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*Scientific research is not a sacred thing;
sometimes it must give way to other values*

By Randall Kosaki

Some people put science on a pedestal, and use the quality of the Thirty Meter Telescope's proposed research to justify its construction. Some will vilify science, and cite its self-serving arrogance as a reason why the telescope should not be built. Others will try to pit science against Native Hawaiian culture as though they are somehow mutually exclusive. I would like to offer an alternative view on the nature of science and its place in the larger sociocultural context surrounding the TMT, and indeed surrounding all human endeavors.

I am from Waialae Nui, Oahu. I am a Native Hawaiian, and a scientist with a Ph.D. in marine biology. Science is more than a just a career; it is my passion and my religion. I am completely enamored with the potential research products of the TMT, and yet I cannot support its construction at this time.

The pursuit of science must be conducted with a conscience. That conscience will not come from science itself, for science is just a tool. Science is amoral and apolitical; in and of itself, science is neither good nor bad. The values behind it must come from the individual scientists themselves. Driven by misguided values, science has created nerve gas and hydrogen bombs. In humanitarian hands, science will someday cure HIV and cancer. Science is not an end in itself that justifies its own existence. It is a tool that should be used to better the human condition.

When science becomes destructive of humanitarian, cultural and environmental values, it must be set aside

ISLAND VOICES



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and re-evaluated. These are the crossroads at which we find ourselves on Maunakea. There is no question the TMT could discover amazing things about the creation of the universe that will rock science, religion and philosophy to their very cores. But at what cost? The cost may already be too high when an indigenous community is hurting and divided, and when a globally unique tropical alpine ecosystem is threatened (how often does one get to use the words "tropical" and "alpine" in the same ecosystem descriptor?).

We put telescopes atop mountains to get above atmospheric optical turbulence. The summit of Maunakea is above 60% of the Earth's atmosphere, but 40% of the atmosphere still lies above that summit. The future of ultra-high-end astronomy may not lie high on mountaintops, but rather in low Earth orbit, above 100% of the image-obscuring atmosphere. Think Hubble Space Telescope on steroids. We should be wary of compromising our values and unique ecosystems for short-term gains in knowledge that may be eclipsed by discoveries from orbiting telescopes in the not-too-distant future. That faint and elusive starlight that originated a heartbeat after the Big Bang has been traveling through space for 13.7 billion years. If necessary, it can wait a few more years for detection by human eyes.

Hopefully, we can de-escalate tensions and re-start an inclusive dialogue between all stakeholders on Maunakea. However, if we are ultimately unable find a mutually acceptable path forward for TMT, then I respectfully submit that the science should wait until we find a less invasive path, one that is free of the baggage of colonialism and cultural oppression. Only then can people of all cultures unanimously celebrate the amazing astronomical discoveries that most certainly lie ahead for humanity.

