

Soft Technology: Adaptations to Culture and Environment

By Oscar Kawagley

And is Man any less destroying himself for all his boasted brain of his? . . . and I tell you that in the arts of life man invents nothing; but in the art of death he outdoes Nature herself . . . This marvelous force of life of which you boast is a force of Death: Man measures his strength by his destructiveness.

Devil in Shaw's Don Juan

I begin with an apocalyptic statement for as I survey the villages possessing modern technology, I see a confused Native and a disparity in the distribution of resources, wealth, and goods. Although the Native has ancient tenure on this land, and although he may be sitting on wanted natural resources, he is invariably shunted aside and receives peripheral tidbits of wealth leaving his home. Contrary to what many of my people say about an easier life with access to goods and services, I disagree. I think it's only because we have not really looked at or are unwilling to admit that many of our villages are the ghettos of the urban industrial cities.

New technological tools and devices are introduced or forced upon the villagers, and although they may seemingly make things easier, many of these machines have hidden costs to us and our environment. Take, for instance, the snow machine—fast, untiring, and has pulling power to do work. But do we consider what the noise does to us, to the game, the fragile tundra, what the occasional oil leaks and small gas spills do, breakdowns, accidental deaths, the unsightly cluttering of discarded machines and the dehumanizing effect. It has changed our ways of courting and dating, hunting and trapping, and makes a big demand on money resources for gas, oil, repairs and maintenance. These machines were made for affluent middle-class and thrill seeking Americans. The process of development paid no regard for material costs, mechanical and flue efficiency, nor the degree of technical complexity. In fact, the more complex the better. The western

scientific method is utilitarian and is not disposed to ecological considerations as its yardstick of success is money.

We Alaska Natives have lived down through the millennia in harmony with our world. It is time that we demand to consider technology before it is introduced to our villages. It is time that we demand our institutions of higher learning make accessible mathematics and sciences to our Native students. We need Native scientists and technologists who are capable of looking at development and research projects from two different perspectives. And, more importantly, are able to work with elders to develop soft technology in tune with and conducive to Nature. Machines are here to stay. But I say it is impossible for us to humanize technology, but we certainly can technologize man with tools that are not violent nor destructive to him and his environment.

There are many ecological niches on earth where primal man learned to live as a part of it. With the onslaught of western man and his technology, his numbers decreased drastically, his identity flagged, and he depended on social services to make him a living.

We don't seem to realize that when we buy into the technology and services, we reduce our self-reliance, self-sufficiency and identity. Let me use a simple example of these ASHA and other non-profit built with government monies boxes, and assigned out to people as houses. Take a look at it, aesthetically beautiful, good lumber, what insulation used is good, with a non-functional bathtub and shower, a partitioned interior configuration, and elevated off the ground on pilings. This might be a good design for the Louisiana bayou. Why was it transplanted here? Well, it's cheap and guaranteed to fall apart within five years, if not sooner. Would it not have been just as easy to ask the locals: What kind of home, materials, design, and use would you like? We may have come up with a house more suited to the environment, in fact, fitted to the environment. But we accept without question, because the builders and designers are of the great society, the omniscient, the omnipotent. In our haste to please, we completely disregard our own housing technology as being archaic, damp, dismal, and uncomfortable. We forget that it enabled our ancestors to survive for thousands of years: heat efficient in the winter, naturally air-conditioned in the summer, circular in form for better air circulation, semi-subterranean to make use of the insulative crust of the earth, the framework covered with sod with the vegetation on the inside to make an air barrier, and made with available local materials. By accepting the modern house, we denigrate our identity and we relegate a lot of time and energy to its maintenance, heating and electricity. A larger portion of our income from hunting, trapping, fishing, and job goes to these three items. Just how much easier does this modern house allow for us to make a living? I've read

where the Natives in neolithic times spent near equal time in foraging for food and free time. Why can't we say, "Just wait a minute, before you bring in our new houses, or school. Let us examine the specifications, we don't want another technological dinosaur introduced to our community."

We have no rural economic base other than fishing, trapping, and government-funded jobs and services. Finding alternatives for jobs is a difficult task which, I think, if undertaken, should involve Native participants to draw up a plan and establish a goal for their particular region. Wage-labor is limited, and isolated cottage industries have been tried without success. Perhaps we can draw an analogy from the Amish. These people have been in constant clash with the American technological society, but have surprisingly been able to endure. The reasons for their success seem to be that they have a language, have a place they can call their own, have a tie to the land, have a history, have selected a limited number of technological tools into their society, and train their people for work to maintain their economic system. However, they have one advantage over us: they have never had their self-esteem crushed. From my perspective, it seems that each region needs to determine if it is going to maintain a quasi-traditional lifestyle having only a few basic culled out Native values to mix with chosen outside values. This, of course, presupposes that the Native are allowed self-determination and to work for solutions to their problems. I would propose they address themselves to wildfowl, animal, and fish habitats and life to increase productivity without resorting to recombinant DNA, hormones, antibiotics, special feeds, and other artificial means that scientists are inclined. Our Native people have always been curious about all living things, the earth and how they interrelate. They have much experiential knowledge learned through keen and patient observation where nothing is left to chance. The subsistence lifestyle leaves little to a gambling proclivity.

