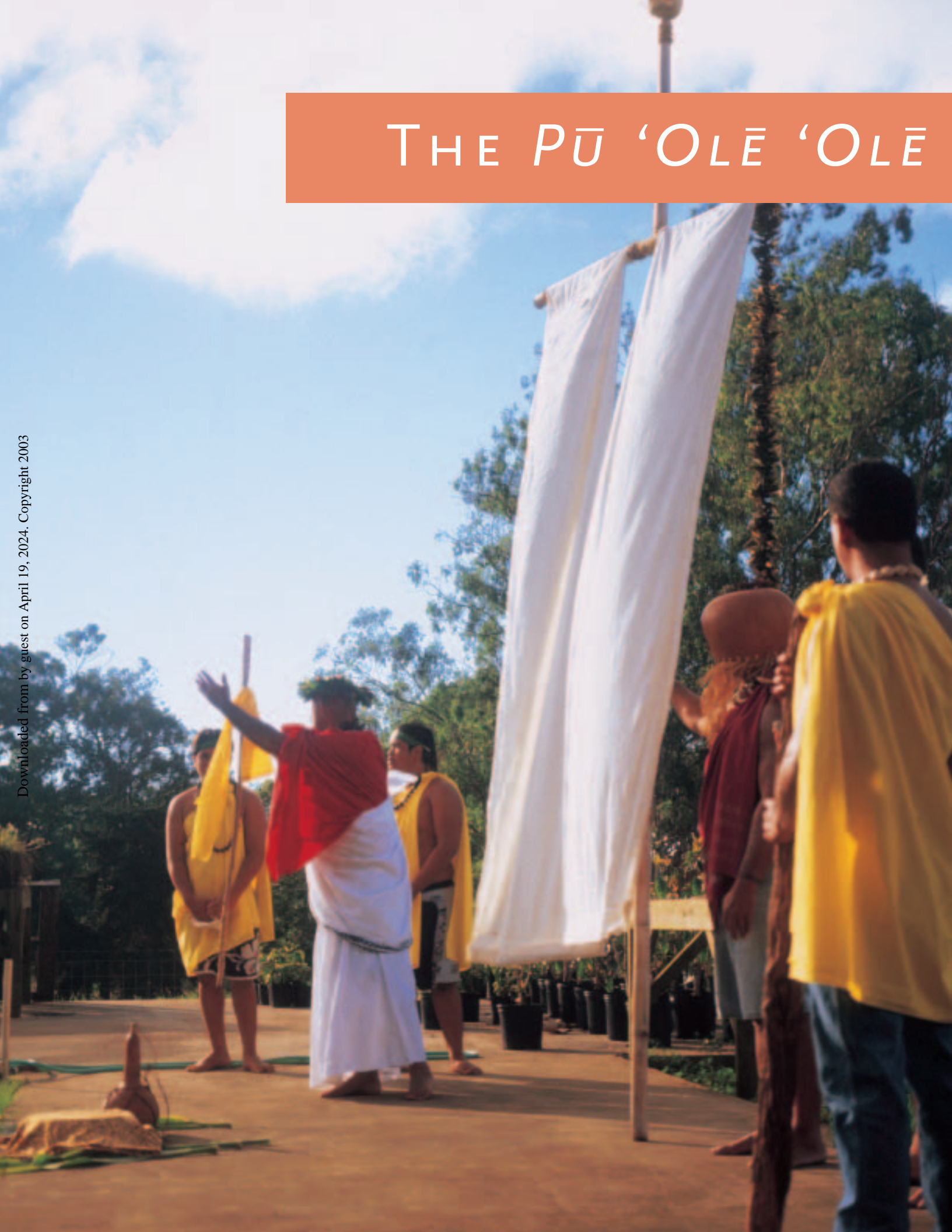


THE PŪ 'OLĒ 'OLĒ



BLOWS AND ‘AWA IS Poured

Maui *Kumu* Keli‘i Tau‘a Welcomes Hawaiian Seedlings Back to Auwahi

| AC Medeiros

ABSTRACT

Like the American Indians of the continental US and Canada, the indigenous Hawaiians feel a very spiritual connectedness to the land and plants and the *ola* (life) within them. A traditional Hawaiian blessing was performed before beginning restoration activities in the dry forest habitats of Haleakalā Volcano on Maui.

KEY WORDS
reforestation, outplanting

NOMENCLATURE
USDA NRCS (2002)

Past the little town of ‘Ulupalakua and the tiny but graced headquarters of ‘Ulupalakua Ranch on the leeward flanks of Haleakalā Volcano begin lava fields that continue in earnest for another 32 or so km (20 miles) until Kaupō district. To most who pass this way, *kapu* (forbidden) to rental cars, buffeted by winds and tortuously pitted roads, the lava seems barren and moonscape-like, formidable, almost hostile, and seemingly incapable of supporting life of any kind. Most are shocked to learn that these lava flows support some of Hawai‘i’s richest forests and are the source of much of the material culture of the ancient Hawaiians—the Hawaiian dryland forests.

Kumu Keli‘i Tau‘a (in red) blesses the plants at the *makahiki* (annual festival) ceremony at ‘Ulupalakua Ranch greenhouse.

