



## **A new facility for Quaternary Geochronology in Spain: The National Research Centre for Human Evolution (CENIEH) in Burgos**

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A new geochronology facility has been recently set up in Burgos, Spain, as part of the recently established National Research Centre for Human Evolution (CENIEH). The CENIEH is sponsored by governmental funding and was established to foster major advances in our understanding of human evolution through multidisciplinary research. As part of this initiative, a modern laboratory complex is emerging as an European facility for Geochronology and Geoarchaeology. The Geochronology laboratories include archaeomagnetism, electron spin resonance, luminescence, uranium-series, and a clean laboratory for sample preparation. The facility includes a 2G, 755-4K SRM superconducting magnetometer, a Bruker ESR spectrometer (EMXmicro-6/1 model) associated with a low-temperature control system, allowing ESR measurements at room and liquid nitrogen temperature, two Riso readers with a single-grain and pulsed OSL attachments, a ThermoFinnigan Neptune MC-ICP-MS, with a CETAC Aridus and an ESI Apex sample introduction system, a NewWave UP213 nm laser ablation facility, a NewWave Instr. Micromill and ancillary sample preparation and field equipment. The Geochronology group, GEB (Geochronology rEsearch group in Burgos) is being set up as a facility that provides auxiliary laboratory and general support to the scientific community interested in Quaternary studies, and in archaeological and paleontological sites. Methodological advancements in Quaternary dating, and inter-technique collaborative studies form an integral part of GEBs research activities. Current research projects include the chronology of the oldest human occupation of Europe (Atapuerca and Orce), north-African archaeological sites and integration with Plio-Pleistocene climatic changes, rates of incision and uplift of Cenozoic basins in Spain, and dating of ancient DNA sequences and early human occupation sites across Siberia and North America.