CONFERECE REVIEW

“Signs and Symbols: Above and Below”. The 29th Annual Conference of the European Society of Astronomy in Culture (SEAC), Timișoara, Romania, 5th–9th September, 2022

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Last year’s Annual Conference of the European Society of Astronomy in Culture (SEAC) brought together researchers and laypeople from 17 countries and a variety of disciplines. Due to the COVID-19 pandemic restrictions, it was organised as a hybrid meeting, and the programme included 35 oral presentations and five posters. The meeting was held in Timișoara, the capital of Romania’s western Banat region, and known in recent history for the bloody protests of 20th December, 1989 that sparked the events that led to the overthrow of Ceausescu’s communist dictatorship. The city is a particularly appropriate location for an international conference concerned with culture, having a multi-ethnic heritage comprising historic populations of ethnic Romanians, Hungarians, Serbs and Germans, among others – a history that is embedded in the city’s famous secessionist architecture. In 2016 Timișoara won the European Capital of Culture title for 2021 (postponed for two years because of the pandemic).

The conference was hosted by the Faculty of Mathematics and Computer Science of the West University of Timișoara (Universitatea de Vest din Timișoara, UVT) and received support from the Romanian Society for Astronomy in Culture (SRPAC, Societatea Română pentru Astronomie Culturală). The conference was officially opened by the university authorities, and additionally by representatives of Nokia, the leading event supporter. The focus, as expressed in the title “Signs and Symbols: Above and Below”, was agreed at the previous conference.

Signs and Symbols: Above and Below

The first part of the conference was divided into chronological periods, starting with “Prehistory and Antiquity”. The first speaker was Marc Thuillard, who presented a detailed analysis of the decorations carved on the surface of a cylindrical chalk drum found in the
UK known as the Burton Agnes drum, dated to the turn of the fourth to third millennium BC. This newly found artefact, discovered in Burton Agnes in the East Riding of Yorkshire, was recently included in the “World of Stonehenge” exhibition at the British Museum in London, where it was displayed alongside similar drums from nearby Folkton. Thuillard proposed an astronomical interpretation of the drum’s ornamentation: his analysis started with the cross-like design carved on its top, which was interpreted together with three punctured holes as being made on a dodecahedron pattern. He emphasised that the geometric knowledge used to delineate the decorative patterns exhibited its creators’ highly developed sense of abstraction, with integer numbers of length units, right-angle and equilateral triangles, parallel lines and bisected angles and so on. Next, he discussed theoretical astronomical knowledge specific to the latitude of 54°N, his analysis influenced by recent interpretations of the chalk drums from Folkton and as well as drums from Lavant in West Sussex, and by new proposals regarding the existence of a wandering year at Stonehenge.

Next, César González García, Elena Cabrejas and Beatriz Comendador Rey discussed the astronomical circumstances that enabled them to connect three Late Bronze Age (LBA) sites in northwestern Galicia. Gold deposits were uncovered at two locations: one on the Ullua River estuary (Leiro Beach) and the other in Caldas de Reis (As Silgadas). The recovered artefacts included objects (a golden helmet/bowl, a jug, two bowls and many rings) covered with geometric patterns colloquially interpreted as celestial and solar symbols (concentric circles, spirals). In addition, archaeologists have documented a massive slab with rock art in the locality near the summit of Monte Xiabre and proposed that the rock functioned as a shrine or ceremonial site visited on days related to astronomical alignments. González García and his co-presenters ascertained that all three places were visually situated in relation to a rock art site combined with astronomical phenomena.

Also, after examining the possible association of sites with natural lines of movement, they found a hypothetical pilgrims’ path connecting them. Considering that all sites displayed vistas open to the solstices and lunar alignments, the authors added that the hypothetical pilgrimages had a possible solar and lunar meaning. The coherent picture that emerges from their work links the sites and the route, both in turn connected with the perception of astronomical (solar) events and the deposits of gold artefacts covered with solar symbols.

