

**Remarks by
Senator Kenneth F. Brown
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A couple of thousand years ago, these islands lay in the sea and the sun, unknown to man, and not knowing man. Three million years before, they had emerged from the sea as flaming, hostile volcanoes, connected with the rest of the world only by the mindless and infinitely slow vagaries of the winds of the air and the currents of the sea. Yet, in the three million years that had passed, nature had brought forth on these islands a rich assortment of creatures and plants spread over the land, from the mountain peaks down to the sea, and out to where the coral gave way to the cold black ocean depths. Carrying on their timeless, intricate, interwoven cycles of life, death, and birth, they had completely transformed the landscape, replacing the lava with verdure, populating the bays with sea creatures, and the air and land with birds, animals and insects. All this in a totally self-contained environment, and without that ultimate creature, man.

The clock of history was jolted into high speed, and events were jolted into a new time frame about twelve hundred years ago, however, when on the southern horizon a sailing canoe appeared. It was guided by the hand and mind of man, rather than the random currents of the sea which had once brought the first forms of life to Hawaii. That little canoe brought profound changes.

Man, a part of nature, and totally dependent on nature, can nevertheless drastically affect nature. Polynesian man brought to Hawaii pigs, dogs, fire, taro, agriculture, aquaculture, tools, warfare, gods, and stone age civilization. He imposed his dominion over the living systems he found here, and established himself at the top of the nutrient chain, adding another layer to the complex and intricate life systems he found here.

His technology allowed him to live off the land and sea, and to multiply and prosper. His ocean-canoe linkage with the rest of the world, tenuous at best, and soon to fail completely, was not capable of importing any resources to supplement those which he had here. He was thus forced to regulate his own activities most stringently to keep them from exhausting his life support. So he developed a refined, complicated system of resource management which allowed him to survive in a completely limited resource environment. His survival as a species, since he had lost the art of closedocean travel was dependent on his ability to constrain his technology and consumption so as not to deplete his islands' resources.

He did survive, of course, and was able to prosper and increase, and at the same time maintain his resource base, until there were a quarter million of him here, with absolutely no import of resources. I'm positive that a quarter million of us could not survive here today under those same restrictions. It was truly a remarkable society, and one from which there is much for us to learn.

So, by the year 1750, the Hawaiians, as we now call them, had a stable society, living in complete dependence on a limited natural environment, with every possibility of continuing forever this balanced, yet dynamic, man-nature relationship.

But, of course, this was not to be. Western man, with a much higher technology, was the next to discover Hawaii. Large, dependable vessels shattered the isolation of the islands, and created enduring links with all the great land and population masses of the globe. The closed-system relationship between man and nature was destroyed forever. His technology allowed ever. New societal rules and priorities were imported and imposed. Unlike those of the Hawaiians, these new rules placed little value on the preservation of resources; in fact, they encouraged export and exploitation. The resources of the forests and mountains could now be sent overseas in exchange for gold, and the gold could be used to purchase foreign-made articles to be consumed or enjoyed, possibly without contributing anything to the life support to survive in a part of the populace. This constituted a violation and depletion of a natural resource, and a rupturing of the closed-system relationship between man and nature.

In the two centuries that have elapsed since the second discovery, Hawaiian society, with its conservation imperative, has disappeared completely. A very complex and highly technological society has replaced it. Three quarters of a million people now live here, and import from overseas virtually everything we use and consume. Almost everything we need to feed, clothe and shelter ourselves must be bought outside Hawaii. Through great good fortune, we are able to purchase these imports by trading products of Hawaii's land and climate. Sugar, pineapples, and flowers, for instance, are sold offshore to buy beef, newsprint, cars, glass and steel. In these transactions, we sell the product of the land, not the land itself. Offshore visitors come here to play, and pay us for the privilege. They use only our sea and scenery. With their dollars, we buy books, radios, and rice. The landscape is enjoyed, not engulfed.

