Anniversaries

Symposium 50 years ago

"SYMPOSIUM ON GRANITES, GNEISSES AND RELATED ROCKS OF RHODESIA" (SALISBURY, RHODESIA, 1971).

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Fifty years ago, the landlocked central African country of Zimbabwe was a very different place, then called Rhodesia, with its capital Salisbury (now Harare). It had been colonized by British settlers since 1890, and had been part of the Central African Federation of Southern and Northern Rhodesia and Nyasaland, in the late 1950s.. During the early 1960s, a wave of decolonization swept through Africa, African Nationalism was on the rise, the Federation broke up, and Northern Rhodesia and Nyasaland gained independence as Zambia and Malawi, respectively. In 1965 a group of White settlers in what was now named "Rhodesia" passed a Unilateral Declaration of Independence (UDI) from Britain, and continued to rule as a minority, excluding the vast majority of the population from the right to run their own country. Britain, and much of the rest of the world, declared sanctions against the rebel colony of Rhodesia. But the country was bordered by sympathetic countries: on the east by Mozambique, then still under Portuguese colonial rule, and to the south by South Africa, then ruled by a minority White Apartheid regime.

It was under these conditions, that the Rhodesian Branch of the Geological Society of South Africa (GSSA), under its organizing secretary Euen Morrison, organized "Granite '71", properly entitled "Symposium on Granites, Gneisses and Related Rocks of Rhodesia" (Gibson, 1973). The Symposium was held over three weeks, starting on 30 August 1971, at the University of Rhodesia in Salisbury (which was originally formed as a constituent college of the University of London, with Elizabeth, the Queen Mother, as its first Chancellor).

Geologically, much of Zimbabwe consists of an exposed Archaean Shield, comprising granites with numerous greenstone belts, similar to the Canadian Shield. There are Archaean, Palaeoproterozoic and Neoproterozoic mobile belts surrounding the central Zimbabwe Craton. Part of the Craton is covered with Proterozoic and Phanerozoic sequences. Systematic geological mapping in the country started with the establishment of the Geological Survey of Southern Rhodesia in 1910. Most of the Archaean greenstone belts in the country have been covered by maps at a scale of 1:100,000. The early mapping was compiled onto 1:1 million scale geological maps, which showed that vast areas of the Shield are underlain by granites and gneisses. Granites are associated with mineralized Sn, W, Li and Ta-Nb pegmatites, and mesothermal gold deposits. The first symposium organized by the Rhodesian Branch of the GSSA was on the Rhodesia Basement Complex (which included the economically important Au and Ni-bearing greenstone belts). Granite '71 was the second symposium of this branch.

The Granite ’71 Symposium was attended by about 250 geologists, from Rhodesia, Zambia, South Africa, Swaziland (now Eswatini), Mozambique, UK, USA, Australia, Germany, the Netherlands, and Greenland (Denmark). A total of 57 papers were delivered over 5 days. There were four field excursions, which were run pre-congress, and were repeated post-congress. As was usual in those days of colonialism and the early post-colonial period in Africa, there were no trained indigenous black African geoscientists in Southern Africa, and the conference delegates list was dominated by White males, with the lone female geologist to present a paper there being Dr Linley Lister (daughter of the famous geomorphologist Lester King, and a well-known geomorphologist herself). Dr Lister edited the proceedings volume of the symposium, which was published by the Geological Society of South Africa in 1973 (Lister, 1973). Well known geologists who participated in this conference included Jim Wilson, Keith Viewing, Linley Lister, Clive Stowe, Bill Garlick, Felix Mendelsohn, Roy Miller, Tom Clifford, Carl Anhaeusser, Don Hunter, Alfred Kröner, John Sutton, Bill Fyfe, Karl Mehnert and Brian Windley.

The Granite ’71 symposium was one of the first international conferences devoted entirely to granites, gneisses and related rocks. Most of the papers concerned Archaean granitoids, with an emphasis on those from the Rhodesian Archaean Craton (now known as the Zimbabwe Craton). Other cratonic regions covered were the Kaapvaal Craton of South Africa and Swaziland, the Canadian Shield, the Indian Shield, and the North Atlantic Shield of West Greenland. Gneissic rocks covered included those from the Namaqua, Limpopo, Magondi and Ubendian belts of Southern and Central Africa. Most of the papers dealt with field relations and petrography of granites and gneisses, a few dealt with geochemistry, geochronology, lithium pegmatite mineralogy, geomorphology, and engineering aspects. A couple of papers dealt with Cu and Cu-Ni mineralization in mafic rocks intruded into granitoids. The German school of metamorphic petrology was well represented by Karl Mehnert, who insisted on an anatectic origin for migmatites, and R. Emmerman and E. Rein who wrote about the origin of granites in the Black Forest of Germany forming through anatexis and differentiation.

