Our Modern Ahupua’a

Sustainable solutions for hawai’i’s communities

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By Jack Kittinger

When James Cook arrived in Hawai‘i in the late 1700s, he and his crew were amazed at the density of native Hawaiians that occupied the archipelago. Upon landing at Kealakekua Bay, Cook and his lieutenants were greeted by 800 canoes carrying some 9,000 Hawaiians. Hundreds of swimming Hawaiians encircled the Endeavor. Many thousands more were looking on from shore, leading Cook to remark, “No where in this Sea have I seen such a number of people assembled at one place.” Historical evidence has corroborated Cook’s observations and now there remains little doubt that native Hawaiian populations reached the highest densities of any island chain in Polynesia.

Manoa Valley at the turn of the 20th century. Photo: Isaac Fraizer
Surprisingly, the same description now applies to Hawai‘i, which still hosts the highest population of any Polynesian island group. Since first contact with European explorers, a host of changes have come to the Hawaiian Islands. From a historical perspective, the switch from traditional native Hawaiian communities to modern day lifestyles has been influenced by a number of factors, starting with Cook’s catastrophic introduction of Western diseases and cascading forward through colonial occupation, the U.S. takeover, induction to statehood and development into an international tourist destination. At the distal end of this historical spectrum is our modern Hawaiian society, which has resulted in an almost complete reliance on off-island resources including food, energy, and the basic materials that sustain island life. Hawai‘i is now a Pacific hub in the interconnected global economy through which goods, services and people flow in a turbulent and dynamic fashion.

Waipio Valley on the Hamakua Coast of the Big Island, a sacred site, then and now. Photo: Isaac Fraizer

Considering that Hawai‘i was once completely isolated from outside influences, it has indeed been a momentous switch in the patterns of existence and way of living in the archipelago. It’s obvious that the change from complete self-reliance to a globally integrated economy has implications for the sustainable use and management of resources in Hawai‘i.

Put simply, sustainability means meeting the needs of the present without compromising the needs of the future. More of a process than an outcome, sustainability requires considering both the dynamics of a changing society, as well as the long-term viability of the ecosystems and the environmental goods and service upon which societies rely, like clean water and breathable air. Never before in history have human societies faced problems of the magnitude and scale we currently face, which are the result of complex processes and perturbations that are undermining our capacity, and our ecosystem’s capacity, to support life.

The solutions to problems of sustainability are by definition complex. It has not been a simple set of circumstances that have brought us to the current situation, so it is unlikely that simple answers will exist. While some of the solutions we may find lay in the development of technological fixes, well-intentioned changes in our individual behavior or carefully crafted government regulation, we also have a lot to learn from Hawaiian history. If we are to be students of human history, we may find that many of our critical problems have actually been faced successfully before, that old ways offer new lessons, and that there is much to be learned by heeding the wisdom of prior generations.

Early Hawai‘i and the Ahupua‘a

Contrary to popular belief, Hawai‘i at the time of Cook’s contact was not a virgin tropical paradise, barely touched by the native Hawaiians that inhabited the islands. What Cook and others found instead was a highly developed land and seascape, in which native Hawaiians had altered, manipulated and in some cases wholly...
transformed to meet the needs of a dynamic and complex society. Societies, like ecosystems, are constantly in change. Of course, population alone doesn’t explain the complexity of pre-contact native Hawaiian society. What Cook found was not only a thickly populated archipelago, but also the makings of a nascent political state. Whereas other Polynesian islands were often characterized by various political factions presiding over subdivided lands and waters, early Hawai’i exhibited a highly developed social stratification with ruling chiefs that had begun to consolidate their power, unifying the governance and political management of individual islands, and eventually, the entire archipelago. Though it was among the last islands to become colonized by intrepid voyagers, Hawai’i had reached a level of social and political complexity unrivaled in Polynesia.

In retrospect, early Hawaiians accomplished an amazing feat. By the time Cook arrived, Hawaiians had ceased the long voyages between other Polynesian isles for at least a few centuries, and were therefore functionally isolated. Compared with other Pacific islands, the Hawaiian Islands are not particularly unique with respect to environment or resources. So what enabled pre-contact Hawaiian populations to reach the apogee of social complexity in Polynesia? The factors that have contributed to this are still debated among scholars, but what is clear is that the resource management systems employed by native Hawaiian societies played a central role in the rise of a complex society.

