

**MAN IN NATURE:
A STRATEGY FOR ALASKAN LIVING**

Robert B. Weeden

People move to Alaska for many reasons, and because of the distance and cost of moving, the reasons rarely are trivial. Major population increases have come in boom times; one might infer that the lure of economic benefits has been paramount. But recessions have followed the booms and those with purely economic motives often have gone back "Outside" where, if they were going to starve, they could do it in a comfortable climate. Even in our exciting times in Alaska a man spends \$1.32 for what he could buy in Seattle for \$1.00; he earns only \$1.21 for a dollar's worth of labor by national standards. Clearly the Alaskan is not as well off as the average American.

Or is he? Is there something in the air, the romance of Alaska that creates the captivating incentive that money fails to provide? Do people stay because they expect to take part in a legend? I think they do. In Alaska people perceive and respond to a uniqueness comprising the freshness of history, the indefinable lure of "frontier," and, above all, the wilderness. Despite the comings and goings of boomers, I think the heart of Alaskans is in Alaska.

If ever it was important for a people to gauge accurately their own feelings about themselves and their environment, it is true in Alaska today. History and Nature have proffered an array of choices that our civilization has never seen before. The only decision we cannot make is to stay aloof from change. If we Alaskans do not make our own choices, others will happily do it for us.

The most obvious element in the situation is the economic upheaval since the September 10, 1969 oil lease sale in Anchorage. On that day Alaskans, who had earned a total personal income of a little over a billion dollars in 1969, received slightly over \$900,000,000 in lease payments and bonuses on state lands near Prudhoe Bay. The expectation of significant continued income from future lease sales and from oil and gas production suggests that the rather desperate search for revenue characterizing the decade after statehood is over.

An equally important ingredient is that the inherent character and productivity of the land are largely undiminished. Over vast areas of the state there is hardly any evidence of human use. Air and water are as pure as anywhere in this polluted world. Renewable resources are (with a few exceptions) harvested below or barely at annual production levels. Surface transportation nets cover only one-fourth of the state, sparsely. In short, the present array of choices is not greatly diminished by past mistakes or heavy capital investments.

Third, a major group of Alaskans, the approximately 60,000 Indians, Eskimos, and Aleuts of the state, may suddenly gain economic and landowner stature such as they have never had before. These people face individual and group choices that are in many ways more difficult and unsettling than those confronting other Alaskans.

Fourth, the richness of the present opportunity is largely due to the recognition by Alaskans that their new wealth brings new responsibilities of decision. To some the responsibility is mainly fiscal: to invest for greatest dollar return in time. Others see the social good that could come from expenditures for education, sanitation, public works, or various welfare programs.

In this context it seems both appropriate and urgent that there be full and vigorous public debate of various strategies for Alaskan living. Among the several alternatives, I am urging one that involves exceptional recognition of Nature as an integral part of the human environment. If this style of life touches the hearts and minds of Alaskans we will necessarily have to adopt bold policies relative to population growth and industrialization. These, in turn, will require that specific tactics of resource and environmental use immediately be brought to bear on current political and economic decisions.

The general idea is simple. I see Alaska as a place where people elect to withhold the full force of their technical and procreative powers so as to reap the rich harvest of tangible and intellectual resources the wild north can promise. I do not propose turning Alaska into a permanent nature preserve, administered by some monstrous conservationistic bureaucracy. Neither do I propose that Alaska welcome industrialization unreservedly, mimicking the unenviable environments technology has spawned all over the world. The middle road is not, in this case, a politically viable compromise, because walking it will be much harder than taking either of the other paths. Rather, I chose it because I believe in diversity of opportunity—economic, materialistic, creative, recreative—as a prime element in the good life. Not everyone wants to be a bird-watcher. Not everyone should be ensnared in the television syndrome.

Policies for Leaders

If this idea is to work, Alaskans and their governments must adopt three basic policies: limited population, selective industrialization, and environmental consciousness. All are indispensable. All are fraught with emotional polarities, and their acceptance and institutionalization will be extremely difficult.

