





ATAPUERCA

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The management of resources and territories in the Pyrenees from the earliest human occupation to the end of the Protohistory. A behavioral perspective

Commission on Human Occupations in Mountain Environments

(Organisers: Xavier Mangado, Álvaro Arrizabalaga, Ignacio Clemente, Ermengol Gassiot, Mathieu Langlais, Lourdes Montes, Javier Peñalbert, Christine Rendu, Nicolas Valdeyron, Abel Forteau)

> Tuesday 2nd (8:45 to 14:30) A01 Meeting Room



A6b

XVII World UISPP Congress 2014 Burgos, 1-7 September The management of resources and territories in the Pyrenees from the earliest human occupation to the end of the Protohistory. A behavioral perspective

ORAL

B4. FROM WERE CAMETHE AZILIAN FROM ANDOR-RA? AN APPROACH TO THE POSSIBLE INFLUENCES IN THE FORMATION OF THE EPIPALEOLITHIC-MES-OLITHIC IN THE INNER PYRENEES

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The monographic publication of Balma Margineda offers, since 2004, a database wanting fullest possible on "Azilian" industries and "Sauveterriennes" in their stratigraphic and paleo environmental (C. 10-4, Allerød at Boréal) context. The fact that this reference had little influence in the literature syntheses of the Epipaleolithic-Mesolithic of the Ebro Basin and even Aquitaine make it a problem. Thus, industries observed in Andorra are more comparable with Cantabrians sites, central Languedoc or the Alps rather than those from the Pyrenees. The Azilian from Andorra is necessarily linked to its surroundings we were led to point out this specificity.

We propose to play attention to the study of primary sources and the environmental data (especially for layer C8 containing harpoons) to explain sporadic passages from the south or north in the eastern Pyrenees. The massive use of acid lavas (and rock crystal) are related with a lamellar breakdown of these prismatic materials in layer C8. Quartzite decreasing and lamellae increasing in C8 and C7 confirms a lithologic preference. Although there are veins of lava in Andorra, most of the rhyolite outcrops seems to come Cadi Cerdanya. The results of geomorphic studies conducted in recent years on the glaciated areas of the Pyrenees indicate that the direct passage by passes from the valley of the Ariege was hardly possible during the Bølling - Allerød interval; probable path then would be through Oriège to the Cerdanya plain devoid of the Late Glacial freeze.

Several factors may explain this ambivalence: 1) A cluster analysis disparity that make it difficult to assess the details (type of cutting, microlithism more or less accentuated, use of truncation, etc.). 2) The presence of special tools "à bord abattu" that may related to uses that we don't realy know if the traceology thechique is not used (backed knives, darts). 3) Pronounced typological variability of the "pointes à bord abattu" in the Azilian of

Andorra within a dominant fusiform group, which makes comparisons with other assemblages from neighboring foothills. 4) In these mountains the typological variability may reflect episodic stations of several groups of huntergatherers settled on both sides of the chain. Barely perceptible stratigraphy despite rapid sedimentation, the influx from the basins of the Ebro and Garonne are better identifiable typology, especially compared to known sets of Aquitaine (absence of large Malaurie segments and tips of Andorra).

The sharp increase in the rhyolite at layer C8 indicates more frequent paths through the Cerdanya in Allerød comming from the Ariège. However, certain flint tools from the Azilian industry point more to the Spanish Ebro side.

ORAL

B5. UPPER PALAEOLITHIC MOBILITY PATTERNS IN THE WESTERN PYRENEES: COST AS A MEANS FOR ANALYZING FLINT PROCUREMENT STRATEGIES THROUGH GEOGRAPHIC INFORMATION SYSTEMS

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Research on mobility patterns of the prehistoric societies in the Western Pyrenees based on the exploitation and distribution of lithic raw materials is actually under review due to three main facts. Firstly, the development of studies concerning the petrological characterization of the differen flint types. Secondly, the progressive application of such an approach to the analysis of archaeological lithic assemblages. And, thirdly, the increasing use of mobility models thanks to the analytical tools provided by Geographic Information Systems (GIS).

