	125 Jahre Knappe wand – 125 years Knappe wand Proceedings of a Symposium held in Neukirchen am Großvenediger (Salzburg/Austria) September 1990			Editors: Volker Höck Friedrich Koller	
	Abh. Geol. B.-A.	ISSN 0378-0864 ISBN 3-900312-85-0	Band 49	S. 163–167	Wien, Juni 1993

A Brief History of the Mineralogical and Petrological Department of the Hungarian Natural History Museum

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With 2 Text-Figures

*Mineralogy
Petrology
Museology*

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Eine kurze Geschichte der mineralogischen und petrographischen Abteilung des Ungarischen Naturwissenschaftlichen Museums

Zusammenfassung

Die Sammlung der Mineralogischen und Petrographischen Abteilung des berühmten Ungarischen Naturwissenschaftlichen Museums war eine der besten dieser Art bis zu ihrem Abbrand im Jahre 1956. Diese Arbeit enthält kurz und prägnant die wichtigsten Ereignisse dieser Abteilung, inclusive die Zunahme und den Verlust der Sammlungen, die Richtlinien der längeren Ausstellungen, die Richtungen und Ergebnisse der wissenschaftlichen Forschungen. Die Arbeit zeigt den gegenwärtigen Zustand der Sammlung, der Apparate, der Ausstellung und der Personalien.

Abstract

The Mineralogical and Petrological Department of the Hungarian Natural History Museum with a great past was admittedly one of the largest and most valuable collections in this field up to the tragic fire in 1956. In this paper the most important events of its history including the enrichments or losses of the collections, the main topics of the long lasting exhibitions, the trends and important achievements of the scientific research as well as the present status of the collections, exhibitions, instrumentations and personal staff are briefly summarized.

1. The Early Years

The National Library was founded in 1802. Count F. SZÉCHÉNYI initiated the foundation by donating his highly valuable collections to the Nation and palatine JOSEPH HABS-
BURG (the highest administrative dignitary in the country at that time) instituted the foundation of the National Museum including the National Library. Palatine JOSEPH was the first to present specimens of minerals and a large

collection was given by countess JULIANNA FESTETICS, wife of the founder.

In 1809 NAPOLEONS army reached the town Győr, where it gained victory over the Hungarian troops. In fear of NA-
POLEONS army the collections of the Museum were moved to Nagyvárad (Oradea, Grosswardein), some 250 kms from the capital. When the political situation normalized the collections were transported back to the Museum.

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In 1810 the mineral collection was systematically arranged by L. TEHEL, the first custos of the natural history collection who originally was the municipal physician by profession.

The first meteorite specimen (from Lénártó, Lenartov) was donated to the Museum in 1815 by J. KAPY.

In 1816 L. TEHEL, the first custos, died and J. JONAS (1787–1821) was employed. He was a mineralogist, educated at the famous Mining Academy of Selmecbánya (Schemnitz, Banská Stiaavnica). His early death was a great loss and due to the absence of a mineralogist in the Museum the development of the mineralogical collection slowed down for several decades to come (CSIKY, 1987).

The collection was removed to a safer place in 1838 being in imminent danger from the flood of the river Danube. This removal unfortunately caused serious losses, which initiated the purchase and partly donations of large collections representing great values (like SZÁJBELYS, FAUSERS, BRUNSWICKS and FORRAYS).

Between 1837 and 1847 the neo-classical building of the museum was erected: a design of the famous architect M. POLLACK. Later on, within the National Museum, the Department of Natural History was separated from the other collections, which eventually was further subdivided into different independent departments like the Mineralogical and Paleontological Department (KRENNER et al., 1902).

2. The Golden Age

Since 1870 J. KRENNER (Fig. 1) held the leading position in the Mineralogical Section.



Fig. 1. JOSEPH KRENNER, director of the Mineralogical and Paleontological Department from 1870 till 1919.

He decided to fundamentally change the deteriorated condition of the collection. So at first he won two pivotal men for his plan: F. PULSZKY and A. SEMSEY. The former was the highly cultured and open-minded new director of the National Museum, whom J. KRENNER could convince that a country rich in mining and in minerals should have such a large collection, which could meet both scientific and public requirements.

