In February of 2013, a group of leading prehistorians converged on Tübingen and Blaubeuren for an important and very unique scholarly meeting (Fig. 1). Organized under the auspices of the UNESCO HEADS (Human Evolution, Adaptation, Dispersals, and Social Developments) Program, this meeting was sponsored by the state of Baden-Württemberg, Eberhard Karls University in Tübingen, and the Spanish Ministry of Culture and was hosted by the Department of Early Prehistory and Quaternary Ecology at Eberhard Karls University. The overarching goal of the meeting focused on establishing protocols and policies for the inclusion of western Eurasian Middle and Upper Paleolithic sites and materials into the World Heritage Site framework. Some prehistoric sites
are currently designated as World Heritage Sites, including the Mount Carmel Caves (Israel), the Atapuerca sites (Spain), and the prehistoric sites and painted caves of the Vézère valley (France). Others are already on the Tentative List for possible designation as World Heritage Sites. Still there is a clear recognition that designation as a World Heritage Site has been biased toward sites denoted by monumental architecture or non-portable art.

With the establishment of the HEADS Program, UNESCO recognized the importance of designating other aspects reflecting the emergence and evolution of humans and their capacity for culture as part of our shared World Heritage. To this end, an international meeting was held in Burgos, Spain, in 2009. This meeting, “Human Evolution and the World Heritage Convention,” focused on sites and issues relating to human evolution on a world-wide scale. However one clear outcome of the Burgos meeting was the necessity to develop more regionally-based perspectives. The Tübingen/Blaubeuren meeting was the third in the series of scientific assemblies charged with providing these detailed regional perspectives. It focused particularly on the Middle-to-Upper Paleolithic transition and its relationship to the origins of modern human biology and behavior in western Eurasia, while also emphasizing other varied aspects of the Paleolithic record in this part of the world. The Director of the HEADS Program, Dr. Nuria Sanz, succinctly describes the mission of the UNESCO World Heritage Centre as the protection of both natural and cultural heritage. She further explains that the “ultimate goal” of the World Heritage List is to “…include all forms of cultural and natural diversity that are of Outstanding Universal Value in the world”. The earliest cultural stages of human evolution cover a long period that is vital to the history of humanity, reflecting the origins of cultural diversity. “However, the importance of this process is not matched by its representation in the UNESCO World Heritage List” (World Heritage Papers, Number 29, 2011, page 15). The Tübingen/Blaubeuren meeting represented a major step in the shift from a primarily architectural view of cultural heritage to one that encompasses a broader, multi-functional anthropological approach. That approach gives equal importance to pivotal sites that lack elaborate structures or artistic works, to cultural landscapes that reflect significant aspects of human adaptation, and to sites that contain important evidence related to human evolution and adaptation even if that evidence is not cultural.

In the UNESCO World Heritage perspective, the key concept that guides consideration of placement on the World Heritage List is Outstanding Universal Value (OUV). OUV essentially refers to the unique, defining contribution of the site, landscape or materials to the understanding of the human phenomenon. For the Paleolithic, this can be rephrased as their unique importance for understanding human biocultural evolution. In this vein, presentations by 28 invited experts from 12 different countries in Europe, Asia, and North America highlighted the importance of numerous sites, Paleolithic cultures, cultural landscapes and various movable aspects of heritage (artifacts, mobile art, human fossils, and ecological evidence) at the Tübingen/Blaubeuren meeting. This was followed by intensive discussions in working groups, formed from the scientific participants, on selected issues pertinent to the Middle and Late Eurasian Paleolithic. Additionally, visits to the impressive cave sites in the Lone and Ach valleys provided a first-hand perspective on the importance of Paleolithic cave sites, as well as the challenges faced in including such sites within the World Heritage Convention framework.
The scientific presentations focused on the discussion of specific sites, cultural and biological factors that relate to the origin of modern people and their behavior, as well as the role of the archaic people who preceded them in most of western Eurasia – the Neandertals. From a geographic perspective, emphasis fell on regions often less-represented in considerations of the Middle-to-Upper Paleolithic transition (MUPT). These included the Iberian coast, the Arabian Peninsula, and the Russian and Ukrainian plains, including Crimea. Although Russian scientists have focused on this latter region for decades, the fact is that the later Paleolithic here, including the MUPT is not as significant a part of the discussion on modern human origins as it should be. This is due to the fact that passage of peoples from the east and south into Europe may have been more likely along the route to the north of the Black Sea than through Anatolia. Andrey Sinitsyn (Russian Academy of Sciences, St. Petersburg) discussed an overview of the MUPT on the Russian plains, focused on the key site complex at Kostenki. Kostenki spans the MUPT, its components reveal considerable cultural complexity across it. An Initial Upper Paleolithic called the Spitsynean is found at 44-42 cal kya, demonstrating very early evidence of personal adornment items and Upper Paleolithic technological tendencies. This is followed at ca. 40 cal kya by two different Upper Paleolithic complexes, Aurignacian and Strelets-kian, that appear to be largely separate from each other. Thorsten Uthmeier (University of Erlangen-Nuremberg) also recognizes the Streletskian in Crimea and recognizes both evidence of overlap with the Crimean Micoquian (Middle Paleolithic) and evidence of distinct conceptual artifactual similarities. However, it is not clear how this relates to the biological appearance of modern humans; and while the Crimean evidence is intriguing, it is not clear where the origin of Upper Paleolithic technology and typology in this region is to be found. This is a basic, critical question that still frustrates out understanding of the MUPT throughout western Eurasia.