Photo by AC Medeiros

Turn-of-the-nineteenth-century explorer and botanist Joseph Rock of the then College of Hawai‘i (now the University of Hawai‘i at Manoa) singled out the *ahupua‘a* of Auwahi, a wedge-shaped district of land on southern Haleakalā, as one of the richest botanical regions in the Territory, with more tree species than any Hawaiian rain forest. Of the 50-odd species of rare Hawaiian trees found here, 41 species had specific Hawaiian ethnobotanical uses: nineteen had medicinal uses, thirteen were used in making specific tools, thirteen had uses in canoe construction, eight were used in *kapa* (clothing) making, eight to make dyes ranging from pink to blue to a rich yellow-orange. At least seven of the trees have spiritual significance and were used religiously. Miscellaneous uses ranged from fireworks to bird lime to a fish-narcotizing agent.

Since days of old, however, Auwahi has been greatly transformed by burning, grazing, and invasion by nonnative plant species. As a result, much of its original native understory has been replaced by a thick, smothering green mat of aggressive kikuyugrass (*Pennisetum clandestinum* Hochst. ex Chiov. [Poaceae]), introduced as cattle forage. To many, Auwahi is known as a “museum forest.” Though ancient, majestic trees of nearly every Hawaiian dryland species can be found here, no seedlings have grown for the past 50 to 100 y. Like a museum filled with artifacts, these forests in one sense are no longer living but just persisting in a type of shadow state, one wind-storm away from becoming a pasture.

As a local boy from Kāne‘ohe, O‘ahu, I came to know and love Hawaiian plants. I read the often poetic descriptions by Joseph Rock of these Hawaiian treasures of incomparable value growing at Auwahi, a far-off forest on Maui and was deeply moved by them. Later, as a biologist, my dreams came

alive when I had a chance not only to visit these areas but also participate in efforts to save them.

Dreams would not have gone further than the first site visit if not for the complete empathy and support of the landowners, the Erdman family of ‘Ulupalakua Ranch. First Pardee Erdman, and now his son Sumner, have always made one thing clear: “let’s see if we can run an honest, productive business and yet at the same time, do the right thing.” This unflagging ethic of giving back to the land and community that supports them resulted in a multiagency collaboration dedicated to protecting and restoring the superb Auwahi forests. The Erdmans continually encourage biologists to bring life back to Auwahi forest. For this, they deserve our most sincerest thanks, *mahalo loa*.

Sponsored first by the US Fish and Wildlife Service and now by the US Geological Survey, USDA Natural Resources and Conservation Service, Maui County Water Department, and Haleakalā National Park, efforts have evolved through installation of a 4-ha (10-ac) enclosure from which invasive weeds were removed, construction of a greenhouse, and gathering and germinating seeds of Auwahi’s rare trees. By late 1999, we had about 2500 seedlings ready for outplanting.

After 3 busy weeks of planning, logistics, and coordination, I knew one thing still needed to be done before outplanting. Before starting a big task into uncharted territory, Hawaiians often want to make things *pono* (good) or *pololei* (correct). To that end, I contacted noted Maui *Kumu* (teacher) Keli’i Tau’a and asked him if he could bless our plants and welcome the long-absent seedlings back into the *ahupua’a* of Auwahi. Keli’i Tau’a has been present at the beginning of other great projects and is a truly loved teacher and mentor for Hawaiian music, dance, and culture.

The morning of the blessing was typical at ‘Ulupalakua: calm and clear, quiet save for the sound of chickens and the occasional, far-off dog bark. Our group of 20 to 30 gathered at the greenhouse where *Kumu* Tau’a, Bully Kapahulehua, and Kaponu Kamaunu began the ceremony with *pule* (prayers) and spontaneous words of inspiration. *Kumu* Tau’a then mixed ‘awa in a heavy, wooden bowl that Mahealani Kai’aokamālie carried as *Kumu* Tau’a sprinkled the ‘awa-water mix around the greenhouse and plants, and as is Hawaiian tradition, paying special attention to the entrance of the structure. With this first part of the blessing completed, the seedlings were loaded into pickup trucks for the 45-min uphill drive on rough, rutted ranch roads to their new home.

The group reconvened in Auwahi at Pu’u-ouli, perched 1220 m (4000 ft) above the ruffled and slate-blue Pacific. As an essential and tangible representation of the blessing, we gathered to plant a maile lau li’i vine (*Alyxia oliviformis* Gaud. [Apocynaceae]) within the enclosure. At the trucks, *Kumu* Tau’a asked how many maile did we have time to plant. I knew we were coming precariously close to the arrival of the helicopter to sling-load the seedlings to strategically selected sites within the enclosure. I asked *Kumu* Tau’a if it was okay to just

plant one, to which he nodded. To be on the safe side, I grabbed 2 dibble tubes of maile lau li’i, and we headed off.

Single file, the group wound down the narrow ridge and into our fenced enclosure, reassembling below a twisted, spreading kauila tree (*Alphitonia ponderosa* Hbd. [Rhamnaceae]), one of only 150 to 200 trees of its kind remaining on Maui. The kauila tree was renowned by Hawaiians for its iron-hard wood and as a symbol of indefatigable strength. It was used in making the very best quality ‘ō‘ō (digging sticks), weapons, and *i’e kuku* (*kapa* mallets).

