THE ARCHAEOLOGICAL SITES OF DE PINILLA DEL VALLE
THE VALLEY OF THE NEANDERTHALS PROJECT

The upper reaches of the Lozoya Valley, close to the village of Pinilla del Valle, some 100 kms north from Madrid, are home to a number of prehistoric sites of special scientific interest. They contain the remains of Neanderthals (*Homo neanderthalensis*), hominids more ancient than our own species. This makes them members of a small club of sites within Europe that contain palaeoanthropological remains. They also contain fossil associations of vertebrates from the Upper Pleistocene more complete than those of any other site in the Iberian Peninsula. Along with other palaeobotanical and geomorphological information, the findings at these sites are allowing us to reconstruct the past climates and landscapes of the region.

The first site to be found, the Camino Cave, was discovered in 1979 by palaeontologists from the Universidad Complutense de Madrid. Excavations began in the 1980s under the supervision of Prof. F. Alférez. After a break during the 1990s, work was resumed in 2002 by an interdisciplinary group of researchers - archaeologists, palaeontologists, geologists, biologists and restorers - coordinated by the Museo Arqueológico Regional de la Comunidad de Madrid, and soon extended to cover the entire area of the upper Lozoya River valley.

This led to other sites being found at Calvero de la Higuera: Navalmaíllo Rock Shelter, Buena Pinta Cave, and Des-Cubierta Cave sites. The last of these was only discovered in 2009. There is, however, evidence that other fossil-bearing cavities exist in this same karst system.

The interest that arose in these sites led to the area of "Los Calveros" being declared an Area of Special Cultural Interest by the Madrid Regional Government in 2005.
Aerial views of the Calvero de la Higuera Hill
THE CAMINO CAVE SITE

This site, an old and largely dismantled cave formed in Cretaceous dolomite, is filled with sediments. It has a number of stratigraphic levels dated to between 140.4 ± 11.3 ky (Level 3) and 91.0 ± 7.9 ky (Level 5).

Several thousand fossils of vertebrates have been recovered over the many years of excavation at the site. The diversity of mammal fossils is particularly ample, with over 50 species identified. These, plus the great abundance of carnivore remains, the markings on herbivore bones, and the overall modifications of the latter, suggest that the cave was once a hyaena den. It was originally thought that Homo neanderthalensis, two molars of which have been found at the site, was responsible for this accumulation. However, the virtual absence of any sign of lithic industry or hearths means, in all likelihood, that humans did not use this cave much at all.

The species most represented among the cave's fossils include fallow deer (Dama dama), horses (Equus ferus torralbae) and red deer (Cervus elaphus). Carnivores are represented by many different species, including spotted hyaenas.
(Crocuta crocuta) (see photo above), brown bears (Ursus arctos), wolves (Canis lupus), lynx (Lynx cf. pardinus), and even lions (Panthera leo). The finding of the remains of a porcupine (Hystrix cf. brachyura) along with those of a boar (Sus scrofa) and a Hermann's tortoise (Testudo hermanni) suggest that some of the sediments in this cave were deposited during warmer periods with conditions similar to those of today.

NAVALMAILLO ROCK SHELTER

The Navalmaíllo Rock Shelter site was discovered by the current research team during surveys undertaken in 2002. This large rock shelter was where a group of Neanderthals settled. The site has several archaeological levels. We have two dates of some 71.7 ± 5.1 ky and 77.2± 6.1 ky. In contrast to the above site, evidence has been found of hearths in two levels, and there is very abundant evidence of Mousterian lithic industry, mainly involving quartz, the most abundant material in the area. In addition, the site has a rich faunal association - evidence of these people's diet. Many more herbivores than carnivores are represented, especially fallow and red deer, aurochs (giant cattle, now extinct), and rhinoceroses.

Navalmaíllo Rock Shelter (Drawing by Yolanda Gonzalez and Enrique Baquedano)
(a) Trifacial quartz core. (b) Centripetal unifacial quartz core. (c) Centripetal bifacial quartz core. (d) “Micro-core” from Navalmaíllo, level F. (e) Levallois flake. (f) Sandstone denticulate. (g) Chert denticulate point. (h). Retouched chert flake (Márquez et al. 2013).
BUENA PINTA CAVE

This site was discovered by the current research team during surveys undertaken in 2003. This small cave, the mouth of which has been partially dismantled by erosion, runs into the calcareous rock several tens of metres in the form of a straight gallery.

Like Camino Cave, this cave was used as a hyaena den during the Pleistocene. Hyaenas brought the bones of large mammals (which show marks left by the carnivores) into the cave. Abundant coprolites (fossilized faeces) and the remains of hyaena pups have also been found. However, the finding of hammerstones and quartz and flint pieces representative of lithic industry indicate a sporadic human presence at the site. Indeed, during the 2007 excavations, three molars belonging to a single member of Homo neanderthalensis were unearthed in Level 3. The main fossil-containing levels have been dated to between 61.5 ± 5.0 and 63.4 ± 5.5 ky.

DES-CUBIERTA CAVE

Discovered in 2009, this is one of the most recently found sites. It is formed from a series of connected galleries which saw their ceilings collapse as the surface of the calvero (hill) in which they lie was eroded. The sedimentary infilling is thus accessible from above.

Given its size, the sediments present are very heterogeneous from the chronological, sedimentological, palaeontological and archaeological viewpoints. Some sectors contain the remains of micromammals characteristic of the Middle Pleistocene (130,000 years BP); they therefore contain the oldest of all the Calvero de la Higuera materials examined. Other sectors contain palaeontological remains and evidence of lithic industry from the Upper Pleistocene.
In 2011, five well preserved Neanderthal teeth were found from an infant just 2-3 years old (now known as The Lozoya Child) plus a fragment of a mandible. Analysis of other remains suggests this child may have been lain in a grave.

RESEARCH LINES

The interdisciplinary project underway has the aim of reconstructing the past from the information provided by the above sites. The idea is to understand how the landscape changed, what the climate was at the transition between the Middle and Upper Pleistocene, how the animals, plants and humans of the area evolved, how hyaenas and Neanderthals interacted, and to comprehend the activity of the latter animals at the Cuevas del Camino and Buena Pinta sites. Learning more about the behaviour of Neanderthals and understanding the occupation levels they left behind at the Navalmaíllo Rock Shelter and Cueva Des-Cubierta sites, are further grand goals.

This project is directed by palaeontologist Juan Luis Arsuaga (UCM-ISCIII), archaeologist Enrique Baquedano (MAR), and geologist Alfredo Pérez-González (CENIEH).

REFERENCES