Other significant sites and materials from this region were also presented. David Lordkipanidze (Georgia) highlighted the Dmanisi site, already on the tentative list for World Heritage Site designation. Vyacheslav Kotov (Russian Academy of Sciences, Ufa) and Etakerina Davlet (Russian Academy of Sciences, Moscow) discussed Baskir Ural and the Sikachin-Alyan petroglyphs, both also on the tentative list. Larissa Kulakowska (Ukrainian National Academy) presented a review of research on central Eurasian Paleolithic. Moving somewhat to the west, Fred Smith (Illinois State University) discussed the role of Neandertals in the origin of modern Eurasians, focusing on the Croatian site of Vindija, as well as general aspects of Neandertal adaptation and biogeography. Also Jiří Svoboda (Academy of Sciences of the Czech Republic) highlighted the MUPT evidence from the Czech Republic, with a focus on the Pavlov-Dolní Věstonice sites.

On the Iberian Peninsula, Nuno Bicho (University of Algarve) presented indication of early human coastal adaptations, an adaptive focus which until recently was considered a hallmark of modern humans but now has been demonstrated for Neandertals as well. The importance of the sites and material from Atapuerca and Orce (Spain) were reviewed by Robert Sala (Catalonian Institute of Human Paleoecology and Evolution).

The Near East and Iran constituted the third region highlighted by the scientific presentations. Mina Weinstein-Evron (University of Haifa) discussed future plans for research at the Mt. Carmel caves, which are now on the World Heritage List. She specifically focused on the all-important Tabun cave Middle Paleolithic sequence and its
environmental, as well as cultural, significance. The emerging picture of Paleolithic settlement and dispersion in Arabia was outlined by Michael Petraglia (Oxford University), and Saman Heydari-Guran (University of Tübingen) did the same for the Iranian plateau. Jean-Marie Le Tensorer (Institute of Prehistory and Scientific Archaeology, Basel) summarized Paleolithic research in the critical region of Syria.

The final geographic area to receive focused attention were the Swabian Jura sites in the Lone and Ach valleys. Nicholas Conard (University of Tübingen) orchestrated a detailed perspective on this landscape, its sites and critical cultural remains. It has been largely through Conard’s efforts that work at these sites has continued and intensified over the last two decades, and it was also largely through his efforts that this UNESCO meeting took place in Swabia. Together with University of Tübingen colleagues Christopher Miller and Harald Floss and Ph.D. students Ewa Dutkiewicz, Jeeyun Chang, and Sibylle Wolf, a detailed overview of the important discoveries from this region was presented. The early presence of Aurignacian here was demonstrated, with an emphasis on the technological and typological characteristics of the lithic, bone and ivory industries and on the environmental aspects of these early Upper Paleolithic occupations as revealed in analysis of the sediments. Specific attention was focused on the elaborate mobile art in the form of mammoth ivory carvings and musical instruments (flutes) carved from bird bone and other materials. Visits guided by Nicholas Conard and Michael Bolus to many

![Fig 2: The Bruckfelsen in the Ach valley where the Geißenklösterle is situated. Photo: F. Smith.](image)
of the key sites – Geißenklösterle (Fig. 2) and HohleFels in the Ach valley and Vogelherd, Hohlenstein-Stadel and others in the Lone valley – provided UNESCO official and scientific participants the opportunity to experience first-hand the importance of the sites and the challenges faced in excavating and interpreting them.

