

IAU Division C Inter-Commission C1-C3-C4

Working Group for Archaeoastronomy and Astronomy in Culture

Annual Report for 2019

Steven Gullberg (Chair)
Javier Mejuto (Co-chair)

Working Group Members (48 including Chair and Co-chair)

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Working Group Associates (32)

Bryan Bates, Patricio Bustamante, Nick Campion, Brian Davis, Margaret Davis, Sona Farmanyan, Roz Frank, Bob Fuller, Rita Gautschy, Cecilia Gomez, Akira Goto, Liz Henty, Stan Iwaniszewski, Olaf Kretzer, Trevor Leaman, Flavia Lima, Armando Mudrik, Andy Munro, Greg Munson, Cristina Negru, David Pankenier, Fabio Silva, Emilia Pasztor, Manuel Pérez-Gutiérrez, Michael Rappenglück, Eduardo Rodas, Bill Romain, Ivan Šprajc, Doris Vickers, Alex Wolf, Mariusz Ziółkowski, Georg Zotti

1 Objectives

The IAU Working Group for Archaeoastronomy and Astronomy in Culture (WGAAC) continues from the 2015-2018 triennium and is in part a discussion and collaboration group for researchers in *Archaeoastronomy* and all aspects of *Astronomy in Culture*, and as well for others with interest in these areas. A primary motivation is to facilitate interactions between researchers, but the WG also has significant interest in promoting education regarding astronomy in culture in all respects. It is the focal point within the IAU for both vigorous research in the field of *Astronomy in Culture* and in educating the public regarding examples of how cultural astronomy has been used in many societies. The WGAAC works to further the following objectives:

- Advance the field of archaeoastronomy
- Promote research and publication

- Promote strong initiatives for educators on different levels for multiple aspects of cultural astronomy to include the exploration of literature, poetry, music, films, etc.
- Promote public outreach to educate regarding astronomy in culture
- Use the fascination with astronomy in culture to inspire youth interest in pursuing any aspect of astronomy in their futures
- Increase the understanding of how astronomy was used in cultures within developing nations where such has not yet been fully explored
- Facilitate interactions with other members and groups within the IAU
- Facilitate interactions between researchers in the field
- Encourage engagement in this research by additional IAU members
- Promote collaboration between the IAU and International Society for Archaeoastronomy and Astronomy in Culture (ISAAC), Société Européenne Pour L'Astronomie Dans La Culture (SEAC), and Sociedad Interamericana de Astronomía en la Cultura (SIAC), Society for Cultural Astronomy in the American Southwest (SCAAS), and Società Italiana di Archeoastronomia, for the advancement of archaeoastronomy and astronomy in culture
- Promote the inclusion of archaeoastronomical research in other fields, such as Archaeology, Anthropology, Indigenous Studies, and Native American Studies, and further collaboration with these fields. Build rapport with organizations such as Society for American Archaeology (SAA), European Association of Archaeologists (EAA), American Anthropological Association (AAA), and Native American and Indigenous Studies Association (NAISA)

2 Collaborative, Research, and Educational Endeavors

As part of establishing these relationships, in 2019 information and papers were presented at events such as the following:

Society for Cultural Astronomy in the American Southwest – Flagstaff, Arizona

STARS 2019 – Havana, Cuba

Native American and Indigenous Studies Association – Hamilton, New Zealand

First International Congress on Astrophysics and Archaeoastronomy at UNSAAC – Cusco, Peru

European Association of Archaeologists – Bern, Switzerland

Protolang 6 – Lisbon, Portugal

The many members of the WGAAC actively perform rigorous research and publication.

In 2019 WGAAC members Steven Gullberg and Andy Munro finalized development of a new graduate education program for Archaeoastronomy and Astronomy in Culture at the University of Oklahoma in the United States.

3 WGAAC Committees

Since being reaffirmed for the 2018-2021 triennium, the WGAAC has organized five committees for members to further major initiatives:

Committee 1 - to develop a comprehensive book regarding a survey of astronomy in culture. This will be similar in concept to the IAU's "Big Ideas in Astronomy" and is to be posted/published on the IAU website and made readily available to the public.

Committee 2 - to develop initiatives for public outreach regarding astronomy in culture.

Committee 3 - to develop initiatives for educators and others regarding examples of cultural astronomy found in literature, poetry, music, films, etc. As part of our affiliation with Commission C1 we work to develop a robust compilation of such cultural information regarding this aspect of astronomy.

Committee 4 - to develop initiatives to gather knowledge regarding astronomy in culture in developing nations, especially where such has not yet been fully explored. Much has been learned about archaeoastronomy in many parts of the world, but there still are geographical gaps in the collective knowledge of the field.

Committee 5 - to develop initiatives for the advancement and promotion of strong cultural astronomy research, publication, and collaboration among scholars throughout the world. This also is meant to attract those in other fields (such as archaeology, anthropology, and Native American studies) who explore ancient culture and inspire them to include astronomy in their research and assessments.

The committee work is ongoing and will make important contributions to the growing field of *Astronomy in Culture*. The IAU through its WGAAC will be able to exert significant influence on its evolution.

4 Future

Work of the five committees continues in 2020.

An archaeoastronomy presentation was made in February at the BASIC 2020 astrophysics conference held on Long Island in the Bahamas. Additional opportunities to promote archaeoastronomy to different communities at conferences scheduled in 2020 are gradually being postponed or cancelled.

In January 2020 Steven Gullberg and Andy Munro launched the new graduate program for Archaeoastronomy and Astronomy in Culture at the University of Oklahoma.