



Landscape and vegetation change on the Iberian Peninsula during the Roman Epoch – A reconstruction based on Geo-Bioarchives

Heike Schneider

Philipps-University Marburg, Marburg, Germany (heike.schneider@uni-jena.de)

Archaeological investigations expect that first strong landscape changes on the Iberian Peninsula based on Roman Occupation (Schattner 1998, Teichner 2007). Actual sedimentological investigations in flood plains, lagoons and estuaries do not reflect this development. They often show a decrease in sedimentation during this period (Thorndycraft & Benito 2006 a/b). In contrast analyses on sediments from roman dams (Hinderer et al. 2004, Solanas 2005) document massive erosion processes.

The aim of this presented project is to reconstruct the effects of the roman land use system on vegetation and landscape development. Therefore different Geo-Bioarchives on several sites of Portugal and Spain – estuaries, palaeoriver channels and roman dams - are actually investigated with a high temporal resolution using palynological and sedimentological methods.

First results show, that the anthropogenic impact starts clearly before roman time with an peak in human activity during Iron Age (Schneider et al. 2008). During the roman occupation phase different effects are visible. The inland areas document a massive increase in vegetation change, while the coastal areas were stronger developed before and show only slightly and very local changes in land use and vegetation.

References

Hinderer, M., Silva C. & J. Ries (2004). Erosion in zentralen Ebrocken und Sedimentakkumulation in Talsperren. GeoLeipzig 2004, Geowissenschaften sichern Zukunft. - Schriftenreihe der Dt. Geol. Gesell. 34.

Schattner, T.G. (1998): Archäologischer Wegweiser durch Portugal.- Kulturgeschichte der antiken Welt 74. Mainz.

Schneider, H., Höfer, D., Trog, C., Daut, G., Hilbich C. & R. Mäusbacher (2008): Geoarcheological reconstruction of lagoon development in the Algarve Region (South Portugal). Terra Nostra 2008/2, Abstract Volume 12th IPC: 248.

Solanas, O.L.-P. (2005): El Aterramiento del embalse romano de Muel: Implicaciones para la evolución de la erosión y el uso de los recursos hídricos en el valle del Huerva. Postgrado en Ingeniería de los Recursos Hídricos, Zaragoza.

Teichner, F. (2007): Zwischen Land und Meer – Entre tierra y mar. Studien zur Architektur und Wirtschaftsweise ländlicher Siedlungen im Süden der römischen Provinz Lusitanien. - Studia Lusitana 3 (MNAR) / Madrider Beitr. (DAI).

Thorndycraft, V.R. & G. Benito (2006a): Late Holocene fluvial chronology of Spain: The role of climatic variability and human impact. - Catena 66 (1-2): 34-41.

Thorndycraft, V.R. & G. Benito (2006b): The Holocene fluvial chronology of Spain: evidence from a newly compiled radiocarbon database. - Quaternary Science Reviews 25 (3-4): 223-234.

