

Geoinformatics-Based Mapping of Cultural Heritage of Sudan: Initiatives and Challenges of the Future University

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ABSTRACT

Cultural heritage is the most universally valued and most evenly distributed resource in the world. However, it is both fragile and finite that needs geospatial inventory, scanning or digitization of best tools for conservation and restoration for various cultural plans and programs in every country, such as Sudan where cultural mapping project has been started. Cultural mapping has been recognized by national and international agencies and institutions as a crucial tool and technique in preserving the world's intangible and tangible cultural assets and resources of a country or a given historical areas. It encompasses a wide range of techniques and activities from community-based participatory data collection and management to sophisticated mapping using geoinformatics-based tools such as geographic information systems (GIS), remote sensing (RS), global positioning systems (GPS) and internet/web-based mapping science and technologies. As an initiative of the Faculty of Geoinformatics of the Future University, a pilot project of cultural mapping of the Archaeological Sites of the Island of *Meroe* was conducted to build wealth of geo-referenced data and information of various cultural assets of more than 50 pyramids and related resources covering the area in *Meroe* located in *Shendi* state at northern part of Sudan. Zoning and environmental management plan thematic map of *Meroe* was also develop to delineate suitable protection zone boundaries for the island of *Meroe*. Such geoinformatics-based tools showed as indispensable technique in cultural resource mapping and management among academician, researchers, site/planning managers, inter-agency collaborators, and policy makers at local, national and international levels. Moreover, capacity building of such new and emerging geoinformatics science and technologies is very important among other integral components of cultural mapping and project design for sustainability for conservation and restoration will be presented.