Roger Starr

Exporting Environmental Havoc

American environmentalists have worked furiously to save the snail darter, the furbish lousewort, and the "idea" of wilderness. The inadvertent result will be the devastation of the ancient hunting lands of Quebec's Cree Indians.

Nature's best hope in the western world is that the conservationists of the United States will learn to conserve their own energy. They have been spending themselves so lavishly and successfully to save their native environment that they have deflected the threats against it—often in aggravated form—to neighboring countries, Canada particularly. What the western world needs is orderly development. What it has been getting is American Environmental Imperialism. As Peter J. Bernstein, writing in the *Toronto Star-Journal* about the monstrous James Bay power project in Quebec, put it: "There is a feeling among Canadians, that Canada is undertaking development projects that produce environmental problems of a scale unacceptable to Americans."

Much more than enthusiasm is needed to resist degradation of the natural world or of the ethnic world of primitive people. Conservation requires professionally-trained specialists capable of distinguishing between important and trivial dangers. It requires the patience to make difficult distinctions carefully and the wisdom to establish goals that harmonize the values of the environment with those of the economy. While professionals can make these judgments, the money and zeal that drive their organizations come from members who perceive wildlife as benign, noncompetitive, and undemanding. This childlike sentiment makes it difficult for them to agree to accept the loss of any part of it in order to achieve a saving which they cannot see.

A rather gaudy prototype of the environmental zealot who has not bothered to measure the impact of his own energy is the movie actor, Robert Redford. Offscreen, Redford starred with great success in a psychodrama that stopped the construction of a large, coal-burning electric generating station on an unpopulated Utah plateau called Kaiparowits.

The issues involved in Kaiparowits are worth recounting briefly, because they help make clear the danger that unreflective environmentalism—blocking a relatively insignificant disturbance to the natural order—may produce a more significant disturbance elsewhere.

The Kaiparowits scheme which galvanized Redford into action was, despite its size and importance, a relatively minor environmental threat. The coal that would have provided its energy was not to be strip-mined, but dug from deep, covered mines. The mines were directly below the plant, a location which dispensed with railroad trackage across wild country. Nobody lived within miles of the proposed plant, and therefore it could not impose any possible air pollution on a human settlement. Its water requirements did not exceed existing available flows. The one serious environmental problem raised by serious people was the probability that its stack emissions, despite the highest current technology, would slightly depress air quality over a national park. It must be emphasized that the quality would have remained far better than that demanded by the most restrictive federal regulations.

The sponsors of Kaiparowits battled the opposition of environmental groups for thirteen years, only to yield after Redford denounced on television the intrusion of high technology in the beautiful wilderness area of southern Utah. Redford warned that the very idea of wilderness, its capacity to renew the human spirit for future generations, would be destroyed in the minds of men by the construction of a power plant. The destruction would be as great whether or not they could see it. Simply knowing it was there would do the damage.

Redford urged his fellow citizens to turn their backs on technological civilization. In the process, he must have forgotten that many who derive satisfaction from the western wilderness are hunters whose pleasures depend on technology. They hunt with rifles, machine-made from steel produced in electric-powered open hearth furnaces using pig iron reduced from ore in oxygen-blast furnaces. They could not afford a return to hand-forged weapons. Even if Redford forswore hunting for himself, he can combine movies with wilderness only because high-technology automobiles or airplanes can carry him to the Utah wilderness from the urban jungle of Los Angeles. If, indeed, Redford succeeded in persuading other hunters to change to bows, they would be high-technology bows. A supply of yew trees, bowmakers, and fletchers—adequate for Robin Hood's merry men and the English at Agincourt—never would outfit the present hunting population. If Redford had persuaded all American hunters to give up their hobby to protect the Utah wilderness, he would then have had to make his peace with the many American and foreign workers who eat only because they manufacture the rifles, hunting clothes, sleeping bags, lanterns, tents, and other paraphernalia needed for the hunt.

