VICTOR I. STEPANOV: REFLECTIONS AND MEMORIES

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uring my 9-year study at Lomonosov Moscow State University I met a lot of excellent professors, but Victor Ivanovich Stepanov stands alone in a particular place among them. He was my "padre" and I will retain my spiritual liaison with him for all my life. It is my deep conviction that the significance of Stepanov's personality and the great importance and value of his collections for the scientific mineralogical society is still to be realized.

Victor Stepanov was an independent-thinking person, having a well-formed global outlook and the principles of life. Well-known as a man of principle with a critical mind, he was also a generous and magnanimous teacher and friend. It seems that Victor Ivanovich possessed a primary genetical "feeling" of stone, which he developed and enriched with knowledge and skills all his life. He penetrated into the minerals much deeper than his colleagues, being a quite different type of a person. He was able to do things that seemed impossible: compare uncomparable phenomenons, distinguish invisible features and find uncommon solutions.

Victor I. Stepanov and Minerals. Stepanov's relations with minerals were very deep and special. He spent a lot of time in search of every tiny piece of information about mineral finds, carefully investigating old labels, putting together information on mineral localities. This tremendous work led to many discoveries, the Golutvin agate locality in the Moscow region was among them. I was happy to be a witness to this discovery in 1960: Stepanov found a reference about agate find near Protopopovo village in the Oka River beach slope in a paper Minerals of the Moscow Region by F.A. Nikolaevsky, published in 1912, and then he searched the Fersman Mineralogical Museum collection in search of agate specimens from this locality. The search was successful, he found a specimen from the locality and soon he went to this old locality with a team of second-year students from the geological faculty of Lomonosov Moscow State University, I was one of them. Our travel was not easy, the abandoned quarry was full of water, and an operating quarry occurred on the other side of the Oka River, half a mile wide at this place. We hired a boat to get to the other bank and after a mile walk reached a new quarry mined for cement. There were dozens of huge flint and agate boulders! We all were happy! For many years this quarry became our beloved place in the Moscow region. Stepanov made tens of drawings of picturesque flints from there using color pencils: he was convinced that this way one gets a more precise image than by photography.

Victor Ivanovich was always creative and enthusiastic in mineral studies. I remember him spending many hours at the microscope searching for grains of a new mineral (which later he named tikhonenkovite) in a Petri bowl with an immersion liquid, breathing in Iodium metilen vapors, in order to separate it

from fluorite. He investigated sulfide mineral textures using unpolished large rough-cut surfaces, which he covered by joiner lacquer with the help of his finger. He willingly shared his field collecting experiences: "Do not try to cover a large territory at once. Digging in depth, to lower horizons of tails is more productive." He boasted of the discovery of chiolite using this method in the Kriolite quarry at Ilmeny Mountains (S. Urals). Very popular among field collectors was a special tool that he invented for butchering rock tails – "Stepanov kirk".

During his life Victor Stepanov became extremely skillful in the preparation of mineral specimens. He was able to transform quite ordinary peace of rock into a high quality museum specimen.

He developed an express Roentgen diagnostic method based on the comparison of diffraction patterns with those of investigated specimens and created a unique collection of Roentgen diffraction patterns. He paid special attention to specimen labels, always carefully describing presented specimens.

Victor Ivanovich considered the examination of rocks dumps very important. For instance, while examining the specimen dump at Mineral Bureau, a former department of the Fersman Mineralogical Museum (FMM), he found the best ever known specimen of sherbakovite, which he presented to the museum.

The permanent examination and revision of the specimens collected during field explorations by expeditions of geological institutes is Victor I. Stepanov's genuine feat.

It was heroic time that Victor Ivanovich spent in underground storage with no electrical power revising boxes with the mineral field acquisition of Kuz'ma A Vlasov and E.I. Katukova from the Ural emerald pits (Central Urals), Eugenia B. Khalezova from Vishnevye Gory (S. Urals), and A.P. Kalita from Karelia. There were real treasures – emeralds, beryls, kholmquistite, apatite, phenakite, zircon, hyacinth, gadolinite... I helped Victor Ivanovich in this work as a volunteer feeling myself as if at front line: any moment bulldozers could come and destroy the building together with all the collections to clear the square for new hotel construction.

It seems to me that Victor Ivanovich felt himself really happy when presenting carefully organized collections. He presented them with vivid satisfaction and pleasure; and I imagined what a tremendous work stood behind each item, starting with the determination of each locality and finishing with the creation of a detailed label.

I remember Victor I. Stepanov in a state of full happiness when, in 1984, just before the International Geological Congress opening, the Fersman Mineralogical Museum opened after many years of reconstraction, and he proudly presented the results of his colossal efforts and many years of his hard work with all of the museum stuff in arranging the new exposition, his outstanding "Caves" display, radiant rhodonite from Eniovche in Rhodopi, which he mined in Bulgaria during his visit. He considered museums as storers of miniature fragments of vanishing Nature, which should be preserved for new generations.

Victor Ivanovich had an uncommonly well-developed sense of responsibility. For instance, when he found mistakes in a volume of the mineralogical handbook *Minerals* he ask me to put his remarks in my own copy and to spread them as widely in Bulgaria, as possible.

Victor I. Stepanov suffered when saw a good specimen in the hands of an indifferent and clueless person. *"I just take the specimen away from him"* – he said.