Two subsequent papers took us into the world of astronomical orientations investigated in Romania. First, Alexandru Leonard Dorogostaisky discussed possible solar alignments of large and fortified settlements in LBA (1400–1200 cal. BC) Banat. Based on his earlier research at the Corneşti-larcuri site, he presented evidence of five fortified settlements located on the western bank of the Bega Veche river. He argued that the sites were placed at locations suitable for observing dramatic sunrises over the highest peaks of the mountain chains in the east, and that some key settlement features, such as gates, palisades, barrows, ditches and inner enclosures, were also aligned. Also, the sites often shared the same target features for marking the solstices, such as Mt Highis for the summer solstice sunrise and Mt Tarcului for the winter solstice sunrise. The sites
were always situated at intersections of solstitial alignments, and because they offer the opportunity to observe solstices over the tops of certain mountains, they might have been places visited by pilgrims residing in the surrounding countryside, with the dates of pilgrimages organised around the summer solstice.

The discussion of solar alignments embodied in architecture continued with Marc Frincu, who presented the initial results of his survey of Roman forts or camps (known as *castra*) in Romania. His sample included 38 castra from the provinces of Transylvania, Oltenia, Muntenia Dobrudja and Banat, corresponding to the ancient Roman provinces of Dacia and Moesia and built between 106 and 271–275 AD. Preliminary statistics showed a limited number of castra following the rules set out by Vitruvius (a wind-rose with eight and 16 directions). Also, a few castra were solstitially aligned, and it was interestingly suggested that some castra may have been oriented towards the birthdates of Trajan and Hadrian, the emperors who conquered the Dacian Kingdom and who were deified after their deaths. However, no definite orientation patterns were found among the isolated findings.

Moving on to other areas, Ann Paule discussed the ancient Near Eastern and Cypriot depiction of the solar deity as a winged disc, drawing on Edward W. Maunder’s suggestion in the early twentieth century that this image might actually be a solar eclipse, with the extended wings being the corona streamers that become visible during a total eclipse. If so, the winged discs would be the earliest images of total solar eclipses. Based on modern research revealing variations of coronal structure observed during eclipses around the sunspot minimum and maximum and on visual evidence from recent past centuries, Paule proposed that such images could function as valuable evidence for solar activity. She then called for a comparative analysis of old unaided-eye eclipse drawings.

Andrea Rodríguez Anton, in collaboration with José Luis Fuentes Sánchez and Luis Benítez de Lugo Ebrich, investigated a princely Oretanian chamber known as Sala de Moros, located north of Sierra Morena, at the top of the Sierra de Calatrava in Spain. This was evidently a strategic location at the centre of a wide east–west corridor, a location allowing visitors to see long distances in the territory. The monument may have been conceived as a landmark and visual reference point for a vast area, but it is also possible that the builders designed the structure to produce remarkable illumination phenomena around the equinoxes. Detailed research has revealed a potential alignment between the chamber of Sala de Moros and the point of the horizon where the equinox sunrise occurs, indicated by the projection of a sunbeam onto the wall. Thus, prominent horizon peaks may have also played a vital role in the solar symbolism underlying the siting of this monument.

Vance Tiede described the stone piles in New England on ancient Algonkian and Iroquois territories. Although the project is ongoing, special attention has been paid to the presence of solar winter solstitial alignments, using significant ethnographic records that describe Algonkian and Iroquois seasonal calendars and how their festivals were regulated by the Sun and the Moon. Tiede focused on the descriptions of midwinter ceremonies that started in January and lasted until the first Full Moon after the winter solstice, ending his presentation with slides showing free-standing stone niches illuminated by the winter solstice sunrise/sunsets and the midwinter Full Moon rise.
Gail Higginbottom and collaborators (César González-García, Benito Vilas-Estévez and Felipe Criado-Boado) tested the hypothesis that the builders of northwestern Galician Neolithic dolmens intentionally selected locations for monuments according to shared criteria, specifically the horizon’s distance and height as viewed from each dolmen. For each location, they constructed the 360° 3D viewsheds as seen from the dolmen and combined them with star maps to evaluate the relevance of supposed astronomical events. Using K-means analyses enabled the authors to find whether the sites all shared similar horizons. Then, horizon profiles made for all the sites produced an ideal model of the choices made by the dolmen builders. The authors found that the sites display greater horizon distances in the east when compared to the west, and that eastern average horizons are also lower. The fact that these sites encompass the entire solar arc in the east suggests that the builders paid more attention to the eastern horizon.