Enthusiasts like Redford seem never to notice that stopping a proposal like Kaiparowits does not reduce the need for power. It merely stimulates the search for substitute sources that cannot be stopped. If electric power for the west cannot be supplied by coal—as at Kaiparowits—it will be supplied by some other fuel—natural gas from Alaska, perhaps, liquefied under great pressure and sent by ship to the Los Angeles area. If liquefied natural gas tankers are blocked by environmentalists, the gas itself may be piped across Canada, where construction of a pipeline will

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allegedly imperil the way of life of wilderness Indians—not merely the "idea" of wilderness, but its essence. If pipelines are stopped, hydro power or atomic schemes will have to replace them.

What cannot be stopped is the development of new power generation proposals if only for those purposes which most people accept as important: to replace obsolescent generating systems, to contribute to the worldwide rise in the material standard of life, to energize processes to reverse environmental pollution, and to provide job opportunities for a population which continues to grow, even in the United States. Though it is true that the birthrate has dropped drastically, so many women remain in the childbearing ages that the population of the United States must grow, even without immigration. As the working population grows with the maturing of those now too young to work, increased electrical capacity will be needed for them to have jobs.

Vice President Mondale recently gave comfort to the Redford-like warriors in the cause of wilderness preservation. He said that it would not be the policy of the Democratic Party to destroy the American landscape in order to extract energy from it; conservation of the landscape, he said, would be a central theme of his party. The tone of the rest of his speech made clear that any intrusion upon what is now wilderness would be regarded by him as destructive, however meticulously it might be planned.

Since it is also a central aim of the Democratic Party to raise the living standards of those Americans who suffer from brutal insufficiency, and to play a constructive role also in developing the material standards of the less developed countries, the Vice President might have added that American Democrats will perforce retain their serene indifference to what this combination of difficult-to-reconcile policies may do to other people's landscapes.

Certainly it has been official American policy in recent years to keep a tight rein on any industrial development which threatens the existence of an already endangered species of animal or plant. This stricture is not confined to those thousands of species which might generally be recognized by experts as significantly distinct or of importance to man. It applies to *any* species and seems to be based on the erroneous notion that man alone endangers other species. In fact, however, natural history is simply the record of the extinction of species as they fail to adapt themselves to the changing characteristics of the environment. Man himself is the evolutionary product of the endangerment of species. This process will not stop. But the ban against endangering species, however insignificant to man's needs, has certainly stopped power generation inside the United States, and tended to shove it elsewhere.

Thus, a threat to one species of "darter," the snail darter, a four-inch fish, was recently the basis for an injunction issued by a federal judge against a TVA hydroelectric project on the Little Tennessee River. A few specimens of a wild snapdragon called the furbish lousewort threaten the Dickey-Lincoln Dam site in Maine. A possible threat to the larvae of one species of clam which are practically impossible to distinguish from the larvae of another species has caused very expensive delays to the Seabrook, N.H., atomic power station. All of these obstacles to power development have had the effect described, on behalf of the electrical industry, by George F. Tyler in *Public Utilities Fortnightly*: "...companies engaged in providing this nation's essential energy needs have experienced serious difficulty in carrying out their plans for meeting these needs over the next decade," Tyler wrote. "These difficulties may be expected to continue and even to intensify. Ultimate failure to meet our energy needs may be the price of neglecting this issue."

It may take power blackouts to convince the public of the importance to it of an adequate supply of electrical energy. The industry needs no such reminders. As anyone might have predicted, the difficulty cited by Tyler has turned the energy industry's attention outside the country for its energy sources or for locations for generating stations. For many years, American power houses have burned Venezuelan oil, extracted from wells in Lake Maracaibo. United States environmentalists scarcely raised a murmur against the impact of this underwater drilling, though it clearly was more significant to Venezuela than offshore drilling would be to the New Jersey coast. Since modern offshore techniques are safer than the available technology when Maracaibo was first explored, it would be accurate to describe New Jersey offshore drilling as environmentally protective to the extent that it reduces the pressure to produce in Venezuela. One could scarcely infer this from the opposition to U.S. offshore drilling on the part of this country's environmentalists.