The bogs and marshlands are an abundant source of nutrients for many species of birds, fishes, and animals. These with their streams, creeks, rivers, and sea are being rapidly polluted by effluent wastes, erosion, and man's activities. Trained Native people are needed to protect them from further destruction. This may mean, for example, that we compromise our high-powered motors for less speedy, energy efficient engines cutting down on pollution and wave action. The boats may become smaller and lighter but with a payload comparable to that of the *qayaq*. The *qayaq* may get motorized with a light weight solar-powered engine. His hunting weapons might be a combination of the principles of the bow, the scuba diver's spear gun, and the rifle. His rifle might be designed with a shell containing an inflatable float and high tensile line to keep one from losing a seal or walrus. As the shell hits flesh, the float is automatically released. This

would minimize losses due to sinking. So his hunting implements become more humane and efficient. For continuity of his lifestyle, experts cognitive of both the traditional and modern knowledge and skills must be fostered to work in nurturing and enhancing biota and their ecological processes. Since our traditional ontology places a barrier (how could we own and make part of a household these living beings that often possess more power than we?) we then have to seek new approaches. Our earth is the giver of life, we are placed on her to work with her. This is traditionally what we have always done. This would mean a need for a combination of cooperating land and wildlife managers, fisheries biologists, hydrologists, architects, MDs, engineers, ecologists, botanists, economists, and chemists, to name a few—cientists who are in contact with life. For example, the health care services under the village aide program is closing in on integrating traditional medical practices. Psychology and psychiatry remain western treating part of the person without regard to the total being. I think elders have much to contribute through their lives, their mythology, and their ceremonies of establishing balance in the whole scenario. After all, the Spirit of the Universe gave us the ability for rational, intuitive, and mystic communications so that we may know what to do to work balance. Why then are we so troubled?

I can advance one possible variable. We, as Natives, are blinded by western knowledge and its technological products, forgetting it is a means, not leading to an end(s) nor do they help to make reality. These syncopating strobe lights we have made into a myth, a religious play, and faithfully accept the god of the new world. It's now time for the natural man, the primal man to step in. He has remained quiet, now he must begin to pose questions to young people on the appropriateness of the modern, utilitarian scientific method and its products, a demythologizing task of science for science's sake, technology for technology's sake. Much of communications, medical and transportation technologies, and various appliances are good, but for many superfluous gadgets, we pay dearly by surrendering our self-reliance, our self-sufficiency, and our IDENTITY. We confuse our children, whom we recognize as our greatest resource to carry and transmit our culture and values. We voice and espouse the value of our ways, but eschew our traditional and technical tools and methods in every-day life. We leave to the formal school setting the teaching of language, values, and technics by Natives paid through Indian Education and Johnson-O'Malley. I am not saying that this is bad where the school is involved in cultural transmission, but is it a true extension and reflection of the home and community?

We are no longer traditional Alaska Natives. Men are no longer full-time hunters, women are no longer full-time homemakers. Our youngsters are confused because our cultural

template has been unrecognizably eroded. The task is to carefully reconstruct and redefine by replacing missing pieces to engender a new Native identity with its infrastructure being valued Native traditions. Right now it is emotionally and mentally costly to try to succeed in either world, much like trying to fit a round peg into a square or triangular hole. So our youngsters enter school confused and graduate confused and disoriented. They may show signs of pride and smugness for being Native, but, I venture, it is merely a fragile facade. Anxiety is skin deep, ready to burst as an antisocial act at any question to its reality, or slight of his being. And is it any wonder when we complain about owing ASHA or HUD for substandard out-of-context housing, the store for a hard-to-fix 4-wheeler, Sears and Roebuck for myriad specialized appliances, the grocery store for less-than-nutritional food, the late general assistance check, and a forced-upon-us outside denial system, but gladly accept? We are trying to become what we are not meant to be—a dependent specialized and centralized people, and we become “A People in Peril,” a consequence of confusion. Who are we? Really?

I therefore propose synthesizing the traditional with modern technologies to create soft technology effecting a people at home in their own dynamic and technology enhanced environment, working as philosophical technicians of earth. I conclude with Marston Bates:

Man has not escaped from the biosphere. He has got into a new, unprecedented kind of relationship with the biosphere; and his success in maintaining this may well depend not only on his understanding of himself, but on his understanding of this world in which he lives . . . It looks as though, as a part of nature, we have become a disease of nature—perhaps a fatal disease . . . I am not advocating a return to the neolithic . . . But long run efficiency would seem to require certain compromises with nature.

Bibliography

- Augros, Robert and George Stanciu. (1987). *The New Biology*. Boston: New Science Library.
- Bates, Marston. (1980). *The Forest and the Sea*. Alexandria: Time-Life Books, Inc.
- Siu, R.G.H. (1985). *The Tao of Science*. Cambridge: MIT Press.