There is no need to belabor the now-obvious perils of excessive population. In policy terms, whereas much of the world cannot long survive without a reduction in population, and whereas America itself must take steps to limit further population growth, Alaska is one of the few self-supporting units of government that can justify

conceiving of and working toward an optimal population (which may be at a level somewhat higher than our present quarter-million people). The concept of optimal population, admittedly, is poorly defined. To me it means the general population level at which people enjoy the widest freedom of cultural and economic pursuits. There is an obvious interaction of dollars, culture, and population; a few rich people could finance a performance of an opera, but it takes more middle-income people to do the same thing. "Optimal population levels" may be dynamic rather than static, rising and lowering as cultural and environmental shifts take place.

The life style I advocate will be impossible unless we develop and practice a policy of population regulation. We will need to limit the number of births among Alaskans through legalized abortion, birth control measures, incentives for small families, or other methods and combinations that are acceptable and effective. We will have to restrict immigration, possibly approaching this tricky problem from a strategy of reducing the incentive for people to immigrate, rather than by barring entry to those who knock on the door.

The spacing or geographic distribution of people is an equally important subject. In Alaska, big settlements have been growing bigger and small places have been getting smaller for several decades, with a net annual increase in total state population. Roughly one-third of all Alaskans now live in Anchorage and its satellite communities. Another one-third live in the towns of Fairbanks, Palmer, Kenai-Soldotna, Ketchikan, Juneau and Sitka. The trend toward urbanization is essentially conservative of landscape, and it should be encouraged in Alaska. Towns and cities should be made more attractive in both opportunity and appearance. Conversely, out-dated programs such as the Homestead Act (by which the federal government gives large acreages to private persons, ostensibly for agriculture but now for other uses including land speculation) should be abandoned. These programs result in the scattering of people along road systems, leading to high costs for services, and degradation of the countryside.

(The entire mix of federal, state, and local government programs for hinterland development are in dire need of overhaul, reappraisal, coordination, and redirection. Again, Alaskan conditions favor concerted, long-term land planning because large blocks of land are under jurisdiction of a few public agencies responsible for management in the public interest. There is an unbreakable two-way relation between public lands management, access and transportation, settlement patterns, and population policy.)

The second policy, that of selective industrialization, is closely tied to the first. If we reject outright the conventional myth that population growth is a necessary handmaiden to progress, we do not have to look for industries that "provide jobs"—and end up attraction 102 job-seekers for every 100 jobs they offer. We can foster industries that are capital-intensive rather than labor-intensive, and select those least likely to degrade the natural environment through noxious effluents or outputs. We can also reject extravagant power generation projects justified with self-fulfilling projections of demand from processing industries and population growth; neither the manufacturing plants nor the increased population are desirable. Traditional tax enticements to new industries could be scrapped unless they carry out the environmental or social policies of the state.

Out of a total civilian work force of about 100,000 people in 1968, approximately 91,000 had jobs. Over one-third of all working people were employed in trades and services, about 6 to 8 per cent each in transportation, manufacturing (including logging), contract construction, and smaller proportions in mining, financial, and other occupations. The main sources of "new money" in the Alaskan economy have been federal government expenditures, commercial fish, oil and gas, forest products, minerals, and tourism, in order of decreasing dollar value. In 1969 the great increases in oil and gas revenues (mostly lease payments and bonuses, not production) have changed the relative ranking of these sources of money, and the new picture may hold for a number of years.

The important point for this discussion is that revenue from the Cook Inlet and arctic oilfields has given Alaska a tremendous bank balance after many years when federal expenditures were the critical factor in survival of the economy. Assuming that gas and oil revenues from those fields will be high for several decades, and assuming a continued net inflow of federal dollars, there is no need for economic policy that strains the productive capacities of renewable resources, and no need for aggressive expansionism in mining, tourism, manufacturing, and other industries. There is a greater need to turn our attention to the serious social inequities in our local economy, a prime example being poverty and joblessness among Alaskan Natives - a condition that is worsening rather than improving as our total dollar flow rises.

The third policy, which I coined "environmental consciousness," depends on Alaskans adopting Aldo Leopold's "land ethic." Incorporated into government it would become "ecomangement," a term Jaro Mayda coined¹ to express the broad new tasks of conservation, encompassing all individual aspects of environment, the whole concept "environment" (since this is more than the sum of its parts), and the interplay of man and environment. Operationally this policy would seek always to maximize the full spectrum of human benefits from the use of space and other natural resources, not merely to maximize revenue. It would defend man against himself in the common environmental problems of air, water, and noise pollution. It would be the basis for defense of those delightfully "useless" animals, plants, and empty miles that may be the ultimate salvation of man, and which unquestionably are an important foundation for scientific knowledge, artistic creativity, and personal recreation and pleasure.

