

23rd Colloquium of African Geology (CAG23)

ABSTRACTS VOLUME



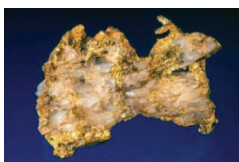
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“Together in Africa for a leading role in geoscience”

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(Photograph by B. Cairncross)

About the CAG23 logo (designed by H. Mouri): The gold-bearing specimen in the shape of ‘Africa’ is a historical piece (size ~ 6.4 cm, see the original photograph below) from the Witwatersrand, South Africa. It is chosen to symbolize the precious nature of Africa in terms of its geoheritage, and natural and mineral resources.

GEOCONSERVATION: A NEW GEOSCIENCES CONTRIBUTION FOR SOCIETY

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Over the last two decades, geoconservation has been gradually entering into the geosciences community. In a broad sense, geoconservation corresponds to a set of initiatives in order to identify, protect, and manage geological heritage. This natural heritage comprises geosites where exceptional occurrences of geodiversity have special importance for science, education, tourism, and culture. In many countries geoconservation is still a marginal field of expertise, as nature conservation policies, either on an international or national scale, usually disregard the abiotic component of nature. It was only in 2008, 60 years after its creation, that the International Union for Conservation of Nature (IUCN) recognized the importance of geodiversity to achieve an holistic view of nature conservation.

In each and every country the protection of geosites must be supported by proper legislation. Unfortunately, this is not the case for the majority of the countries, as legislation concerning nature conservation and land-use planning often omits any reference to geodiversity or geological heritage. Frequently, the protection of geosites is not considered a priority and it only occurs in very particular circumstances for a specific or symbolic geosite.

In 1996, the International Union of Geological Sciences (IUGS) created the Global Geosites Project aiming to establish an inventory of geosites with worldwide scientific importance. IUGS closed this project in 2003 without its main goals being reached, in part because many countries did not have a systematic geosites inventory. In Europe, the Global Geosites Project was mainly conducted by ProGEO, the European Association for the Conservation of the Geological Heritage, created in 1992 to promote geoconservation in Europe. ProGEO still promotes this task in European countries and that is why Europe is, by far, the continent where geosites inventories are most developed compared with other regions.

Geological heritage, materialized in geosites properly managed, supports multiple links with society. The advancement of geological sciences can only be assured if geosites with high scientific value are available for research. Young generations can only have a proper geoscience education if geosites with educational relevance are preserved and ready to be used for formal and informal teaching activities. The use of geosites with high aesthetic value for tourism can generate a substantial income for communities, especially those located in remote areas far away from the traditional tourist routes. The concept of a geopark is based on the conservation of geological heritage to be used wisely in connection with biological and cultural resources, in order to promote geotourism activities capable of generating a sustainable development for local populations. Under the auspices of UNESCO, the Global Geoparks Network created in 2004 has almost 70 geoparks around the world and new applications are being evaluated each year. In addition, education on geoconservation issues may be fully associated with the goals of the United Nations Decade of Education for Sustainable Development (2005–2014), namely “fostering greater quality of teaching and learning of environmental topics”.

Little by little geoconservation is gaining its deserved place within the Geosciences domain. Presently, there are institutions where geoconservation is offered as a field of research (universities, geological surveys, scientific associations, UNESCO, IUGS). This research, sometimes sponsored by the same agencies that support other scientific research, originates master and PhD theses that are shared in networks of experts and geoconservation-related institutions. The study and characterization of geosites makes use of the same concepts and methods commonly employed in geology. The results obtained during research are published in specialised journals and discussed at specific congresses (national and international) dedicated to geoconservation. The first international journal fully dedicated to geoconservation, *Geoheritage*, was released in 2009 under the umbrella of ProGEO and published by Springer.

Geoconservation is just starting, but the future looks promising!