

Paper Number: 5385

An overview of the geoheritage of Africa

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The geoheritage of Africa, based on the publication specially prepared for the 35th International Geological Congress, is conveniently described according to major geographic, geological and geomorphological domains. Most of the geoheritage sites of sub-Saharan Africa are related to the Great Escarpment and Southern African Plateau. The plateau and the African land surface which developed between 130 and 30 Ma was the result of uplift caused by a mantle plume. Headward erosion of major river systems into this plateau has resulted in the formation of the Great Escarpment that rings the sub-continent. Many of the iconic sites, such as the Victoria Falls and the Drakensberg, are the result of this erosion, as well as variations in the susceptibility of underlying rock formations to erosion. Meteorite impact scars the Okavango inland delta and early hominin fossils are preserved on the land surface which forms the top of the plateau.

The East African Rift Valley (EAR) is one of the most important tectonic and topographic features of the continent, with rift-controlled lakes, magnificent volcanic peaks and volcanic calderas being a feature. The scenic grandeur and geological significance of the EAR are briefly reviewed and the significance of Hominin fossils found at Olduvai and other localities along the rift valley are briefly discussed.

Wind and water (in wetter times) erosion of sandstone and carbonate sequences has etched out some



of the remarkable landforms of the vast Sahara desert. The White Desert of Egypt, the Hand of Fatima, the natural arches of the Ennedi plateau, and a number of other outstanding landforms are discussed, including the enigmatic Richat ring structure.

A variety of oceanic islands lie off the African coastline, and the contrasting geology of a number of them is described. The beauty of some of the unique mineral specimens to be found at various localities on the African continent is briefly reviewed.



Figure 1: The magnificent Victoria Falls and the set of zig-zag gorges indicating the sites of previous falls.

Figure 2: The grandeur of the sandstone arches of Ennedi, in the Sahara desert.