Skipping across Central America to Mexico, one finds a nation whose revolutionary tradition has encouraged resistance to imperialism—political or environmental. Though extensive drilling rights have been purchased by United States oil companies, the Mexican government has resisted oil exploration and exploitation. Mexico offers no hydro power resources; its industrial mineral resources are not attractive.

Canada is in a very different position. Its power resources include oil and natural gas, uranium ore, immense hydro power potential, and a strategic geographic lie between Alaska and the lower states. Canadian environmentalism reflects a political situation far more complex than Mexico's. The schism between French and English Canadians has now reached a point at which the French talk freely of political separation, which would affect Canada much as the secession of the Confederate states affected the United States. A major grievance of the Quebec separatists is the low level of investment and economic development in the province, as compared with Ontario and the western provinces. In Quebec, therefore, the Canadian national government has been reluctant to limit industry merely to protect the natural environment and the Indian and Eskimo way of life. In the western part of Canada, the concerns of the environmentalist movement are paramount because, as Bernstein wrote, Canadians are determined to protect themselves against what they regard as exploitation for the benefit of their U.S. neighbors.

Their frame of mind has been voiced with remarkable forthrightness by Judge Thomas R. Berger of the British Columbia Supreme Court. He was commissioned by the national government to make a recommendation for government policy on the proposal to pipe Alaskan natural gas to the United States through a line through the McKenzie River Valley of the Northwest Territory and through Alberta. Judge Berger decided that no such line should be built for at least ten years, or until the Indian, Eskimo, and Meti (mixed) populations had time to adjust to the tremendous changes in their way of life that pipeline construction would entail.

The *New York Times* reported that the judge's rejection of the McKenzie pipeline was cheered by church groups, the intellectual community and socially-conscious Canadians, and by "Canadian nationalists who contend that the proposed pipelines are primarily for the benefit of the United States, which has urgent need of new power sources...." In his preamble, the judge wrote that he had "proceeded on the assumption that we intend to protect and preserve Canada's northern environment and that, above all else, we intend to honor the legitimate claims and aspirations of the native peoples." Summing up his decision, he wrote: "The risk [of the pipeline] is in Canada. The urgency is in the United States."

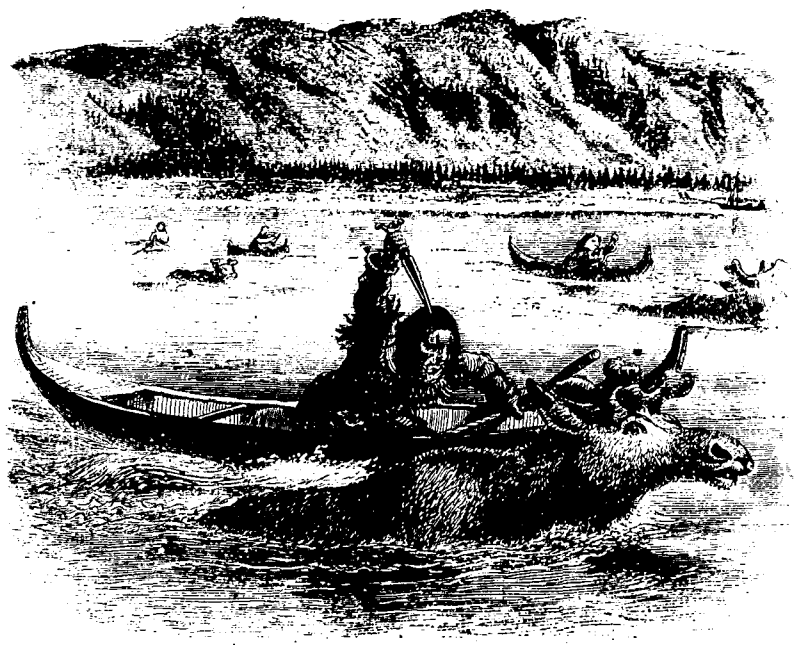
In western Canada, in short, the concern of American environmentalists with snail darters and the "idea" of wilderness met its match in an equally dedicated Canadian government. This contrasts with the response of the same government to the James Bay power project, located in Quebec and put forward by its former Premier, Robert Bourassa, as the basis of future French-Canadian prosperity. The purpose of James Bay is to produce 12,000 megawatts of electricity from hydro power, most of it intended for export to the northeastern United States which suffers from a dangerously low power reserve and faces the prospect of future shortages, largely due to the successful environmental opposition to generating-station construction.