That time the prince J. LOBKOWITZS collection was for sale. F. PULSZKY gained the consent of the financial and administrative establishment to assure the financial means. The LOBKOWITZS collection consisting of 41,000 specimens was bought in 1870 (KRENNER, 1871).

The beauty and the great scientific value of J. LOBKOWITZS collection deeply impressed A. SEMSEY, (Fig. 2.) a rich landowner, who was the second person whom J. KRENNER won over to support the mineralogical collection. As an example, A. SEMSEY gave 17,000 francs to J. KRENNER to buy the most valuable minerals displayed at the EXPO in Paris, 1878. A. SEMSEY subsidized altogether 68,000 specimens in an estimated value of 1 million gold crowns. He bought scientific books and equipments for the department and also supported foreign study tours of the staff-members to collect minerals. He subsidized the other branches of the science too, i.e. the Botanical, Paleontological and Zoological Sections of the Museum, Mineralogical and Petrologica Department of the University and the Royal Geological Institute.

To acknowledge his merits he received different awards and was appointed life member of the Upper House of the Parliament, member of the council of the Hungarian Academy of Sciences. He was honorary director of the

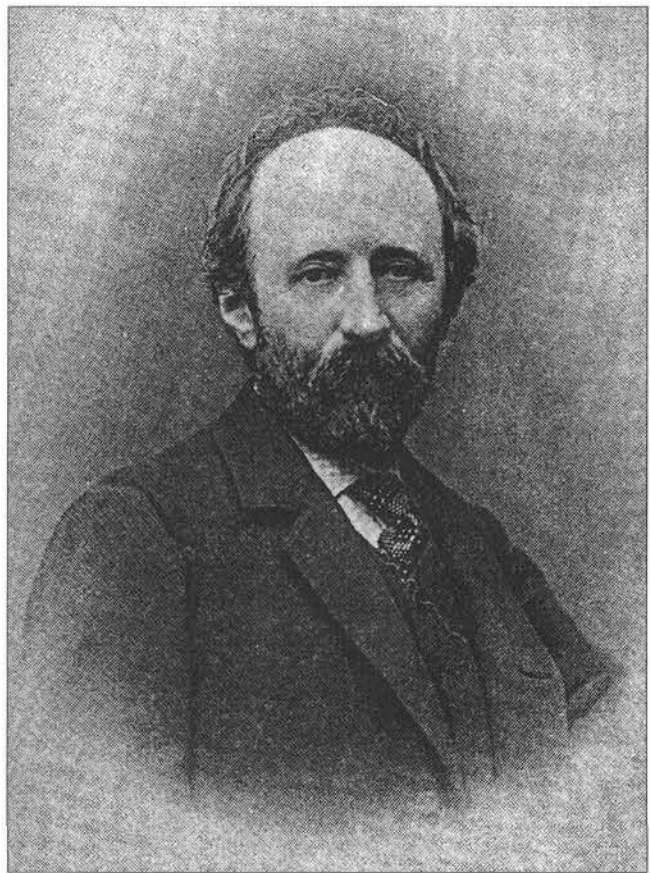


Fig. 2. ANDOR SEMSEY, the generous maecenas of the Mineralogical and Paleontological Department.

Royal Geological Institute and of the Mineralogical and Paleontological Department of the Museum. The University conferred honorary doctor's degree. For his imperishable service in mineralogy and museology in general, minerals like semseyite and andorite, were named after him (EMBEY-ISZTIN, 1984; MAURITZ 1924).

J. KRENNER (1839–1920) was born into a civil family in 1839 in Pest. He attended Technical University in Hungary. J. KRENNER obtained his doctor's degree at the department headed by Prof. F.A. QUENSTEDT, University Tübingen. He had vocation for arts as well. He was a good drawer and painter, he could make extremely fine drawings of minerals, geological sections etc. He was very talented for music too. He played the violin, sometimes took over the role of the a first violinist in the orchestra of the Opera. J. KRENNER was a great personality in his branch of science, achieving superb results including the discovery of new minerals like andorite, fizelyite, kornelite, lorandite, rhomboclase, schafarzikite, semseyite, szomolnikite etc. His merits were acknowledged. He was appointed to be head of the Mineralogical Department at the Technical University and later on at the University of Budapest. In 1874 he was elected corresponding member of the Hungarian Academy of Sciences and in 1888 he became academician. On the occasion of the centenary of the foundation of the National Museum he was designated to aulic councillor (KOCH, 1952; 1987; MAURITZ 1933).

