

Geodiversity and Geoheritage of sandstone landscape: Cerro Colorado, Córdoba, Argentina

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- The **CERRO COLORADO CULTURAL AND NATURAL RESERVE** is located on the north-eastern slope of the **Sierras Pampeanas, Córdoba mountain sector, Argentina** (30° 05' S 63° 55' W).

- This locality is well known for the impressive archaeological legacy recorded in rock art, almost 4200 painted and engraved motifs preserved inside sandstone shelters, made from ca. 400 AD until the arrival of the Spanish conquers in the XVI century.

This study aims to characterize the geodiversity of Cerro Colorado by documenting the variety of sandstone morphologies and understanding their possible process origins within a global context.

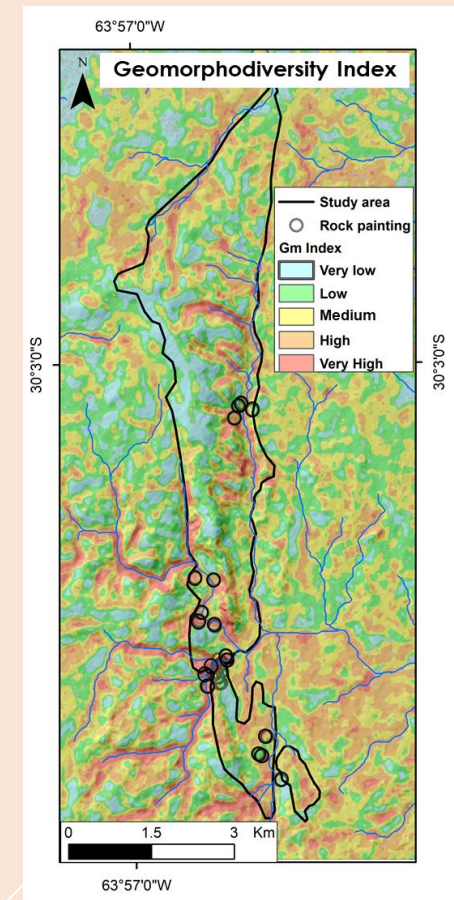
Methodology

- 1) field survey and data collection,
- 2) sandstone landform inventory,
- 3) the estimation of the morphological component of geodiversity through the geomorphodiversity index.

Alos Palsar DEM at 12.5 m spatial resolution was used as primary data. The GmI was carried out on SAGAGIS. The final GmI map was performed in ArcGis 10.3

Landform Inventory

Large ($\geq 100 \text{ m}^2$)	Extra-medium (100-10 m^2)	Medium (10-1 m^2)	Small ($\leq 1 \text{ m}^2$)
Convex Slope	Cliffs Flared slopes Cavernous forms Planation surfaces Stepped slope	Caves Alcoves Tafoni Balanced rock Boulders Fold Arches Waterfall	Honeycombs Surface spalling Speleothems Bedding Cross-bedding
Concave Slope	Cavernous forms Pavement Massive dome Tors Rock slide	Caves Alcoves Tafoni Balanced rock Boulders Fold Arches Waterfall Tors	Honeycombs Surface spalling Speleothems Bedding Cross-bedding Gnammas Joints Polygonal cracks Tessellations Polygonal boxwork
Valley areas	Pavement Massive dome Rock slide Planation surfaces	Boulders field Tors Pavement	Gnammas Joints Polygonal cracks Tessellations Polygonal boxwork



It is necessary to contemplate a new focus on cultural heritage protection and management emerges, as it becomes evident that sandstone architecture is the key to conservation. This contribution evidences that the preservation of geoheritage and cultural legacy must be valuated jointly.