

Hawaiian Cultural And Natural Resource Management

Posted on October 4, 2018

How Are Humans Related to the Land?

“Take good care of the land. It grants you life.” The original essay begins with this idea and connects human survival in Hawai‘i with cultivation, fishing, gathering, hunting, family responsibility, and the preservation of natural resources. That central relationship should remain the foundation of the expanded discussion. In Hawaiian thought, land is not merely property or a physical surface that can be divided for economic use. The word *‘āina*, commonly translated as land, is connected with the idea of that which feeds. Human beings receive food, water, materials, identity, and continuity from the land and sea, and they therefore carry responsibilities of care, restraint, and reciprocity.

Hawai‘i is geographically isolated and made up of islands whose environments have changed through settlement, agriculture, introduced species, urbanization, tourism, military use, plantation economies, and modern development. Rural communities have often maintained practices of fishing, farming, gathering, and hunting across generations. These practices are not simply economic activities. They are connected with *‘ohana*, or extended family relationships, and with values such as *aloha* and *mālama*. *Mālama ‘āina* expresses the responsibility to care for land, while the land in turn supports people. Traditional resource management therefore involves both ecological knowledge and a moral relationship.

Human beings are related to land through dependence and consequence. Water flowing from upland forests reaches streams, agricultural areas, fishponds, reefs, and the ocean. When one part of the system is damaged, the effects can travel throughout the watershed. Clearing vegetation may increase erosion; polluted runoff can affect nearshore fisheries; excessive extraction can reduce the resources available to future generations. Hawaiian cultural management recognizes this connection and treats the mountain-to-sea system as one living whole.

Define the Following Terms

Ahupua‘a

The original essay correctly identifies the *ahupua‘a* as a basic unit of traditional Hawaiian land and resource management. Many ahupua‘a extend from upland areas toward the sea and include forests, agricultural lands, streams, coastal zones, and associated fisheries. Their boundaries often follow

natural features such as ridges and watersheds. This arrangement allowed communities to obtain different resources within one connected system: timber and birds from uplands, water and cultivated foods from valleys and plains, and fish, salt, and sea products from coastal areas.

The word is often explained through *ahu*, an altar or stone marker, and *pua'a*, pig, associated with offerings marking boundaries or obligations. The exact physical form of an ahupua'a varied according to geography. Not every division was a perfect wedge reaching from mountain summit to reef, and the system should not be reduced to one diagram. Its importance lies in integrated management. Upland decisions affected water and marine resources, so users had to understand the relationships among zones.

Moku

A *moku* is a larger traditional land division containing multiple ahupua'a. The original essay calls it a second-level division after the ahupua'a, although the hierarchy is more accurately understood from larger to smaller: an island or *mokupuni* could be divided into moku, and each moku into ahupua'a and smaller units. Moku often correspond with broad districts shaped by geography, political organization, and resource systems (Department of Land and Natural Resources, State of Hawai'i, n.d.; National Park Service, n.d.).

The term also relates to cutting or dividing and can refer to a district or section. In contemporary community-based management, moku boundaries remain important because they reflect watersheds and cultural connections that do not always match modern government districts. Moku-based organizations can coordinate knowledge and action across several ahupua'a while preserving local differences.

Mokupuni

Mokupuni commonly refers to an island. In the traditional hierarchy, the mokupuni is the large geographic unit that contains moku. The original essay describes mokupuni as island kingdoms or the main island divisions. Political authority changed over time, but the geographic meaning remains useful. O'ahu, Hawai'i, Maui, Kaua'i, Moloka'i, Lāna'i, Ni'ihau, and Kaho'olawe are distinct islands with different climates, resources, histories, and community relationships.

The term should not be treated as equivalent to a city or federal country. It describes an island unit within a specifically Hawaiian cultural and geographic system. Modern analogies can help a learner understand scale, but they cannot reproduce the cultural meaning of Hawaiian divisions.

List the Six Moku of O‘ahu

The six traditional moku of O‘ahu are ‘Ewa, Kona, Ko‘olauloa, Ko‘olaupoko, Waialua, and Wai‘anae. These districts organize the island through geography and history rather than through the same boundaries used by modern counties, legislative districts, or postal systems. Each moku contains multiple ahupua‘a and has distinct winds, rainfall patterns, agricultural possibilities, coastal resources, and cultural sites.

