Volume XIII • Issue 2/2022 • Pages 95–96

INTERDISCIPLINARIA ARCHAEOLOGICA
NATURAL SCIENCES IN ARCHAEOLOGY
homepage: http://www.iansa.eu

Editorial IANSA 2/2022

Archaeometry Session During the Pandemic – Research Results from the Lab, through the Net, to each Corner of the World

Béla Török

The global Covid pandemic has had serious consequences for scientific associations organising congresses. This was also the case for the International Union of Prehistoric and Protohistoric Sciences (UISPP). The 19th World Congress scheduled for September 2020 at Meknes, Morocco, the first World Congress of the UISPP on the African continent, was postponed to September 2021, then held only remotely. Previously, the secretary of the Moroccan organising committee had informed the session organisers that it would be an on-site congress in 2021, and that the online version was not technically feasible. However, the global pandemic situation has changed this intention and the organisers preferred to hold the entire congress online. The president of the local organising committee asked each UISPP commission president to help make an online congress as effective as possible. Thanks to Larbi Boudad, the secretary of the steering committee, and all his team, Marta Arzarello, the general secretary of the UISPP, the scientific commissions and the session organisers, despite the congress being held online and the decision being taken late, it proved to be a success with 33 sessions, and more than 300 communications.

The board of the scientific commission "Archaeometry of Pre- and Protohistoric Inorganic Artifacts, Materials and Technologies" has also submitted a proposal for a session in the 19th UISPP World Congress. The general objective of the session organisers (Béla Török, Alessandra Giumlia-Mair, Michał Krueger and Mark Golitko) was that there should be some special cases on how particular problems concerning the various materials could be solved: application of diverse analytical methodologies; case studies on ancient quarries; the production of stone artifacts from various contexts; research on mining; analyses of smelting remains, metal finds, metal workshop remains, ceramics of all kinds and periods; and research on glass production, glass workshops, glass objects and colouring of glass. These cases will be collected and presented in different sections. A further aim of the session will be to share latest results and experiences: providing useful information, comparisons of methods and technologies, and the possibilities of standardisation of test and database protocols.

At the 19th UISPP World Congress, on 3th September 2021, eleven presentations were given in the online session titled "Archaeometry of prehistoric and protohistoric stone, metal, ceramics and glass". Eight of the presentations were by members of our scientific UISPP commission for archaeometry. After the session, the participating commission members also held an internal meeting as well.

The presentation of research, availability of information, discussion and confrontation are important aspects of this scientific seminar. The publication of new data and research within this framework is also very important. As in the case of the previous UISPP Congress, the organisers of this session have made every effort to ensure that the papers are published in a peer-reviewed journal of archaeometric science of an appropriate level. This is the first time that the articles of an organised scientific event of the UISPP commission for archeometry have published in a special issue of the Interdisciplinaria Archeologica, Natural Sciences in Archaeology Journal. The papers published in this issue cover a varied and broad spectrum, both in terms of the types of inorganic material (stones, ceramics and metals) studied and the periods in question.

Marta Sánchez de la Torre, Cynthia Belén González Olivares, Bernard Gratuze, François-Xavier Le Bourdonnec and Xavier Mangado present their results obtained from the analysis of lithic raw materials from the entire lithic assemblage of Xicotó Rockshelter (Alòs de Balaguer, Lleida, Spain). The site was occupied during at least two different periods: the Ancient Neolithic and the Middle Mesolithic. The examinations have been performed using the classic archaeopetrological approach, which comprises textural and micropalaeontological descriptions, combined with the application of geochemical methods, using energy-dispersive X-ray fluorescence (ED-XRF) and laser ablation inductively-coupled plasma mass spectrometry (LA-ICP-MS).

A unique pottery vessel and other potsherds, unearthed in the Keshik cemetery (Baluchistan, south-east Iran,

4th–3rd mill. BC), are the focus of the study of Yasin Sedghi, Mehdi Razani, Farahangiz Sabouhi Sani, Nassir Eskandari and Mohammadamin Emami. The samples were investigated by classical analytical methods such as thin-section petrography, XRPD and SEM-EDS, to identify the production techniques and characterisation of their structure.

New analytical data from the Lower Segura Valley (south-east Spain), both from local copper ores and from copper-based artefacts of the local Early Bronze Age El Argar culture are presented by Dirk Brandherm, Ignacio Montero Ruiz, Milena Müller-Kissing, Alexander Maass and Emilio Diz Ardid. Complex analyses of ore and metal samples were carried out at several laboratory sites and a variety of analytical methods was used (XRD, ICP-MS, XRF, and TIMS and MC-ICP-MS for lead isotope analysis, and Q-ICP-MS for elemental analysis).

A paper presented by Béla Török, Péter Barkóczy and Géza Szabó reports on the results of metallographic analysis of some iron finds and a fragment of a presumed iron bloom or bar found at the Early Iron Age site of Regöly (Hungary). The results were compared with the microstructures of a fragment of an iron bloom from a Celtic workshop-type site (Bükkábrány, 320–200 BC). The examinations were carried out with optical microscopy (OM) and scanning electron microscopy equipped with an energy dispersive spectrometer (SEM-EDS).

The petro-archaeometric analysis of ceramics from the Rittatore excavations (Bec Berciassa, north-west Italy), was carried out on pottery sherds attributed to an older phase dating back to the Late Bronze Age, and was presented by Maria Pia Riccardi, Deneb Cesana, Maya Musa, Sergio Martini and Francesco Zucca. In addition to the archaeometric study that used optical and petrographic microscopes and SEM-EDS, a geological survey highlighted the resources of the area potentially useful for the development of prehistoric communities, including resources that could be used for ceramic production.

Finally, a paper that had not been presented online, *i.e.* an article by Béla Török and Alessandra Giumlia-Mair, completes the range of material types investigated in this special issue. This case study provides the results and conclusions obtained from chemical and metallographic analyses of artefacts made of gilded silver, copper-based alloys and iron found in graves excavated at the 10th century site at Kiskunfélegyháza (Hungary). The examinations were performed with a portable handheld X-ray fluorescence spectrometer (ED-XRF), optical microscopy and SEM-EDS.

I hope that this new publication will be of interest of scholars and research professionals active in the interdisciplinary field of archaeometry. I am grateful to the authors, all reviewers and, of course, the Editorial Board of IANSA for creating this volume.