



Symposium 46

Landscape trajectories during the long Anthropocene: dialogues between ecology and archaeology

4 July 2019 – Talk n. T0761

An agricultural system in a hostile environment: the Late Roman site of Umm al-Dabadib – Kharga Oasis (Egypt)

Antonello Migliozi^{1*}, Giovanni Battista Chirico¹, Stefano Mazzoleni¹ and Corinna Rossi²

¹ Department of Agricultural Sciences - Musa Center - Musei delle Scienze Agrarie, University of Napoli Federico II

² Department ABC - Politecnico of Milano

*Corresponding author

Abstract

This work, funded by an ERC consolidator Grant, focuses on archaeological and environmental methodology used to investigate a chain of Late Roman fortified settlements of the Kharga Oasis, located in Egypt's Western Desert, that in the Fourth Century AD represented a portion of the southern boundary of the Roman empire. The best-preserved site is Umm al-Dabadib (25°43'47.66"N; 30°25'20.03"E) containing the virtually intact remains of an imposing settlement with a vast and elaborated agricultural system.

The site fully represents the struggle between man and environment on a knife edge. The core of the archaeological site was built in the early Fourth Century AD and abandoned only one hundred years later. The state of preservation of the Fortified Settlement is remarkable: the remote position, the excellent building technique, the lack of reuse, and the local climate all contributed to its preservation for sixteen centuries. The desert environment preserved not only the architectural features, but also the physical remains of the agricultural system. In Umm al-Dabadib, we are not simply facing the ancient Roman centuriatio (field division), but also the actual remains of subterranean aqueducts (qanat), covered conduits, open-air canals, outlines of fields, cultivated soil.

The research work by a combination of classic and innovative investigation techniques (3D survey, archaeological excavations of the built-up area and the agricultural system, archaeobotanical analyses, ceramic studies, analyses of satellite images), allows an integrated analysis of a unique cultural landscape built seventeen centuries ago at the edge of the inhabited world.

Keywords: *Desert irrigation, Qanat, Archaeology, Ecology, Cultural Landscape*