The present study seeks to include the knowledge derived from the aforementioned approaches to deep on the understanding of the mobility patterns of the Upper Palaeolithic societies. To that end, a general accessibility model to each flint outcrop from the studied area is elaborated, based on the most accurate methods for

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A2c	What's happening now in Atapuerca? Latest research at the Sierra de Atapuerca sites
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A2e	The Early and Middle Pleistocene succession in the Guadix-Baza Basin (Andalusia, southern Spain): geology, paleontology, archaeology
A2f	Pleistocene human dispersals: dimate, ecology and social behavior
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АЗс	The emergence of warrior societies and its economic, social and environmental consequences
АЗе	Objects of the dead, offerings from the living: interpreting finds in funerary contexts
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A5b	From the Atlantic to beyond the Bug River – Finding and defining the Federmesser-Gruppen / Azilian on the North European Plain and adjacent areas
Аба	Human occupations in mountain environments: a comparative methodological perspective
A6b	The management of resources and territories in the Pyrenees from the earliest human occupation to the end of the Protohistory. A behavioral perspective
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A9b	The Study of the Environment and the Landscape in the Reconstruction of the Economic and Social Activities during the Upper Paleolithic. Methodological Approaches and Case of study

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- A9d The Human settlement of Western Europe during the last glacial maximum
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- A11a The chronology of Palaeolithic cave art: new data, new debates
- A11b Late Pleistocene cave art in its context
- A11c New solutions for old problems: the use of new technologies for the documentation and conservation of prehistoric art
- A11d Styles, techniques and graphic expression in rock art
- A11e Public images, private readings: multi-perspective approaches to the post-Palaeolithic rock art
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- A15e Museum networking in Glocal communities: experiences in sharing and cooperation towards peer awareness and target increase in Quaternary and Prehistory Museums
- A15 Education and dissemination strategies in museums and prehistoric Sites
- A16 Aegean-Mediterranean imports and influences in the graves from continental Europe Bronze and Iron Ages
- A17a Recent Trends and Aspects of Use-wear Analysis and their contribution to the Modernization of Archaeology
- A17b Traceological research and experimental work
- A17c Microscopic determination of hafting technology: use-wear and residues
- A18a Redefining the Postpalaeolithic rock art in the world: Groups, diffusion areas, hronology and last methodological contributions
- A18b Post-Palaeolithic filiform rock art in Western Europe
- A19 Bifacial tools in the Middle Palaeolithic of western Eurasia: typo-technological variability and spatio-temporal trends

A20 The intellectual and spiritual expressions of non-literate peo
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- A21a Neanderthals on their own terms: new perspectives for the study of Middle Paleolithic behaviour
- A21b Technological change and behavioral variability in the MSA
- A21c Movements in and Out for Africa: Assemblage variability and population dynamics in Northeast Africa and Southwest Asia during the MSA and Middle Paleolithic
- A21d Chronostratigraphic data about the Middle to Upper Palaeolithic cultural change in Western Europe
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- A24a Recolonisation or new landscapes: adaptations and change in the Early
 Holocene
- A24b Coastal adaptation: Assessing past resilient socio-ecological systems
- A25a Materials, Productions, Exchange networks and their impact on the societies of Neolithic Europe
- A25b Current Approaches to Collective Burials in the Late European Prehistory
- A25c Standing stones and megalithic monuments in context
- A25d Monumentality and territory: relationship between enclosures and necropolis in the European Neolithic
- A25e Dynamics of human and cultural dispersals during the Neolithic transition in Europe: Complex Systems and Prehistory
- A25f North-South connections and dis-connections in the prehistory and proto-history of the Levant
- A25g Megalithism in the north-west of the Iberian Peninsula
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- A27a Linking Continents: Late hunter-gatherers and early farming communities relationships across the Mediterranean and the Black Sea
- A27c The long road to the final transition. Regional dynamics in the western Mediterranean between the end of the LGM and the 8.2 event
- A28 Prehistoric Archaeology of China: Technology, Cognition, Culture and Environment
- B1 Task distribution in pre- and proto-historic societies
- Biochronology, biostratigraphy and paleoecology of the Quaternary of Europe (B2PQUE)