In 1914 after the outbreak of the First World War, A. SEMSEY renounced the world. During the First World War the financial support diminished, the foreign relations dwindled, no expedition was organized and the enrichment of the collection ceased. After the war, owing to the Trianon peace pact, two-thirds of Hungary were lost including important mining areas, and the situation further worsened.

The excellent team (J. KRENNER, Á. FRANZENAU, K. ZIMANYI, J. LOCZKA and the greatest patron of earth sciences in Hungary A. SEMSEY) fell to pieces. After the First World War Á. FRANZENAU, J. KRENNER and A. SEMSEY passed away. Thus, the golden age of the mineralogical collection falling to the time of the fruitful cooperation of an unselfish, generous maecenas A. SEMSEY and a great mineralogist J. KRENNER came to an end.

3. After World War I

In 1919 the new director of the department was K. ZIMANYI (1862–1941). He worked as assistant of J. KRENNER at the Mineralogical and Geological Department of the Technical University in Budapest. He was appointed to be head of the Department of Mineralogy and Paleontology of the Museum in 1895. He was devoted to descriptive mineralogy. In 1904 he was elected to be corresponding member of the Hungarian Academy of Sciences, in 1921 to be academician and in 1940 to be honorary member. His great merit was that he finished the unpublished works of J. KRENNER (ZSIVNYI, 1941, 1942).

In 1920 two new staff-members M. VENDL and S. KOCH were appointed to the Department.

MARIA VENDL (1890–1945) attended the University of Budapest, receiving her doctor's degree in 1917. She was the first female mineralogist and the first women appointed professor in Hungary (JANKOVITSNÉ STEINERT KATALIN, 1945/46).

S. KOCH (1896–1983) was born into a family who loved natural history. He started to collect minerals when he was

six years old. At the University of Budapest he studied chemistry and natural history. He was also one of KRENNER'S students. After finishing the University he was employed at the Mineralogical and Paleontological Department until 1935. His main work was devoted to the topographical mineralogy of Hungary which was summarized in the handbook "Minerals of Hungary" (GRASSELY, 1984; KOCH, 1987).

K. ZIMANYI retired as a director in 1932 and V. ZSIVNY (1886–1953) was appointed to be head of the Department which position he held until 1943. He studied chemical engineering at the Technical University in Budapest. Since 1912 V. ZSIVNY was employed at the chemical laboratory of the Mineralogical and Paleontological Department. His main field was mineral chemistry. He discovered three minerals like klebersbergite, parajamesonite and a fossile amber from Kiscell (TOKODY, 1954).

In 1939 the department was separated into two parts: Mineralogical-Petrological and Geological-Paleontological Department (KECSKEMÉTI & NAGY, 1987).

Since 1943 L. TOKODY (1898–1964) headed the Department. He attended the subjects geography and natural history at the University of Budapest. He was an assistant at the Department of Mineralogy and Geology, Technical University in Budapest. Since 1933 he taught at secondary schools for ten years. In 1943 he returned back to mineralogy as the director of the Mineralogical and Petrological Department. He was the last classical crystallographer in Hungary. He was elected corresponding member of the Hungarian Academy of Sciences in 1941 (BIDLÓ, 1981; VINCZÉNÉ SZEBERÉNYI HELGA, 1984).

In this period J. ERDÉLYI (1905–1976) and MARGIT HERRMANN (1889–1957) also worked in the Department. The research field of J. ERDÉLYI was crystallography and crystalchemistry. MARGIT HERRMANN was mainly devoted to petrology of magmatic and sedimentary rocks.

4. The 1956 Uprising

During the uprising of 1956 a fire destroyed a part of the building including our departments. The Museum was close to the House of the Broadcasting Service, where heavy fights took place and one of the missiles hit our Department. The fire-fighting was impeded. Almost 80 % of the collection perished in the fire (BOROS, 1957). L. TOKODY was very active to make up for the losses, but the great tragedy of his beloved collection and his serious illness broke him down and he died in 1964. He was followed as a leader of the Department by Cs. RAVASZ and D. JÁNOSSY, D. Sc. Since 1979 A. EMBEY-ISZTIN, C. Sc., is the acting director of the Department.