One of the most salient features of the native Hawaiian social structure was the ahupua’a, a traditional land and sea tenure system where local communities and resource systems were organized. Typically, an ahupua’a encompassed an entire watershed, from the top of the ridge to the deep sea. Resources were managed in a hierarchal fashion and tasks were stratified socially and by occupation. Each individual ahupua’a was managed by a local leader, a Konohiki, who was granted the authority by the ruling chiefs. Different uses of land and sea occurred in different areas of the ahupua’a. The upland forest was reserved for gathering wood and hunting, the fertile valley floor was used to grow taro in irrigated pond-fields called lo’i, rivermouths were encircled by walls for fishpond aquaculture, and expert fishermen, po’o lawai’a, oversaw offshore fishing.

The success of the ahupua’a system was enabled by a high level of sophistication and complexity of knowledge developed by native Hawaiians. Strict rules accompanied resource use and were enforced in a draconian system. Restrictions included rotating closures of local fisheries to prevent overexploitation, restriction of certain food items depending on social status and regulation of water use. Perhaps most importantly, the ahupua’a system was designed to ensure a constant and steady supply of basic materials for subsistence, including food, building materials and ornamentation.

Though similar management systems exist elsewhere in Polynesia, the ahupua’a was developed to sustainably utilize the unique terrestrial and marine resources of Hawai’i. But the ahupua’a was as much a social system as it was a natural resource management system. The system was dynamic and changes in Hawaiian societies resulted in alterations to the ahupua’a system to meet societal needs.

**Reviving the Ahupua’a**

What can we learn from traditional ahupua’a? Recently, significant attention has been given to reviving the ahupua’a concept to confront the challenges of sustainability in modern Hawai’i. Obviously, our current challenges are different than those in pre-contact Hawai’i, but many of the management systems are still pertinent and practical for modern-day problems. The lessons we can learn are many, but three primary practices figure prominently in moving toward sustainable Hawaiian futures. These include the recognition and implementation of pono practices, building capacity for community-based action and managing our environment holistically. Reviving these strategies requires changes from the level of the individual to the archipelago, a multi-scale approach that early Hawaiian societies also espoused.

**Pono Practices**
In Hawaiian, the word pono means to be good, to be right and to possess rectitude of conduct. With regards to resource use, it means giving deference to the resource, providing the proper care to the place, and proceeding in an acceptable, lawful and upright manner. The concept of pono reminds us of the importance of individual behaviors in determining environmental outcomes. In ahupua’a, different practices were allowable in different areas. What was acceptable in the upland forests may or may not have been pono on the coral reef. For example, local fisheries were tightly controlled with respect to the methods of fishing, the time at which different species could be harvested and which species were off-limits. Restrictions were heeded because overexploitation could result in serious shortages that affected the entire community.

Local Konohiki were responsible for the welfare of their natural resources and, by extension, their community. The collective reliance on local resource availability must have been a strong motivator for both chief and commoner alike. In our current system, the separation of people from the environment that produces their food, water and supports their basic needs is probably the single biggest barrier to sustainable lifestyles. But this separation is not likely to be resolved quickly and initiating a paradigm shift in people’s behaviors will rely on the same methods used in early Hawaiian societies. These include education, morality and motivating factors.

Just as in early Hawai‘i, creating an urge to act in a pono manner at the individual level requires a high level of understanding about environmental life-support systems and the importance of natural places in cultural, social and ecological systems. Underlying environmental education are the social mores and norms that originate in relationships between individuals, families and communities, and shape individual behaviors. Finally, motivating factors such as penalties for violating rules or incentives that induce positive behaviors are critical in motivating a collective conscience for pono behaviors in our Hawaiian Islands.

Community

The importance of community cannot be overstated in finding solutions to our current conundrum of declining environmental quality, resource over-use and reliance on imports from distant shores. As a result of our lifestyles, we have largely become detached from a historical focus on the community as the center of social life and activity. A shift back to the community means leadership from within, with local residents bonding together to confront the challenges that affect their particular neighborhood. The good news is that local, ahupua’a-based initiatives have long been a feature of Hawai‘i’s communities and continue to proliferate.

