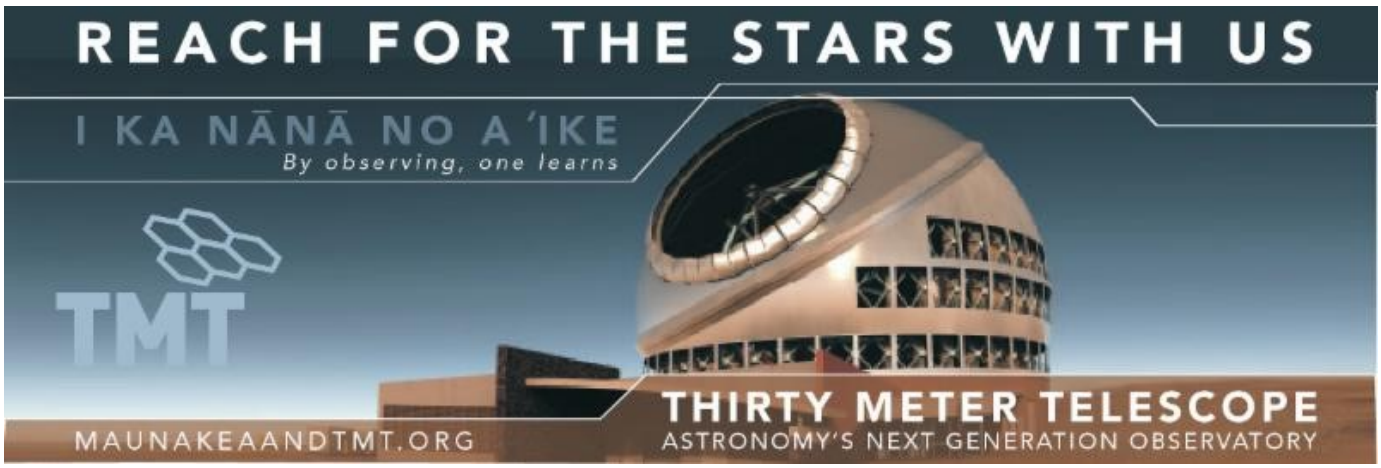

September 19, 2019

Below is an extended version of Chad Kalepa Baybayan's viewpoint that ran in today's Honolulu Star Advertiser.

Star Advertiser

EDITORIAL | ISLAND VOICES

Column: Kamehameha bridged modern astronomy, cultural beliefs

By Chad Kalepa Baybayan · Today · Updated 6:55 p.m.

On the evening of Feb. 26, 2000, 21 days after leaving Tahiti, a crew of 15 women and men sailing on board Hawai'i's iconic deep-sea voyaging canoe Hokuleʻa, arrived off Hawai'i island. As the island loomed large in the foreground, a colleague and I were in deep conversation. On the horizon the slopes of Maunakea rose out of the sea, its summit silhouetted by the fabric of stars that circled overhead.

The conversation quieted as we stared toward that immense sight. As we looked west from the port hull, the wind gently pulling us along, I stared at the majesty unfolding before me, the star field circling overhead and arcing toward Maunakea, welcoming the night sky. In that moment I realized that Maunakea and the universe were one and that Maunakea was truly a

portal to the universe.

Since that moment I have been an advocate for astronomy in Hawai'i.

"I hold out hope that we can all find the will to share the Mauna"

Chad Kalepa Baybayan~voyaging canoe captain and navigator

My realization that astronomy needs to be an integral part of Hawai'i's community is steeped in the tradition of the oceanic explorers who discovered these islands. By sailing away from the safety of distant shores they discovered the stars. The first example we have of observational astronomy conducted on Hawaiian shores, comes with the arrival of Captain James Cook. On Jan. 19, 1779, in Kealakekua Bay, after receiving permission from the local chief, Cook established Hawai'i's first observatory in a sweet potato field adjacent to Hikiau Heiau. The field was used another two times for observatories between 1779 and 1793. Within this period, Kamehameha, ascended to power.

