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PROCEEDINGS OF SOCIETIES

NEW YORK MINERALOGICAL CLUB

Regular Monthly Meeting of November 19, 1924

A regular monthly meeting of the New York Mineralogical Club was held in the East Assembly Room of the American Museum of Natural History on the evening of November 19th, at 8:15 P.M. The President, Dr. George F. Kunz presided, and there was an attendance of 25 members.

The committee on membership reporting favorably upon the names submitted at the October meeting, viz:—

Mr. G. Arthur Cooper, of Colgate University and Flushing, N. Y.

Mr. R. Norris Shreve, 50 East 41st Street, New York City.

These gentlemen were unanimously elected.

The recording secretary submitted to the membership committee the following names:—

Mr. Lewis W. MacNaughton, 654 Bergen Ave., Jersey City, N. J.

Dr. Paul F. Kerr, Department of Mineralogy, Columbia University.

The recording secretary reporting in behalf of the committee on the Hovey resolution read the following resolution which had been transmitted by the committee to Mrs. Hovey:—

“By the death on September 27th of Dr. Edmond Otis Hovey, the science of mineralogy has lost a valued exponent, and this organization an active and devoted member. Dr. Hovey, through the breadth and scope of his interpretation of his science, held a far closer grasp of mineralogy than many of his colleagues in geology. His many contributions to scientific literature were characterized by a painstaking conservatism which found expression in that clearcut accuracy of statement which is the essence of truth.

In the pursuit of knowledge he found no task too hard, no labor too strenuous, pursuing his investigations among the rigors of the arctic, and to the brink of an active volcano. The patience and courtesy with which he met the many calls upon his time and judgment will long be remembered by those who profited by recourse to his opinion, which was given with the same cheerful impartiality to the lowliest as to the greatest. It is the highest tribute that can be paid to the usefulness of any man in the world, that his loss is felt by so many of his fellowmen.”

The President then introduced the speaker of the evening, Professor George I. Finlay, who delivered an illustrated lecture on "*The Minerals of the Navajo Indian Reservation, Arizona*". Dr. Finlay described the occurrence and probable origin of the garnet and olivine pebbles which constitute the chief contribution of this region to mineralogy. In describing his reconnaissance as an investigator of the oil resources of the Reservation for the U. S. Government, he spoke at length of the geography and geology of the country, which is occupied by 25,000 Indians, and about 100 white men. He showed many lantern slides to illustrate the scenery and geology, comparing the latter with that of the adjoining district of Silverton, Colorado. He also discussed the sand dunes and the Jurassic sandstones. In concluding he spoke at some length of the Navajo Indians and some of their characteristics.

At the close of his lecture a vote of thanks was tendered to the speaker for his interesting and enlightening address. Mr. Manchester read a letter which he had received from Mr. Shannon of Washington relative to the gem garnets which he had previously reported from Kinkles Quarry, Bedford, N. Y. in which Mr. Shannon pointed out that the garnets in question had come from Arizona and not from the Kinkle Quarry.

The meeting then adjourned.

HERBERT P. WHITLOCK, *Recording Secretary.*

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences, December 11, 1924

A stated meeting of the Philadelphia Mineralogical Society was held on the above date, with the president, Mr. Vaux, in the chair. Twenty-five members and thirteen visitors were present.

The executive council submitted a revision of the by-laws, providing that hereafter all new members of the society under 21 years of age shall become junior members until they reach that age, when they shall automatically become annual members. The proposed changes were adopted. One annual member and six junior members were elected.

Dr. Edgar T. Wherry then addressed the meeting on "*The Aluminum Silicate Minerals*," with particular reference to the kaolins. The minerals of this group may be classified according to structure and composition. They all contain three essential components: Al_2O_3 , SiO_2 , and H_2O . For each composition there are possible three structural states: colloidal, metacolloidal, and crystalline. For purposes of comparison the compositions of the minerals in terms of all three components were plotted on a triangular-shaped diagram using ordinary rectangular coordinates. A table was presented showing the known minerals in each structural state for a number of different ratios of Si : Al. A discussion of some of the individual members of the group, notably bentonite, concluded the paper.

A rising vote of thanks was tendered the speaker for his very interesting communication.

Messrs. Vaux and Gordon exhibited calcite and magnetite crystals from the French Creek Mines. Messrs. Benge and Thatcher exhibited vivianite from Mullica Hill, N. J.

HORACE R. BLANK, *Secretary.*

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences, January 8, 1925

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Mr. Vaux, in the chair. Twenty-six members and two visitors were present. Mr. Harold Arndt was elected councillor for the year 1925. Upon favorable recommendation by the council, Mr. Gustav Baack was elected a junior member. Mr. Cienkowski presented the name of Mr. Robert Kleinschmidt for junior membership. The resignation of Mr. Morton L. Jandorf was read and accepted.