Sepp Rothwangl and Monika Zacher drew attention to the dog-headed images of St Christopher that circulated in Byzantine art and the Orthodox world of the fifteenth to nineteenth century AD. The authors connected St Christopher’s canine representation to dog-headed figures such as Anubis and Kerberos, the soul-carrier figures. In astronomical terms, they linked this evidence with the concept of the Milky Way as the way of souls and to Sirius, the Dog Star. In the Middle Ages, the feast of St Christopher was celebrated on 25th July, marking the start of the Canicula period, so called after the Dog Star.

Bernie Taylor discussed the possibility that the lunar calendars of native populations in North America and northern Asia, as recorded by early ethnographers, were correlated with the biological behaviour of significant animals. Using the names of the North American lunar months and schematic lunar notations from the European Upper Palaeolithic, Taylor suggested that lunar calendars helped to predict the seasonal behaviour of specific prey animals. He proposed that sequences of dots and lines in Upper Palaeolithic rock art were notational lunar calendars correlated with seasonal and meteorological events, and that these were associated with depictions of particular animals for this reason.

The last talk of the “Prehistory and Antiquity” session was given by Hans Martz de la Vega and Miguel Pérez Negrete, who presented a progress report of their current research. Long-term excavations carried out on the Epiclassic and Early Postclassic (650–1200 AD) site of Tehuacalco in Guerrero, Mexico, have brought to light several architectural structures showing that during these periods an emergent elite incorporated a pan-Mesoamerican pattern of buildings oriented to the control of ritual space. Likewise, the authors showed how local landscape features could have been used to mark calendrical dates, and they proposed that the builders employed a simplified 364-day computational calendar. This number is easily divisible by 7 and 13, which are critical numbers in Mesoamerican numerology, and it was used to define the quarter-days between equinoxes and solstices.

The first half of the next day, Tuesday, was devoted to the “Medieval and Renaissance” session. It was opened by Themis G. Dallas, who talked about the orientations of Byzantine churches in Sardinia. His sample included 35 churches, divided into three major periods (Roman, Vandal and Byzantine) and classified as early and late basilicas and as cruciform churches. He found a variety of orientations among the early basilicas, while
the later ones were oriented either east or southeast. Further, some followed town grids while others overrode grid plans. In general, equinox declinations dominated.

Marianna Ridderstad described the orientations of the early Christian graves in Finland. The paper reported on c. 3400 burials from 48 cemeteries in Karelia and Finland, dated to the eleventh through to the fourteenth century AD. Most graves are oriented not only to true east but also to the sunrise of the equinox as given by various definitions of the equinoctial day, as well as to the sunrises of Easter Day. Other orientations include the solstices, the mid-quarter days or north–south. Equinoctial – that is, east–west – orientations became more common than the Easter Day orientations only in the medieval period. The author attributes the rise of inhumation graves and equinoctial grave orientations to the arrival of Christianity.

Giangiacomo Gandolfi read a paper on representations of earthshine on the Moon, focusing on a lost painting by Giorgione that depicts a man wearing a wreath in a moonlit landscape. This image of an anthropomorphised man on the surface of the non-illuminated part of the Moon is the earliest pictorial evidence of the earthshine in art. It also recalls the first drawing of the Moon by Leonardo da Vinci, and the author shows that the lunar imagery in the painting is proof that Giorgione and Galileo met in Venice in 1500.

Aline Pelteacu’s paper was on the image Halley’s Comet on a coin minted in Wallachia during the reign of Vlad III (Vlad the Impaler), one of the most significant rulers in Wallachian history. Noting that the comet’s appearance in 1456 shortly preceded Vlad’s enthronement, Pelteacu suggested that the comet may have been interpreted as a positive sign as regards the new ruler, but also seen as connected with other events of that year, such as the death of John Hunyadi and the fall of Ottoman Belgrade to the Hungarians. Pelteacu also explained that the depiction of the comet on a coin with a Wallachian eagle corresponds to the philosophy of the contemporary Italian scholar Marsilio Ficino, whose works were known in the region (Hungary, Wallachia, Moldova) and according to whom the carving of a celestial object on metal had the power to attract celestial patronage (like a talisman).

