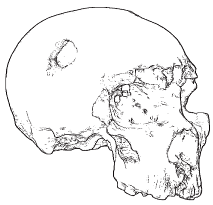
European Society for the study of Human Evolution (ESHE)

4th Annual Meeting

Florence, Italy • 18 – 20 September, 2014



Proceedings of the European Society for the study of Human Evolution 3

Cover image: Saccopastore I
"The discovery of the Neanderthal cranium at Saccopastore (Roma) demonstrates that these humans lived in Latium,
together with the large extince mammals of the Pleistocene, during the interglacial, being witness to the last eruptions of the nearby volcanoes." Translated and adapted from S. Sergi, 1929 (Rivista di Antropologia vol. XXVIII).

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Dear Participants of the 4th Annual meeting of the *European Society for the study of Human Evolution,*
Welcome to Florence!

We are very pleased to welcome you to Florence, whose fame for its artistic beauties is well known to world. Together with its art, history, landscape and food, Florence is also important for its science with the University that has its origins in the *Studium generale,* established in 1321. This scientific legacy is particularly evident in the impressive scientific collections of the Natural History Museum, founded in 1775, and you are encouraged to visit its various sections during your stay in Italy. This year's excursion will provide the opportunity to visit the area of the *Grotte di Equi* (cave and shelter), set in a beautiful landscape in the northern tip of Tuscany, where recent activity resumed old excavations in late Pleistocene deposits.

As the 4th annual ESHE meeting commences, the successful journey of the society continues. In early August 2014, the society's membership included 375 individuals. Continuing in the ESHE tradition, the number and quality of the submissions for presentations at our annual meetings has remained very high. Taking into account the experience of the first three ESHE meetings, the board has decided to extend the length of our yearly conference to 3 days in order to comfortably accommodate its scientific program.

In order to encourage and facilitate the participation of students in the conferences, it has also been decided to dedicate a portion of the society's budget to travel grants, supporting those presenting posters or papers. Preference will be given to student participants coming from distant and/or disadvantaged areas. These grants will be offered in addition to the prizes awarded since 2013 for outstanding student posters.

During our general assembly an important issue will be to vote for the renewal of the board officers who work to manage the society and the preparation of the yearly meetings.

We are very grateful to our 2014 local organizers, who have made the Florence conference possible, in particular to *Prof. Jacopo Moggi-Cecchi* (Department of Biology, Università degli Studi Firenze) who headed most of the local organization with the assistance of the colleagues of his Department: *Prof. David Caramelli, Prof. Roscoe R. Stanyon,* and *Prof. Marco Bazzicalupo* (Head of Department) and to *Prof. Lorenzo Rook,* Head of the Department of Earth Sciences *Prof. Guido Chelazzi* (President, Natural History Museum), *Prof. Giovanni Pratesi* (Director, Natural History Museum), *Dr. Emanuela Paribeni* (Superintendency for Archaeological Heritage, Tuscany) and *Dr. Alessandro Palchetti* (B&P Archeologia).

The 2014 ESHE meeting is sponsored by the Fondazione Ente Cassa di Risparmio di Firenze, the University of Florence (BIO, DST, MSN), the Istituto Italiano di Antropologia and the Associazione Antropologica Italiana . It is also supported by the Istituto Italiano di Paleontologia Umana.

The preparation of the meeting and the publication of our abstract volume have been made possible by the endless work of the ESHE Board Officers and Board Members and in particular by *Alyson Reid, Philipp Gunz, Shannon McPherron, Marie Soressi* and *Thomas Terberger.*

In 2015, the meeting of the European Society for the study of Human Evolution will take place at the British Museum (London, UK) and its organization is already well advanced.

With best wishes,
Jean-Jacques Hublin
President, European Society for the study of Human Evolution

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Podium Presentation: Session 9, Sa (11:10)

A high-resolution chronostratigraphic framework for the Upper Paleolithic of southeastern Iberia

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Due to problems of integrity related to surface dynamics and post-depositional modification of cave and rock-shelter sequences, coupled with the paucity of sites excavated with modern techniques, the chronostratigraphy of the Upper Paleolithic of South-East Iberia remains controversial on a number of points, namely: (a) the regional presence of the Mousterian until the time range of the Early Aurignacian; (b) the chronology, and affinities (Aurignacian or Gravettian), of its earliest phases; (c) the existence of a Protosolutrean phase akin to that of the Atlantic façade; (d) the ordered succession (or lack thereof) of Upper Solutrean index fossils (Parpallò points, backed and shouldered points); (e) whether the Solutreogravettian is followed by the Badegoulian or by a Lower Magdalenian, as well as the timing of the transition to one or the other; (f) whether a Middle Magdalenian phase can be differentiated. Clarification of these problems has implications that reach beyond the region as some concern issues of modern human emergence and human biogeography of more general interest, namely: (a) the hypothesis that Neandertals persisted in parts of Iberia for a few millennia longer than elsewhere in Europe; (b) the role played by the Cantabrian Cordillera, the Iberian System and the Pyrenees in the generation of environments and adaptations that, despite similarities, set the culture-stratigraphy of South-East Iberia apart from that of Cantabria and southern France at key moments of the European Upper Paleolithic sequence; or (c) the extent to which, given these differences, the notion of an Iberian refuge contributing to post-LGM resettlement of central and northern Europe can be supported. Two adjacent rock-shelters excavated since 2007 in Mula (Murcia) — Abrigo de La Boja (ADB) and Finca de Doña Martina (FDM) — are now yielding the evidence necessary to settle many of these unresolved issues. Spanning 6 m (at ADB) and 4 m (at FDM), the two sites provide a sequence of some 40,000 years of occupation ranging from the Mousterian to the Epimagdalenian. The stratigraphic evidence is supported by >30 stratigraphically consistent radiocarbon determinations. Combined with the associated artefact assemblages, this information: (a) establishes the regional existence of an Evolved Aurignacian phase, dated to 32-33 ka 14C BP; (b) documents the chronostratigraphic entity of a Lower Solutrean phase with pointes à face plane but no laurel-leaves, dated to 21 ka 14C BP; (c) sets at 16.5 ka 14C BP the replacement of the Solutreogravettian by a Lower Magdalenian characterized by hypermicrolithic, marginally backed bladelets; (d) suggests human abandonment during the Oldest Dryas arid phase (at ADB, 30 cm of sterile deposits separate the Lower Magdalenian from the Upper Magdalenian, which post-dates 13.2 ka 14C BP and is contained in a paleosoil representing a local manifestation of the Bølling-Allerød episode). At ADB, combustion features define an archeological stratification that can be resolved with centimetric precision, explaining the high-resolution nature of this record. The variation in distribution, make, and temperature reached in these features (mostly >500 °C, according to FTIR data) provides information on the spatial structure of individual occupation events (30 have been differentiated so far). Unlike bone, shell is well preserved, providing an abundant record of the use of marine shell ornaments in an area 90 km from extant coastlines. The evidence from phytoliths and charcoal provides information on the local environment and how its plant resources were exploited. For instance, during the LGM and the Tardiglacial, fuel was obtained from arid lignified plants (mostly juniper, with Ephedra, Artemisia and woody Fabaceae), while Pinus nigra/sylvestris were present and used during the Mousterian and the Upper Magdalenian. Phytoliths from Cyperaceae indicate the collection of plant material from a nearby watercourse.