Kona includes much of the southern urban area associated with Honolulu, while ‘Ewa extends across the south-central and southwestern part of O‘ahu. Wai‘anae lies along the western side, Waialua occupies much of the northwestern and north-central area, Ko‘olauloa covers the northern windward side, and Ko‘olaupoko covers the southeastern windward area. These descriptions are general because traditional boundaries and spellings should be learned through appropriate Hawaiian sources and local knowledge.

Where Do You Live? List Your Mokupuni, Moku, and Ahupua‘a

The original response states that the writer lives in California and attempts to match the terms with San Francisco, California, and the United States. The effort to create an analogy is understandable, but the order is reversed and the categories are not equivalent. The United States would be the largest political unit, California a state, and San Francisco a city and county. A Hawaiian mokupuni is an island, a moku is a traditional district within that island, and an ahupua‘a is a smaller land and resource division. The concepts include cultural responsibilities and watershed relationships that a simple city-state-country analogy cannot capture.

A more careful comparison for a person outside Hawai‘i would begin with the local natural system. The person might identify the larger watershed or bioregion, then the sub-watershed, and finally the neighborhood or local drainage area. For someone in the San Francisco Bay Area, the Bay Area could be treated only as a loose regional comparison, a county or watershed as a middle-scale comparison, and a local creek watershed or neighborhood as the smaller unit. This remains an analogy rather than a translation. Hawaiian terms should not be removed from their cultural context or assigned casually to mainland administrative boundaries.

The purpose of the exercise is not to rename California with Hawaiian words. It is to help the learner notice that every place has nested ecological relationships. Water falls in uplands, moves through communities, and enters rivers, bays, and oceans. People depend on this movement and affect it through land use. The Hawaiian system encourages learners outside the islands to identify their own watershed and consider responsibilities toward it.

Four Basic Principles of Hawaiian Cultural Resource Management

1. Management From Mountain to Sea

The first principle in the original essay is that the ahupua'a connects mountains and sea so that people can obtain fish and coastal resources together with upland products such as fuel, birds, timber, and agricultural materials. This principle recognizes that a community requires diverse resources and that no single zone can be managed independently. Upland forests help capture moisture and protect soil. Streams transport water and nutrients. Agricultural areas depend on reliable water, while reefs and fisheries are affected by sediment and runoff.

Mountain-to-sea management is often described through the phrase *mauka to makai*. The idea does not mean that every resource can be extracted freely. Use must be balanced with regeneration and seasonal limits. If upland forest is cleared excessively, erosion may damage taro fields and coastal reefs. If fish are harvested without restraint, the marine part of the system cannot continue supporting the community. Integrated management therefore joins access with responsibility.

2. Natural Elements Are Interconnected

The second principle states that air, water, land, streams, beaches, and oceans are interdependent. Damage to one part produces consequences elsewhere. This ecological understanding is especially important on islands, where watersheds are relatively compact and materials can move quickly from uplands to coastal waters. Polluted runoff from roads or farms may enter streams and affect fishponds and reefs. Invasive species can change forest structure and reduce water retention. Coastal development can alter sediment movement and access to traditional gathering areas (Mueller-Dombois et al., 1981).

Traditional knowledge expresses these relationships through observation accumulated over generations. Modern ecology reaches a similar conclusion through watershed science, hydrology, and ecosystem analysis. The value of Hawaiian resource management is not that it offers a romantic alternative to science. It provides a place-based knowledge system that can work with scientific methods while retaining cultural responsibilities, names, histories, and community authority.

3. Fresh Water, or Wai, Is Essential

The third principle emphasizes fresh water, called *wai*, as the foundation of life and land-use planning. Water supports drinking, cultivation, streams, wetlands, fishponds, and nearshore ecosystems. The importance of wai is also reflected in Hawaiian language and values; *waiwai*, often translated as

wealth, connects abundance with water rather than with money alone.

Planning should therefore consider the entire water cycle. Diversion of streams, groundwater pumping, paved surfaces, contamination, drought, and climate change can affect the amount and timing of water available to communities and ecosystems. A development may appear beneficial at one location while reducing flow downstream. Hawaiian cultural management asks who and what depends on the water before a decision is made.

