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Geomorphological mapping as an instrument for Geoheritage and Geoconservation - a study of geosites in granite terrains of Northeastern Brazil

Eliomara Leite Meira Gomes¹, Rubson Pinheiro Maia², Anna Sabrina Vidal de Souza³, and Ana Beatriz da Silva Barbosa⁴

¹Department of Geography, Federal University of Ceará, Fortaleza, Brazil (eliomaraleite@hotmail.com)

²Department of Geography, Federal University of Ceará, Fortaleza, Brazil (rubsonpinheiro@yahoo.com.br)

³Department of Geography, Federal University of Ceará, Fortaleza, Brazil (annasabrinavidal@gmail.com)

⁴Department of Geography, Federal University of Ceará, Fortaleza, Brazil (beatrizanna1995@gmail.com)

Geoconservation is an instrument of Geodiversity, and encompasses a set of actions from inventorying and characterization of geosites to their conservation and management, in addition to enabling the appropriate use of its scientific, educational, cultural, touristic, and economic values. The inventory, characterization, and representation of geosites from a geopark is essential for recognition of its scientific importance and collaborates to verification of potential conservation and its different forms of use for geopatrimony. The geomorphological mapping as an instrument of this representation permits the users to visualize the landscape elements and makes them understand why such an area is a site and a geopatrimony. This work aims to describe the geomorphological heritage of an area designated for the creation of the Sertao Monunmental Geopark, in central Ceara, Northeastern Brazil, using geomorphological mapping, to represent the landforms and to discuss landscape dynamics. In this regard, different cartographic products are necessary, such as geological maps, clinographic and hypsometric, pedological, hydrographic network and sub-basins, and geomorphological maps in detail and semi-detail scales in which the main geographic accidents, residual reliefs, planed surfaces, and slopes will be presented. The methodology of the landform classification will be made in accordance with Ross (1991; 1992), Santos *et al.* (2006), Dantas (2016), Diniz (2017), and IBGE (2009), among others that categorize the relief in taxonomic units. These are the following morphostructural units (1st taxon), morphosculptural units (2nd taxon), morphological units or similar patterns of forms (3rd taxon), types, and forms of relief (4th taxon). For the representation of relief patterns, it is assumed to consult the technical documents with standards and representations of geomorphological aspects. This work will be based, on geoprocessing techniques with GIS, mostly using QGIS software, and satellite and radar image processing for scales 1/250,000 and 1/100,000, and high-resolution imaging for more detailed scales (1/10,000 and 1/25,000). It is expected that this geomorphological mapping contributes to understanding the spatial setting of landforms in the study area providing an interpretation of the geomorphological facts and supporting different activities in the region, such as the orientation of visits and planning projects.