

“The Marriage of Astronomy and Culture: Theory and Method in the Study of Cultural Astronomy”.

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The 24th Conference of the European Society for Astronomy in Culture (SEAC) (<http://www.archeoastronomy.org>), held in Bath (UK) between the 12th and 16th September, 2016, was organised under the title “The Marriage of Astronomy and Culture: Theory and Method in the Study of Cultural Astronomy”. The organising group, mainly from the University of Wales Trinity Saint David, proved their ample experience in putting together workshops and courses by delivering a very well-orchestrated event that included the possibility of following the sessions online through web-based video conferencing.

Instead of the customary way of dividing the sessions into regional scopes or historical phases, the organisers preferred to arrange talks by themes, or rather by the source of the data presented in each research paper. In this way the sessions were devoted to “Archaeology”, “Ethnography”, “Images and Music”, and “Texts and Archives”, with a supplementary one on “Skills”. Although there was an intention to balance them out, it is clear that archaeology is the main source of information in cultural astronomy (with 26 oral presentations from a total of 61 delivered), nearly as many as “Images and Music” and “Texts and Archives” combined. Despite this preference, generally the scope of the conference was widely varied, with presentations dealing with topics ranging from artists inspired by the heavenly abode to technicalities on how to treat the uncertainty in archaeoastronomy studies. Perhaps a minor problem was that questions addressed to the orators were delayed until the end of each session, somehow diluting interesting debates. However, the moderators of each session tried to make a summary of each talk before introducing the discussion and these resulted generally in vivid exchanges of ideas, some of them also coming from the online participants.

In the following, I will highlight those presentations of each session that I found most remarkable, together with some issues on methodology.

Archaeology

“Archaeology” was the largest session, including a number of very good presentations with deeply interesting results and discussions that show the field to be very active, with new proposals and studies that revise work done over the last decades. In particular, two of the talks dealt with much-needed methodological aspects that mainly reflected on the errors that any measurement has. Fabio Silva insisted on an appropriate numerical approach to properly treat measurement data and its errors to confirm that a given astronomical target is likely as an orientation. The work, still in progress, showed that the maximum likelihood method seems to be a fit tool to address such a question. Andrea Rodríguez-Antón, César González-García and Juan Antonio Belmonte presented a comparison between professional compass readings and software such as Google Earth (<https://earth.google.com>), HeyWhatsThat (Kosowsky 2012), orthoimages and GIS tools, which are widely used today to evaluate the reliability of the former. Such work, never done before, interestingly showed for instance that some orthoimages seem less reliable than Google Earth in certain cases. As the authors wisely indicated, nothing compares to fieldwork, but if satellite or photographic images are to be used one must always address the errors implied by their use.

Megalithic astronomy has been one of the most (if not *the* most) widely treated topic in every SEAC meeting and Bath was no exception (including a walk within the stones of Stonehenge at dawn). Three geographic areas of interest appear to indicate the main poles of development in recent years: the British Isles, Iberia and Malta. Works dealing with the first area still show some vices from the past, like claims for very precise alignments despite such accuracy being difficult to prove and its social relevance within its cultural context seeming to be dubious to say the least. However, some new attempts to consider the landscape as a whole produced interesting presentations, such as ones by Lionel Sims and David Fisher on the Stonehenge Palisade and by Anna Estaroth on the Clava cairns. The studies from Iberia incorporate archaeoastronomy as a further layer of information in the analysis of the megalithic monuments within the interpretative framework of landscape archaeology. Notable examples were papers by Fernando Pimenta, co-authored by Ricardo Soares, Andrew Smith and Fabio Silva, on the menhirs in the southern tip of Portugal and by César González-García, co-authored by F. Criado Boado and B. Vilas Estevéz, on the megaliths in Galicia.

When orientation studies are connected with other sources of information from the archaeological record, we can obtain valuable information on social aspects, such as the temporality of a society. In this sense, Juan Belmonte and César González-García introduced work about understanding the temporality of festivities in the Nabataean realm. Similarly, Rita Gautschy discussed how social time could be understood from the analysis of a sundial from the Valley of the Kings together with the information embedded inside such mundane data as reckonings of candles used per day.

Two talks at this conference presented interesting results explaining how relevant cultural information can be obtained from the analysis of church locations in a particular landscape (for instance in Wales, Bernadette Brady, Darrelyn Gunzburg and Fabio Silva) and how churches were oriented in Late Antiquity (in particular areas of Romania, Marc Frincu).

Ethnography

Participative observation is a key feature in present-day ethnography, and Ada Blair has applied such an approach to assess the impact of the declaration of a Dark Sky area in the local community of the small Channel Island of Sark. Along these lines, we could also mention the study of Reinhard Mussik on the recent revival of summer solstice celebrations in Germany after their condemnation following the Nazi regime. The study reflects how participants get together through the Internet, devoid of any apparent religious or Nazi sentiment, to celebrate their gatherings on a specific “day of Archaeoastronomy” just for the sake of interest in ancient sites and their relation to the sky.

Liz Henty presented a rather important work on the image of archaeoastronomy amongst archaeologists. It is interesting that, although the sample is restricted to Britain and might not be fully representative due to the low number of interviews, the image of archaeoastronomy among archaeologists is probably not as bad as one could have previously imagined. This may imply that archaeologists are changing their minds regarding the usefulness of our discipline – something that might be due to the new methodological approaches on both sides of the “divide” and to the now rather long history of serious research in archaeoastronomy research, in which SEAC has played a leading role.