Water governance also raises questions of justice. Plantation and urban development historically redirected water away from some rural and Native Hawaiian communities. Restoring stream flow or protecting access is not only an environmental issue; it concerns cultural practice, food production, and community survival. The principle of wai requires decision-makers to consider these human and historical dimensions.

4. Ancestral and Place-Based Knowledge Guides Management

The fourth principle in the original essay explains that Hawaiian ancestors studied land, winds, rain, architecture, water, plants, and other natural features and passed knowledge through place names, chants, stories, and practice. This knowledge guided home construction, cultivation, irrigation, fishing, navigation, and planning. Place names can record physical characteristics, historical events, resources, or warnings. Chants and oral traditions can preserve patterns that would otherwise disappear from written administrative records.

Ancestral knowledge is not static. Communities interpret and apply it under changing conditions. Contemporary practitioners may combine oral history, field observation, mapping, water measurement, species surveys, and legal advocacy. The authority of local knowledge comes from sustained relationship with place, not from the assumption that every historical practice can be copied without adaptation.

Respecting this principle also means recognizing the rights and voices of Native Hawaiian communities. Government agencies and researchers should not extract cultural knowledge without consent or use it as decoration after decisions have already been made. Meaningful management involves participation in defining the problem, selecting methods, interpreting evidence, and controlling how knowledge is shared.

Traditional Practices and Food Systems

The original essay refers to cultivation, fishing, gathering, and hunting as practices carried across generations. Hawaiian agriculture included sophisticated irrigation systems for crops such as kalo, or taro, as well as dryland cultivation adapted to rainfall and soil. Coastal communities managed

fishponds and nearshore fisheries through observation, seasonal rules, and social authority. Gathering plants, salt, wood, and other materials required knowledge of location, growth, and appropriate timing.

These practices supported food security while connecting work with family and ceremony. Modern dependence on imported food makes local agriculture and fisheries especially important during shipping disruption or economic crisis. Revitalizing traditional systems can support health, cultural continuity, and resilience, though restoration requires access to land and water, environmental repair, and protection from contamination and development pressure.

Mālama, Aloha, and ‘Ohana

The values named in the original essay give cultural resource management an ethical dimension. *Mālama* involves care, protection, and stewardship. *Aloha* includes love, compassion, presence, and relationship. *‘Ohana* extends responsibility across family and generations. These principles challenge a model in which land is valued only according to immediate financial return.

Care does not mean that resources can never be used. Hawaiian communities cultivated, harvested, built, and traveled. The ethical question concerns how use is organized. A resource should remain capable of supporting others, including future generations. Knowledgeable harvesting, restoration, monitoring, and limits are expressions of care rather than barriers to human life.

Contemporary Application

Traditional Hawaiian principles can inform contemporary watershed restoration, fisheries management, climate adaptation, conservation, and community planning. Ahupua’a-based thinking encourages agencies to coordinate across administrative departments that might otherwise separate forests, water, agriculture, and marine resources. Community-based monitoring can identify changes quickly and incorporate observations that large regional programs miss.

Application must avoid using Hawaiian terminology without shifting decision-making power. A project should not be labeled culturally informed while excluding Native Hawaiian practitioners or continuing harmful development. Genuine integration requires long-term relationships, recognition of customary practice, and willingness to change plans according to community knowledge (Office of Hawaiian Affairs, n.d.).

Conclusion

Humans are related to land because land and sea provide water, food, materials, identity, and the conditions of life. Hawaiian cultural resource management expresses this relationship through

ahupua'a, moku, mokupuni, mountain-to-sea thinking, protection of wai, awareness of ecological interdependence, and ancestral knowledge. The six moku of O'ahu—'Ewa, Kona, Ko'olaupoko, Waialua, and Wai'anae—represent a traditional geography that remains relevant to community and environmental work (McGregor, 2007).

The original four principles continue to provide a strong framework: manage connected resources from uplands to sea, recognize that natural elements affect one another, treat fresh water as fundamental, and use place-based ancestral knowledge in planning. These principles should not be reduced to administrative analogies or romantic descriptions. They represent a continuing responsibility to care for the places that sustain human beings. To mālama the land is also to protect the future of the community.

References

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