Mauna Kea Updates

UH Regents Tour Mauna Kea

On March 15, following its regular meeting at the University of Hawaii at Hilo, the University of Hawai‘i Board of Regents toured the summit of Mauna Kea. Coordinated by the Office of Mauna Kea Management, the Regents’ group included administrative staff, members from President Diessel’s staff, and UH-Hilo vice chancellor Chris Lu. Several members of the Mauna Kea Management Board, Kahu Kū Mauna Council and the Institute for Astronomy also attended. The group was briefed at the Hale Pohaku facility, including a talk by ranger Kimo Pihana, before driving to the summit. At the summit, the group was given a tour of the Keck Observatory and inspected first-hand the area to be affected by the proposed Keck outrigger telescope project.

Hawaiian Protocol on Mauna Kea

By Moses K. Crabbe

Moses K. Crabbe is a member of the Mauna Kea Management Board’s Hawaiian Culture Committee. In collaboration with Kahu Kū Mauna, this group is working to develop educational materials on the cultural significance of Mauna Kea, including protocol. Crabbe, a Hawaiian cultural practitioner and educator, shares his personal views on protocol on Mauna Kea in this article.

Ho‘olilo 2002

Native Hawaiians have always had a close association to the ‘āina upon which we live. As do other indigenous peoples of the world, Hawaiians view ourselves as kahu, caretakers of the land. And, as kahu, we have a personal responsibility to maintain the very essence and life of the land on which we live. Mauna Kea, the highest mountain in the Hawaiian archipelago and Pu‘u Kukahau‘ula (now generally identified as Pu‘u Wikuk), its highest peak, are directly connected to our feeling for the ‘āina. Ascending the summit of Mauna Kea takes one closer to the spiritual and the supernatural realm.

In Hawaiian thinking, a visit to Mauna Kea has personal meaning because in the eyes of some Hawaiians Mauna Kea is kupuna to them – it was here long before us, and therefore it is our “elder.” Equally important for Hawaiians is the fact that Mauna Kea also serves as the final resting place of the iwi, or bones, of kupuna. So, with respect and reverence for the spirits of those ancestors and kupuna who reside there, appropriate behavior is asked of anyone visiting Mauna Kea.

Protocol — a code of correct conduct, particularly within ceremonies — is a strong word. The purpose and function of Hawaiian protocol are deeply rooted in the cultural and spiritual belief of mana — supernatural or divine power. Belief in akua, ‘aumakua and kupuna helped our ancestors to maintain a vital relationship with the natural and supernatural world. Hawaiians drew strength from their cultural protocol practices. This spiritual relationship has transcended time and continues to be taught, perpetuated and appreciated by a growing number of native Hawaiians today who want to learn, rediscover and identify with the cultural heritage of their ancestors.

Two general principles help to guide the practice of Hawaiian protocol. First, a clear purpose must be established and the purpose of each part of the ceremony understood. Anyone who practices Hawaiian ceremonial protocol should know why he or she is involved in a particular ceremony and what they are expected to do.

Second, there is an order or sequence in how one proceeds. For example, one suggestion for the protocol elements of presenting ho‘okupu, or offering, could include the sounding of the pō kāni, the conch shell, which would be followed by an oli wehe, or opening chant. A procession would follow, which could be accompanied by additional oli, followed by the bearers of the ho‘okupu to a pre-designated site of their rank or status. These steps are consistent in any Hawaiian protocol.

Selection of oli is de-
Chancellor’s Column
Patience, Coordination are Necessary for Success
By Dr. Rose Tseng, Chancellor University of Hawaii at Hilo

ike so many others, we at the University of Hawaii at Hilo (UHH) find ourselves with so much to do – but limited time and resources with which to accomplish them all. With so much at stake for our community, however, I have strongly encouraged that everyone involved thoughtfully integrate their planning whenever possible.

The many needs and demands that swirl around the sacred mountain, Mauna Kea, are a good example. I am pleased to report that a significant effort is being made by people and programs throughout the University system in Hilo to coordinate their planning and to make the most with what we have.

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The following are suggested cultural behaviors that can be considered by individuals or groups planning to visit Mauna Kea. They are described here with Mauna Kea, are a good example. I am pleased to report that a significant effort is being made by people and programs throughout the University system in Hilo to coordinate their planning and to make the most with what we have.

Office of Mauna Kea Management Board (OMKM) Members:
- Heather Cole
- Rabi Pacheco
- Harry Yada
- Barbara Robertson
- Arthur Hoke
- Bany Taniguchi
- Jim Kennedy

Mauna Kea Council Members:
- Reynolds Kanakawale
- Larry Kimura
- Ulali Sherrock
- Pua Kanahale
- Ed Stevens
- Mikahala Roy
- Kholani Springer

Mission Statement:
Achieve harmony, balance and trust in the sustainable management and stewardship of the Mauna Kea Science Reserve through community involvement and programs that protect, preserve and enhance the natural, cultural and recreational resources of Mauna Kea while providing a world-class center dedicated to education, research and astronomy.

