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# **Proposal for the protection and conservation of the Terra Rossa soil profile from Istria in the category of geological monument of nature**

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**DAY:** Monday

**SESSION:** 2

**TIME:** 10:30:00 AM

**PRESENTATION FORMAT:** POSTER

## **ABSTRACT:**

Soil is an essential component of geodiversity, embodying the various geological processes, formations and materials that contribute to the overall richness and complexity of the Earth's landscapes. Although the importance of soil for the preservation of geodiversity is increasingly appreciated, it has not yet received adequate recognition in Croatia.

Terra Rossa soils, which overlie and mark the youngest subaerial unconformity in the northwestern part of the Adriatic Carbonate Platform from the Mesozoic era, especially on the present-day Istrian peninsula, are ancient relict soils of polygenetic origin. This particular soil type has immense scientific, educational and cultural value, which makes it an exceptional candidate for protection and conservation measures.

As a paleosol, Terra Rossa offers valuable insights into past environmental conditions, climate changes, and landscape evolution. Preserving one of Terra Rossa's soil profiles as a geoheritage site facilitates educational and scientific efforts. It allows researchers, students, and interested individuals to study and learn about the complex properties and processes of soil formation, nutrient cycling, and ecosystem dynamics. Terra Rossa soils in Istria also have cultural significance, having been used for viticulture and olive cultivation since Roman times.

The 3 m thick soil profile in Koreniki shows several signs of colluviation and polygenesis, with kaolinization and iron oxide formation being the dominant processes. According to the WRB system, the profile is classified as Rhodic Lixisol, whose relict properties have been preserved under present climatic conditions. By protecting this soil profile near the renowned Coronica vineyard as a geoheritage site, we recognize and preserve the cultural heritage associated with the use and practices of the soil, promoting an understanding of the interrelationships between man, soil and landscape.

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