

DIGGING DEEP

Brief history of 15th ICG, the first to be hosted in Africa

The City of Cape Town is set to host the thirty-fifth International Geological Congress, the most prestigious of geoscientific conferences, held every four years, between August 27 and September 4. While it is certainly an exciting occasion for South Africa, it is interesting to note that the country has hosted this 'world cup of geosciences' once before – way back in 1929.

The fifteenth sitting of the IGC, which historian was hosted in Pretoria during July and August 1929, was a pioneering milestone in the history of the congress, not only because it was the first to be held on the African continent, but also because it was the first of its kind in the southern hemisphere.

Up to that point, every single congress, barring two, which were hosted by the US and Mexico respectively, was hosted in Europe on the basis that it was the centre of geological academia and progress. Thus, it is not surprising that there was some apprehension in selecting the Union of South Africa to host the 1929 congress.

Of primary concern was the fact that it was still a young country in which systematic geological work had been in progress for only a relatively short period and that work had been undertaken by a comparatively small band of geologists. Also, the subcontinent was a region of wide spaces and required a large canvas for its geological portrait. In other words, to establish a decent geological portrait, visiting geologists required much time and a deep purse to travel the enormous distances to the main designs of the geological structure. Similarly, in the era of premodern flight travel, the time and expense of travelling to South Africa by boat would not have been quite an appealing consideration.

However, the country had two very distinct features that compelled the Madrid Congress of 1926 to, almost unanimously, choose South Africa as the next host. The first was, obviously, that the country was, at the time, the world's dominant mining jurisdiction, particularly in terms of gold and diamonds. The second was the extraordinary richness and diversity of its mineral wealth, a feature that had been reinforced by Hans Merensky's

discovery of the platinum-group-metal-bearing Bushveld Igneous Complex in 1924 and 1925.

It would appear that those two features proved most attractive, for, in spite of the misgivings noted the fifteenth congress was a well-attended event. Of the 573 people, business and associations registered with the IGC at the time, more than half (precisely 296) attended. While South Africans, naturally, dominated the delegate list, 39 countries overall were represented, with Germans, Americans and the English being among the largest foreign contingents.

Given that South Africa's geology was still relatively unknown from an international perspective and that many delegates had travelled so far to attend the event and were eager to see as much of the new country as possible, the organising committee, headed by president Dr **Arthur Rogers** (who was also then president of the Chamber of Mines) and its secretary, Dr **Arthur Hall**, opted to place more emphasis on field trips than on the conference itself. In fact, a total of 22 excursions, covering almost all the most attractive geological areas, were organised during July and August. The generous financial support provided by mining companies and the railways administration meant that the visitors could participate in many of the trips at a relatively low cost.

As most of the foreign delegates landed at Cape Town, two ten-day-long excursions were arranged as part of the journey to Pretoria. The first was planned for those interested in general and structural geology and focused on the tectonic region between Cape Town and Kimberley, while the second (and most popular) was planned chiefly for economic geologists and mining engineers and focused predominantly on the diamond and gold deposits around Kimberley and the Witwatersrand.

During the actual conference session, a number of short excursions were arranged. Among these were trips to Johannesburg's gold mines, Rustenburg's platinum mines, the Premier diamond mine, the Pilanesberg, the Pretoria Salt Pan (now known as the Tswaing



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Crater), and the Vredefort Dome.

Following the conclusion of the congress, eight long excursions, ranging between 3 and 14 days, were arranged. Among the most interesting were the trips to South West Africa to visit Windhoek,

Lüderitz and Tsumeb; Northern Rhodesia (now Zambia) to visit Livingstone and the copper deposits at Broken Hill; and Durban-Zululand to inspect the stratigraphy of Natal and the Drakensberg.

Given the emphasis placed on the field trips, it will come as little surprise that only 70 papers were presented during the actual congress in Pretoria.

The subjects discussed primarily related to geological phenomena of special importance to South Africa and included papers on magmatic differentiation, pre-Pleistocene Glacial periods and the stratigraphy and paleontology of the Karoo System. Other popular subjects discussed included the Rift Valley, continental drift theory, the genesis of petroleum and the geological work of microorganisms. Interestingly, great interest was expressed in the advances in geophysical methods of prospecting, which was significant, considering that such methods would play a fundamental role in the discovery of gold along the West Wits Line just a few years later.

In an overview he wrote a few months later, Hall said of that particular IGC: "Traditions of the international movement were worthily maintained, both as regards the organisation and general arrangements for seeing the main geological features of the country, and in the contributions made to geological science."

It was also concluded that "the personal contact with so many leaders of geological thought under conditions of perfect international harmony was (and will continue to be) a splendid stimulus to the little handful of local geologists, whose work has to be pursued more or less in the shadows of the light that illuminates the progress of geology elsewhere".

Given the intensive preparations that have been made, under the leadership of current IGC president **Richard Viljoen** over the last few years, there is little doubt that the thirty-fifth sitting of this most prestigious congress will meet with similar success.

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