Hawaiian Protocol, Continued from page 1

Terminated by the type of ceremony to be conducted at Mauna Kea. Today, it is common practice to select oli that are appropriate for the occasion. Different oli apply to different purposes, so a chanter should be familiar with the text of the chant and its function. To request permission to enter a sacred place such as Mauna Kea is consistent with Hawaiian thinking. Some oli kāhea, chants of request to enter, have been taught and learned for generations in the hālau hula. Oli could also be pule a'uka, prayer chants, mele mo'okū'auhau, genealogy chants, or mele wahihapu, place name chants.

The rank or status of a person and the nature of their visit to Mauna Kea determines how formal or informal a ho'okupa, or welcoming ceremony, should be. A mea hā'o'ole, or speaker, from the visiting group should state the purpose of the group’s visit. An official greeter should welcome and receive the visitor.

A welcoming and respectful manner should be shown to all visitors as well as to officials at the place one is visiting. Remember, ho'okupu, or gift giving, is a gift or offering and may be applied to different purposes, so a chanter should be familiar with the text of the chant and its function. To request permission to enter a sacred place such as Mauna Kea is consistent with Hawaiian thinking. Some oli kāhea, chants of request to enter, have been taught and learned for generations in the hālau hula. Oli could also be pule a'uka, prayer chants, mele mo'okū'auhau, genealogy chants, or mele wahihapu, place name chants.

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As a final note: anyone planning to visit Mauna Kea should also be mindful of the health and safety hazards of traveling to high altitudes. The Office of Mauna Kea Management and the Visitor Information Station are good sources to obtain a personal safety checklist.
The Keck "outrigger" telescope project remained the subject of public testimony in an ongoing series of public meetings and hearings. The National Aeronautics and Space Administration (NASA) held "town meetings" on the status of the project back on Oct. 1, 2001 in Kailua-Kona, Oct. 2, 2001 in Waimea, and Oct. 3 and 4, 2001 in Hilo. At the request of the Office of Hawaiian Affairs (OHA), NASA hosted a meeting of the “concurring parties” to discuss the details of the project's Memorandum of Agreement (MOA) on Jan. 16 and 17, 2002 at the UH-Hilo Campus Center. After a morning of opening statements, all parties settled in for the remainder of the two days clarifying the content and wording of the MOA.

Most recently, the state Board of Land and Natural Resources (BLNR) held public hearings on the Conservation District Use Application (CDUA) for the proposed outrigger telescopes on March 20 in Kona and March 21 in Hilo. These hearings again offered the public an opportunity to present testimony on the CDUA. The earliest BLNR will take up the issue of the Keck outrigger CDUA is April 26.

Members of the Royal Order of Kamehameha I were amongst the participants in two days of discussions with key NASA staff members regarding the Memorandum of Agreement for the proposed outrigger telescope project. OHA and the Hawai‘i Island Burial Council were also amongst the participants.

NASA-Keck ‘Outrigger’ Project Receives Public Input

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Accepting the Challenges of OMKM

By Bill Stormont, Director Office of Mauna Kea Management

Aloha! With equal helpings of honor, humility and fear, I have assumed the duties as the first permanent director of the Office of Mauna Kea Management.

Honors, because caring for all of the resources of the Mauna Kea Science Reserve — be they physical or spiritual, natural or man-made — is a responsibility of tremendous magnitude. Humility, because the work ahead is as daunting a task as I've faced. And, yes, fear, because of the expectations being placed on the Office here in this island community of ours by the various constituencies we'll be working with to properly care for this irreplacable community resource.

Placing these helpings on the same platter, however, makes for an exciting and nourishing meal. I look forward to sharing this feast with all of you, sharing in what you may have to offer, learning from and growing with each other to nurture the sanctity and vitality of Mauna Kea.

With this column, I hope to keep readers abreast of current issues and activities at the Office of Mauna Kea Management. If the current workload is any indication, it should prove to be a broad array of issues and activities. For example, I am happy to report that we are nearing completion of the process of selecting four permanent, full-time, Mauna Kea rangers. Equally exciting is the ongoing development of a comprehensive Ranger Training Curriculum we are developing in partnership with the Hawai‘i Community College.

We strive to maintain an ambitious timetable in this hiring process. New rangers should all be on board in early April, and components of the training program should begin as early as mid-April. This represents the keeping of a promise made to the community many years ago by the University of Hawai‘i — one I'm proud to help the University keep. I look forward to reporting on more of these milestones as time goes by.

I’d like to close this installment with a word of thanks and appreciation. Thanks go to those who felt I have what it takes to do the important work of the Office of Mauna Kea Management. Thanks to the Mauna Kea Management Board and Kahu Kū Mauna for their vote of confidence.

