

Paper Number: 5206

**Materials on South Africa geology in The Academician Th.N. Tschernyschew
Central Research Geological Prospecting Museum, St.Petersburg, Russia.**

Kolbantsev L.R., Petrov O.V., Sokolov A.R.

A.P. Karpinsky Russian Geological Research Institute, St Petersburg, Russia; Leonid.Kolbantsev@vsegei.ru

Th.N. Tschernyschew Central Research Geological Prospecting Museum was founded in 1883 along with the establishment of the first state geological institution – the Geological Committee of Russia (Geolcom). The main aim of the Museum was “to collect materials which form the base for geological map compilation and geological description of territory”. These principles forming the museum collection have survived to the present day. Now, the Museum collection fund created for over 130 years' studying of geology of the country and exploration of mineral resources is the largest collection of geological information. It characterizes the geological structure and mineral deposits of Russia and adjacent states in 3 main divisions: **Regional Geology** (stratigraphy and magmatism in Russia and the former Soviet Union), **Mineral Deposits** (more than 1,300 deposits, 70 kinds of raw materials are characterized), and **Monographic Paleontology** (approximately 3,500 collections containing more than 350,000 original flora and fauna remains and used as reference in paleontological studies). In total, collection fund counts about 670 thousand specimens of minerals, rocks, ores, fossils, and 352,536 petrographic thin sections. Over 80 thousand of specimens are exposed in the exhibitions halls (3,750 sq. m). Besides the systematic materials for the territory of Russia and the former Soviet Union, specimens from the reference and unique geological objects of the world are stored in the Museum. As a rule, such collections emerged not as a result of systematic composing, but during geological excursions or other short-term visits to overseas geological objects. On the other hand, the history of such collections often reflects both the history of geology and mining in various countries, and the history of relations between these countries.

The first specimens from South Africa appeared in the museum after discovery of Witwatersrand gold deposits. **A.S. Yermolov**, the Minister of Agriculture and State Property of Russia, who achieved much for development of both agriculture and the accompanying areas in economy, including the Russian Geological Survey, provided a sample of gold-bearing conglomerate from Transvaal in 1897. The next time the museum collection was replenished is the 1920s and 1930s. It was connected with active prospecting and studying of mineral resources, for industrialization of the USSR. At this time, collections were received from: **M.I. Lipovsky** (1926-27) who made a long trip for studying gold and platinum deposits in Canada, the USA, and South Africa (the collection also contains samples of kimberlite, tin, and molybdenum ores from South Africa); **D.I. Mushketov** (1929), one of the two representatives of the USSR at the 14th IGC Session in Pretoria; **A.G. Betekhtin** (1937) – one of the prominent experts in the USSR in ore fields, including geology of platinum ores; and also some combined collections containing rare and precious minerals (malachite, linarite, sapphire and others), crocidolite (Cape Blue) and chrysotile-asbestos from various deposits in the Republic of South Africa, Namibia, and Rhodesia (Zimbabwe).

Despite the absence of official contacts between South Africa and the USSR from the 1960s until 1980s, collection materials continued to come to the museum, mainly from foreign researchers: kimberlites (**E. Sutheran**, Canada, 1962; "**Williamson Diamonds**" Limited, 1968), ores from various deposits of South Africa (**D. Hardmen**, 1969); South African semiprecious stones (**B. Butler**, 1968); vermiculite (**A.N.**

Aboskalov, 1972-1980). In 1987, the collection received volcanic ultramafic rocks, including classic komatiites with spinifex structure from South Africa (**M.B. Dneprovskaya**, 1987).

In the 1990s, the improvement of relations between Russia and the Republic of South Africa, as well as the development of new research methods contributed to the emergence of new collections of platinum ores of Bushveld (V. Distler, 1994-95; L.I. Gurskaya, 1998), gold-bearing rocks of the Witwatersrand (**A.D. Shcheglov**). Specimens of "Gibeon" and "Korra Korrabes" meteorites from Namibia arrived in 2006 as a part of meteorites collection (**I.E. Kutyrev, V.A. Stepakov**), and also rock samples from the Table Mountain and the Cape of Good Hope (**S.S. Shevchenko**, 2007) with defined absolute age.

