

DIVISION C / WORKING GROUP ASTRONOMICAL HERITAGE IN DANGER

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TERMS OF REFERENCE:

The WG on Astronomical Heritage in Danger is proposing to continue being a Commission C.4 (World Heritage and Astronomy) working group, under IAU Division C (Education, Outreach and Heritage). Reporting to the President of Commission C.4

GENERAL MISSION:

The objective of the WG is to make a list of sites with relevant astronomical value for Humanity that are currently at risk. The purpose of this list is to influence governments, nongovernmental organizations, international agencies, local authorities and decision makers to achieve protection and care of these sites.

DESCRIPTION OF THE WG:

The working group has been conformed at the beginning of 2016. The objective of the WG is to make a list of sites with relevant astronomical value for Humanity that are currently in danger. The purpose of this list is to influence governments, nongovernmental organizations, international agencies, local authorities and decision makers to achieve protection and care of these sites.

During the year 2016 and 2017 we studied the ICOMOS' criteria for the elaboration of their list of World Heritage Sites at risk. We have seen that the idea of the list proposed by the Working Group has been different, since ICOMOS seeks to point out sites that have been declared by UNESCO as a World Heritage site and are at risk. This implies that UNESCO has checked with the local authorities about their commitment to the preservation of the site and discovered dangers to the site. The list in preparation by the WG includes sites connected to astronomy that have been identified by ICOMOS as being in danger, and additional sites beyond these that IAU experts have determined are endangered. In fact, the list is especially relevant in the case of sites that are not considered Humanity Heritage of UNESCO, since they are the most threatened. Also, many sites are part of living traditions and therefore change over time since they are in use. That is why, it is necessary to develop conceptions of "heritage" that dialogue flexibly with local ideas and practices. Beyond that, the list is designed to contain the basic information about the sites to align with what UNESCO requires for submission for world heritage status. The preliminary structure that has been designed to request such information is a provisional characterization that, in about 400 words, accounts the following information:

Name of the site:

Country:

Short description (including cultures involved, age, contemporary usage, etc.)

Astronomical Relevance:

Is it declared a World Heritage Site?:

Situation of danger (main threats):

Suggested actions to avoid danger:

During 2020 a great achievement has been to homologate and prepare to publish the list of sites of astronomical heritage that are at risk that we have gathered during these years of work. It is a set of 15 sites in America, Africa and Asia. We attach the list as an appendix to this report.

ANNUAL REPORT 2021

1. Main Remarks During the year 2021

During 2021 the COVID-19 pandemic poses a major challenge for everyone. Beyond this, during 2021 actions were taken to accomplish the objectives proposed in the continuity plan of the working group. In particular, we were able to:

- ★ achieve greater visibility
- ★ achieve better relations to the community of experts linked to cultural astronomy to foster debate on and commitment to the idea of astronomical heritage. Also, we achieve better relations with the community of experts linked with heritage in general.
- ★ achieve a better relationship with other IAU members and groups that work with related issues, such as the new IAU-RAS committee about “Sensitive Sites”.

A very important task of the first half of the year 2021 was to prepare the request for continuity of the WG for the triennium 2021-2024. Planning the goals for this triennium in line with the IAU 2030 strategic plan. At the end of September 2021, the continuity of the WG was confirmed to us.

One of the main goals of the WG is to influence the decision makers. This is a difficult objective to achieve due to the political complexity of situations related to heritage and its protection, which vary by country. This is clearly evident in the observations of the experts who contributed to the reports on endangered sites incorporated into the WG list. In this direction, during 2020 Alejandro López started to be requested to give scientific advice to

the Institute of Culture of Chaco, Argentina, in the context of the project to promote the meteoric dispersion of Campo del Cielo to the status of Provincial Cultural Heritage. In particular, he has given scientific advice in reference to the co-management of this heritage by the Moqoit aboriginal communities. Advancing a little further in this regard, during 2021, Alejandro López participated, as advisor to the Dirección de Patrimonio Cultural Chaco, in the meeting and workshops “Heritages are political. Between cosmovisions, science, art and ecology” developed in Resistencia city, Chaco, Argentina, and Campo del Cielo, Chaco, Argentina, from November 25 to 27, 2021. These meetings were held as part of the heritage process of the meteoric dispersion of Campo del Cielo. Advancing a little further in this regard, during 2021, Alejandro López participated, as advisor to the Chaco Cultural Heritage Directorate, in the meeting and workshops “Heritages are political. Between cosmovisions, science, art and ecology” developed in Resistencia and Campo del Cielo, Chaco, from November 25 to 27, 2021. These meetings were held as part of the heritage process of the meteoric dispersion of Campo del Cielo. During this participation, it was sought to intervene in the negotiations on the concrete way in which Campo del Cielo will be formally integrated as national and provincial heritage, seeking to safeguard the participation of the local population, especially the Moqoit aboriginal people, and a broad understanding of Campo del Cielo as a cultural landscape with astronomical value for various human groups.