Petroleum in the New Alaska

As I said earlier, adopting these policies would mean completely different approaches to environmental management. Alaskan oil developments provide an excellent and timely example; I will describe the current situation briefly and suggest two steps to take immediately to cope with the oil giant.

If the first guesses of petroleum geologists are correct, close to one-half of Alaska and its offshore waters may be underlain by oil or gas-bearing strata. This includes most of the state outside of the Alaska Range, Brooks Range, and mountainous interior areas. Some private seismic work or drilling has occurred in practically all of the oil regions of the state, but two, Cook Inlet and the central Arctic have had the lion's share of attention. The first production wells were spudded on the Kenai Peninsula in 1958; the Swanson River field was developed there and, together with about 16 wells offshore in adjacent Cook Inlet, this field produces all of Alaska's present output of about 200,000 barrels per day. A small refinery exists near Kenai, but most Alaskan oil is shipped as "crude" out of shore facilities on the east and west sides of Cook Inlet.

Exploration and production activity in the inlet and on the Kenai Peninsula gave Alaskans a fairly clear idea of the sorts of problems oilfield development brings. The network of thousands of miles of intertwining tractor trails across marshes, forests and alpine areas jolted people into sharp awareness that even looking for oil causes problems. Strictly enforced regulations helped: anyone who compared the seeded roadsides and healing "cat" trails on the Kenai National Moose Range with the debris and scarring on state lands just outside the Range could see this readily. Air and water pollution came, as inevitably they will. A cloud of smoke is sometimes visible for miles when wasted natural gas is flared from the inlet's wells. Hundreds of oil spills from tankers, wells, and pipes have been recorded by government agencies. A few big ones have killed ducks or befouled the nets of fishermen (Cook Inlet has an important commercial and recreational salmon fishery). Life in Anchorage has changed, too, with the advent of oilmen and boomers. No longer a small town serving nearby military bases and tourists, Anchorage has swept into an era of burgeoning population, acute land allocation problems, and school and public service expansion suggesting that, like Alice, someone ate from the wrong side of the mushroom.

But Anchorage had its growing pains and Kenai its land scarring before oil. Petroleum development simply intensified and added new facets to the problem. It is in the Arctic, with its virginal and vulnerable landscape, that the impact of oil is most obvious. The

gnawing scars from seemingly harmless trails of construction vehicles, the puzzles of permafrost engineering, the unsuitability of ordinary sanitation techniques, the fantastic longevity and visibility of debris, the oil spills, the huge demand for gravel for camps and airstrips, the question of whether caribou will be frightened and displaced by surface feeder pipes and the general bustle of oilfield operations—these are now commonplace topics of conversation in the north. Technological man has burst upon the Arctic, a stranger. He can ride roughshod for a time over the tundra to his shining golden visions, but always nagged by the feeling he could do much better. Science cannot yet be of much help. Government is an uncertain watchdog, alternately barking and licking its chops.

Bigger questions for Alaska lie beyond Prudhoe Bay and Cook Inlet. Can petroleum be shipped out of Alaska by pipeline, tanker, or any other means without chronic and catastrophic oil spills? Will the arctic oilfield, now confined to the central Arctic north of the Brooks Range, expand west into the huge Naval Petroleum Reserve No. 4 and east to the lovely Arctic National Wildlife Range? Will the semi-secret explorations in Bristol Bay and on the Alaska Peninsula turn that fabulous big game, waterfowl, and salmon paradise into another Prudhoe? Can offshore drilling in the savage Gulf of Alaska or the Beaufort Sea be done without a series of Santa Barbaras? Will the next big strike be on the delta of the Yukon River, where Secretary of the Interior Walter Hickel is said to have more than a passing financial interest at stake?