В3	Monumental earthen architecture in early societies: technology and power display
B4	Climate change and social change during the Late Holocene in arid and semiarid environments: archaeological and historical perspectives
B5	New approaches to the study of Quartz lithic industries
B6	Beyond the stones: Inter-disciplinary approaches to interpreting Palaeolithic Transitions
B8	Hominid-bird interactions in Prehistory. The humankind and the avian world: archaeological evidence for inferring behavioural evolutionary signatures
В9	Staring at the ground: archaeological surveys as a research tool in the early 21st century
B10	The interglacial Holsteinian eldorado and the onset of the Middle Palaeolithic (400-300 ka)
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B14	An Archaeology of fuels: social and environmental factors in behavioural strategies of multi-resource management
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B18	State of the art of the multidisciplinary research at Middle Pleistocene Qesem Cave, Israel
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B20	Contexts without definition, definitions without context. Arguments for the characterization of the (Pre)historic realities during the neolithisation of the western Mediterranean
B22	Premonetary currency systems in past societies
B23	Beyond the reduction sequence: new insights in lithic technology
B24	Innovation in the production and use of equipment in hard animal materials: origins and consequences in prehistoric Palaeolithic to Mesolithic societies
B25	Looking at the sky, walking on the earth. Climatic changes and historical evolution in the Mesolithic and Neolithic of Western Europe
B26	The lithic issues of the Gravettian
B27	"Megalithic Biographies" Cycles of Use and Closure
B28	Technology and the first agro-pastoral societies: ceramic manufacturing and decoration
B30	A diachronic perspective of human behavioural adaptations to interglacial lakeshore environments during the European Pleistocene to early Holocene

B33	Environmental and cultural development during the Lower and Middle Palaeolithic in the Syrian Desert
B34	Archaeometry approaches regard the study of networks of trade in raw materials and technological innovations in prehistory and protohistory
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B36	Analysis of the economic foundations supporting the social supremacy of the Beaker groups
B37	Lithic, Evolution, Science
B38	Advances in the dating of human dispersals, interactions and extinctions in the Palaeolithic
B39	Paleoanthropological debates on Human Evolution
B40	Cleaning up a messy Mousterian: how to describe and interpret Late Middle Palaeolithic chrono-cultural variability in Atlantic Europe
B41	Archaeology of the Mesolithic in Europe: the Significance of Fen and Bog Sites
B42	The adoption of pottery in prehistory: a functional perspective
B43	Testing social behaviour with novel approaches in the Prehistoric mortuary record of Iberia
B44	Within ditches and walls. Settlements, fortifications, enclosures, monuments, villages and farms in the third Millenium BCE B46-Iron Age communities in Western-central Europe: new approaches to landscape and identity
B46	Iron Age communities in Western-central Europe: new approaches to landscape and identity
B48	"To come, to go, to stay": ancient DNA and C/N and Sr isotopes analyses as indicators of human relationships during the Holocene
B50	Paleoenvironment and early cultural dynamics in the Maya area
B51	Reconstructing human mobility in the Palaeolithic: building new frameworks
B52	How far is it possible to compare Europe and continental Asia? Focus on Middle Pleistocene. Track record and perspectives
B53	The archaeology of early fire use
B54	Genetic analysis of modern and ancient samples
B55	Advances in Archaeological Palimpsest Dissection
B56	Time for the tide: New perspectives on hunter-fisher-gatherer exploitation of intertidal resources in Atlantic Europe and Mediterranean regions
B57	Reconsidering the significance of the Acheulian in Human Evolution