The James Bay proposal will be the largest industrial scheme ever undertaken in Canada. It will cost $16 billion, a sum 25 percent greater than the entire funded debt of New York City. It would not simply alter the psycho-sociological conditions under

which the Cree Nation lives in Quebec—a threat which in the case of Canada's western Indians was reason enough for Judge Berger's rejection of the McKenzie pipeline. It would actually drown the Cree's hunting lands under hundreds of feet of water; it would change the courses of rivers; it would imperil fish populations on which the natives depend for food. It would cause immense changes in animal life—of the beaver, mink, caribou, and bear—and destroy the human dependence on them that stretches back over two centuries.

Though few Americans interested in the natural environment or native life have heard of James Bay, this project culminates a continuing effort by Hydro Quebec, the provincial power company, to wrest hydro power from the mountain rains and snows along the Labrador-Quebec frontier. The James Bay scheme would tap the LaGrande River which rises in the stubby Labrador mountains and flows about 300 miles west across the province to James Bay, the southern tip of Hudson Bay. In the course of this traverse it drops about 1,500 feet.

To augment the flow of the LaGrande and increase the potential energy to be built up behind its projected dams, the James Bay scheme proposes to take one of the mighty arctic rivers of Canada, the Kaniapiskau, which now flows north to Ungava Bay on the rim of the continent, and turn it by 90 degrees to the west, making it join the LaGrande. The effect on the northern Eskimo fisheries of such a diversion cannot be foreseen accurately. Two other rivers, the Eastman and the Opinaca, will also be diverted to join the LaGrande.



If this description suggests that the LaGrande is a single broad stream of water, easily recognizable and instantly identifiable as a river, it is misleading. For most of its length the LaGrande, like the Kaniapiskau, is less a recognizable river than a waterscape of lakes and ponds, laced together by waterfalls and rapids, broad slow-flowing channels, and narrow swift straits. Its waters divide and recombine, glide gently as though pausing to regain energy, and then tumble roaring over glacial rocks on the long traverse to James Bay.

It is the very length of this trip that makes the James Bay proposal so much more destructive than the existing hydro projects that tap the short rivers that flow south from the mountains to the St. Lawrence rather than west to James Bay. In comparison, the earlier dams and generating stations were simple. They tapped a natural concentration of kinetic energy like Niagara Falls, and could do so without imposing major landscape change. The geology of the LaGrande requires massive human intervention to harness its energy potential. Present estimates place the James Bay cost, per kilowatt of generating capacity, at three times the cost of Manicouagan #3, the most recent Hydro Quebec dam and generating complex, finished in 1976.

James Bay power will not be cheap in New York State, where construction is now beginning on a 765,000-volt line under state ownership to carry Canadian power downstate. The demand for it—a demand so great that the underwriters see no overwhelming difficulty in raising the $16 billion needed to build James Bay—arises because there does not seem to be any other reliable source for the additional power the Northeast will need.