In addition to the obvious scientific and cultural significance of the Swabian Jura sites, there are other aspects that would seem to qualify them as a unit for consideration as a World Heritage site. First, there is a clear relation of these sites to a paleolandscape and the exploitation of resources beyond the level of the individual site. Second, there is a distinct historical importance to this work, as a long series of eminent Paleolithic archaeologists (R. R. Schmidt, Gustav Riek, Joachim Hahn) have excavated and interpreted Middle, Upper, and Late Paleolithic occupation of the Swabian Jura for over a century. Third, the team at the University of Tübingen now comprises a wide range of specialties, from micromorphology to human paleontology to paleogenetics to numerous aspects of Paleolithic archaeology, which promises that both conservation and future research in this region will be carried out according to best available practices. Fourth, conservation and preservation of archaeological resources are guaranteed by the laws of the state of Baden-Württemburg. Finally, the creation of the Archäopark at Vogelherd together with the educational program of the Prehistoric Museum in Blaubeuren add the important dimension of making this incredible archaeological record widely accessible by the public.

The current resources for doing and interpreting Paleolithic prehistory at the University of Tübingen were illustrated by several other presentations at this meeting. For instance, Katerina Harvati demonstrated state-of-the-art equipment for imaging and performing 3D morphometrics on human fossil and other skeletal remains; and Johannes Krause discussed the role of ancient DNA from Neandertals and early modern humans in the quest to understand the details of later human evolution. Additionally, breakthroughs in technology and methodology were also discussed in connection with the study of Paleolithic sites. Claus-Joachim Kind (State Office of Cultural Heritage for Baden-Württemberg) provided an overview of issues involving the preservation of cave sediments. Paul Goldberg (Boston University) outlined the history and challenge of geoarchaeological studies, and Roger Sala (Spain) discussed the use of remote sensing as a tool in preservation of cultural heritage. Jill Cook (British Museum) illustrated procedures for conservation of mobile Paleolithic materials. Finally, Gerd-Christian Weniger (Neanderthal Museum) and Geneviève Pinçon (CNRS) discussed various issues involving the exhibition of human fossils in museums and the concept of a “site” in the Eurasian Paleolithic, respectively.

The ultimate goal of all the presentations and subsequent discussions was to chart a way forward in terms of including more Paleolithic sites on the World Heritage List. Participants were organized into five thematic working groups to discuss various aspects of policies and procedures for accomplishing this goal. These groups were led by members of the UNESCO HEADS committee: Nuria Sanz (HEADS Director), Robin Dennell (University of Sheffield), Margherita Mussi (University of Rome), François Sémah (National Museum of Natural History, Paris) and Nicholas Conard. One group developed a preliminary list of archaeological sites for consideration and a general discussion of the Outstanding Universal Value of human evolution sites in Eurasia. The second group provided
much the same for a consideration of a serial nomination of sites reflecting Neandertal biology and behavior. Other groups dealt with application of the World Heritage Center's criteria for inclusion on the World Heritage List to human evolution/Paleolithic sites; the importance of interdisciplinary cooperation for conservation, research and curatorship; and the significance of cave sites for the study of Paleolithic times in Eurasia.

While it will certainly take time for policies and procedures to be fully implemented for Paleolithic sites, the UNESCO HEADS meeting in Tübingen/Blaubeuren made significant progress. The final report for the meeting outlines what HEADS Director Nuria Sanz calls a roadmap for the way forward. The meeting was exemplary of the type of international cooperation that stands at the core of the UNESCO mission; and the venues at the University of Tübingen, the Prehistoric Museum in Blaubeuren, and the impressive sites of the Swabian Jura were constant reminders of the importance of recognizing, preserving and presenting to the public the incredibly important part of human heritage represented by human adaptation, evolution and dispersion during the Paleolithic.