



It was a tooth!

• Leyre Prado Simon •

The Sierra de Atapuerca is situated near the mediaeval city of Burgos (northern Spain). It contains a unique and rich complex of archaeo - palaeontological sites which were inscribed in the UNESCO's world heritage list in 2000.

It is widely known that anatomical evidences of hominids are very rare but precious findings. Thousands of human and non-human fossils from different chronologies and

species, as well as lithic tools of different technologies have been found in Atapuerca. This is one of the reasons why it is considered such a historical treasure.

In the Galería del Sílex site, a Neolithic sanctuary of the Bronze age has been discovered. In the Sima de los Huesos site, more than 5000 human fossil remains of at least 28 individuals of *Homo heidelbergensis* (ca. 500.000 years) have been found so far. In July 1994, in the TD6 level of the Gran Dolina site, near a hundred human fossil remains were found, and a new specie, *Homo antecessor* (800.000 years), was named. New human fossils and lithic tools are found every year during the excavation period in Atapuerca.

More than a hundred years ago, an English railway company created a trench for a railroad in the middle of Atapuerca mountain range. This project was operative only during a few years, but the creation of the trench exposed several caves infillings that compose nowadays the group of three sites called the Trinchera del Ferrocarril (Railroad Trench): Gran Dolina, Galería and Sima del Elefante. These caves together with the ones that are situated inside the mountain range (the most important one is Sima de los Huesos inside the Cueva mayor- Cueva del Silo Complex) compose the Atapuerca site.



From the eighties, systematic excavations have been carried out in Atapuerca site. Every summer in June and July, a multidisciplinary group of 150 people (30 doctors, several PhD researchers and some university students) excavate the site. Experts in almost every field can be found in Atapuerca: geologists, archaeologists, palaeontologists, doctors even dentists! Any question you have will be answered because there are many chances to find the best expert in Europe excavating close by. These innovative and unusual system of excavation and interdisciplinary research team were introduced by the famous scientist Emiliano Aguirre who retired in 1991 and let the direction of the site to José María Bermúdez de Castro (paleoanthropologist, expert in teeth and mandibles), Eudald Carbonell (archaeologist) and Juan Luis Arsuaga (palaeontologist) who are the co-directors of Atapuerca nowadays.



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This summer has been really especial for the history of Atapuerca and for the history of paleoanthropology. At the beginning of the excavation period, in Sima del Elefante, a site where no human fossils appeared before, a tooth was found. It was a lower premolar, José María Bermúdez de Castro coincided with María Martín Torres (both experts in teeth anatomy): it was human. This tooth is now the oldest human fossil remain found in western Europe, it is the anatomical evidence of the hominids that fabricated the tools in Sima del Elefante more than one million years ago.



This has been my first year of fieldwork in Atapuerca, actually it has been my first experience with excavations in my life, and it could not have been better. I consider a real privilege to have lived such an amazing moment. I was excavating in another site (TD10 level in Gran Dolina). When the finding was performed the people that were excavating in Elefante came to call us and to share the happiness and celebrate it with the rest of the team members. The feeling that I had when I arrived to the site and saw the premolar is indescribable...It was a historical moment and the finding was...a tooth!! ■