For example, the Makiki Watershed Awareness Initiative (WAI) has engaged the local community in restoring a subsection of the Makiki to a native Hawaiian forest. Aaron Lowe, with the Department of Land and Natural Resources, coordinates community volunteers who gather monthly to remove invasive plant species and outplant natives to help restore the watershed and educate the public.

Similarly, Malama Maunalua is working to restore the health and productivity of Maunalua Bay in eastern O‘ahu. The project involves community-based efforts to eradicate invasive algae, reduce land-based pollution into the bay and strengthen local resource stewardship efforts through education and outreach. Tegan Hammond, the volunteer and events coordinator with Malama Maunalua, has dealt with these issues first-hand. “Building relationships takes time,” says Tegan. “The community knows the bay’s health is diminishing and residents are ready to be involved. Support is strong once residents understand our mission is to restore Maunalua Bay through community stewardship.” According to Tegan, one of the primary challenges has been establishing an information base that can direct their efforts and raise awareness within the communities that surround Maunalua Bay.

Many community-based initiatives, like Malama Maunalua, have become highly involved in building community awareness through education and outreach programs, building local leadership capacity and empowering local communities to help determine the fates of their neighborhoods and lifestyles. There is also an increasing recognition that communities are better-equipped to deal with their local issues than are state and federal agencies, which are often over-extended and under-funded.
Managing Holistically

It’s hard to envision a more tangled system than that which characterizes our current social and political systems for ecosystem management. Take coastal management for example. A myriad of local, state and federal agencies, with differing mandates, rules and cultures, all regulate some aspect of our coastal zones. Larry Crowder, a marine scientist with Duke University, has likened this to a scenario in which a patient with multiple medical problems is treated by a number of specialist physicians who can barely communicate. Unsurprisingly, the outcome has not been beneficial for either the physicians (the regulating agencies) or the patient (our coastal resources).

In early Hawaiʻi, the scales of the resources and the ecosystems of which they are a part dictated the management scheme. Islands were divided into districts called moku, which corresponded not just with political boundaries, but also with the environmental characteristics of the region. Districts were further subdivided into individual ahupuaʻa, which varied in size depending on resource availability and the productivity of the area. Each ahupuaʻa was managed specially with regard to the particular social and environmental conditions that prevailed. The management strategies for dryland agricultural systems on the islands of Hawaiʻi and Maui were different than those for large irrigated pond-field agriculture that dominated the islands of Oʻahu and Kauaʻi. This contrasts sharply with our current state, where the rules used for the urbanized and highly populated Manoa Valley in Oʻahu are basically the same for rural equivalents, such as Waipio Valley on the island of Hawaiʻi.

Part of the current problem is the need to implement ecosystem-based management or management that is tailored to the scales of the local environment and the social characteristics of a particular place. This will eventually require our political leaders to reconfigure the overly complex governance of the current system. But changes in governance are a long-term fix that are unlikely to occur on the time scales necessary, and empowering communities does no good unless communities are ready to accept the significant responsibility of managing their own ecosystem.

A more productive path is to build the capacity of individual communities to successfully confront their own local issues and, in turn, linking communities together to face common challenges in their area. This may seem like a pie-in-the-sky proposition, but the reality is that it is already happening in some Hawaiʻi communities. For example, on Oʻahu’s rural North Shore, the local community engaged with the State Legislature to expand their local marine reserve, resulting in a larger protected area that will ensure the long-term persistence of their local coral reef ecosystems and the prized fish species targeted by local fishers. In the same area, the community has worked to prevent developers from adding new homes and hotel accommodations due to the impacts it would have on the North Shore community and lifestyle. Though the fight to preserve the North Shore lifestyle hasn’t been without tension, the community has worked in a myriad of ways to reach successful outcomes and has demonstrated a capacity to determine the fate of their neighborhood.

Whether or not we know it, every last one of us lives in an ahupuaʻa. While history has changed the shape character of the land of our Hawaiian ahupuaʻa, there still remains an element of history that lives in the landscape. The vestiges of times past surround us, enlivening the social and cultural fabric of our communities and providing the framework upon which our future is built. For some, history defines who we are, the new generation to whom the torch has been passed, along with the responsibility to leave our islands in better shape for our own children. If we listen closely, we may just hear the distant voices drifting upward through the haze of history. Whether we heed this ancient wisdom and the lessons it offers depends on how closely we listen, and how much we believe.

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