>NEWS FROM ATAPUERCA IN ENGLISH

IN RESPONSE TO WORLDWIDE INTEREST IN ATAPUERCA, this page contains an English-language selection of highlights from the previous issue.


Un gran año de hallazgos para el estudio de la fauna

>FIRST HUMANS ARRIVED 1.2 MILLION YEARS AGO. Over 22,000 bone and tool records in two months of digging. Elephant Pit yields new evidence of first Sierra occupants

>Gran Dolina td10. Thousands of tool and fauna remains documented in the richest campaign yet to be undertaken. Digging will continue in an area used for the consumption of large herbivores in what was a pre-Neanderthal hominid camp more than 300,000 years ago. The technology used by these hominids featured small knives, many denticulates and sharp objects from what archaeologists call Mode 3 or Mousterian industries.

>Gran Dolina td8. The levels close to the 500,000 year mark yielded a rich palaeontological record for the first time for this period. Digging took place in an area with a large number of craneal, dental and postcraneal items from fallow deer, horses and giant red deer, which will help to trace vertebrate evolution during the Pleistocene. This level was a carnivore den during its formation, which will help us to define the behaviour of the large predators that competed with humans.

> Claw-mark cavity (Covacha de los Zarpazos). Digging was resumed in a 12m2 area of this small cavity in the Cutting, yielding a small assemblage of tool remains associated with large carnivores and herbivores. This cavity was used by bears for hibernation, and was occasionally entered by lynxes, large felines and humans. Homo heidelbergensis groups sometimes consumed remains of equids, cervids, bovids and rhinoceros, the same species documented at level 10 in Gran Dolina, but involving less transformation and occupancy.

>Upper Elephant Pit (Sima del Elefante Superior). In 2001, the most recent strata in the railway cutting yielded evidence of a 150,000 year-old hearth. Digging back along the whole of the top profile of this cave has now yielded an extremely rich deposit of carnivore and herbivore remains as well, with occasional incursions by human groups. One particularly generous section of the palaeontological findings has been removed intact for more careful excavation under laboratory conditions.

>Lower Elephant Pit (Sima del Elefante Inferior). We have now reached levels dating back 1.2 million years. In addition to a rich record of small vertebrates and birds, we have identified several limestone tools and cutmarks from defleshing on the jawbone of a large bovid, permitting the first occupation of the Sierra to be dated at increasingly earlier points in time. An antler shed by a giant deer will reveal the phylogeny of the first Pleistocene cervids.

>Bones Pit (Sima de los Huesos). New datings in this recondite deposit are feeding suspicions that the breach containing human bones may be more than 350,000 years old, 50,000 years earlier than hitherto assumed. Excavations at the level above the one where the human fossils were found have yielded a large mass of ursids, apparently confirming that the human level formed over a short period, with little connection to the occupation and successive death of the ursids.

>Main Cave Porch (Portalón de Cueva Mayor). The laborious task of clearing and removing rubble accumulated at the entrance to Cueva Mayor from successive excavations and structural collapses over the last century was finally concluded. Work barely started on the undisturbed levels, which appear to be advanced Neolithic occupations. Many fragments of ceramics and domestic fauna were found.

>Main Cave Galleries (Galerías de Cueva Mayor). Work has proceeded on tracing and documenting the prehistoric etchings and paintings in the Choir Hall (Salón del Coro) and the Statue Gallery (Galería de las Estatuas). Grids, parallel and branching lines are frequent, with a number of motifs that are still interpreted in ideological rather than economic terms. The Neolithic and Bronze Age peoples probably used part of Cueva Mayor as a sanctuary.

>The Lookout (El Mirador). Sampling begun in 1999 has been dug down almost five metres to strata that are rich in shaped stone work, alternating with phases of cattle stabling and periodic dung burning. There is also a small range of ceramic items with an abundance of undecorated shards, domestic fauna, coprolites and scorched bones that will help to reconstruct the landscape and the economic activity of a 5,000 year old period.

>Geomorphology. The on-going analysis of the relief around the Sierra de Atapuerca has enabled our experts to draw a new map of the changes to the Arlanzón River and the genesis of the deposits on the outlying slopes as part of the attempt to define the sequence of formation and changes in its relief.

>EDITORIAL. Aurora Martín. EIA member. Eduardo Capa Foundation (Alicante).

>The way we were

July 1 in the early 1980's.... Los Claveles Pub, Ibeas. Eudald arrives with Robert after an arduous trip from Gerona, Aurora from Cáceres and Carlos from Burgos. The van from Madrid pulls in with Emiliano, Manolo Hoyos and nine Complutense students on board. The "micros" from Zaragoza arrive in their Panda, with the washboard loaded as well somehow. We're all here and dinner is waiting!

Amidst the hubbub of the re-encounter, we discuss notes from our courses, anecdotes from eventful journeys, thesis topics and prospects for this season's digs. Eudald asks Emiliano, "Did you get the army permit? They're not going to start manoeuvres, are they? Remember what happened last year!". Emiliano hesitates for a second, and then begins to describe his trip to South Africa, an anthropology congress with his friends Professor Tobias and the De Lumleys. The noise level suddenly drops amongst the students, impressed by the great names and anxious for an off-campus class, as usually happens at meal times. Afterwards, drinks, cigarettes, a round of cards, then off to Eloy's house to sleep.

