

Genetic modification and bioprospecting threaten not only local farmers' control over their natural resources but also the culture that sustains their communities. Walter Ritte and Bill Freese describe the Hawaiian experience.

Haloa

WALTER RITTE AND BILL FREESE

The Gods – *Wakea*, the sky father, and *Ho'ohokukalani*, the star mother – gave birth to *Haloa*, the first born. Haloa was stillborn and placed in the earth outside the front door. Haloa grew into *kalo*, the first taro plant. The second-born of Wakea and Ho'ohokukalani was man, whose *kuleana* (responsibility) was to care for Haloa, his elder brother. Haloa, the *kalo*, became the staple food crop of the Hawaiian people.

This kinship ties Hawaiians directly to nature and places upon us a spiritual obligation to *malama* (take care of and protect) our eldest brother. Haloa is also a metaphor for all living things in Hawai'i, as survival on little dots of land in the middle of the world's largest ocean demands an intimate and reverent spiritual relationship with nature. Understanding and knowing our *mo'oku'auhau* (genealogy) informs us of where we come from, and who our *kupuna* (ancestors) are, both human and gods, as well as all life of the sea and land. *Mo'oku'auhau* gives us our place in the world. All these traditional Hawaiian concepts have played a significant role in guiding our work in response to research at the University of Hawai'i (UH) both to genetically modify Haloa and to claim patents or ownership over him.

In general, the Hawaiian community was not concerned about genetic manipulation and biotechnology until word spread in early 2005 that UH was genetically manipulating Haloa, our sacred taro. Some Hawaiians immediately demanded that UH's College of Tropical Agriculture and Human Resources (CTAHR), which carried out the genetic manipulations, put a stop to it. CTAHR's dean, Andrew Hashimoto, then signed a memorandum of understanding in which the university agreed to a moratorium on genetically modifying Hawaiian varieties of *kalo*.

On the island of Moloka'i, Hawaiians have expressed their deep concern about genetic engineering by referring to this technology as *mana mabele*, which means owning and selling our *mana* or life force. *Mana* is the spiritual force that comes from our knowledge and intricate relationship with nature. Part of *mana* is what westerners call "biodiversity".

In 1848, the foreign concept of owning land was introduced by western business interests for the purpose of securing title to lands in Hawai'i. The time when the traditional land tenure system was supplanted by private land ownership was called the *mabele*, or land division. This *mabele* severed the Hawaiians from their lands. Today, land in





In the third and last demonstration, the front doors of the medical building at the University of Hawai'i were blocked

Hawai'i is so expensive that it can be purchased only by the rich.

The genetic modification and patenting of our kalo, Haloa, has become the symbol of the second mahele, now called the mana mahele. The biotechnology industry now operating in Hawai'i cannot succeed without the manipulation and ownership of our mana or biodiversity and related traditional, indigenous knowledge. The first westerners took our lands, and now their followers come to take our mana, our very soul.

This began to waken the Hawaiian people to the broader issues of bioprospecting, biopiracy and biotechnology. Although there was a growing movement against genetic engineering among *haole* (Caucasian) environmentalists and organic growers, it had not significantly included Hawaiians. Furthermore, although some Hawaiian organisations have introduced and lobbied for bills in the Hawai'i state legislature to regulate bioprospecting in Hawai'i since 2003, concern amongst the broader Hawaiian community did not ignite until more Hawaiians understood that Haloa, our first ancestor, was in harm's way.

Later in 2005, it came to light that the UH had obtained three US plant patents on varieties of taro

derived from the Hawaiian variety, Maui Lehua, in 2002. Hawaiians began to ask the question: "Who gave the University the right to patent taro plants?"

Maui Lehua is one of 300 Hawaiian taro varieties that have been developed over centuries through extensive breeding by Hawaiians to suit differing micro environmental and cultivation conditions, for special qualities of colour and taste, and for different cultural, social, medicinal, and ceremonial purposes.

Hawaiians have never claimed an exclusive, monopolistic ownership over kalo through patenting. As aptly explained by respected native activist Alapa'i Hanapi:

"Ownership of taro is like slavery ... it is as if someone owns your relatives. If anyone owns the kalo, we do collectively as Hawaiians, and as Hawaiians we have demanded the UH give up its taro patents and return these varieties to Hawaiians. We are the custodians who have guided the appropriate use of kalo for millennia as a benefit for all people of Hawai'i. Given that the male parent of these hybrids is a Palauan variety, the indigenous peoples of Palau, who are responsible for the Ngeruuch variety, should also be involved





David Monntaux

Colocasia esculenta (Taro or Kalo): the plant on the left growing, and on the right as sold in a market

with the rightful repatriation, stewardship and custodianship of these new varieties. In any case, UH does not have a right to claim ownership.”

