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**THE CONHAL OF ARNEIRO  
(NISA, NORDESTE ALENTEJANO, PORTUGAL).  
A GEOARCHAEOLOGICAL VIEW ON ANCIENT GOLD EXPLOITATION  
IN A LATE QUATERNARY TAGUS RIVERINE LANDSCAPE**

**ABSTRACT:** DEPREZ S. & DE DAPPER M., *The Conhal of Arneiro (Nisa, Nordeste Alentejano, Portugal). A geoarchaeological view on ancient gold exploitation in a Late Quaternary Tagus riverine landscape.* (IT ISSN 0391-9838, 2008).

This paper presents the results of geoarchaeological research in the Portuguese Tagus Valley. Until recently, the Late Quaternary evolution of the *Conhal* of Arneiro (Nisa, Northeastern Alentejo, Portugal) was poorly examined and understood. Especially the large-scale exploitation for placer gold in historical times complicated the landscape reconstruction, as it systematically obliterated large parts of the archaeological and palaeoenvironmental record. The Pleistocene T2 Tagus River terrace was exploited over an area of 0.6 km<sup>2</sup>, resulting in the removal of ca. 8.4x10<sup>6</sup> m<sup>3</sup> of auriferous sediments. The sterile waste products that were evacuated towards the Tagus and its tributaries, choked parts of the valleys and covered the Late Glacial-Holocene T1 terrace.

A geoarchaeological approach was vital to assess the different natural and anthropogenic processes and their interactions during the Late Quaternary. Firstly, the anthropogenic landforms were identified and interpreted as to their function in the exploitation process. Within this framework, the preserved fluvial landforms could be analysed and the Late Quaternary riverine evolution be reconstructed.

It is important to stress the patrimonial value of the *Conhal* since the unique cultural landscape created by the mining activities has been well preserved. The importance of such old industrial sites is however often disregarded. Of all the placer gold exploitations along the Tagus, only the Conhal area has been declared historical mining patrimony. The research presented in this paper can serve as a guideline for the analysis of comparable areas and can be a stimulus towards protection and preservation of this unique heritage.

**KEY WORDS:** Geoarchaeology, Late Quaternary, Tagus River, River terraces, Placer gold, *Conhal*, Portugal.

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