Maitane Urrutia Aparicio, Juan Antonio Belmonte and César González García discussed the orientation of churches in the Iberian Peninsula that were erected before the Council of Trent and the Gregorian calendar reform of 1582. The paper discusses the orientations of the cathedrals from the Romanesque to the Renaissance periods and shows that the equinoctial orientation was maintained to the end of the sixteenth century. This change can be attributed to the calendar reform, but the authors also argued that the rules governing alignments might have been weakened already by the directives of the Council of Trent (1563). Among the several factors that could have been responsible for different alignments, the authors cite the Patron Saint’s Day, the feast day of Saint James or the alignments of previous buildings on the same spot (such as churches built over mosques).

The session ended with a presentation by Silvia Motta. In collaboration with Adriano Gaspani and Alessio Consorte, she carried out a project to examine the alignments of fortified sites in central Italy attributed to the activities of the Marsi and the Vestini, the peoples inhabiting Abruzzo before Roman times. Their sixth- to fifth-century BC struc...
tures had an astronomical orientation that followed the rising and setting of the stars, particularly those of Orion’s belt, but they were also concerned with the rising and setting of the extreme points of the Moon. Another study the presenters discussed was focused on the material remains and folk cultural traditions that link the cult of Angitia – a snake-goddess oriented towards Ophiucus and Orion’s Belt – with the present-day Cocullo feast of San Domenico.

The next session was dedicated to the memory of Lionel Sims (1945–2021), who was emeritus head of anthropology, international politics, international development and refugee studies at the University of East London and former vice president of SEAC. What was less known was that Lionel was also a lecturer at the Workers Education Association and the Radical Anthropology Group. In addition, Lionel was a sambista, one of the founders of the Barking Bateria and a member of the London School of Samba. The obituary was briefly presented by Nicholas Campion, who also announced that the Sophia Centre for the Study of Cosmology in Culture of the University of Wales Trinity Saint David, together with the Journal of Skyscape Archaeology, had established the Lionel Sims Award for contributions that bridge the gap between anthropology and skyscape archaeology.

Stanislaw Iwaniszewski discussed how the role of celestial phenomena among humanity can be conceived from semiotic and eco-semiotic perspectives. Considering a sign as an entity that communicates meaning, he observed that communication between the celestial bodies and human societies began when people experienced the arrival of a celestial body as a sign that they should or should not do a particular thing. Considering heavenly bodies capable of communicating with humans, it is logical that they should also be involved in the communicative community of which humans are only a part. On the other hand, signs can function as indicators of what can happen under the ordered schema of the universe. So, the experience and conceptualisation of the heavens constitute the necessary context to infer how celestial events can be seen as semiotic or symbolic phenomena.

According to Michael A. Rappenglück, time belongs to cultural categories that prompt universal concern. Using Mikhail Bakhtin’s concept of “chronotope”, referring to temporal-spatial structures and formations in different kinds of narratives, Rappenglück discussed the presence of gates, pathways and cosmic openings as they appear in folktales and folk imagery to show that they offer passages between different worlds. Looking for celestial patterns, Rappenglück observed that particular importance has been attached to the gates located at the intersection of the Milky Way with the ecliptic (zodiacal belt). He cited examples of the paths and passages activated at solstices and equinoxes or related to the position of the celestial pole. He concluded that peoples’ concepts of openings and paths were, in many cases, motivated by what they observed in the sky.

Alejandro Martin López discussed the use of terms such as “sign” and “symbol” in cultural astronomy, noting the different approaches of twentieth-century linguists and anthropologists before turning to the Moqoit people of the Argentinian Chaco. López observed that their interest in the sky has different motivations and methods than Western science, and that their theories about the cosmos are based on social relations.
between communities of diverse beings. For example, many celestial phenomena and entities are interpreted as signs that carry messages concerning everyday issues. However, to elucidate their meaning, the Moqoit do not attempt to predict, “guess” or “speculate” future behaviours or events, but rather to understand what has already happened. In their socialised universe, the beings and phenomena are part of a complex interweaving of multiple and contradictory meanings, which enables them to navigate a diversity of interpretations. Thus, it is necessary to read and interpret sky phenomena as signs conveying messages and as hints of the intentions of the beings involved.