Framed by the rusty-red *liko* (leaf buds) of the kauila, Bully Kapahulehua trumpeted the *pū ‘olē ‘olē* (conch shell) for each of the 4 cardinal directions. The loud brave cry filled the emptied forest, echoing off its rocky ridges. I found myself wondering how long it had been since the *pū ‘olē ‘olē* had sounded at Auwahi. One hundred years? Two hundred? Three hundred? More? Maybe that was the reason the dryland forest at Auwahi had fallen on such hard times!

Pieces of ‘awa root were added to a bowl with water and massaged. ‘Awa does not make seeds anywhere in the Pacific but are propagated by root and stem cuttings. This means that all ‘awa grown and used today are from the same, long-lived plants used by Hawaiians centuries ago. I dug the hole, not without effort, in the rocky ground, laying the maile seedling in the now fair-sized planting hole. Then, without my asking, the second seedling was handed to me, and I put it in the hole next to the first. As I watched the thin milky ‘awa water being poured from the coconut cup into the planting hole, I felt I was watching the *ola* (life) being poured back into the land. I had always thought the *ola* was in the plants, but now I felt the *ola* was in the land itself, awaiting arrival of the seedlings.

Then *Kumu* Tau’a started to *wala’au* (talk), easily and from the heart. He talked about the spirit having left the land and how we were asking it to return, to this *ahupua’a*, to begin in this enclosure. He said, “You know, up at the truck, I asked Art how many plants to plant and Art said one. I didn’t say a word to Art, but 2 seedlings were brought down, and the two were planted right next to each other. This is the Hawaiian way. One for the male side of things, the other for the female side.” Then *Kumu* Tau’a gave the unnamed hill its name: Maile-lua, literally the “two maile vines.” *Kumu* Tau’a spoke his feelings and asked for ours. Person after person spoke with eloquence.

For the last 10 min or so of our *kumu*’s blessing, my eyes were filled with silent tears. I had asked *Kumu* Tau’a to give the blessing, but I have to admit I was caught off guard by its simple power and grace.

Up to that point, the morning had been clear and warm, much like the weather of the previous week and the following week to come. But during the course of the blessing, the skies began to darken. Shortly thereafter, the group clustered on the ridge round the kauila tree was engulfed in clouds of rolling *noe* (mist). Then it began to rain, a thin, insistent, white rain

that at this elevation quickly changed the warm morning to conditions more favoring hypothermia.

The ensuing helicopter operation to lift the seedlings into the enclosure was almost canceled due to rain and poor visibility. Despite pea-soup conditions, pilot Duke Baldwin said he felt comfortable and somehow could see the things he needed to. Seeing *Kumu* Tau‘a at the top of the hill, I said, “Too much rain, *Kumu*, too much rain.” With his big, warm smile, he cooed, “Very un-Hawaiian, Art, very un-Hawaiian.”

The rest of that week, the first week of this new, bright millennium, a crew of about 30 souls planted over 2000 seedlings of rare Hawaiian dryland species, most of which can become 9- to 15-m-tall (30- to 50-ft) trees (Figure 1). The planting was not accomplished without a fight as the land seemed filled with rocks. But in between and beneath these rocks was the blackest, richest loam many of us had ever seen. For species like the rare ‘aiea (*Nothocestrum latifolium* Gray [Solanaceae]), after which O‘ahu’s well-known district is named, it is likely that as many seedlings were planted in 1 wk as there are adult trees in the whole *ahupua‘a* (Figure 2). The work went slowly at first as the *keiki* (offspring) were so valuable and, after all, many of us barely knew each other at the start. In the beginning of the week, the coordinators were busy talking, giving instructions for the complicated outplanting procedure. After Wednesday, we didn’t need to say a word; everyone knew what we were doing and what came next. By Thursday, the group had become of single mind, working almost silently, except for the occasional ring of a pick on rock. At lunch, words of hope for the future were the theme; the tide seemed turned. *Pau hana* (work finished) at week’s end, the laughing, joking crew had become friends and colleagues-in-arms. Gazing over the immense, rounded *pu‘u* (hills) of ‘Ulupalakua, I see the islands of Kaho‘olawe and Molo-kini roiling in the ocean’s surface, appearing adrift in the ‘Alalakeiki Channel, orange and *uli* (darkened) with the setting sun. We are smiling. It feels *pono*; the *ola* is back at Auwahi. *Pau*.

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AUTHOR INFORMATION

AC Medeiros
Program Field Leader
US Geological Survey
Haleakala Field Station
PO Box 369
Makawao, HI 96768
acm@aloha.net



Photo by AC Medeiros

Figure 1. Russell Kai'aokamālie plants hala pepe in Auwahi.



Photo by AC Medeiros

Figure 2. Hina Kneubuhl stands next to a rare ‘aiea tree, host plant to the endangered Blackburn’s hawkmoth (*Manduca blackburni* Butlern [Sphingidae]).