It appears that, like the Hawaiians before us, we have achieved a new balance, this time between society and multi-environments. But there is much danger in this type of balance. For our need for imports increases as our numbers increase, but the currency with which we pay for these imports is restricted by the capacity of our island resources to produce goods for export. If we exceed this capacity, and are forced to export non-renewable assets, we will be starting down a one-way road which ends in disaster. So in reality, we are still limited by our natural, island environment, and by what it can produce without depletion. The natural world of Hawaii and its productive capacity, then, is truly just as vital to us as it was to our Hawaiian predecessors. But this truth is not as obvious to us as it was to the Hawaiian, who knew that a gluttonous harvest of this year's mullet run would leave him with an empty opu next year, and that prudent taking of birds for feather capes would assure a supply for the next year, and the next and the next.

It is important for us, then, not to be bemused by the fact that we have money to buy almost anything we want from overseas. We must remember to determine where the money comes from, and remember that if it doesn't come from a product of the land, it may be one-shot money, and the car we buy might be costing us an irreplaceable piece of Hawaii.

Recognition of these conditions argues most strongly for a preservation ethic to be applied to all of our overseas transactions, as well as all of our transactions with Hawaii's natural environment. We have the power to destroy our natural world, so we have the obligation to preserve, protect and conserve it. The basis for this ethic appears so far to be rooted solely in the very powerful motivation of creature survival.

Let's think for awhile about another, perhaps more noble, motivation for adopting the conservation ethic. For a long time it has not been popular to recognize the place that nature has in our spiritual existence. When pressed, most of us will concede that the life of the spirit, the mind, or the soul, if you will,

is as important as the life of the body. Let us examine for a moment, then, the effect upon our spirit of our surroundings. We will all admit that there is something different in spirit between, say, an Australian and a Frenchman. Of course, their cultures are different, but it is not unreasonable to claim that many of their differences are attributable to the differences in the places where they were born and brought up. France, with a domesticated landscape, cultivated and tended by man for millennia, and Australia, open, wild, and untamed, surely exert strong and differing influences on the spirit of their inhabitants.

Let's try another example. Consider the city dweller and the farmer. You can tell them apart immediately, from their dress, their speech, and more important, their attitude. Consider the resident of Hawaii as compared with the New Yorker. Need I enumerate the differences? Isn't it true that, among other things, it is the surroundings in which he lives that makes the Hawaiian different? Can we not, indeed, postulate that the aloha spirit has some origin in the fact that we live in such beauty? Can not the mountains, valleys, waterfalls, forests, streams, beaches, surf and vistas of Hawaii be given a great deal of the credit for our aloha attitude? To test this out, ask yourself how life in Hawaii would be changed if all this natural beauty were removed.

The land, then, can be said to contribute to the life of the spirit. At the very least, most of us will concede that we wouldn't want to live in a Hawaii without her natural beauty. At the most, we can say that its beauty is an integral part of the life of the spirit, which makes up a very important part of our total life.

Thus we have another compelling reason for conserving, protecting, and preserving our natural environment, one which nicely complements the first, which is to provide us food, shelter and sustenance.

We can state the two in a couple of simple sentences. First, carry on all the transactions you want with the outside world, but protect the land, the beasts, the plants, the insects and the rest, for only by exporting their produce can you pay for the purchases you make. Second, multiply, if you will, within the limits of productivity, but have infinite care where you put your houses, harbors and hotels, because you must protect your land's natural beauty and spirit of place if you are to retain and sustain your own spirit.

Let's try to put it even more succinctly. All of man's acts in Hawaii must be dominated by the spirit of "**Malama**". The Pukui-Elbert Hawaiian Dictionary defines "**Malama**" thus: "To take care of, care for, preserve; to keep or observe, as a taboo; to conduct, as a service; to serve, honor, as God; care, preservation, support; fidelity, loyalty; custodian, caretaker." Because he knows so many ways to destroy his natural environment, Man must now become its custodian and caretaker for his own sake. He must exercise **malama**, because if he starts selling parts of his natural environment abroad for creature comforts, he will lose it all, and be unable to survive here. If he uses up his landscapes, mountains, valley and vistas, or if he degrades his air and waters, he will destroy the beauty and hence the spirit of Hawaii, and in so doing, his own spirit. **Malama** is thus an imperative. It is applicable to our entire lives in Hawaii. It is applicable to all our transactions with each other, to all of our transactions with the overseas world, and to all of the transactions between society and nature. Each of these transactions must meet the test of **malama** at all times, without exception.