The New York *Daily News* implicitly explained James Bay with a recent editorial. "CAGEY CON EDISON," it wrote, "has announced plans to build new power stations along the Hudson River for service about 1990. Anticipating environmentalist opposition, the company figures a 14-year lead time will be enough to dispose of hearings, suits, *et al.*

"Don't bet on it. The Storm King Project was first proposed 13 years ago and is still shuttling back and forth between regulatory bodies and the courts.

"How about 2090?"

Troubled by blackouts that result, in part, from inadequate immediately available reserves, and by the inability to commit electricity for new industries despite high unemployment rates, the Northeast simply cannot wait for domestic power sources. In effect, it is asking the Indians of Quebec to sacrifice themselves to the American awe of snail darters.

And sacrifice it will be at James Bay. Behind LG-2, the biggest single dam to be built on the LaGrande, a new lake will be formed, about two-thirds the size of Lake Ontario. Its surface will be about 50 stories above the bed of the natural river. Beneath its waters, and under the reservoirs formed at the other dam sites, much of the wildlife, terrestrial and aquatic, of the boreal forest belt of Quebec will drown. So will the landscape itself. The losses will include large populations of the beautiful native Eastern brook (or speckled) trout (*salvelinus fontinalis*), which once filled the streams of the northeastern United States and eastern Canada. Dirty water and too heavy a catch practically eliminated this species in the wilds other than in northern Quebec. The large lake trout population of the rivers is threatened, as is the *ouananiche*, the landlocked cousin of the Atlantic salmon. Much of the terrain that now belongs to the animals will disappear, and with them go the traditional and treaty-bound hunting, fishing, and trapping lands of the Cree and the Inuit (Quebec Eskimo).

Because climate makes this northern land impossible to farm, and the cold stunts the trees making lumbering impossible, the Cree and Inuit have survived in the hunting life which harmonizes with their ancient traditions. This style has been difficult to maintain for all Canadian Indians, but the Cree have resisted with remarkable success both the lure of higher cash wages in the south and the temptation to neglect conservation to make more quick money. The offer (accepted by the leaders of the Cree Nation) of money for ancient lands has done something to the Cree that history had so far been unable to accomplish. It split the older Cree from the younger; the elders took money in exchange for their hard way of life. Younger men still oppose the decision; they would have chosen to persist as in the past.

No one who has visited this rare stretch of sub-Arctic land, just below the endless tundra of the far north, can forget it. The heart of the Cree Nation has been in their major settlements at Mistassini Post and Prince Rupert, but their way of life required vast tracts of tumbling waters and black spruce so that they could obtain what they need to live on without endangering their future.

It is ironic that the Cree's harmony with nature should be threatened, however inadvertently, by Americans who consider themselves uniquely dedicated to preserving the natural and primitive environments. The Cree learned what others call "environmentalism," not through sentimentalizing the mute "kindliness" of the natural world, but by experiencing how heavy a load they could place on it before destroying its ability to replenish itself.

The American environmental movement is not generally informed by so rational an economic motive. Its moving force is the

view that any other creature is man's moral superior. Technology, in this view, is the most dangerous of gifts, and the possession of an intellect the gravest of temptations. The Cree share neither of these views. For better, for worse, the Indian recognizes that man has an intellect, and the gravest temptation is to avoid the trouble of using it. Its function is to make distinctions, to perceive realities not immediately at hand, and to try to eliminate the inadvertent.

To the extent that self-styled American environmentalists use their intellects and energies for these purposes, they help on a grand scale to arrive at a fruitful and lasting balance between human life and the capacity of the rest of the biosphere to renew itself. But the movement rarely troubles to make distinctions: It values the furbish lousewort with the porpoise; an insignificant change in air quality seems to it as significant as massive poisoning of the water supply; a change in the shape of a reservoir, now to be used for pumped storage of potential energy, becomes as degrading as the flooding of the Cree's ancient hunting lands. The movement overlooks what is not at hand. It never considers the inadvertent destruction that results from its restrictions on the acts of others, though it is quick to denounce their inadvertancies. Exploiting to the full the deadly power of delay, the movement has played an elaborate, tricky game with "rehearings," "environmental impact statement" reviews, "hearing reopenings," and tardy requests to expand the lists of intervenors in license proceedings. The devastation of the Cree lands is the indirect result of these graceless procedures.