The last part of the day was dedicated to “Modern Era and Contemporary” topics, and included three talks. Gyula Miholcsa spoke on Transylvanian sundials. His sample covered more than 35 examples, the oldest dating back to the fifteenth century. The presentation focused on different numerical notations marking the positions of sunrays at each full hour. Whereas the oldest sundials used Roman numerals, by the end of the fifteenth century a mixed system emerged that combined Roman with Arabic numerals. These Arabic numerals prevailed during the sixteenth century, and by the turn of the seventeenth century these had taken the form that we are familiar with today.

Georg Zotti talked about a Tibetan calendar observatory called Stag phu Nyi thig, which is part of a monastery and that according to the Tibetan astrological tradition dates back to 1000 BC. However, its present form, recently renovated by the authorities, dates to the seventeenth century. It comprises a tower, and a massive disc constructed nearby. A beam of sunlight goes through the upper window of the tower, falling on the gnomon and showing the equinoxes. This gnomon, which today is fractured, forms a centre of two concentric circles, which indicate the 12 signs of the Chinese zodiac and the 27 lunar mansions. Today, observation of the sunbeam is used to adjust the Tibetan calendar. Zotti’s research used the Scenery 3D plugin of Stellarium to cast the shadow of the rising equinoctial Sun onto the observatory.

Dimiter Kolev and Vesselina Koleva presented a research report on the orientation of Orthodox churches in southeastern Europe. The authors measured the orientations of 765 examples, and found that they were all oriented towards the eastern azimuthal half-circle, but that churches prior to the eighteenth century showed more influence of topographic factors such as rivers and street grids. This was in contrast to a sample of 155 Roman Catholic cathedrals worldwide, where there were orientations to both azimuthal half-circles. Orientations towards the rising Sun on the days of the saints to whom the churches were dedicated were not frequent in the Orthodox examples. However, the authors admitted they had not generated sufficient data on individual churches.

The day ended with a tour of the city centre by the Tourism Alternativ association and a tasting at Wine Guy.

On 7th September, there was a full-day trip to southwestern Banat. We visited the Baile Herculane train station, the only Roman Catholic church built during communism at Orșova and a famous but mysterious religious wall painting in the Piatra Scrisă monastery. In addition, we enjoyed the Danube Gorges, known as “the Boilers”.

The eighth of September (Thursday) began with a session on “Cultural Astronomy”. Gheorghe Lazarovici, the doyen of the Banat archaeologists, working in collaboration
with Cornelia Magda Lazarovici, outlined the emergence and development of material culture imagery related to astral themes during the Neolithic and the Eneolithic (Chalcolithic). The most important archaeological site in the region is the multilayered low tell at Parţa. This is located on the banks of the Timiş, a tributary of the Danube, and has cultural layers covering dates to the period leading up to the turn of the fifth millennium, 5400–5000 cal. BC. The site’s overall layout consists of buildings with renewed clay floors that share a standard orientation and that roughly align with the solstitial line. The site’s sanctuaries contain raised altar-like pedestals, hearths, seated female and male figures, clay animal heads and other cult paraphernalia, suggesting cultural affinities with the contemporary Szakalhát and Tisza cultures in the north and Vinča A and C in the south. For example, in the western wall of Sanctuary 2 there was a hole through which the beam of sunlight passed around the equinox sunset, falling onto two prominent clay figures, one with a human head and the other with an animal head. Comparing motifs painted or incised on pottery vessels, clay figurines and altars, or inscribed on clay discs with those depicted on cultic objects of other Neolithic cultures – especially with the cultic writing signs known as the Danubian script – Lazarovici argued they were signs and symbols of the Sun, Moon and important celestial constellations.