For each proposal to bring a new business to Hawaii, **malama** would make us ask, "Does it deplete or despoil any natural resource?" If it does, we must reject it, for it will be making us spend that which we cannot spend. On the other hand, does this new enterprise create a new product from renewable

resources? Do the sun and the rain and the earth, for instance, combine to give us a product that can be traded offshore, or that is usable here? If the answer is yes, then the enterprise is consistent with **malama**, and is to be encouraged.

Now let's get down to quality growth and land use, and apply our principle of **malama**. We have already set ourselves up as masters of the land. Through our technology, we are capable of doing almost anything to the landscape. And through our land use and zoning laws, society has taken from the individual the right to say how his lands are to be used. This is well and good, for it makes it easy to apply **malama**, through existing mechanisms, to our land uses.

How much agricultural land can we take out of production before we run into a deficit position in trading offshore for goods that are vital to our life-support? Malama makes us take a new look at agriculture, and gives it a high priority in the competition with other uses. Malama tells us things about where to put our houses. First, we must be very careful about putting them on productive land. Second, we must be very careful about putting them where they may disrupt our natural systems and cycles, or where they destroy a landscape feature. **Malama** tells us, in short, to classify all our lands as to their importance to our productive capacity and to our spirit of place. And then it tells us to allocate to each parcel of land a use which is in keeping with the principle of preservation.

How can we get from these broad philosophical imperatives down to specifics? How can we examine everything we do to, and with, the natural environment to see what the effects of our acts will be? We must first know much more about our lands, and second, learn how to predict more accurately the effects of our land use decisions before we make them. When we are considering the location of a proposed development, we should be able to examine in detail its effect on the lands which it will occupy, and the lands surrounding it, before we build it. We must learn, if necessary, to move a development around, by theoretical means, to test its effects in other potential locations, and eventually to find the place where **malama** is best observed.

Is all this within the realm of possibility? Yes. Consider a procedure by which all the information about each parcel of land on Oahu is gathered in one place. Things like soil characteristics, slope, drainage, vegetation, rainfall, productivity, ease of development, natural life, aesthetic and social value, and dozens of other things which make up our total knowledge of that parcel. Consider the drawing up of sets of characteristics that are crucial to **malama**, and the rating of these parcels as to their fragility or sturdiness, or any other quality you wish to identify. You are already on the way towards telling which uses are proper for which lands. Now consider a simulation process which allows us to tell, in advance, the effect of putting one thousand new dwellings on plot "A" of agricultural land or on plot "B" of conservation land, or on plot "C" of urban land. If the procedures are good, we will be able to tell whether a proposed land use decision is in the spirit of **malama**.

Incidentally, land use decisions are very often made in places where we least expect. While the highly visible land use commission and planning commission are the most obvious places we think of, legislative bodies, in their budget deliberations, make the truly overriding decisions about land use when they appropriate or withhold money for highways, sewers, parks and schools. Later decisions by formal zoning bodies usually follow and respond to these capital budget decisions. Legislative bodies should be the first to make use of these techniques of applying **malama** to their planning decisions.

The processes which I've been talking about are not just talk. Doak Cox's Environmental Simulation Laboratory is very actively pursuing concepts like these. They are experimenting with the Kaneohe area at the present time, trying to develop techniques of running simulations to test out the effects of downstream events which will influence the development of this area. They are trying to do it in a way that will assure that their results will be of value to the decision-makers, and to those who will be affected by the decisions.

The work of the laboratory, in my opinion, is directed to one of the central problems of our state that we are here to talk about today. If Dr. Cox and his people are successful, they will have made available a tool for applying to our land allocation processes an objective means of testing them against the principle of **malama**.

We have touched on the application of malama to land use, and talked about one way to do so systematically and scientifically. Any ethic or principle should be applicable in all kinds of ways, to all kinds of situations. It is for this reason that I favor the idea of distilling our ideals and goals, as a people, into statements that are short and concise, which can be applied constantly to our activities. This is one way of making sure that a consistent direction is followed by our society, public and private. The work of the Temporary Commission for Statewide Environmental Planning, in my opinion, is in concert with this kind of thinking. The Commission is actually drawing up a series of written goals pertaining to society's relationship with nature, which are to serve as guides for the state in its transactions with the environment. I'm encouraged to think that they will be successful in their pioneering effort, and am looking forward to the completion of their work.