Committees Provide Valuable Community Input

Members of the Mauna Kea Management Board and Kahu Kū Mauna Council were selected on the basis of their knowledge, past involvement, and their willingness to commit to the process of managing the range of issues surrounding Mauna Kea. Each represents a particular community interest and come from all parts of the island. The MKMB and Kahu Kū Mauna, in close cooperation with the Office of Mauna Kea Management, also seeks the advice from its subject area committees on:

Hawaiian Culture Committee
Moses K. Crabbie, Hawaiian language and cultural specialist, Kamehameha Schools, Hawai‘i Campus
Kepa Maly, ethnicologist and cultural historian, president, Kamu Pono Associates
Larry Kimura, Kahu Kū Mauna member, assistant professor, Hawaiian Language, UH-Hilo
Ululani Sherlock, Kahu Kū Mauna member, East Hawai‘i representative, Office of Hawaiian Affairs
Arthur Hoke, chair, Mauna Kea Management Board, former president, National Association of Hawaiian Civic Clubs
Barbara Robertson, Mauna Kea Management Board member, principal, Kamehameha Schools, Hawai‘i Campus

Environment Committee
Reggie David, ornithologist, President, RANA Productions
Dr. Jim Juvik, chair, Geography &Environmental Studies, UHH
Dr. Jim Kazahikaua, geologist, Hawaiian Volcano Observatory, U. S. Geological Survey
Julie Leialoha, Palii Habitat Restoration Coordinator, Biologi-
Maua Kea is one of the most unusual natural habitats in the world. Living beneath the bleak lava landscape near the summit are plants and animals found nowhere else in the world. Mauna Kea is home to the largest observatory complex in the world. At its summit, dark, transparent night skies provide some of the best astronomical observing conditions in the world. Fewer people may appreciate, however, that Mauna Kea is also one of the most unusual natural habitats of the world. Living beneath the bleak lava landscape near the summit are plants and animals found nowhere else in the world. Among these unique life forms is the Wëkiu bug (Hawaiian for “top” or “summit”) bug – a “true bug” of the order Hemiptera. First identified as a separate species in 1983, this small insect, 3.5 to 5 mm in length (about 1/4 inch), has made a remarkable adaptation that minimizes the harsh conditions at the summit of Mauna Kea. Many true bugs, including most of those found elsewhere in Hawai‘i, are herbivores that feed on seeds and plant juices. The Wëkiu bug, on the other hand, is a predator. It has presumably made this evolutionary adaptation because of the lack of suitable plants at the summit. Utilizing straw-like features of its mouth, Wëkiu bugs feed on aeolian, or wind-carried, insects blown up the mountain from the surrounding lowlands. These insects include ladybugs especially abundant. Winds blow them up the mountain, where they hide in the cinder and under rocks to survive the cold. It is believed that ladybugs are one of the many insects eaten by Wëkiu bugs, along with small flies, butterflies and moths that end up at the summit. Outtrigger telescopes have been proposed as an addition to the W.M. Keck Observatory (WMKO) as a means of greatly enhancing the scientific capability of the Keck interferometer. Recognizing the responsibility of all users of Mauna Kea to be good stewards of its special natural environment, the WMKO has begun a monitoring program for Wëkiu bugs, a candidate for listing as an endangered species. In order to reduce the possibility of impacts to the natural environment, and especially to Wëkiu bugs, during the proposed outrigger telescope construction, the WMKO has developed a Wëkiu Bug Mitigation Plan. The plan provides guidance for protecting and enhancing the Wëkiu bug population and habitat. Wëkiu bug protection was a major consideration during the design phase of the outrigger telescopes, and several compromises were made by telescope designers to minimize disturbance to Wëkiu bugs. Outrigger telescopes were repositioned away from nearby Wëkiu bug habitat to reduce disturbance, and special barriers will be used to protect habitat from inadvertent disturbance during construction. The plan also includes habitat restoration at the bottom of Pu‘u Hau Oki. As a result of the outrigger telescope project, there will be more Wëkiu bug habitat, and hopefully more Wëkiu bugs. For further protection, all construction equipment would be washed before use at the construction site, and construction materials inspected for alien arthropod predators that could harm native Hawaiian species. Special precautions would also be taken to limit dust and trash contamination of Wëkiu bug habitat. In addition, funding is being provided to the University of Hawai‘i for a graduate student to study the Wëkiu bug life cycle and habitat requirements. It is hoped that this will lead to better methods for habitat restoration and protection, and enhancing Wëkiu bug populations. A population survey is part of the Wëkiu Bug Mitigation Plan. This writer began the current sampling process in January 2002, using special live trapping methods and releasing the bugs after counting them. In total, this writer has spent several years studying the Wëkiu bug and served as one of the principal investigators during the 1997-1998 Arthropod Assessment of the Mauna Kea Science Reserve. The live traps have been set on Pu‘u Hau Oki near the proposed construction site and on Pu‘u Wëkiu as a control site. The information gathered before the proposed construction has been collected to establish baseline estimates of Wëkiu bugs and detect trends in their population. The information will also be used to determine the effectiveness of habitat protection and restoration, and impacts, if any, of the construction of the outrigger telescopes after the first week of monitoring, several Wëkiu bugs were detected on the inner slopes of Pu‘u Hau Oki, below the WMKO, a sign that the Wëkiu bugs had survived the cold winter and snow and are out hunting for food. Visitors to the summit are asked to not disturb the monitoring traps or foraging Wëkiu bugs. Wëkiu bugs are very sensitive to heat and will die within minutes if held in one’s hand. To learn more about these fascinating Wëkiu bugs, check out http://www.statpros.com/Wekiubug.html on the World Wide Web.