Finally, it must be emphasized that there is nothing moral or immoral about the natural drive of a species to multiply and to use the natural environment to sustain its membership. It is pointless to expect the human species to recoil in horror from what its members have no reason to feel is bad. But if population growth and relief from hunger, cold, and disease are to be reconciled with nature, the flight from intellectual analysis that distinguishes the real from the trivial threat must somehow be stopped. □

Stephen Rosen

Will We Throw the Arms Race?

Even more than the first SALT agreement, the arms treaty now in prospect will constrain the United States while permitting the Soviet Union to build weapons at full speed.

There is a tendency for intellectuals to base their judgments of strategic weapons and arms-control agreements on what they perceive to be the intentions of the Soviet Union. It is decided, perhaps, that the Soviet leadership has no real desire or need to quarrel with the West, hence a few missiles held in reserve are more than adequate to insure our safety. Or it is divined that Brezhnev intends to attack the West if the cost is thirty million Soviet casualties, but not if the cost is forty million, and therefore we only need weapons sufficient to inflict that higher level of damage. Or it is concluded that the Soviet leadership has a peasant mentality combined with a Bolshevik ideology and thinks it can fight and win a nuclear war; so we need a nuclear war-winning capability.

This tendency is understandable. Intellectuals, after all, think about what the enemy thinks; soldiers think about what he can do. Still, this preoccupation is slightly wide of the mark, if only because the Soviet government has gone to a lot of trouble to make sure we never find out what its intentions are. The intellectual preoccupation with the psychology of our enemy gives the literature on nuclear war and SALT a faint resemblance to the worries of an adolescent girl anticipating her first sexual encounter. Is the man nice? What does he want? If he tries something, what will I do? Both the girl and the intellectual forget that we may begin with honorable intentions, or no intentions at all, and still finish by trying to do what we find we can do. Both forget that how one acts before the crisis has something to do with how much we think we can get away with when push comes to shove.

In terms of our relationship with the Soviet Union, therefore, we should also be concerned with understanding what the objective military and political realities on both sides have been, what effect arms control has had on these realities, and what effect the SALT agreement now in prospect is likely to have.

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Nuclear arms and nuclear arms-control agreements share the objective of reducing the likelihood of nuclear war without spending intolerably large amounts of money. Starting in the late 1950s, the United States took steps to insure that we would always have the ability to retaliate against a nuclear attack. Our bombers were dispersed and kept on alert, our land-based ICBMs were buried in hardened silos, and a large number of submarine-launched ballistic missiles (SLBMs) were put out to sea. Before the arms-limitations talks began, there was no doubt in anybody's mind that our deterrent was secure. It is an interesting question, therefore, whether the first SALT agreement deserves more praise than the Strategic Air Command. Our weapons, not our diplomacy, may have been the best guardians of our security.

And the cost of this security was not high and rising, but low and declining. From a high point in 1952 of $32.6 billion (in 1976 dollars), the cost of our strategic forces had come down to $7.7 billion in 1976. In that year Henry Kissinger said that failure to reach a new agreement would require the United States to spend an additional $20 billion on weapons over the next five years. To be sure, $20 billion is a lot of money, but can SALT promise nothing more than a saving of one percent in the annual federal budget? Is that what arms control has to offer?

The first SALT agreement (1972) might have been valuable if the ban on further ICBM silo construction and the limit on anti-ballistic missile defenses (ABM) had prevented a competition in strategic weaponry that would have forced both sides to spend a great deal more money to preserve their deterrent forces. It is true that the ABM Treaty did save us some money. As a direct result of