

Studies on the Palaeolithic of Western Eurasia

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Session XVII-6

edited by

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Session XVII-4. The Upper Palaeolithic research in Central and Eastern Europe

Session XVII-6. Lithic raw materials procurement during the upper Palaeolithic from Eurasia. Traditional approaches and contributions from the Archaeometry

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Foreword to the XVIII UISPP Congress Proceedings

UISPP has a long history, originating in 1865 in the International Congress of Prehistoric Anthropology and Archaeology (CIAAP). This organisation ran until 1931 when UISPP was founded in Bern. In 1955, UISPP became a member of the International Council of Philosophy and Human Sciences, a non-governmental organisation within UNESCO.

UISPP has a structure of more than thirty scientific commissions which form a very representative network of worldwide specialists in prehistory and protohistory. The commissions cover all archaeological specialisms: historiography; archaeological methods and theory; material culture by period (Palaeolithic, Neolithic, Bronze Age, Iron Age) and by continents (Europe, Asia, Africa, Pacific, America); palaeoenvironment and palaeoclimatology; archaeology in specific environments (mountain, desert, steppe, tropical); archaeometry; art and culture; technology and economy; biological anthropology; funerary archaeology; archaeology and society.

The UISPP XVIII World Congress of 2018 was hosted in Paris by the University Paris 1 Panthéon-Sorbonne with the strong support of all French institutions related to archaeology. It featured 122 sessions, and over 1800 papers were delivered by scientists from almost 60 countries and from all continents.

The proceedings published in this series, but also in issues of specialised scientific journals, will remain as the most important legacy of the congress.

L'UISPP a une longue histoire, à partir de 1865, avec le Congrès International d'Anthropologie et d'Archéologie Préhistorique (C.I.A.A.P.), jusqu'en 1931, date de la Fondation à Berne de l'UISPP. En 1955, l'UISPP est devenu membre du Conseil International de philosophie et de Sciences humaines, associée à l'UNESCO. L'UISPP repose sur plus de trente commissions scientifiques qui représentent un réseau représentatif des spécialistes mondiaux de la préhistoire et de la protohistoire, couvrant toutes les spécialités de l'archéologie : historiographie, théorie et méthodes de l'archéologie ; Culture matérielle par période (Paléolithique, néolithique, âge du bronze, âge du fer) et par continents (Europe, Asie, Afrique, Pacifique, Amérique), paléoenvironnement et paléoclimatologie ; Archéologie dans des environnements spécifiques (montagne, désert, steppes, zone tropicale), archéométrie ; Art et culture ; Technologie et économie ; anthropologie biologique ; archéologie funéraire ; archéologie et sociétés.

Le XVIII^e Congrès mondial de l'UISPP en 2018, accueilli à Paris en France par l'université Paris 1 Panthéon-Sorbonne et avec le soutien de toutes les institutions françaises liées à l'archéologie, comportait 122 sessions, plus de 1800 communications de scientifiques venus de près de 60 pays et de tous les continents.

Les actes du congrès, édités par l'UISPP comme dans des numéros spéciaux de revues scientifiques spécialisées, constitueront un des résultats les plus importants du Congrès.

Marta Azarello
Secretary-General /
Secrétaire général UISPP

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Part II

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**Lithic raw materials procurement during the upper Palaeolithic from Eurasia.
Traditional approaches and contributions from the Archaeometry**

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Part I
Session XVII-4
The Upper Palaeolithic research
in Central and Eastern Europe

The Upper Palaeolithic research in Central and Eastern Europe

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This volume —The Upper Palaeolithic research in Central and Eastern Europe— presents the papers of a conference session held at the XVIIIth world congress of the International Union of Prehistoric and Protohistoric Sciences (UISPP) in June 2018, Paris. The geographic areas discussed in the session, Central and Eastern Europe, are prehistorically strongly articulated, their cultural successions are highly similar, and share several common archaeological issues to be investigated. We disseminate a wealth of archaeological data from Bavaria to the Russian Plain, which discusses Aurignacian, Gravettian, Epigravettian, and Magdalenian in the perspectives of lithic tool kits and animal remains.

