

## **SILVER MINERALS IN THE SLOVAK REPUBLIC**

ĎUĎA, R. (East Slovakian Museum, Košice, Slovakia), BALÁŽ, B. (Dept. of Geology, BERG Faculty, TU Košice, Slovakia)  
E-mail: bbalaz@tuke.sk

Slovak deposits belonged to the most important producers of silver in Europe. From the presently known approx. 130 Ag mineral species, 48 were described on the territory of Slovakia. Only those were considered as silver minerals by us which contain Ag firmly bound in the lattice. Minerals in which is Ag present in inclusions or as small isomorphic admixtures were not considered as Ag minerals (e.g. jamesonit, galena etc.).

Silver ores were mined in Slovakia together with gold ores in a few regions. The most important region was that of the Central Slovak neovolcanites. According to the archive documents, Ag ores were mined as early as 1217 in the area of Banská Štiavnica (annual production about 600 kg Ag). The production reached its maximum in the 1740s – 600 kg Au and 23 metric tons of Ag per annum. Up to the end of the 18th century the output was 14 to 15 metric tons. In 1869 depression followed. Hodruša, Pukanec, Nová Baňa and Rudno nad Hronom also belonged to the important Ag ore producers during the 14<sup>th</sup> to 16<sup>th</sup> centuries. Ag ore mining in the Nová Baňa area started in 1337 and finished in 1887, according to the archives. Smaller Ag production came in 15<sup>th</sup> to 16<sup>th</sup> centuries also from the Čavoj deposit in Malá Magura Mts., from the Poniky region in the 16<sup>th</sup> century and from Zlatá Baňa (Slánske vrch Mts.) in the 14<sup>th</sup> to 16<sup>th</sup> century. According to archive documents Au and Ag ore mining in Kremnica was already quite intensive in 1385. The youth of mining in this territory reaches back to the 10th century. In the time from 1801 to 1852 the output was 118 kg Au and 4 metric tons of Ag annually, however, the boom here was in the 14th to 15th centuries.

The second most important area of Ag mining in Slovakia was the Slovak Ore Mts. Silver was obtained here mostly as a by-product together with gold and it was bound on Cu and Sb ores. Zlatá Idka was an important deposit, where Ag was mined from the 15<sup>th</sup> century. Between 1863 to 1873 2.8 metric tons of Ag was obtained here annually. Ag was obtained as a by-product also at the deposits of Rožňava, Gelnica, Smolník and partially in Rudňany.

In the area of Špania Dolina and Lúbietová Ag production was bound to Cu ores. In the time of the highest boom of these deposits the Fugger family produced about 115 metric tons of Ag. Small scale Ag ore production also came from deposits in the Low Tatras area, where deposits in the surroundings of Nižná and Vyšná Boca were known. Ag ore mining started here in 1267 with a maximum in the 14<sup>th</sup> to 15<sup>th</sup> centuries. Smaller Ag production came also from the Sb deposits of Dúbrava and Magurka. From the 13th century Au and Ag were obtained also from the Drienok deposit in Malé Karpaty Mts. From the 17th century underground mining was active here and the depression fell at the beginning of the 19<sup>th</sup> century.

During explorations in the Mária mine in Rožňava, in 1981 a silver vein was caught, where Ag was bound in tetrahedrite. Despite the fact that the Ag content is relatively high, the production up to now has not started.