

Commission C4 annual report 2017

Report for the period January to December 2017

The Commission's main achievements during 2017 are as follows.

1 The publication of the second ICOMOS-IAU Thematic Study on astronomical heritage ("TS2").

Heritage Sites of Astronomy and Archaeoastronomy in the Context of the World Heritage Convention: Thematic Study no. 2 was published as an e-book in June, in time for the 2017 UNESCO World Heritage Committee meeting in Kraków, and as a paperback in November, in time for the ICOMOS General Assembly in Delhi.

ICOMOS Thematic Studies (sometimes produced in co-operation with specialist partner organisations) aim to provide a synthesis of current research and knowledge on a specific theme and/or region, and are useful to State Parties wishing to nominate a heritage property for inscription on the World Heritage List. TS2 examines a number of key questions relating to astronomical heritage sites and their potential recognition as World Heritage, attempting to identify what might constitute "outstanding universal value" (OUV) in relation to astronomy. It represents the culmination of several years' work to address some of the most challenging issues raised in the first ICOMOS-IAU Thematic Study ("TS1"), published in 2010.

A particularly complex issue is the recognition and protection of dark skies. Dark sky areas cannot in themselves be considered as potential World Heritage Sites, but TS2 includes a thematic chapter by Michel Cotte of ICOMOS considering a range of ways in which dark sky values can be interrelated with broader cultural or natural values of a place and thereby contribute to its overall cultural or natural value and potential OUV. Other issues explored in TS2 include the need to balance archaeoastronomical considerations in the context of broader archaeological and cultural values; the potential for serial nominations, for example among groups of monuments whose astronomical significance is only evident from the group as a whole; and management issues such as preserving the integrity of astronomical sightlines through the landscape.

The case studies included in TS2 include seven-stone antas (prehistoric dolmens) in Portugal and Spain, the thirteen towers of Chankillo in Peru, the astronomical timing of irrigation in Oman, Pic du Midi de Bigorre Observatory in France, Baikonur Cosmodrome in Kazakhstan, and Aoraki-Mackenzie International Dark Sky Reserve in New Zealand. A case study on Stonehenge, already a World Heritage Site, focuses on preserving the integrity of the solstitial sightlines.

A full list of the contents can be found on the Portal to the Heritage of Astronomy at www.astronomicalheritage.net/thematic-study-2-contents, from where a copy of the ebook version can also be downloaded for free.

2 Upgrade of the Portal to the Heritage of Astronomy (www.astronomicalheritage.net)

An extensive upgrade to the Portal was undertaken in November.

The "heritage finder"—the main tool for locating relevant heritage case studies on the portal, either via a map or a list—has been completely redesigned so as to provide a range of selection tools including a logarithmic time slider. A "word cloud" tool has also been added.

The existing "Full case studies" and "short case studies", both applicable to tangible fixed heritage, have been complemented by new "Movable object" case studies and a new facility to add intangible heritage. Initial examples of intangible heritage case studies have been commissioned. The portal has also been set up to include IAU-recognised "outstanding astronomical heritage" sites (see below). Finally, there is a new publicly available tool to add "sites connected to the sky"

on a more informal basis. This is being tested and has not yet been widely publicised, but a launch is planned in the near future.

There has also been a complete overhaul of the information pages, in line with the publication of TS2.

While some technical issues remain to be resolved (particularly with the heritage finder), the portal is now largely accessible on small portable devices such as phones.

3 "Outstanding Astronomical Heritage" sites

The Commission is developing a preliminary list of IAU "Outstanding Astronomical Heritage" (OAH) sites that will be presented at the Commission meeting at the 2018 IAU General Assembly in Vienna. If approved, this will become the initial OAH list. The intention is to develop a global list of astronomical heritage sites considered by the IAU to be of the utmost importance, whether or not they are recognised by UNESCO as World Heritage Sites. It is anticipated that the Commission meeting in Vienna will finalise the process for handling the nomination and consideration of further sites.

4 Presentations and conferences

Siramas Komonjinda gave an invited presentation on astronomical heritage and the work of the Commission at the 9th Southeast Asia Astronomy Network (SEAAN) meeting in Mandalay, Myanmar, in November.

5 Current World Heritage nominations

All of the activities listed above form part of the IAU's contribution to the UNESCO–IAU Astronomy and World Heritage Initiative, which in the longer term, directly or indirectly, influence and encourage State Parties to put forward World Heritage nominations relating to astronomical heritage.

This long-term process is now beginning to bear significant fruit. At the time of writing, 3 countries are known to be nominating astronomically related properties as potential World Heritage Sites, for inscription in 2019:

- Peru: Chankillo astronomical complex (whc.unesco.org/en/tentativelists/5792/)
- Spain: Risco Caído and the sacred mountains of Gran Canaria Cultural Landscape (whc.unesco.org/en/tentativelists/6081/)
- United Kingdom: Jodrell Bank Observatory (whc.unesco.org/en/tentativelists/5676/)