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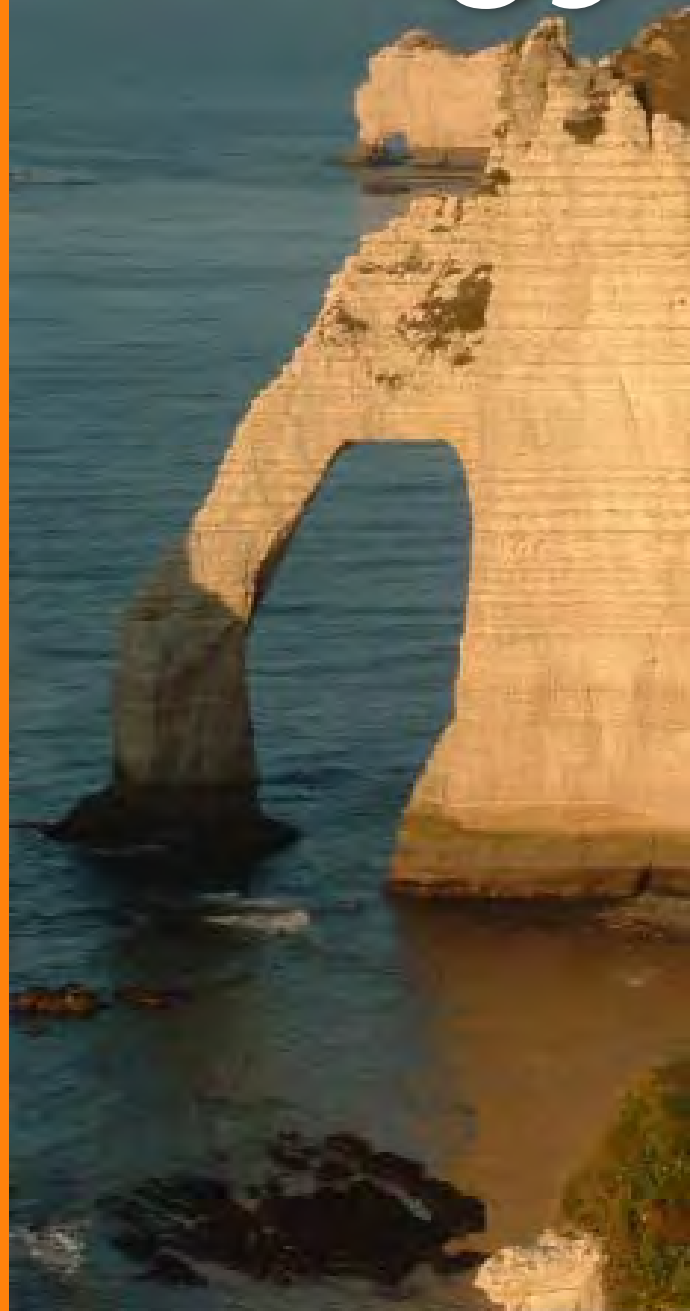
ABSTRACTS VOLUME

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Karstic evolution and Human occupation in the Mas d'Azil Cave (Ariège, Pyrénées, France): new research and new results

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The cave of Mas d'Azil, with the Arize river running through it, is one of the most important – and impressive – karstic context in Southern France. It is also an important place for Prehistoric research, especially for the knowledge of the Magdalenian and Epipaleolithic cultures. However, few synthetic studies are available, contrasting with the celebrity of the site. Under the upstream porch, the left bank still holds cultural sequences from the end of the last glaciation to the Neolithic, intercalated with flood silts. In contrast, the right bank, where the deep galleries are located, was considered sterile or already completely excavated.

Recent preventive (rescue) archaeology operations were conducted on the right bank that have significantly restored the potential of this cave. This paper will present the first results of our work, which is the beginning of a future boarder research program. Thus, the remains of *in situ* stratigraphy offer a new history of the cave where human occupations, such as some unpublished older and recent Aurignacian, are punctuated by the evolution of the cave and its filling, during the LGM episode. Layers of fluvial sediments were deposited before the Aurignacian but also after. These sediments buried archaeological remains under several meters of deposits. They also partially filled all the lower part of the cave and closed some galleries. This event also permits us to revisit the dating of the rock paintings of the Gallery Breuil, considered anterior to the Magdalenian, by setting a *terminus ante quem*. After the re-opening of the cave, human occupations belong to the Middle Magdalenian. *In situ* cultural horizons were discovered under a layer of Mesolithic ashes. The phenomenon of floods recorded here, could be extrapolated across the regional geomorphology and gives, for the first time, strong arguments for to date the formation of the alluvial terraces of the Arize River and to link it to the Garonne valley.

Isturitz, Oxocelhaya and Erberua Caves (Pyrénées-Atlantiques, France): geoarchaeological studies

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Isturitz, Oxocelhaya and Erberua Caves are located in the foothills of the western Pyrenees. The landscape is hilly and is crossed by a wide valley with a small river, the Arberoue. Downstream, the river disappears into the limestone of Gaztelu Hill: this underground flow created the Erberua Cave. Above this natural tunnel we observe three fossil staged caves: Oxocelhaya, Isturitz and Rocafort. The Gaztelu Caves provide a major European Prehistoric archaeological site. The first recorded data came from the Isturitz Cave (1895), then from the Oxocelhaya Cave (1929) and finally from the Erberua Cave (1973) giving evidence of human occupation during the Mid-Upper Palaeolithic period. These archaeological remains are not uniformly distributed. In Erberua, some of the paintings suggest a Gravettian use of the cave but the works date from the Magdalenian time (Middle and/or Upper). In Oxocelhaya Cave, the settlement may date from Aurignacian time but the art works generally date from the Magdalenian time. In Isturitz Cave, the importance and diversity of the Aurignacian objects are exceptional and prove the permanent nature of this settlement where numerous activities took place. Also during the Gravettian time, an enormous quantity of material is proof of a very important human presence. During the Middle Magdalenian time, the activities are marked in particular by hundreds of portable art, this is why this cave has been described as one of the most important aggregation sites of the Pyrenees. The research team is multidisciplinary and was established in 2011 around twelve main objectives. Our contribution concerns the first two stages and includes speleologists, geologists and karstologists. The first stage was the charting of the numerous listed activities and the second stage will analyze their organization according to the topographic, geological and karstologic specificities of the Gaztelu Hill.