

History of meteorite donations to the Collection of Minerals and Rocks of the University of Belgrade, Faculty of Mining and Geology (Serbia)

Alena Zdravković, Maja Milošević, Kristina Šarić, Ivana Jelić, Ana Černok



Дигитални репозиторијум Рударско-геолошког факултета Универзитета у Београду

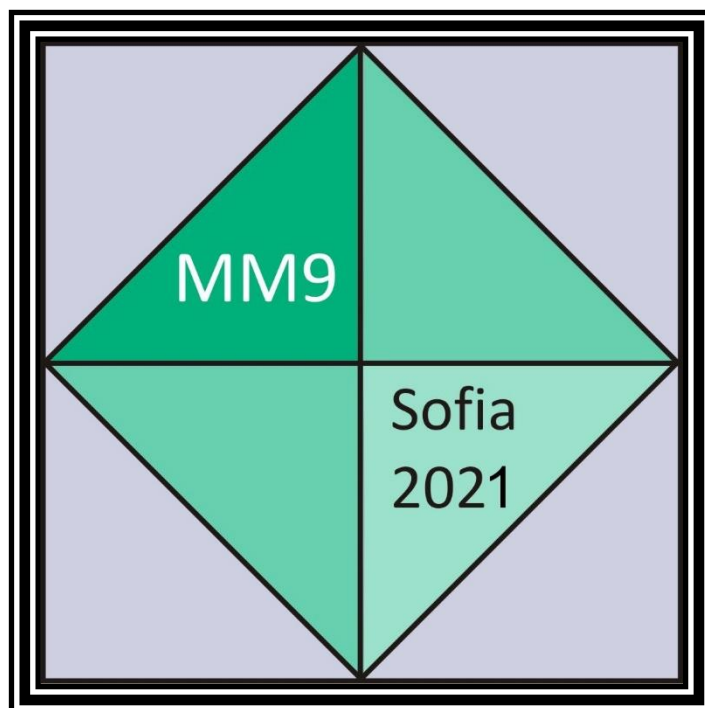
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9th International Conference Mineralogy and Museums

24-26 August 2021, Sofia, Bulgaria

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The Organizing Committee gratefully acknowledges the generous support of Bulgarian sponsors: Assarel-Medet; Geotechmin; Pensoft Publishers

Acknowledge for international support:

- Society for Mineral Museums Professionals (SMMP)

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- Intergeoresource Ltd., Sofia

Partners: Credo Bonum Gallery; National Academy of Art

Company in charge of registration:

- Congress Management and Events Ltd., Sofia

Printing House: Bulged, Sofia 1505

Editors: Ruslan I. Kostov, Radostina Atanassova

ISBN 978-954-92875-6-1

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9th International Conference Mineralogy and Museums

Under the auspices of the
International Mineralogical Association
(Commission on Museums)

Earth and Man National Museum
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The University of Belgrade, Faculty of Mining and Geology (UBFMG) contains 52 meteorites organized in two collections: 36 samples are stored in the Collection of Minerals and Rocks and 16 pieces are kept in the Paleontological Collection. In this paper we describe the collection of meteorites at the Collection of Minerals and Rocks, followed by a short history of meteorite collectibles in Serbia. Unfortunately, descriptions of the meteorite specimens from the Paleontological Collection inventory are missing.

Early meteoritics in Serbia has been initiated after the witnessed fall of the Sokobanja meteorite in 1877. The meteorite was named after the location where it was found – Sokobanja, in central-eastern Serbia. One of those who investigated the fall was Prof. Josif Pančić (1814-1888), a natural science professor at the Great School of Belgrade (*Beogradska Velika Škola*), the precursor of University of Belgrade. A series of subsequent meteorite falls in Serbia (Jelica in 1889, Čačak in 1919, and Dimitrovgrad in 1947), contributed to further developments of meteorite collections and increased the potential for sample exchanges with foreign museums. Prof. Josif Pančić was a very active and respected scientist across Europe, and with his collaborations and private efforts, he collected 95 well-known meteorites worldwide. Unfortunately, most of this collection went missing during the World War I (Jović, 2002). However, a rather quick development of geological sciences in Serbia by the end of the XIX century helped in preserving the original meteorite collections. Due to the personal effort of the internationally known pioneers of Serbian geology, most notably Jovan Žujović and Sava Urošević, many meteorites from the missing collection were appropriately recorded throughout European and world archives and most of the exchanged samples are still kept in famous museums worldwide (e.g., Smithsonian in USA or Natural History Museum in Vienna). In 1895, the principal collection of the Mineralogical Museum of the Great School of Belgrade was divided into two and all the meteorite samples of the Serbian recorded falls became the inventory of the newly established Natural History Museum in Belgrade. Fortunately, new collections of minerals and meteorites were subsequently donated to the Mineralogical Museum of the Great School by the foreign museums, institutes, collectors, etc. The most exceptional are the two meteorite collections that were donated in 1899 by the St. Petersburg Mining Institute of the empress Catherine II (the precursor of the Saint Petersburg State University).