>Daybreak. Breakfast

time is spent organizing all the tasks: one novice and one veteran per team, the most daring group sent to the top of Dolina, the rest split up between Galería, the river and the Pit. We climb on board the van, only to find that the track to the cutting is even worse


EL NEOLÍTICO

than last year, "Watch out! Watch out! The sump!". Everybody gets out and continues on foot. Get a move on! Hurry up! We'll never arrive at this pace! "The Army's waiting and we have to set up the scaffolding!" Everybody sets to work. In the background we can hear the Colonel saying, "Emiliano, how old is this thing?" Emiliano says, "Roughly 300,000 years." "Oh! Very interesting! I've got five minutes to spare. Can you explain a bit more to me?". To our surprise, we hear Emiliano begin: "Well, ... 4,500 million years ago...."

>Tired after a morning's hard work, Aquilino arrives with rations of pig's ear and good humour for everybody, gets the fire started and sets the wineskin to chill. That really is a boost for our morale! After the rest, the small team continues its work, making up for the lack of resources with ingenuity, initiative and enormous enthusiasm to learn everything possible in the challenge posed by Atapuerca and instilled in us by Emiliano who has never lost faith in its potential for even a second .....

>Diario de Burgos, 1 July 2002: "150 scientists from all over Spain and the rest of the world arrive for another year's excavations at the Sierra de Atapuerca World Heritage sites. This season, seven different sites will be investigated at the same time...." A fleet of buses streams out towards the Cutting car park from the Gil de Siloé University Residence in Burgos, where the team members have installed their living quarters, laboratories and computer equipment. The guards open the gates to the jealously protected sites. At the sight of the massive permanent scaffolding structure in the distance, one of the veterans can be heard to say, "...25 years ago, when we came here in a couple of cars, we had to rig up the scaffolding ourselves before we could begin..."

>LIONS, BEARS, LYNX, DEER, RHINOCERI, BISON....

The quantity and quality of the palaeontological items uncovered will enable us to establish a reference sequence for the evolution of the large vertebrates on the Continent. Never before have such complete and valuable mammal remains been found. Excavations at level TD8 in Gran Dolina and The Lookout have also yielded numerous coprolites.

The most exciting animals include lions and rhinoceri at TD10, fallow deer and horses at TD8, lynxes, red deer and bears in Claw Marks Cavity, beavers, megaloceri and moles in the Lower Elephant Pit, bears, rhinoceri and two types of equids in the upper levels of the Elephant Pit, bears and foxes in the Bones Pit, and goats, sheep, pigs and dogs in Lookout Cave. In addition, remains of rodents, batrachia and several dozen microvertebrate species were found at every site.

Jan van der Made, the leading expert on the quaternary herbivore team, confirmed that the discoveries have marked a before and after this year's digging season. Solid research can now be undertaken into the degree of evolution of each of the species, including comparisons with other palaeontological sites in Europe.

>Atapuerca and IBM begin collaboration on archaeological technology Prehistory and technology > This year, excavation in the upper levels of Gran Dolina has included the experimental use of a prototype electronic system designed by the IBM e-business innovation centre in Madrid.

This wireless system (3-COOR) includes a label-printing device that allows scientists to classify the items they unearth. On balance, the results of the experiment were clearly positive, and only minor improvements are required. The use of electronic diaries is the first step towards equipping Atapuerca with the latest technology to speed up and improve the excavation process. An agreement signed with IBM will enable the multinational to continue its collaboration with the researchers in processing the data as they are discovered.

>2002: Record number of participants >Diggers from the Railway Cutting (Trinchera del Ferrocarril) pose in front of Bear Claw Cavity. 150 students and experts joined efforts and enthusiasm to ensure that this World Heritage site will continue to be a world reference point in the study of the biological and cultural evolution of our species. Workers from Canada, the USA, Portugal, France, Austria, Poland and China were part of this year's team.

ATAPUERCA AND BURGOS

ATAPUERCA FOUNDATION AWARDS TEN RESEARCH GRANTS> The aim of these scholarships for researchers working at the sites is to continue the training and consolidation of a qualified multidisciplinary team. This year's novelty consists of two post-doctoral grants to allow the graduate researchers to continue their work. In addition, a contract with Repsol YPF worth 30,000 Euro per year for the next three years has given Repsol the right to be the

'Official Fuel Supplier' for the excavations.

REGIONAL GOVERNMENT PREPARES EXHIBITION FOR NEW YORK> The New York Museum of Natural History will host the Atapuerca, the first Europeans exhibition between 9 January and 15 April 2003 at. Representatives of the Castilla y León Regional Government held meetings with the Museum Director, Ellen V. Futter to complete the final details of the contents. Museum representatives David Harvey and Ken Mowbray visited the sites for a close insight into the excavations. The exhibition commissioner will be palaeontologist Ian Tattersall.

DINOSAUR DIG IN LA REVILLA> Digging at the Burgos site known as Tenadas del Valle-II has yielded several dinosaur bones, now on display at the Salas de los Infantes Museum. Finds to date include vertebrae, a complete femur and hipbones from a rebranchiosaurid, a species found in Africa and South America. Its presence makes the Salas site exceptional in Europe.

19 JULY, ATAPUERCA DAY IN CASTILLA Y LEÓN. Atapuerca team gives 25 lectures in 25 towns

LARGE-SCALE PUBLIC INFORMATION CAMPAIGN TO MARK 25TH ANNIVERSARY >In an unprecedented initiative in Spanish science, 25 researchers from the Atapuerca group delivered educational lectures about the importance of the sites in 25 towns across the Castilla y León Region.

Co-ordinated by Ignasi Pastó, 25 Castilian towns with more than 5,000 inhabitants were able to hear at first hand about the background, the results and the expectations after 25 years of excavations.