In view of these and other managerial complexities that neither industry, state, nor federal governments have been able to solve, I propose a complete shutdown for at least three years of all further oil and gas exploration in Alaska and adjacent waters, outside of present lease areas in Cook Inlet and the central Arctic. In my judgment the immediate and permanent benefits from this action would far outweigh any temporary reduction in revenues to geophysical contractors or to the State of Alaska. First, this action would let the oil and gas industry turn its full attention to getting known petroleum reserves into production and to market safely and with minimum losses to the environment. Second, the moratorium would give governments time to establish a full range of regulations

for oilfield conservation and for the protection of the landscape and wildlife. Even more critical is the need for resource agencies to obtain the staff and funds to explain and enforce these regulations, and to establish training programs jointly with industry. Third, universities and others could begin basic, full-scale studies of tundra and taiga disturbances, so that better evaluations of the regulations would be possible. Fourth, and very importantly, oil companies and the government could steadily improve techniques of slant drilling, seismic systems, helicopter, hovercraft, and overland vehicle usage, and sanitation, so that future exploration could be done in safety and with minor and tolerable damage to the land. Fifth, the State of Alaska could study its new role as rich man, learning how to make the most social mileage out of its financial windfall. Finally, the moratorium would allow resource agencies and private groups to develop sound proposals for lands to be reserved permanently from oil and gas exploration, based on their importance to science or exceptional wildlife, scenic, or recreational values.

Eventually more of the potential oil lands would be explored. This should come on the initiative of the government, not industry. It should be done when the national and global situation clearly calls for development of new reserves, and it should be done on lands selected by the government. And, as oil and gas are public resources under public land, the public, through government, should dictate the conditions and techniques of exploration. I suggest that a separate industry-government corporation be established to explore each parcel as it is opened up, with companies and individual entrepreneurs bidding for a share in the venture. The corporation would then conduct all exploration work with the best technology available, sharing geophysical data within the corporation. This would eliminate the haste and secrecy that have caused such wasteful and destructive duplication of seismic lines, shot holes, camps, roads, airstrips, test wells, and gravel pits in the Arctic. Petroleum discoveries would be developed by the private members of the exploration group, under a unitization plan, dividing proceeds in the ratio of original bids for exploration. I am convinced that if we act sensibly, using the knowledge we have or can soon develop, the Arctic, Cook Inlet, and perhaps other oilfields can be developed into showpieces of public and private cooperation. Alaska would necessarily have to sacrifice some of her wildness, some of her

cleanness of landscape, and some of her outdoor playgrounds and classrooms, doing this not blindly but in full knowledge that a good bargain has been struck by men for men.

Alaska and the World

The future Alaska I rather wistfully envision would have more people than now—perhaps 500,000 or so—but they would be in the same population centers as now. There would be awesome stretches of semi-wilderness where people lived who prized solitude, or who enjoyed making their way from the seasonal fruits of the countryside. There would be relatively smaller stretches of true wilderness, balanced by local areas where facilities were developed for the enjoyment of nature by large numbers of visitors. There would be a comfortable network of roads where needed, planned, mile by mile, to display and preserve the countryside and to host appropriate commercial, residential, and recreational uses. Public revenues would come from the usual range of personal and corporate taxes and from the state's share of Alaska resources extracted for private profit: oil, gas, fish, minerals, timber, water. Alaskans would be teachers, scientists, civil servants, tradesmen, miners, fishermen, loggers, financiers, artists—a reasonable sample of the whole range of occupations open to modern societies.

Anyone who knows Alaska will remark that what I have in mind is simply to perpetuate the present. Today's Alaska, however, is a result of a complex and dynamic history. The economic, psychological, and global events that made Alaska what it is are already pushing it towards something else. That "something else," I fear, is a repetition of the dollar-rich, culture-poor, trash-and-poison-ridden landscape so characteristic of industrial America. Changing this destiny requires a revolution in the attitudes of every man (and especially of those who lead), towards his own sources of happiness, his own life style, and his own environment.

In a very real sense, what I am proposing is not only a milieu for Alaskans but an opportunity for the world. The world needs an embodiment of the frontier mythology, the sense of horizons unexplored, the mystery of uninhabited miles. It needs a place where wolves stalk the strand lines in the dark, because a land that can produce a wolf is a healthy, robust, and perfect land. The world desperately needs a place to stand under a bright auroral curtain on a winter's evening, in awe of the cosmic cold and silence. But more than these things the world needs to know that there is a place where men live amidst a balanced interplay of the goods of technology and the fruits of nature. Unless we can prove that a modern society can thrive in harmony with the land, the bits of wildness we salvage in Alaska will be nothing more than curious artifacts in the sad museum of mankind.

NOTES

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ADDITIONAL READING

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