



Geoarcheological reconstruction of the coast development in the Algarve region (South Portugal)

H. Schneider, D. Höfer, C. Trog, G. Daut, C. Hilbich & R. Mäusbacher

Department of Geography, University of Jena, Germany

(heike.schneider@uni-jena.de / Fax: +49 (0) 3641-948812 / Phone: +49 (0) 3641 - 948808)

Silted lagoons in the Algarve region of South Portugal are used for reconstruction of anthropogenic and climatic influences on coast evolution since the Neolithic time.

First investigations in the lagoon of Vilamoura, which was influenced by the roman settlement “Cerro da Vila”, showed that the siltation of the estuary was nearly finished before the Roman Period (Hilbich et al., *subm.*; Teichner, 2005). Sediment analyses in the lagoon of Vale do Lobo, which is around 5 kilometers far from the Vilamoura lagoon, document a start of the siltation at least around 6200 cal. BP according to a radiocarbon dating of charcoal pieces. This results correspond to investigations in other lagoons in the Algarve region (Stevenson, 2000) and on the west coast of Portugal (Dambeck & Thiemeyer, *subm.*) proving the human impact since the Chalcolithic Period.

This poster presents the working concept and the first results of the continuing project, which is focussing especially on the effects of land use and climatically drier periods on erosion processes affecting the lagoon development by changing sedimentation conditions. Drillings in four lagoons of the Algarve region contain the whole sequences from the fluvial sediments during the early Holocene, marine transgression facies during the middle Holocene and the marine/fluvial sediment deposits until present. First sedimentological as well as palynological analyses suggest the connection between silting of the lagoons and the settlement history of this region.

By comparing the genesis of the several archives it should be possible to separate supra-regional effects like climate and sea level changes from local influences, especially human impact on the tributaries.

Thus the interdisciplinary researches contribute the analysis of coast evolution and anthropogenic influences on landscape changes in South Portugal.

References

Dambeck, R. & H. Thiemeyer (subm.): Geowissenschaftlich-geoarchäologische Untersuchungen in Zambujal – Hintergründe, Ergebnisse und Perspektiven.- Madrider Mitteilungen.

Hilbich, C., Mügler, I., Daut, G., Frenzel, P., van der Borg, K., Mäusbacher, R. (subm.): Reconstruction of the depositional history of the former coastal lagoon of Vilamoura (Algarve, Portugal): A sedimentological, microfaunal and geophysical approach.- Journal of Coastal Research.

Stevenson, A.C. (2000): Abalario – Acebrón mire.- [in:] Fieldtrip Guide, INQUA Meeting 27-31 March 2000, Seville (Spain), Commission on the Holocene, Environmental Changes during the Holocene, S. 15-37.

Teichner, F. (2005): Arquitectura doméstica romana no litoral algarvio: Cerro da Vila (Quarteira). Estudos IPPAR 7, S. 206-211.