In the early 1970s the implications of the Plate Tectonics revolution in Earth Sciences had not yet filtered through into the world of granite studies in basement rocks, and the papers in the proceedings volume (Lister, 1973) have no references to tectonic settings, geochemical classification schemes, and detailed petrogenetic studies with which modern granite studies are replete. With its emphasis on Archaean granitoids, the Granite ’71 symposium was the forerunner of symposia series such as the International Archaean Symposium, and the Hutton Symposium on the Origin of Granites and Related Rocks.

To commemorate this international conference, the Rhodesian Post Office issued a series of four commemorative postage stamps, which are reproduced here (Rhodesianstudycircle). They depict the following: (1) 2.5c stamp: a hand-specimen of porphyritic granite, from Pomona Quarry on the outskirts of Salisbury (Harare); (2) 7.5c stamp: an optic axis figure of biaxial mineral muscovite under a polarising petrological microscope; (3) 15c stamp: appearance of a granite in thin section under a petrological microscope; (4) 25c stamp: a simplified geological map of Rhodesia (Zimbabwe), showing granitoids in pink, greenstone belts in green, the Great Dyke layered complex (black), and post-Archaean cover rocks (grey).

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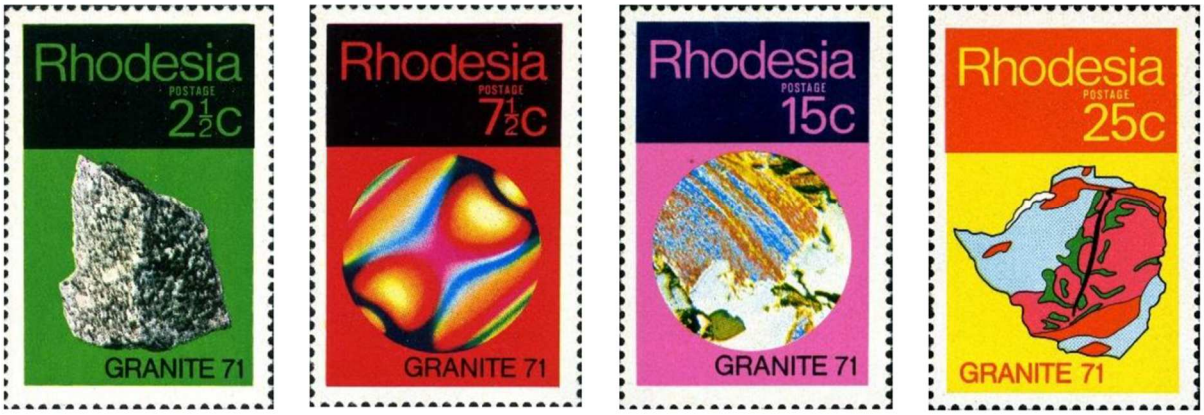

A year after the Granite ’71 symposium, a civil war started in Rhodesia, leading eventually to the formation of the new independent state of Zimbabwe, which was welcomed back into the world. Since independence in 1980, Zimbabwe has hosted numerous international geological conferences. It has an active Geological Society which hosts an annual conference and field excursion, and other lectures (http://www. geologicalsociety.org.zw).

Further Reading

Gibson, C.A. (1973). Foreword. In: Lister, L. (Ed.) Symposium on Granites, Gneisses and Related Rocks. Special Publication No. 3, Geological Society of South Africa, Johannesburg,

Lister, L.A. (Editor) (1973). Symposium on Granites, Gneisses and Related Rocks. Special Publication No. 3, Geological Society of South Africa, Johannesburg, 509 pp.

Rhodesianstudycircle (n.d.) http://www.rhodesianstudycircle.org.uk/wordpress/wp-content/uploads/2016/12/028-1971-Granite-71.pdf

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