Mr. Paul J. Storm of the University of Pennsylvania addressed the society on "*The rare-earth minerals of Barringer Hill, Texas.*" The geology of Barringer Hill was briefly described. Barringer Hill forms an eminence about 50 feet high, 250 feet long, and about 100 feet wide. It consists of a very coarse pegmatite forming an intrusive in a porphyritic granite. The outer margin of the pegmatite shows a graphic structure. The crystalline minerals of the pegmatite are, quartz, feldspar (albite and microcline intergrowths), biotite, fluorite, and some orthoclase, lepidolite, and hematite. The rare-earth minerals: allanite, cyrtolite, gadolinite, yttrialite, rowlandite, tengerite, nivenite, thorogummite, fergusonite, mackintoshite, and polycrase occur locally, embedded in quartz and feldspar, most frequently near masses of biotite. For 4 to 10 feet in the vicinity of a pocket, the quartz may contain radial cracks pointing to the rare-earth minerals in the center. The rare-earth minerals form less than one percent of the minerals of the pegmatite. Other minerals noted were gummite, autunite, lanthanite, sphalerite, molybdenite (five inch plates), magnetite (thin fan-shaped radiations up to ten inches across, still to be found), and powellite. The hill was worked by trenching in various directions. No work has been done for 18 years. The relative radioactivity of the rare-earth minerals was described. Mr. Vaux exhibited a series of nine of the rare-earth minerals.

Mr. Boyle exhibited several specimens from the Wynnewood Road Station quarry, Haverford township, Delaware County. The first consisted of beryl in pegmatite. The others showed fan-shaped, white radiations of scolecite and natrolite, associated with heulandite and chabazite, on a fine-grained biotite gneiss. The white radiations showed compact centers with the following optical properties: extinction parallel, elongation of fibers+, optically+, $\alpha=1.475$, $\gamma=1.487$, $\alpha-\gamma=.012$. This is probably natrolite. This center grades into coarser fibers with a good prismatic cleavage showing a somewhat pearly luster: extinction on cleavage fragments about 12° , optically-, $\alpha=1.513$, $\gamma=1.520$, which was identified as scolecite.

SAMUEL G. GORDON, *Secretary pro tem.*

YALE MINERALOGICAL SOCIETY

Since the organization meeting, October 5, 1923, and the first regular meeting on October 16, 1923, there were held six regular meetings of the Yale Mineralogical Society during the academic year of 1923-1924.

On October 30, 1923, Professor A. M. Bateman spoke on "*Ore Minerals Under the Reflecting Microscope.*" The talk was illustrated by views of many polished specimens projected on a screen.

At the next meeting on November 27, 1923, Mr. L. B. Riley, one of our members, read a paper on "*Asbestos Minerals*"; and Professor Adolph Knopf spoke on "*The Uses of the Petrographic Microscope in Mineralogy and Petrology*." Dr. Knopf projected the field of the microscope on a piece of cardboard and explained the significance of mineral intergrowths.

On January 15, 1924, Mr. E. J. Roberts read a paper on "*Lithium Minerals*"; and Dr. C. H. Warren, Dean of the Sheffield Scientific School, spoke on "*The Pegmatites of the Quincy and Cape Ann, Massachusetts, Granites*."

On February 26, 1924, Mr. J. F. Schairer read a paper on "*Volume Isomorphism*." Professor C. R. Longwell spoke on "*The Genesis of Pegmatite Minerals*." The talk was illustrated by drawings and a long discussion followed.

A symposium on "*Tourmaline*" was conducted by the society on April 1, 1924. Over two hundred specimens were on the table for examination and discussion. Professor H. W. Foote led the discussion on the chemical structure; Professor W. E. Ford, the crystallography and physical and optical properties; Professor Adolph Knopf, the occurrence and distribution in nature. Dr. W. M. Agar described the occurrence of the fine black tourmaline near Pierrepont, N. Y.

On May 15, 1924, Dr. S. G. Gordon spoke on "*The Work of the Second Vaux Academy Expedition to Greenland, 1923*." The lecture was illustrated by lantern slides. At the end of the lecture Dr. Gordon was tendered a rising vote of thanks.

The Secretary reported twenty-eight active members on June 1, 1924.

J. F. SCHAIRER, *President*

NOTES AND NEWS

Dr. W. F. Hillebrand, chief chemist of the Bureau of Standards since 1908, died on February 7 at the age of 71 years. Dr. Hillebrand in 1875, jointly with T. H. Norton, prepared for the first time metallic cerium, lanthanum and what was then called "didymium." In 1904 he was one of the first to call attention to the possibility of recovering and utilizing enormous quantities of potash that are volatilized during the burning of portland cement. He also discovered the gas which later Ramsay established as helium. Dr. Hillebrand was the author of numerous articles on chemical methods and his bulletin on "The Analysis of Silicate and Carbonate Rocks" has passed through a number of editions, the latest appeared in 1919 as Bulletin 700 of the United States Geological Survey.

Occasionally this office receives requests for information concerning copies of *The Mineral Collector*. If any of the early subscribers of this periodical desire to dispose of their copies the editor will be pleased to bring the interested parties together.

Mr. I. A. Ettlinger, mining geologist and engineer of New York, reports the finding of clinozoisite at the Hollinger Mine, Porcupine, Ontario. This is adjacent to the Rochester Mine in which E. L. Bruce and C. W. Greenland collected their material (*Am. Min.*, 9, 199-201, 1924). It was low in iron, had anomalous interference colors and indices higher than zoisite. Marioposite was also reported from the same property.

It has recently been demonstrated by Professor Manne Siegbahn of Upsala, Sweden, that X-rays can be refracted as well as reflected by solid substances. The amount of deflection was actually measured by photographic methods.