Taro farmers were also outraged by the patents. Chris Kobayashi, a taro farmer from Hanalei on the island of Kaua'i, put it this way:

“As a farmer, I strongly object to patents on taro or any other crop. Why should farmers have to pay for *huli* [the upper part of the root, used for replanting]? Our taxes have helped to fund UH. Some of us have been co-operators with UH on different taro research programmes including breeding, cultivation and diseases. More importantly, how can anyone claim ownership of plants that have evolved and been selected or bred by farmers for specific environmental conditions and desirable properties over generations?”

In the first half of 2006, hundreds of Hawaiians – including taro farmers, Hawaiian Studies students and faculty, Hawaiian culture-based charter school students, and other supporters – held several protests, demanding that the University withdraw the patents. The protesters’ overwhelming political message of “no patents on kalo” was uniquely brought to life through cultural means, including the erection of an *abu* (altar) on the grounds of the University, dancing *hula* and offering chants

in honour of Haloa. The initial response of University officials was that faculty contracts required them to protect the intellectual property rights of their scientists. Under increasing pressure, the University eventually offered to assign the patents to a Hawaiian organisation, but Hawaiians rejected the offer and made clear that we objected to anyone patenting kalo, even ourselves. As a result of protests, discussions and negotiations, however, UH finally agreed to terminate the plant patents. The University filed legal documents with the US Patent Office that disclaimed all proprietary interest in the three patented taro varieties, effective 16 June 2006. On 20 June, Hawaiians celebrated their victory with a ceremony that included tearing up the three patent documents.

The treatment of Haloa, the kalo, by the University has become the window through which Hawaiians can view their future with biotechnology. It has become painfully clear that unacceptable manipulation and ownership of nature, the biodiversity that has sustained Hawaiians for thousands of years, is a major foundation for the economic success of biotechnology in Hawai'i. Although the kalo patents no longer exist, we know that much of Hawai'i's biodiversity remains in jeopardy of manipulation and patenting. For instance, the University continues genetic manipulation of non-Hawaiian taro. Accordingly,



while we appreciate the University's willingness to cooperate with our demands regarding kalo, we also requested that in future, "UH consult the Native Hawaiian community before claiming or obtaining intellectual property rights over living organisms of these Islands".

The spiritual relationship of Hawaiians to the biodiversity of Hawai'i as represented by the genealogy of Haloa, the firstborn, has been ignored by the State of Hawai'i. Haloa, the kalo, has now become the rallying point for efforts to control or stop the advance of biotechnology in Hawai'i. It is becoming clear that unless the concerns of Native Hawaiians are met, the future of biotechnology is at best dubious. This uncertainty will keep away the capital investment that the new industry desires.

Through our experience with protecting Haloa or kalo, it appears that a fundamental conflict of interest exists between the biotechnology industry and Hawaiians. The biotech industry demands manipulation and ownership of sacred things. The Hawaiian people, meanwhile, continue to assert the rights and responsibilities inherent in our understanding of kuleana over Hawai'i. We respect our genealogy, the gifts of nature and traditional knowledge that our ancestors have passed down to us over the centuries. It is our kuleana to maintain and protect these gifts and this knowledge for the benefit of future generations, *na mamo o Haloa. E ola mau no Haloa* (Haloa will live on).

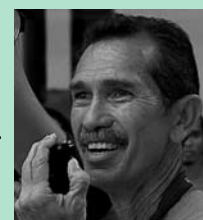


Demonstrations in Hawai'i against the patenting of taro



Walter Ritte

Walter Ritte is a long-time Hawaiian activist who is currently the Coordinator of Traditional Fishpond Restoration on Moloka'i. Before this he worked for the State Office of Community Services creating community-based jobs for Moloka'i. He was one of the founders of Hui Alaloa, a group on Moloka'i in the early 1970s, which fought for Hawaiian rights of access and gathering. He was one of the founders of the "Protect Kaho'olawe Ohana", which was successful in stopping the bombing of Kaho'olawe Island by the US Navy in the mid-1970s. More recently he has led the successful campaign to drop patents on taro, as detailed in this article.



Bill Freese

Bill is currently a Science Policy Analyst for the Center for Food Safety in the United States. Before this he was a campaigner for Friends of the Earth (USA) in which, among other things, he played a key role in the discovery of illegal Starlink maize in the food chain. In his work he is continually questioning the regulation and safety of GM foods in the US.