

Copernicus and Cultural Heritage in the Eastern Mediterranean under the 'ATHENA' Project

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Copernicus European Union Programme aiming at developing European information services based on satellite Earth Observation and in situ (non-space) data, is coordinated and managed by the European Commission. Several Copernicus services are currently provided from the Sentinel satellites and other supporting missions. Sentinel-1 and Sentinel-2 can provide systematic radar and optical data worldwide with a high temporal resolution. This paper focuses on the potential use of these sensors for Cultural Heritage applications, providing in this way valuable information to stakeholders and other end-users as well as the archaeological community. Examples include the exploitation of the satellite products for the detection of damaged archaeological sites in the cities of Palmyra and Nimrud, CH sites in Syria and Iraq, as well as to examine potential soil marks in the UNESCO World Heritage Site of “Nea Paphos” in Cyprus. Looting marks have been based on supporting WorldView-2 products, are also presented. The overall results, expose the potentialities of Earth Observation data and the promising use of the Copernicus Programme as a European service for World Heritage applications. This study was carried out under the H2020 ATHENA project.