Editorial

Liz Henty and Fabio Silva

This has been a year like no other as we struggle to come to terms with the Covid-19 pandemic and its consequences. With borders closed and site visits disrupted, we look at how skyscape archaeology has been kept alive under lockdown. An early casualty was the Oxford XII and SIAC VIII joint conference “Living skies/Cielos vivos”, due to be held at La Plata, Argentina, in February, now rescheduled for November 2021. The 28th SEAC conference “Cultural Astronomy and Ancient Skywatching” due to be held at Stara Zagora, Bulgaria, from 31st August to 5th September has also been postponed until September 2021. On the other hand, we congratulate the ambition and dedication of the European Association of Archaeologists for hosting their annual conference sessions virtually online between 24th and 30th August, 2020. Here skyscape archaeology was the theme for two conference sessions: firstly, “The Archaeology of the Sky”, organised by Emília Pásztor (Hungary) and Marc Frincu (Romania), reviewed for this issue by Ingrid O’Donnell; and secondly, “From Skyscape to Archaeology: A Dynamic Interaction between Disciplines”, organised by Jose Nicolas Balbi (Argentina), Stanislaw Iwaniszewski (Poland) and Hans Martz de la Vega (Mexico). In the United Kingdom, the Sophia Centre at the University of Wales Trinity Saint David presented a weekly online lecture series entitled “Lectures in Skyscape Archaeology” from 12th May to 9th June, with a further session on 23rd June. It was certainly well-attended and we are delighted to include a full review by Steven Gullberg in this issue.

Networking at conferences face-to-face has untold benefits as we share ideas and brainstorm new approaches. However, for the foreseeable future we need to focus on the benefits of online learning and conferences rather than the negatives. All those conference travel arrangements are avoided, as is the expense and the experience of staying at hotels which are not as attractive as they appear online. In addition, hosting online events is a fantastic form of outreach and dissemination since many more people from all over the world can attend them. This also ultimately makes the field much more open and democratic as scholars and interested parties that would not otherwise be able to attend such events can do so. The networking aspect, however, is restricted by online events due to the lack of social gatherings and the limitations of the technological medium.
Despite all these unanticipated global ramifications of the pandemic, we are delighted to bring you our new issue, as full and interesting as ever before because the drive for intellectual inquiry was fortunately unimpeded. In this issue we bring you four research articles that explore missionary orientations and rotations, potential prehistorical sundials and digital age applications that aid the contemporary skyscape researcher. In the first article, “The Orientation of Jesuit Churches in the Chiquitos Missions of Eastern Bolivia”, Alejandro Gangui introduces us to a preliminary and unprecedented archaeoastromonomical exploration of ten Jesuit churches in the Chiquitos missions in eastern Bolivia. Gangui commences his study with a careful consideration of the historical and cultural factors that influenced Jesuit settlements in South America, before presenting the orientation measurements of the churches of his study, nine of which he conducted on-site while for the one inaccessible location he used satellite maps. Comparing the gathered results to the recorded alignments of Jesuit churches in neighbouring regions, Gangui suggests that the Chiquitos’ churches exhibit unique orientations toward both solar and equinoctial phenomena. Gangui concludes that the latter alignments could be indicative of Baroque architecture’s deliberate employment of illumination effects to highlight particular internal features of religious structures in order to induce a heightened spiritual experience.

José M. Abril’s article, “The Orientation of Gothic-Mudéjar Churches in Southern Spain: The Rotation of the Qibla and the Sunrise on the Canonical Equinox”, explores the orientations of churches in southern Spain built in the thirteenth and fourteenth centuries. Many of them were built on the sites of destroyed Islamic mosques after the Christian reconquest of Muslim Spain. The mosques were oriented to the qibla, the direction to Mecca, and Abril tests the possibility that the churches were built on the same foundations, but rotated to create alignments with sunrise on the Canonical equinox. The results of this paper illustrate the cultural and religious collisions and interdependencies that characterised this pivotal time in European history.