In a very emotional speech, Juan Antonio Belmonte celebrated Michael Hoskin (1930–2021), late professor emeritus of history and philosophy of science at the University of Cambridge. Professor Hoskin was the founder and long-term editor-in-chief of the Journal of the History of Astronomy, and was also Juan Antonio’s mentor and friend. He recalled their first meeting and their fruitful collaboration in Spain, and he finished by talking about Michael’s research in Antequera, southern Spain, where he joined the local authorities in successfully applying for the city to receive World Heritage status.

Alessandro Berio talked about his attempt to evaluate the degree to which particular star configurations might share archetypal forms of recognition. Observing that celestial constellations are ubiquitous in human societies, sometimes bearing the same names or similar imagery, he hypothesised whether universal cognitive mechanisms, like pareidolia, could have affected the creation of matching star patterns. The author’s survey also drew on data submitted by a small group of artists who attempted to identify specific shapes in the charts of star groups printed without constellation lines. In sum, it was found that the shared constellations’ names or images are due to cultural borrowings rather than universal cognitive mechanisms.

Florence Wood rediscovered the possible astronomical meaning encoded into the famous catalogue of ships in Book 2 of the Iliad. Following Edna Leigh’s research in the twentieth century, Wood built on the idea that the list mentioning warriors and territories represents encrypted Greek celestial knowledge. According to the author, the warriors, military regiments and homelands correspond to specific stars and constellations. Different locations described by Homer referred to particular regions in the night skies. Her identification started with the figure of Agamemnon associated with Regulus in Leo.

After lunchtime, the “Education” session started, with Nicholas Campion presenting a talk on teaching cultural astronomy. He recalled that the origins of teaching cultural astronomy at the University of Wales Trinity Saint David go back to 2002, when he started
a postgraduate course – a distance-learning and online MA in Cultural Astronomy and Astrology. Since then, the Programme has enrolled about 70 students per semester worldwide. Campion highlighted the evolution of the programme syllabus, which includes debates about concepts and topics such as culture, magic, divination, myth, enchantment, the sacred and sacred space, combined with discussions concerning the nature and cultural role of astrology, cosmology and astronomy. Within the conference topic frame, Campion briefly discussed the terms “symbol” and “sign” as used in learning modules. He underlined that the programme at Wales Trinity Saint David follows a methodologically neutral approach, observing the phenomena under investigation as closely as possible while also being aware of researchers’ biases. This aspect closely relates to the programme’s compatibility with the UK Quality Assurance Agency for Higher Education (QAA). Furthermore, it ensures that the student experience required for a master’s degree involves developing abilities for a critical understanding of text-based methodologies combined with fieldwork.

Jarita Holbrook shared her reflections on how the COVID-19 pandemic has impacted the activities of astronomers and astrophysicists. Based on a series of interviews, she identified and characterised the positive and negative effects of the pandemic on the scientific careers of particular researchers, especially those who were cut off from large science centres. She observed that some interviewed researchers could do more research and submit more papers for publication, while others with school-aged children struggled to share childcare duties with astronomical activities during business hours. During the pandemic, mental and physical exhaustion strongly affected the lives of the scholars. Holbrook’s talk illustrated many of these issues through film clips from conducted interviews.

Rita Gautschy and Alejandro Martín López described the current state of the SEAC-Teach initiative. Despite numerous round table debates at SEAC meetings, relatively little has been done in recent years to make cultural astronomy attractive to newcomers, and so this new endeavour, elaborated under the umbrella of SEAC, aims to provide short lectures on critical concepts, methods and skills employed in cultural astronomy. The idea is to create a series of brief teaching videos easily accessible to a broader audience, explaining concepts and methods used in current archaeology, anthropology, ethnoastronomy and positional astronomy, associated with diverse sky perceptions. Topics and themes for each discipline have been set up and communicated to conference participants. Finally, the authors briefly discussed their steps toward the future of this project.