The growing number of research results, especially those from Eastern Europe, presented at international conferences highlights the necessity to discuss the Central European Upper Palaeolithic in the context of the Eastern one and vice versa, otherwise a significant part of the archaeological record of the Late Pleistocene population remains uninvolved and any conclusion drawn upon a fragment of evidences may mislead our understanding of Palaeolithic hunter-gatherer societies. Incorporating the current knowledge of the Upper Palaeolithic archaeological record from each of these parts of Europe may help studying complete hunter-gatherer foraging areas to learn about subsistence strategy, and the organization of society and technology. This knowledge could be a fundamental source to recognize the roots of our behavioural basics, most of which emerged—according to evolutionary psychology—in the Upper Palaeolithic. Although ethnoarchaeology revealed a wide range of knowledge on the behavioural issues of hunter-gatherers, indeed it is difficult to model the human behaviour in glacial conditions applying uniformitarianism, because the Last Glacial Europe was typified by a biome that is absent today. Therefore, the dissemination of the archaeological data and its interpretation from different angles is most welcomed since it allows to incorporate the fragments of knowledge into hypotheses that aim at widening our understanding of human societies subsisting on hunting and gathering, the dominant way of human life practiced over 2.5 million years in Pleistocene conditions, the origins of the human nature. In this regard, we present ten papers that fulfil our approach to sharing archaeological data.

Amira Adaileh, The riddle in the middle – insights into the Bavarian Magdalenian, brings data on the recolonization of Central Europe after the Last Glacial Maximum, studying Magdalenian hunters through a yet hardly known Bavarian examples integrated into the Central European Magdalenian research.

Andrzej Wiśniewski, Bernadeta Kufel-Diakowska, Cyprian Kozyra, Marcin Chłoń, Zofia Różok, and Antonín Přichystal, Epigravettian in the area north of Sudetes: a case study from the site Sowin 7, SW Poland, discuss the activity of post-glacial Epigravettian hunter-gathers north of Sudetes and demonstrate that the main activities at the site are related to the retooling of hunting equipment and food acquisition.

Petr Šída, Upper Gravettian site cluster in Lubná (Czech Republic), presents the most important Gravettian site cluster in Bohemia, Czech Republic, dating to between 24 to 21 ky uncal BP with the oldest art object ever found in the Bohemia.

Alain Tuffreau, Roxana Dobrescu, and Sanda Balescu, Les occupations de plein air du Paléolithique supérieur à la périphérie des Carpates roumaines, review the open-air Upper Palaeolithic record of the Romanian Carpathians on the crossroad of the Danube corridor and provide new chronological data (^{14}C , IRSL, and ESR/U-Th), biostratigraphic and pedostratigraphic evidence, and the re-evaluation of lithic assemblages.

Wei Chu, Adrian Dobos, and Scott D. McLin, So many caves, so little time: a preliminary report from a western Romanian karst survey, the Neanderthal/modern human transition in Europe focusing on Western Romania where the oldest modern human remains of Europe were found. They provide a preliminary assessment of the potential of cave sites for future research.

Philip R. Nigst, Timothée Libois, Tansy Branscombe, Marjolein D. Bosch, Paul Haesaerts, Vasile Chirica, and Pierre Noiret, New fieldwork at Mitoc-Malu Galben (Romania): An overview of the 2013 to 2016 excavations, bring new results of an emblematic Early to Middle Upper Palaeolithic sequence at Mitoc-Malu Galben on river Prut, which yielded a succession from the Aurignacian to the Gravettian over 14 metres of Pleistocene sediment.

Elena-Cristina Nițu, Marin Cârciumaru, Nejma Goutas, Ovidiu Cîrstina, Adrian Nicolae, Florin Ionuț Lupu, and Marian Leu, The cultural dynamics of Upper Palaeolithic to the East of the Carpathians reflected by the characteristics of the Bistrița Valley settlements (Romania) with special focus on the occupations from Poiana Cireșului site, show a sequence of Upper Palaeolithic settlements at Poiana Cireșului-Piatra Neamț in the Eastern Carpathians, which is composed of multiple occupations of Gravettian-Epigravettian between 20 and 27 ky uncal BP presenting the cultural variability of the European 'Gravettian'.