To retrieve the losses suffered in 1956 many museums, university departments, institutions and organizations helped our Museum with valuable specimens. Individual persons also donated material to our museum and some private collections were purchased too like those of KUPÁSS, WEISERS and PÉCZELYS (VINCZÉNÉ SZEBERÉNYI HELGA, 1983).

5. The Collection, Exhibitions

In spite of our limited means considerable efforts have been made by the staff-members of the collection to compensate the heavy losses. But more than 30 years after the collection is still far from the former high standard.

The progress and history of the collection are perhaps better illustrated with some figures:

- In 1821 the collection consisted of 8,451 specimens (minerals, rocks and fossils) and 5 meteorites.
- In the year of the centenary (1902) the total number of the specimens was 87,173 (minerals, rocks, fossils and meteorites (the Mineralogical and Paleontological Departments were not yet separated).
- In 1956 (before the fire) the total number of specimens including meteorites, minerals and rocks was 132,000. 80 % of one of the world's biggest collections perished in the fire.
- In 1961 the total number was 24,000.
- In 1990 the total number of specimens was 70,914 including 651 meteorites, 51,779 minerals and 18,484 rocks. In the last 30 years the size of the collection was nearly trebled.

The collection is arranged in the following manner. There is a separate meteorite collection consisting of 651 specimens. The mineral collection is arranged according to the mineral system published by K. SZTRÓKAY (KOCH & SZTRÓKAY, 1967). The same mineral species is grouped according to a geographical system of their locality and therein by the inventory number. The rock specimens are in the order of their inventory number.

During the "MinPet 90" symposium a special exhibition "Epidote-125 years Knappenwand" was presented at Neukirchen am Grossvenediger. The best specimens of our collection were displayed in the exhibition. Almost 250 epidotes from approximately 100 localities are in our collection. The most valuable epidotes are from the localities of the Alps and 25 % from Austria.

The first exhibition was arranged by M. HÖRNES (Mineralogical Cabinet, Vienna) according to the Mohs system in four specimen cases in two rooms of our Museum in 1850.

In the year of centenary the minerals were displayed in 5 rooms according to the Dana-system. In addition specimens of meteorites, precious and ornamental stones, rocks and minerals from Hungary were shown too.

After the Second World War a new exhibition was opened in 1952. In the first room general mineralogy was on stage. In the second and third rooms minerals according to the system published by B. MAURITZ (B. MAURITZ & A. VENDL, 1942) were put on show. In the fourth room the rocks were displayed and the fifth room illustrates their practical significance ("Minerals, rocks and man"). In a room adjoining those of the mineralogical exhibition the reliques of Hungarian Mineralogy, Petrology and Mining were on stage (BOROS, 1952).

This exhibition perished in the fire in 1956. A new exhibition "The world of minerals and rocks" was opened in 1962. The main lines of general mineralogy were shown in the first room, whereas the mineral system was staged in the second one. In the third room the main types of rocks were displayed. A separate part was devoted to show the minerals of Hungary, and the minerals described by Hungarian scientists or from Hungarian mines as well as the history of mineralogy in the country.

The exhibition was ordered to be pulled down in 1988. Last year a temporary exhibition "KRENNER'S life and activity" was opened on the occasion of the 150th anniversary of his birth. Nowadays the minerals are displayed only in a part of a temporary exhibition "Miracles of the nature".

The exhibition of the Fersman Museum (Moscow) was opened in our rooms showing an unique assortment of

their highly valuable collections in 1986. Next year our Department was invited to Vichy (France) to show the minerals and rocks of Hungary together with the fossils and geological objects of the country (cooperation with the Paleontological and Geological Department).

Concerning the means of the Department in order to determine or investigate of minerals are very poor.

Our staff members comprise: four mineralogists, one typist, one cleaner, one thin section maker (part-time).

All four mineralogists have their M. Sc. (Geol.) and obtained doctor's degree at the Eötvös Loránd University in Budapest.

Acknowledgements

The author wishes to express his gratitude to Dr. A. EMBEY-ISZTIN, to Dr. G. PAPP, Dr. HELGA VINCZE-SZEBERÉNYI and to Dr. L. ZOMBORY for their valuable comments.

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Received 28. 12. 1990 * Accepted 30. 3. 1992