The day ended with a practical astronomy talk. Comandor Vasile Chirilă spoke about the evolution of ancient navigational instruments, presenting mahogany replicas made by him. The theme aimed to bring old navigation methods, tools and devices up-to-date as backup options for modern techniques in astronavigation. Even today, the sextant is used for aerial navigation and space missions. His replicas included a gnomon, an astrolabe, a kamal, a quadrant, a cross-staff and a back staff. Finally, the room was transformed into a classroom, with conference attendees learning to use instruments and interact with the tools. He delivered his explanations in Romanian, aptly translated into English by Marc Frincu.
Friday, 9th September opened with the SEAC General Assembly. During the meeting, Nick Campion received warm applause from the public after being granted the “Carlos Jaschek Award” for his outstanding contributions to cultural astronomy. Well-deserved congratulations, Nick!

After the coffee break, we took part in the session of the Romanian Society for Astronomy in Culture (SRPAC, Societatea Română pentru Astronomie Culturală), the co-organiser of the SEAC 29 meeting. The session witnessed eight presentations by Romanian, Austrian and Serbian colleagues.

Mircea Pteancu, from the Private Astronomical Observatory in Arad, Romania, spoke about the history of amateur astronomy in Romania. He defined an amateur astronomer as someone who cultivates astronomy to satisfy his or her intellectual curiosity and pleasure, using instruments, accessories, information technology or other facilities depending on financial means. The advent of popular astronomy activities in Romania may be traced back to the epoch of the dissemination of Galileo’s *Sidereus Nuncius*, published in 1610. However, the real start of the dissemination of astronomy among the enlightened elite was the activities of Bernard Le Bovier (Fontenelle), an early populiser of science whose famous work *Entretiens sur la pluralité des mondes* (*A Plurality of Worlds*, 1686) explained the ideas of René Descartes and Nicolas Copernicus. His speech ended with a description of popular astronomy activities in the twentieth century.

Petar Vuca then gave a short presentation (in Serbian) featuring the images of eight sundials from the region of Voivodina (Serbia).

Dimitrie Olenici read a paper on astronomical symbols on doors and shutters found in the domestic architecture of northeastern Romania (Bukovina). His report, prepared in collaboration with Maria Olenici, revealed various ornamental motifs, such as broken crosses, rhombs, circles, spirals, swastikas or radiant triangles depicted on the facades, doors and shutters of particular buildings and gates of the residences. Interpreted as solar motifs, they functioned as apotropaic devices. Furthermore, these motifs were associated with traditional patterns painted onto Easter eggs. The author illustrated his talk with dozens of slides from the archives of the Suceava Planetarium. They all showed various ornaments placed on house walls and grave crosses, interpreted as solar, lunar and stellar motifs.

Mircea Pteancu talked about astronomers in Romanian Banat. Short biographical notes involved several figures. Among them were Johannes Honterus, who authored a cosmography manual; Baron Roland von Eotvos, who performed experiments in Banat; Count Luigi Ferdinando Marsigli, who performed the first astronomical observations; Maximilian Hell, the founder of the first astronomical observatory in Cluj; Gheorghe Şincai, who translated textbooks on celestial mechanics and mathematics; cartographer Franz Johannes Joseph von Reilly; Paul Iorgovici, the publisher of the calendar in Cyrillic; Ion Szebeni, who wrote about the famous comet of 1834; Simeon Mangiuca, who edited popular calendars of folklore customs that today belong to the field of ethnoastronomy; and many others. His talk ended with the foundation of the Astronomical Observatory in Timișoara by Professor Ioan Curea in 1962.

In a short communication, Dimitrie Olenicia argued that a complex motif of a circle intersected on each side by a circular arc and three rays projected downwards with its
variants perhaps depicts a solar (total) eclipse. This motif today appears on Bukovinian wooden spoons donated by the organisers to each conference attendee.

Vladimir Ivanovic and Gabriel Herea presented a final report of a long-term project to systematically investigate solar projections in the extraordinarily richly decorated parish church at Pătrăuți, located near Suceava. The church was founded by John Stephen the Great, the ruler of Moldavia, in 1487. Detailed observations over 15 years documented multiple sunlight projections through windows correlated with the dates, the subjects of the mural painting (saints, prophets, Christ) and the altars. The authors showed that the church’s builders possessed a deep knowledge of the Sun’s path across the sky, enabling them to place windows to direct sunlight toward certain areas at specific times throughout the liturgical year. The authors detailed the calendric description of solar alignments through the windows and doors with the mural painting in this medieval church.