Laëtitia Demay, Teodor Obadă, Sergei Covalenco, Pierre Noiret, Stéphane Péan, and Marylène Patou-Mathis, Zooarchaeological analyzes of the faunal remains of the upper layer of Climăuți II (Republic of Moldova), analyse a dense faunal record of the upper layer of Climăuți II site located on the course of the Middle Dniester dated to the upper Pleniglacial between 20.5 and 20.0 ky uncal BP. They show the remains were accumulated by repeated occupations during a short period of time and quickly covered by sediment as shown by the mammoth remains used to build structures hardly distorted.

Sergey Lisitsyn, The revision of the Gravettian sequence in the Kostenki-Borshchevo locality in the river Don basin (Russia), presents the Kostenki-Borshchevo area site complex and interprets the Gravettian technocomplex succession in the Don basin similarly to the Gravettian periodization in Central Europe.

Liubov V. Golovanova, Vladimir B. Doronichev, Ekaterina V. Doronicheva, and Andrey G. Nedomolkin, Industries of the end of Upper Palaeolithic in the south of Russian plain (northeastern Azov Sea region) and the Northern Caucasus, report sites in Kamennaya Balka, north-eastern Azov Sea region, compared to lithic industries of the north-western Caucasus, which are assigned to the Epipalaeolithic.

Part II
Session XVII-6

Lithic raw materials procurement during
the upper Palaeolithic from Eurasia.
Traditional approaches and contributions
from the Archaeometry

Foreword

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Since the last decades, the study of lithic raw materials used by Palaeolithic groups has become an indispensable tool for better recognising their lithic procurement strategies. The analysis of the exploited rocks has allowed determining the frequented territories by past groups and is essential to determine their mobility strategies.

Studies focusing on lithic raw materials recovered at Palaeolithic sites range from macroscopic approaches just using a binocular magnifier or jointly with petrographic studies to geochemical analyses with the use of large devices.

In the UISPP-Paris Congress, the XVII.6 session entitled Lithic raw material procurement during the Palaeolithic from Eurasia. Traditional approaches and contributions from the Archaeometry focused on different methods to characterize lithic artefacts from several Palaeolithic sites from Eurasia as a means of better determining past human mobility. Several approaches were presented, providing in this volume some examples.

E. Doronicheva and colleagues present in their chapter Procurement and exploitation of lithic raw materials in the Middle Palaeolithic of the North-Central Caucasus preliminary results obtained from petrographic and geochemical analyses from the Middle Palaeolithic site at Saradj-Chuko Grotto, which is the only Middle Palaeolithic stratified site known in the Zayukovo (Baksan) obsidian source area, in North-Central Caucasus (Russia). They have employed X-Ray Spectral Fluorescent Analysis as well as petrography to obtain the mineralogical and geochemical composition of several dozens of geological and archaeological flint artefacts.

A. Eixea and colleagues in their chapter entitled First data on the characterization of siliceous raw materials and the catchment areas from Cova de les Malladetes (Barx, Valencia) present the first lithic raw material analysis results from the Gravettian level IX from Cova de les Malladetes (Valencia, Spain). After new survey works to identify chert sources, they have employed macroscopic analyses through a binocular microscope that have been completed by Energy-Dispersive X-Ray Fluorescence (ED-XRF) and X-Ray Powder Diffraction (XRD).

T. Pereira and colleagues present in their chapter, which is entitled Raw material procurement at Abrigo do Poço rock shelter (Central Portugal) new data about the human occupations at Abrigo do Poço. The site has an Epipalaeolithic occupation overlying a Solutrean occupation. In their study, they have focused on the analysis of the Upper Palaeolithic occupation, that seems to have been based on the exploitation of a small chert outcrop located right above the site. For analysing the samples, they have employed macroscopic studies joined to geochemical analyses through portable X-Ray Fluorescence (p-XRF).

Finally, the chapter presented by M. Sánchez de la Torre and colleagues entitled Multi-method study of a Pyrenean lithological tracer and its presence in the Magdalenian of Cova del Parco and Forcas I rock shelter (NE Iberia) presents a multi-method study of the Montgaillard-Montsaunès chert type, that outcrops in the northern Pyrenees and its presence in the Palaeolithic levels from Cova del Parco and Forcas I rock shelter. The analysis has been done using macroscopic, petrographic and geochemical analyses by Energy-Dispersive X-Ray Fluorescence (ED-XRF), Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) and Particle Induced X-Ray Emission (PIXE).