A Late Bronze Age petroglyph located on Sevsar, a remote and isolated mount in the Armenian highlands, is the focus of the article “Revisiting Sevsar: Towards a Possible Gnomon in the Armenian Highlands”, by Marc Eduard Frincu, Raul Perez-Enriquez and Levon Aghikyan. The authors travelled more than once to Sevsar to re-examine the petroglyph, which is believed to have operated as a luni-solar calendar. However, after noticing a deep hollow in one of the circles of the petroglyph, the authors cast doubt upon its assumed calendrical function, and suggest an alternative hypothesis: that the hollow could have held a wooden pole which served as a gnomon that cast shadows on the concentric circles of the petroglyph. Based on their gathered data, the authors digitally render “theoretical ellipses” to which they apply a combination of algebraic formulas and statistical analyses in order to test the validity of their proposed function. Evaluating their calculations and measurements, the authors conclude that the Sevsar petroglyph may have operated as a form of prehistoric sundial that incorporated the measurement of shadow-lengths. According to them, such a finding reveals the significance of the Sun in the religious and ritualistic practices of the prehistoric communities involved.
“Simulated Sky: Stellarium for Cultural Astronomy Research”, by Georg Zotti, Susanne M. Hoffmann, Alexander Wolf, Fabien Chéreau and Guillaume Chéreau will provide researchers with an invaluable resource for using the Stellarium software package, one of the most important tools for visualising skylscapes across the Earth and throughout history. As Zotti explained to us: “This paper by the whole current team shall fulfil a long-missing gap as a ‘standard reference’ for Stellarium, at least for the nearer future”. But this article goes far beyond a User’s Guide and presents the history and initial goals for Stellarium, some of its algorithms (and their limitations) and stunning new examples of how their cutting-edge software can simulate realistic landscapes, skylscapes, architecture and lighting effects. The article focuses on applications for skylscape archaeology and cultural astronomy and will enable new and creative research in these and other disciplines.

In our earlier issue this year we started a conversation about how skylscape archaeology could be disseminated in academia in order to secure its continuance and growth. We put this question to seven scholars currently or recently involved in skylscapes teaching programmes to share their thoughts with us and we published these in our Forum, “Skylscapes in the Academy: Is There a Future?” We wanted to provide a balanced view from the perspective of archaeologists, though we must point out that archaeology is treated differently in different countries – for example in the Americas it is classified under anthropology and in Portugal it is a subdiscipline of history. To this end we invited Timothy Darvill, Vince Gaffney and Kenneth Brophy from the United Kingdom and Gustavo Corrado and Sixto Giménez Benítez from Argentina, together with heritage professionals Amanda Chadburn and Susan Greaney, to share their experiences for Part 2 of this Forum.

The cultural meaning attributed to stars and constellations by different societies is often neglected in the literature, but Anthony Aveni’s Star Stories: Constellations and People is a readable introduction to these topics, as reviewed here by H. Natalia Sánchez. Another volume aimed at the general public rather than academics is Douglas Scott and Stuart McHardy’s Stones of the Ancestors: Unveiling the Mystery of Scotland’s Standing Stones, as Liz Henty explains in her review. Giulio Magli takes a cognitive archaeology approach in his new book Heavens and Earth in Ancient China: Sacred Landscapes of Imperial China, a study of the application of the uniquely Chinese principles of fengshui as applied to the siting and construction of the tomb complexes of imperial China. Our review comes from David Pankenier, himself an expert in Chinese cosmology. Our notices bring you the latest books and do please get in touch if you would like to write a review for us.

We were saddened to learn of the death of Euan Mackie in November, 2020. He was one of a very small number of British archaeologists who actively embraced archaeoastronomy in the 1970s. Indeed, he was responsible for the very naming of the field by choosing “Archaeoastronomy” as the title for his book review of Alexander Thom’s Megalithic Lunar Observatories, published in The Listener on 28th January, 1971. Despite the controversy surrounding Thom’s megalithic science he set out to discuss its importance in his book Science and Society in Prehistoric Britain (1977) as well as testing Thom’s ideas by conducting archaeological surveys at sites in Scotland such as the cairn in Kintraw,
Argyll. Archaeoastronomy has now endured both in name and as a field for 50 years and for this we would like to remember him.

Perhaps because of lockdown and the new culture of working from home, we have received an increased number of submissions which we hope to bring you in our next issues. To cope with the volume and reduce our workload we are delighted to announce the appointment of two new assistant editors, Erica Ellingson and Mai Rashed, to complement our team.

Finally, we wish our readers a happy, healthy and festive season and hope that 2021 brings more certainty or at least a workable new normal.

References