Now let's talk **about malama** and quality growth. We spoke briefly about what kind of standards had to be applied relative to proposed new enterprises in the state, and got a fix on the type of growth that was okay. Does **malama** tell us anything about how much growth we want? It certainly does, but not in the arbitrary way that many of us are talking about it today. **Malama** says business activities can grow without limit if they do not feed off the export or consumption of non-renewable resources. The only limitation is that the physical facilities needed to accommodate new activities must be located where they satisfy the conservation ethic. Activities such as banking, brokering, trans-shipping and trade are to be encouraged, because they add to our overseas buying power, and don't have an impact on our environmental resources. Activities in which we get paid for our services are to be encouraged, be they physical, (such as processing or value-adding), or be they intellectual, (such as education, invention, research, or creativity). The harvesting of renewable resources should be encouraged. Fishing from the open seas passes the test, as does aquaculture and all that it implies, such as fish farming, coral and pearls.

What kinds of economic growth are taboo under **malama**? Mining of bauxite, for instance. The harvesting of native timber without certain and infallible provision for its replacement. The export or drain of human talent should be firmly discouraged. If we start to lose our productive people, we start to lose a resource which is very valuable in our overseas transactions. It is proper to export skills which we have developed, but it is wasteful to export the minds which have developed those skills.

What does **malama** tell us about the tourist industry? As we hinted early in this discussion, tourists bring money with them, enjoy our landscape, and leave the money behind, helping us immeasurably to preserve our non-renewable resources. **Malama** tells us to cherish the tourist, and to encourage him to

come. It also tells us something about the facilities we build for him, though. They must be of a nature, and at such locations, that they don't threaten our landscape and natural life. **Malama** says we can probably substitute tourism facilities for agriculture, if absolutely necessary, but it advises us to keep both activities if possible. Therefore, if an agricultural enterprise is failing, and a tourist facility can use that land, well and good, but if a going agricultural enterprise must be displaced by tourism, **malama** says no, unless that latter payout is much greater. As an aside, malama tells us that a tourist tax, if it's going to be adverse to the industry, is very, very unwise. On the tax score, additionally, **malama** gives us a priority of activities which should be given preferential tax treatment because of their contribution to our balance of trade.

What about the growth of population? **Malama** has a lot to say here, as well, thus helping to establish its credentials as an ethic. It tells us that the true limitation of population is purely physical. There are two constraints. The first is the carrying capacity of our natural environment, We said we have to live off of the produce of our natural world, trading overseas for our food and shelter. There is at all times a limit to the carrying capacity, based on our technology and the physical limitations of these islands. Our population limit under this constraint tells us to stop when we are forced to sell irreplaceable parts of our island world in order to feed, clothe and house ourselves. We need to refine our economic tools and measuring devices so as to get a finer fix on our condition in this respect. Since all physical items pass in and out of here through a very limited number of ports and airports, it is very easy to monitor those flows and their values. It's conceivable that prohibition of certain exports that fail the **malama** test could be instituted. Productive carrying capacity, thus, is one limitation on population. The other is the physical carrying capacity of the land. How many dwellings and other support facilities can we build, and where can we build them in the spirit of **malama**, where they do not take productive land, and where they do not do violence to our landscape and natural systems? We've already talked about enhancing our capability for making these judgements, It's very easy for me to conceive of a study of this island which will indicate all the lands where we may accommodate population growth in the spirit of **malama**. I wish we were doing it right now, and hope that we'll be doing it very soon.

We've tested the malama ethic in a somewhat random way on a lot of the important problems that confront us these days, and it seems to hold up as a consistent guiding principle. It points the way toward a great many subethics which need to be developed, in the manner in which the Temporary Commission for Environmental Planning is going. It is very helpful to me in the legislature, where one is constantly being asked to decide between two or more powerfully convincing and articulate advocates for diametrically opposing positions. I do not claim for it any depth of insight or scientific validity. It is largely intuitive, but these are the kinds of things that people understand and that move people, and I sense the need for this in these days when we are beset with so many problems, and so many conflicting answers.