In 1899, at the meeting of the Serbian Geological Society, Prof. Sava Urošević presented these two collections of minerals and meteorites that were donated to the Mineralogical Museum of the Great School (Urošević, 1899). Apart from 1525 samples of minerals, the first collection included three meteorites, as well. Honoured mining engineer M. Melnikoff, conservator of Mineralogical collections of the Mining Institute Museum in St. Petersburg, has signed an accompanying catalogue written in French, which is kept today in the archive of the Collection of Minerals and Rocks at UBFMG. The samples were numbered according to their original catalogue number of the Russian

collection. Besides numbering, each sample in that catalogue contained information on the sample's name and the locality of recovery. The meteorites donated to the Mineralogical Museum of the Great School of Belgrade had numbers 36, 37 and 38, but meanwhile the specimen No 36 went missing. Descriptions of these three meteorites in the original catalogue are as follows: 36: *Fer météorique aveque troilite (pesant 284 gr.), Trouvé, en 1890, pres de la village Augustinowka, gouv. de Ecatherinoslaw dans l'argile alluvial*; 37: *Fer météorique aveque olivine – (Pallasite de Krassnojarsk), Trouvé, en 1749 par Pallass, en Sibérié, 400 kilomètrés de Krassnojarsk, pres de la rivière Oubei*; 38: *Fer météorique, Trouvé, en 1889 au placer de Pétropawlovsk sur la rivière Toubil ar.d'Artchinsk, g. d'Jenisseisk*. The measured weights of the samples 37 and 38 are 65.6 g and 268 g, respectively.

The second collection of 30 meteorites was given by a French nobleman, collector and honoured member of the Mineralogical Emperor Society in Saint Petersburg, Marquis de Mauroy (*Marquis Adrien Charles de Mauroy, 1848-1927*) (Urošević, 1899). The donated collection consists of a small number of meteorite samples from Mauroy's private collection, which was the second largest collection in the world at the end of XIX century (Salpeter, 1957). However, by the time of their arrival, the samples were not numbered and were not accompanied with a catalogue. A revision of the collection was, therefore, not directly based on the original samples' description but rather on facts announced at the Meeting of the Serbian Geological Society, which was held in 1899. It was confirmed that the samples and labels with French handwriting are truly donated by Marquise de Mauroy (Zdravković, 2014). The samples' weight written on the labels was also very useful. The numbering of the samples and confirmation of the label names were done in 2014, thanks to the cooperation with Mr. Guy Consolmagno, curator of the Vatican Observatory and on the basis of a copy of the original Catalogue of the entire Mauroy's private meteorite collection (Zdravković, 2014). Today, 30 samples from this donation are kept at the Collection of Minerals and Rocks, in Belgrade.

Apart from these donations, there are four additional meteorite specimens in the Collection of Minerals and Rocks. Among them, there are the sample named Mocs with handwritten etiquette with all necessary descriptions (*Meteorite, Lithite, Chantonite, fall 3.02.1972., Mocs, Cluj, Romania, weigh 24.55, No 32*), two iron meteorite samples without any description (P80 Fe-meteorite 202 g and P81 Fe-meteorite 48.8 g), and one obviously non-iron meteorite sample that is still unclassified (11.5 cm long).

The significance of preserved meteorite specimens in old university collections such as the Collection of Minerals and Rocks at UBFMG is huge both from historical and scientific point of view. The preserved specimens remind us of the good interconnectedness within scientific and professional circles at the end of the 19th Century across the Europe. Although most of the meteorites have been classified earlier, their authenticity can be proven by using modern mineralogical methods as the specimen have become available to the scientific public after more than a hundred years of storage. Finally, since the last few years, meteorite samples have been available for practical student exercises at UBFMG in Belgrade, Serbia.

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