# "Astronomical Heritage: Progressing the UNESCO–IAU Initiative". A Focus Meeting held at the 29th International Astronomical Union General Assembly, Honolulu, Hawai'i, 11th–13th August, 2015

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Most of the 2500-plus scientists, academics and others who arrived at the International Astronomical Union's 29th General Assembly in Honolulu, Hawai'i were probably completely unprepared for any controversy. I certainly wasn't aware of any. It wasn't as if the IAU were going to demote another planet, as it did with Pluto in 2006. But for readers of the *Journal of Skyscape Archaeology*, as well as attendees of the General Assembly's Focus Meeting "Astronomical Heritage: Progressing the UNESCO–IAU Initiative" (FM2) such as myself, the controversy that met the convention was and is probably much more interesting than Pluto's new status as a dwarf planet.

Greeting attendees of the conference was a series of protests, followed by a regular, albeit small, presence of sign-holding protestors outside the conference centre's main entrance. Most of the protestors were Native Hawai'ians, calling for a halt to the construction of telescopes on two mountaintops held to be sacred: the Thirty Meter Telescope on the Big Island's Mauna Kea and the Daniel K. Inouye Solar Telescope on Haleakala. Though the International Astronomical Union (IAU) and the General Assembly were not affiliated with the construction of the telescopes, the conversations taking place because of the protests, and sometimes between protesters and members of the conference, led to a first-hand opportunity to witness the meeting of fundamentally different cosmologies and worldviews regarding the sky, the land and the sacred.

While the General Assembly united a vast array of institutions, scientists, engineers, scholars and educators whose work related to astronomy, the Focus Meeting entitled "Astronomical Heritage: Progressing the UNESCO–IAU Initiative" is the topic of this review. Readers of *JSA* might be unfamiliar with the ongoing cooperation between the IAU and UNESCO with regard to astronomy and heritage, but the two institutions have been working together since 2008 to implement UNESCO's Astronomy and World Heritage Thematic Initiative. The purpose of this initiative is to promote identifica-

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tion and nomination to the World Heritage List of sites related to astronomy and "the complexity and diversity of ways in which people rationalised the cosmos and framed their actions in accordance with that understanding" (AWHTS 2015). Previous milestones of this cooperation have been the Portal to Astronomical Heritage website (PHA 2015) and the publication of *Heritage Sites of Astronomy and Archaeoastronomy in the Context of the UNESCO World Heritage Convention: A Thematic Study* (Ruggles and Cotte 2010), which was undertaken in conjunction with the International Council on Monuments and Sites (ICOMOS), UNESCO's independent advisory body. A second thematic study is forthcoming shortly.

Many of the eight sessions which comprised this Focus Meeting addressed questions of how the astronomical heritage of an archaeological, historical or "living" site (such as a functioning observatory) is assessed, as well as the progress of particular World Heritage nomination initiatives. Session 7, however, "Hawaiian and Polynesian Cultural Heritage Relating to Astronomy", provided some deeper context within which attendees could consider the outside protests. Additionally, an event held at the Bishop Museum on 9th August served to launch a revised edition of the book *Nā Inoa Hōkū: A Catalogue of Hawaiian and Pacific Star Names*. Originally published in 1975 by Hawai'ian scholars Rubellite Johnson and John Mahelona and long out of print, the book is considered by many to be the definitive source concerning Hawai'ian astronomy and Polynesian navigation and voyaging. In the new edition, the authors collaborated with Clive Ruggles to thoroughly invigorate the work with new translations of original Hawai'ian sources, expanded star catalogues and updated theoretical discussions concerning context and the historical significance of and for the Hawai'ian Islands.

For cultural astronomers, archaeologists and heritage managers, the first session of the Focus Meeting gave a crucial introduction, summary and state of play with regard to astronomy and world heritage and also set the tone and framework for the entire conference. In this session, Clive Ruggles, Anna Sidorenko (representing UNESCO) and Michel Cotte (representing ICOMOS) spoke of the processes involved in nominating World Heritage sites, the challenges and achievements of the IAU and UNESCO's Astronomy and World Heritage Initiative, and of how Outstanding Universal Value with respect to astronomy can be identified.

While the present author spoke at the second session, "The Potential for Archaeoastronomical World Heritage Sites", the highlight of this session was Clive Ruggles' presentation regarding credibility and archaeoastronomical sites – an issue with which readers of *JSA* are no doubt familiar. However, because archaeoastronomical sites are now being nominated to the World Heritage list, debates about interpretation and methodology are no longer limited to the academy. The case of a recent nomination of a prehistoric "observatory" to the World Heritage List which was rejected because of inadequate statistical and archaeological evidence was presented as an admonitory example. Clive spoke forcefully of the need to establish broadly acceptable criteria of credibility, taking into account the major advances in archaeoastronomical theory in recent decades. He highlighted model examples such as the Iberian seven-stone *antas* (dolmens) and Chankillo in Peru. Indeed, we were privileged in the same session to have Juan Belmonte speak to us of the

stone *antas* and the process of serial (multiple site) nominations to the World Heritage list as well as to passionately decry and lament the destruction by quarrying of Neolithic dolmens in the Golan.