In reference to our goal to achieve greater visibility in the community of academic experts, in 2019 we had planned a round table on astronomical heritage at the joint meeting of the XII Oxford Conference and VIII SIAC Conference that was to be held in Argentina, during April 2020. This important event (the Oxford conference is the largest world event in cultural astronomy and this is the first time that it will be held in conjunction with a SIAC meeting) will now take place in November 2022 (if the pandemic situation allows it) due to COVID-19. It will be a critical opportunity to meet the goal of engaging the global community of experts in cultural astronomy around the issue of astronomical heritage at risk.

Another important advance in this regard is the participation of several members of this WG (Steven Gullberg, Alejandro López, Jarita Holbrook, Javier Mejuto) in the new IAU-RAS-AAS committee on sensitive astronomical sites. We believe that the perspective of our WG can add much to a committee that seeks to influence the way in which professional astronomers relate to situations where there are conflicts between large astronomical consortia and facilities and the local population. Considering the character of "astronomical heritage in danger" that these places have for many local populations can provide a more comprehensive perspective on the conflict situations described. As part of this joint work with the new committee, these four members of WGAHD were speakers at the Ninth Communicating Astronomy with the Public Conference (CAP) 2021, organized by the International Astronomical Union (IAU) in virtual format, from 24 to May 27, 2021,

presenting the oral presentation (which is in press to be published as part of the minutes of this meeting): “Listening to Other Voices: Culturally Sensitive Sites Group”, whose authors are Alejandro M. López, Javier Mejuto, Annette S. Lee, Jarita Holbrook, and Steven R. Gullberg. <https://www.communicatingastronomy.org/cap2021/>. These same four members were speakers at the 238th Meeting of the American Astronomical Society (AAS), presenting the oral presentation "New Initiative: Working Group on Culturally Sensitive Sites", authored by Annette S. Lee, Jarita Holbrook, Javier Mejuto, Steven R. Gullberg, and Alejandro M. López. Virtual modality, from June 7 to 9, 2021.

In line with this objective, during this year Alejandro López published a work entitled: "Cultural Astronomy: A scientific framework to understand academic astronomy as part of the Social World", In R.M. Ros, B. Garcia, S. Gullberg, J. Moldon & P. Rojo, eds. Proceedings of the International Astronomical Union, 15(S367), Cambridge University Press, Cambridge, UK: 235-244. doi:10.1017/S1743921321001046. This paper addresses the issues of astronomical heritage at risk, and the links between this and colonialism, education and 'development'.

Ukraine astronomical heritage in danger:

War, in addition to causing innumerable damages and losses of all kinds, is also an important factor in generating dangers for astronomical heritage. The current war in Ukraine is no exception.

Gudrun Wolfschmidt, member of the WG, has worked in the IAU List "Outstanding Astronomical Heritage". For that initiative she has researched and compiled information (history, architecture, instruments, cultural heritage and astronomical relevance) about 7 sites (including branch observatories outside of the city center) in Ukraine. Mykolaiv, Kyiv, Odessa and Simeiz are on the Unesco Ukraine tentative list (2008), criteria (ii), (iv) and (vi), cultural heritage.

Unfortunately we have no information about the status, the threats these sites may be facing during the current war, or if the observatories are currently in danger or destroyed, or if they are still in good condition. The present situation requires that the astronomical community pay attention to the possible effects of the war on these observatories. Gudrun understands that of all of them, Kharkiv and Mykolaiv are the most in danger.

This is the list of them, with their links in the Portal to the Heritage of Astronomy:

169 -- Lwiw (Lemberg) Observatory (1771 and 1912)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=169&idsubentity=1>

170 -- Kyiv Observatory (1845)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=170&idsubentity=1>

171 -- Kharkiv Observatory (1808)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=171&idsubentity=1>

172 -- Mykolaiv (Nikolaev) Observatory (1821)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=172&idsubentity=1>

173 -- Odessa Observatory (1871)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=173&idsubentity=1>

174 -- Simeiz near Yalta, Crimea (1908)

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=174&idsubentity=1>

174 -- Crimean Astrophysical Observatory in Nauchny, Crimea (1945).

<https://www3.astronomicalheritage.net/index.php/show-entity?identity=174&idsubentity=1>

2. Future

The COVID-19 pandemic poses a major challenge for everyone. In particular, this is true for the goals that we set for the 2021-2024 triennium. In this sense, during 2022 we will focus on the following aspects:

1. Ensure the holding of the proposed round table for the XII Oxford Conference-VIII SIAC Conference, which will now be held in November 2022.
2. Promote, through electronic tools, the knowledge by the experts in cultural astronomy of the basic format of the case proposal for listing of astronomical heritage at risk prepared by the WG. The preliminary structure that has been designed to request such information is a provisional characterization that, in about 400 words, accounts the following information:
 - Name of the site:
 - Country:
 - Short description (including cultures involved, age, contemporary usage, etc.)

- Astronomical Relevance:
 - Is it declared a World Heritage Site?
 - Situation of risk (main threats):
 - Suggested actions to avoid risk:
3. Make public the present list of sites in danger, through various electronic channels, first of all the Portal to the Heritage of Astronomy (<https://www3.astronomicalheritage.net/index.php>)
 4. Achieve greater visibility within the community of professional and amateur astronomers. In this sense, it is key to put them in contact with the results of the investigations of those who dedicate themselves to cultural astronomy. This can show them the relevance of issues related to identity, ethnic and cultural conflicts and colonialism for astronomical heritage.