, fit to the bow and dance  
Of vorage - christenings as well as  
To our winter work. Fishing, freight  
And fooling just to know the nieghbor's way  
Pull oar sinews, strike & fire the engine's sound.

The song my race makes pounds metal into tools.  
Swords have struck through ages over lands  
Where texture-handed peoples gathered in  
Their wealth: and only victorious the  
Shouts of sudden riches have rung in  
The ears of our children --- excepting where  
Slaves have taught us ways less - hardened, more  
Earth - bound, tunes more subtle, ringing of the sun.

Douglas Dobyns