Many of the Focus Meeting's attendees felt that the roundtable discussion "The Development of Mauna Kea as an Astronomical Site", moderated by David DeVorkin in Session 3, "Recognizing the Twentieth-Century Heritage of Astronomy", was a highlight of the conference. This roundtable addressed such questions as: "What was learned from sites established on Haleakela by the US Air Force and the Smithsonian that focused attention on Mauna Kea?"; "How and why did NASA become interested in establishing a large observatory there?"; and "Once the site was established and its qualities fully appreciated, how did astronomical institutions from all over the world join to populate the peaks and saddles of the dwelling place of the goddess Poliahu?" (De Vorkin 2015).

Also of great importance, and real highlights of the Focus Meeting, if not the Assembly more generally, were Sessions 4 and 6, "World Heritage and the Protection of Working Observatory Sites" and "Preserving Dark Skies and Protecting against Light Pollution in a World Heritage Framework". These sessions were jointly organized with the Focus Meeting on "Mitigating Threats of Light Pollution and Radio Frequency Interference" (FM21). The event at the Bishop Museum mentioned above also served to announce the AURA Observatory in Chile as the world's first International Dark Sky Sanctuary, the "Gabriela Mistral Dark Sky Sanctuary" named in honour of the Chilean poet and Nobel-prize winner Gabriela Mistral (1889–1957) (IDSA 2015).

A highlight of Session 5, "Observatories, Observations and Archives: Scientific, Historical and Heritage Issues", was Gudrun Wolfschmidt's presentation of the progress of the "Route of Astronomical Observatories", a serial nomination project (a World Heritage listing that conjointly names multiple sites), as she is concerned with classical observatories around the world. Also of particular interest were the presentations by Elizabeth Griffin and Areg Mickaelian, who both focused, albeit from different institutional perspectives, on the digitization of photographic archives from observatories and the necessary role of this process in ongoing astronomical science.

In a highlight of Session 8, "Dealing with Movable and Intangible Heritage in a World Heritage Framework", Alejandro López spoke of the need to listen to, respect and incorporate indigenous perspectives and voices with regard to astronomical heritage. This was pertinent given the protests at the beginning of the conference and some of the successful ways indigenous voices are being incorporated and heard in projects like *Shared Sky,* the Square Kilometer Array's indigenous art and astronomy exhibit (SKA 2015).

In addition to bringing together a group of diverse international experts and academics, united around the theme of World Astronomical Heritage, and providing a forum for discussing the progress of ongoing potential nominations and the challenges and opportunities associated with astronomical heritage, a significant outcome of the Focus Meeting was the recognition that risks to this heritage need to be assessed and addressed. This led to a resolution to set up an IAU working group on "Astronomical Heritage in Danger".

For the interested reader, Cambridge University Press will be publishing a new series, "Focus on Astronomy", beginning with two volumes which will contain the proceedings of all the Focus Meetings at the 2015 IAU General Assembly. These volumes will appear in print form as well as being published online. Papers from the Focus Meeting on Astronomical Heritage (together with papers from the Focus Meeting, "Mitigating Threats of Light Pollution and Radio Frequency Interference") will appear in Volume 1. Prior to its publication, readers can appreciate the range and scope of the topics presented and discussed in the final programme, which can be accessed on the Portal to the Heritage of World Astronomy site (PHA 2015). The next IAU General Assembly will be held in Vienna in 2018 and perhaps those previously unfamiliar with this scholarly meeting will be encouraged by this review to attend.

## References

AWHTS, 2015. "Astronomy and World Heritage Thematic Study" [online]. Accessed October 2015, http://whc.unesco.org/en/astronomy/

De Vorkin, D. H., 2015. "The Development of Mauna Kea as an Astronomical Site". IAU General Assembly, Meeting #29, #2250282, American Astronomical Society [online]. Accessed October 2015, http://adsabs.harvard.edu/abs/2015IAUGA..2250282D

IDSA, 2015. "International Dark Sky Sanctuaries." International Dark-Sky Association [online]. Accessed October 2015, http://darksky.org/idsp/sanctuaries/

PHA, 2015. "Astronomical Heritage: Progressing the UNESCO-IAU Initiative". Portal to the Heritage of Astronomy [online]. Accessed October 2015, http://www2.astronomicalheritage.net/index.php/community/news-events/focus-meeting-at-iau-general-assembly.

Ruggles, C. L. N. and M. Cotte, 2010. *Heritage Sites of Astronomy and Archaeoastronomy in the Context of the UNESCO World Heritage Convention: A Thematic Study*. Paris: ICOMOS and the International Astronomical Union.

SKA, 2015. "Shared Sky – the SKA's indigenous art/astronomy exhibit". *Square Kilometre Array* [online]. Accessed October 2015, https://www.skatelescope.org/shared-sky/