Captain George Vancouver, returning to Hawai'i in 1794, once again requests to Kamehameha to use the same field but is denied access by the wife of the former kahuna of Hikiau Heiau.

Kamehameha asked Vancouver to consider using another part of the bay for his observatory but the sweet potato field was the best location. Kamehameha assembled his priests and after serious discussion Vancouver was granted permission to again use the field to locate his observatory. Here is Hawai'i's first example of a contested case hearing, the ranking aliʻi, Kamehameha, and his priest, vested deeply in their religion and traditions, ruling that science and Hawaiian culture are compatible. It further asserts that Kamehameha and the ranking kahuna did not see the observatory as a desecration by allowing it to be erected within the boundaries of the Hikiau Heiau complex.

In 1874, with the permission of King Kalākaua, the Royal Observatory at Greenwich, England, was granted permission to establish three observatory stations in Hawai'i to track a very rare transit of Venus. The team was spread across three islands: at Apua in Honolulu, Kona on Hawai'i Island and Waimea on Kauaʻi.

Chad Kalepa Baybayan is an employee of the University of Hawaii at Hilo and a voyaging canoe captain and navigator.

The year 1819 brought about irreversible change to Hawaiian society, culture and religion. After the death of Kamehameha, a new societal order was recommended that would abolish the Hawaiian Kapu System, the strict order of rules that regulated the daily life of Hawaiians. The new king, Kamehameha II, Liholiho, instituted a new policy called ‘Ai Noa, "Free Eating",this simple act of allowing men and women to take their meals together signaled the abolishment of the Kapu System. At heiau around the islands, idols were ordered to be burned or toppled and personal family gods were hidden away.

Kekuaokalani, nephew of Kamehameha rebelled against the decision of the chiefs, along with his wife Manono, he marches his army north from Ka‘awaloa peninsula. Liholiho, appoints Kalanimoku leader of his army and they are sent south from Kona.

Both armies are armed with muskets and familiar with each others tactics from serving on previous campaigns under Kamehameha. They face off with each other on the Lekeleke battlefield at Kuamo‘o Bay, by afternoon Kekuaokalani is dead, his wife Manono, the sister of Kalanimoku lies beside him, both victims of musket fire.

The religious order was dead.

Hawai'i has once again arrived at a historic inflection point. We have a choice, to repeat history or use its example, Kamehameha's and Kalākaua‘s willingness to allow astronomy a place in Hawai'i, and an openness to share Hawai'i's landscape. As witnessed on that February 2000 evening, watching the night sky dive toward the summit of Maunakea, this special mountain, a deeply spiritual environment, is the best place in the northern hemisphere for observational astronomy and is a portal to the universe.

I hold out hope that we can all find the will to share the Mauna.

Chad Kalepa Baybayan is an employee of the University of Hawaii at Hilo and a voyaging canoe captain and navigator.

TMT

The Thirty Meter Telescope (TMT) Project has been developed as collaboration among Caltech, the University of California (UC), the Association of Canadian Universities for Research in Astronomy (ACURA), and the national institutes of Japan, China, and India with the goal to design, develop, construct, and operate a thirty-meter class telescope and observatory on Maunakea in cooperation with the University of Hawaii (TMT Project). The TMT International Observatory LLC (TIO), a non-profit organization, was established in May 2014 to carry out the construction and operation phases of the TMT Project. The Members of TIO are Caltech, UC, the National Institutes of Natural Sciences of Japan, the National Astronomical Observatories of the Chinese Academy of Sciences, the Department of Science and Technology of India, and the National Research Council (Canada); the Association of Universities for Research in Astronomy (AURA) is a TIO Associate. Major funding has been provided by the Gordon & Betty Moore Foundation.

For more information about the TMT project, visit tmt.org, www.facebook.com/TMTHawaii or follow @TMTHawaii.

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