At the end of the SRPAC conference, Leonard Dorogostaisky was awarded the SRPAC excellence prize for his entire activity in the field of cultural astronomy. There was also a showing of a documentary film on the Corneşti-Iarcuri Bronze Age fortifications and earthworks by Leonard, showing his expertise and passion in combining archaeology with archaeoastronomy. Meanwhile, Comandor Vasile Chirilă launched his book Astro-navigatia de la gnomon si astrolab la sextantul Apollo (“Astronavigation from the Gnomon and Astrolabe to the Apollo Sextant”)

The post-conference excursion led to the famous archaeological site of Sarmizegetusa Regia, where we stayed for two hours discussing astronomical alignments and symbolism. Though much archaeoastronomical work has been done on-site, Sarmizegetusa Regia still awaits new approaches and interpretations. However, before we reached the site, we also visited the spectacular Corvin Castle (Hunyadi Castle) in Hunedoara. This astonishing Gothic-Renaissance castle is well known in global pop culture as being connected to Dracula. Being in Romania, it is impossible to avoid references to the myth of Dracula, which is intensively exploited by the domestic tourism industry. The trip ended with lunch in the Cotiso guest house in Costești.

The 29th annual meeting of the SEAC was very well organised by Marc Frincu, who was supported by volunteers (Miruna, Simina, Raul and Octavian).

Some Final, Post-Conference, Personal Remarks

In the post-COVID world, the patterns of conference attendees are changing. Individual sessions were presented both in person and virtually. This is helpful for some people who otherwise would not be able to take part, although the varied nature of the talks fragments the discussion because the dialogue between face-to-face attendees produces different dynamics. Therefore, organising sessions to be either exclusively in person or online can bring better debates. Online attendees miss out on the discussions and on the friendly, convivial atmosphere that prevails in face-to-face contact.

Local organisers in Romania and those in 2021 in Bulgaria put a great deal of effort into organising the SEAC meetings. With a limited and modest budget, they welcomed the SEAC community with all their heart and cordiality. However, the post-COVID restrictions meant relatively few participants attended both meetings. In this way, many SEAC members
lost the opportunity to discover these countries’ astronomical and archaeoastronomical cultural heritage first-hand. Therefore, we should count on more in-person involvement to conserve the spirit of SEAC meetings.

Today, authors tend to collect the coordinates for each location from georeferenced satellite images in Google Earth Pro rather than from their GPS receivers. They also prefer to determine the horizon height using tools such as Google Earth Pro, Peak Finder and HeyWhatsThat, not theodolites or clinometers. They like to find North by browsing their smartphones rather than using Brunton (or Suunto) compasses and NOAA tables for magnetic corrections. Often, in studying the patterns of church orientations, they do not attempt to find out the original patron saint dedications of churches and the dates of their erection. They do not survey church archives (where available). The method of field surveying with a theodolite, GPS receiver or a total station is disappearing from practice. Certainly, COVID restrictions have limited on-site research for some time. However, the lack of fieldwork limits our potential understanding of the holistic nature of the skyscape constitution. The whole phenomenological but also the hermeneutical and relational ontological side of archaeoastronomical research, consisting in visiting the same places at different times of the year, is needed to understand the relationships of these places with the environment but is not being pursued. For some reason, landscape archaeology was born in opposition to spatial archaeology, to defend the validity of fieldwork investigation. For skyscape archaeologists, the major challenge is studying the material record to analyse past social relations with the sky comprehensively. It means alignments and orientations must not be separated from the cultural context in which they once functioned. When separated from the monuments, alignments and orientations become abstract entities, losing their potential social-cultural meaning. While models can be considered tools for better comprehending human–celestial relationships, models can never substitute for an original. Even if they incorporate experiential knowledge, such models usually are based on strict algorithmic relations. However, the grounds for such modelling is never neutral; rather, it is biased by our narrative logic. Consequently, there is no reason to stay permanently in the virtual world, while the real world waits for us. The danger is we will remain in the world of Jean Baudrillard’s simulacra.