Images and Music

Usually, the artistic depiction of the heavens or their influence on the muses has been the subject of the Inspiration of Astronomical Phenomena conferences (INSAP) (<http://www.insap.org/>). However, the Bath conference held a number of presentations along lines that were generally absent or anecdotal at previous SEAC meetings and in my opinion this was the most original part. Clea T. Waite presented her own work, in which she combines music with images of the Moon to create special immersive experiences and cinematic compositions. Chanda Carey reviewed the work of L. Albuquerque’s performance art in Antarctica inspired by astronomical depictions. Also, there was a significant number of presentations devoted to painters of different epochs, such as Nicholas Campion’s review of the Argentinian surrealist artist Xul Solar, and Liana de Girolamy-Cheney’s account of E. Burne-Jones’ cartoon *The Planets*.

Text and Archives

The next session was devoted to studies in which the data sources are historical texts (Helen Jacobus on the *Book of Enoch*), myths and sagas (like the remarkable talk by Gisli Sigurðsson on *Snorri’s Eddas* and Frances Clynes’ review on the role of Newgrange in Irish

mythology), scientific letters (Howard Carlton on the link between religion and science) and even present-day science-fiction novels (Giangiacomo Gandolfi).

However, a note of caution should be given here: discussions in this session and the preceding one indicated that in some cases textual evidence or images may have been misinterpreted or even distorted to fit a particular purpose. Text or image analysis has a standard methodology that must be followed to obtain useful results, and one must comply with a number of rules, otherwise it is easy to fall into over-interpretations or, worse, the twisting of texts (or whatever data for that matter) to fit a theory. In general, and despite the overall high scientific standard of the conference, a point of concern is the usual appearance of a small number of presentations with low or no scientific standard. This is a point that should certainly be addressed by future conferences. Speculation is a healthy exercise that opens the opportunity to find new lines of research – indeed, if we were always doing the same kind of study we would never discover anything new – but when speculation becomes wild and not based on actual data, it does run the risk of leading to nonsensical propositions.

Skills

“Skills” was a specific theoretical and methodological session centred on presenting tools useful to the practitioner of archaeoastronomy. It is interesting that something similar has been running for a number of years on the other side of the Atlantic at meetings of the Sociedad Interamericana de Astronomía Cultural (SIAC) (<http://eacultural.fcaglp.unlp.edu.ar/>). There, scientific discussions and presentations are complemented with schools or workshops on specific issues like ethnoastronomy or with practical lectures on data acquisition and processing. At Bath, aims were probably less ambitious, but not less recommendable for follow up. The presentations made clear the different geographical standards and tools available (Frank Prendergast), the differences in data acquisition reliability with different virtual methods (Victor Reijs 2016) and the possibilities of using digital terrain models together with virtual 3D models of buildings in Stelarium to simulate ancient landscapes (Georg Zotti).

The last event of the conference was a Round Table Forum to discuss the conference theme: “Theory and Method in the Study of Cultural Astronomy”. This kind of format has become customary in recent SEAC meetings. The discussion was around how the discipline of cultural astronomy is working, what its aims should be, and its methodology and scope. Although such a discussion is a healthy exercise, it is also true, as was pointed out by Kim Malville, that such a discussion is apparently repeated every year. One may wonder if this is needed or, as proposed by Clive Ruggles (2011) several years ago, whether we are still running around the same circles again and again, as questioned by Henty in her paper. In a kind of leap forward, Stanislaw Iwaniszewski pointed out that the definition of cultural astronomy is an umbrella for a wide variety of fields, each with a different methodology but hopefully with a common topic. If the concept of culture has been destroyed by present-day society, it is thus pointless to talk about cultural astronomy and Iwaniszewski proposes a new term: *ontological astronomy*, as opposed to biological astronomy. Ontology is the study of the nature of things, and thus, in this

sense, ontological astronomy could study the nature of astronomy under the changing boundary conditions of different societies, approaches and methodologies, in order to see how such astronomy reacts and produces a feedback onto those societies, approaches and methodologies. In my view, this proposal is interesting as it offers a new scope for our field of study without erasing previous methodologies and opens a new frame to connect with new interpretative schemes in the humanities.

In summary, the conference overall was a magnificent occasion for opening and continuing discussions on the discipline, something that will certainly continue in future venues. It seems that the gap between archaeoastronomy and the humanities is being bridged, as the above-mentioned study by Henty seems to indicate. Important steps in this process have been the use of sound methodologies, the publication of a number of works on archaeoastronomy in mainstream archaeology journals and the appearance of new journals devoted to such a task, in particular, the present *Journal of Skyscape Archaeology*. A significant figure in this process has been Fabio Silva, who was accordingly recognised by SEAC with the “Carlos Jaschek” award, being the youngest holder so far.

The next SEAC conference will be held in Santiago de Compostela (Spain) from the 18th to 22nd of September 2017 in a joint meeting with INSAP and ISAAC (Oxford Conferences: <https://www3.archaeoastronomy.org/>), the first time the three events will be held together.

References

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