

- (1941) (WITH R. H. JAHNS) Ordovician stratigraphy of central Vermont. *Geol. Soc. Amer. Bull.* **52**, 1487-1512.
- (1943) Cooperative geologic work in Massachusetts, January 1, 1941-June 30, 1942. *Mass. Dep. Pub. Works—U. S. Geol. Surv. Coop. Geol. Proj. Prog. Rep.* 25 p.
- (1944) Cooperative geologic work in Massachusetts for the year ending June 30, 1943. *Mass. Dep. Pub. Works—U. S. Geol. Surv. Coop. Geol. Proj. Ann. Rep.* 26 p.
- (1944) (WITH O. E. WAGNER, JR., AND M. K. HUBBERT) Geological and geophysical survey of fluorspar areas in Hardin County, Illinois. *U. S. Geol. Surv. Bull.* **942**, 1-72.
- (1947) Granitization and its significance as a regional metamorphic process in New England. *Wash. Acad. Sci. J.* **37**, 75-86.
- (1947) (WITH J. S. WILLIAMS) Obituary, Gerald Francis Loughlin (1880-1946). *Wash. Acad. Sci. J.* **37**, 107-108.
- (1948) Geologic methods and interpretations. In Application of geology and seismology to highway location and design in Massachusetts. *Nat. Res. Council. Highway Res. Board Bull.* **13**, 67-76.
- (1952) (WITH R. H. JAHNS) Geology of the "Chelmsford granite" area—Field Trip No. 3. *Geol. Soc. Amer. Guidebook Field Trip New England, Nov. 1952*, p. 103-117.
- (1953) Geology in shoreline engineering and its application to Massachusetts beach problems. In J. W. Johnson (ed.), *Coastal Engineering, Proc. Third Conf. at Cambridge, Mass., Oct. 1952*, p. 109-118.
- (1953) Friends of Pleistocene Glacial Geology Field Meeting, Ayer quadrangle, Massachusetts. *Science*, **118**, 580-581.
- (1954) Memorial to Josiah Bridge (1890-1953). *Geol. Soc. Amer. Proc.* **1953**, 93-96.
- (1959) Geology and soils of Massachusetts. *Amer. Assoc. Highway Offic. Conv. Group. Meel. Pap. Discuss., Boston, Mass., Oct. 12-16, 1959, Proc.*, p. 149-154.
- (1960) Geologic appraisal of dimension-stone deposits. *U. S. Geol. Surv. Bull.* **1109**, 67 p.
- (1960) The seismic method in subsurface exploration of highway and foundation sites in Massachusetts. *U. S. Geol. Surv., Circ.* **426**, 8 p.
- (1962) Problems in specifications for natural building stones. *Amer. Soc. Test. Mater., Mater. Res. Stand.* **2**, no. 4, p. 292-294.

In addition, the record includes 9 published abstracts and numerous unpublished papers and file reports.

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## MEMORIAL OF CLAES WALTHER HARRY VON ECKERMANN

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An unusual life ended when Harry Von Eckermann passed away on May 20, 1969, at the age of 82. He belonged to a wealthy family with extensive interests in the lumber, pulp, and steel industries of Sweden. His grandmother on his mother's side was a lady of great originality who

donated her Stockholm home, the Halwyl Palace, to the Swedish State as a museum to show future generations how a patrician home of the early 1900's looked. Everything down to the whisks in the kitchen, is recorded in a descriptive catalogue, prepared partly by the Countess herself, and her will stated explicitly that nothing in the house was to be moved, changed, or discarded. It seems safe to say that her grandson did not inherit her curatorial inclination.

The future of the young Harry seemed clear; he prepared himself for a career in the family's industries. He therefore studied mining and metallurgy at the Royal Institute of Technology in Stockholm, and graduated in 1909 as a metallurgist. In order to broaden his experience, he then went to the United States and worked as an electrometallurgist for U.S. Steel. Returning to Sweden in 1912, he joined the Ljusne-Woxna Company, becoming its president in 1919. He was a progressive industrialist, his best known achievement being the erection of the first modern plywood factory in Sweden (1925).

During his studies at the Institute, he had become interested in mineralogy and petrography, and this interest became so deep that he took time during his industrial career to study these subjects at the University of Stockholm. His first research interests centered around the problems of skarn minerals. His doctoral thesis in 1922 discussed the eulysite rocks and skarn minerals formed by metasomatism in a Precambrian limestone occurring at the Mansjö mountain not far from where he lived at that time. The thesis was followed in 1923 by a paper about the Tennberg occurrence, which treats in considerable detail the same phenomena in another small Precambrian limestone body of Central Sweden. These two papers are profusely illustrated with maps and photographs, and they present many new chemical analyses of, and optical data for, the minerals studied. This is a feature that is characteristic of all his later papers.

In the '20's, Von Eckermann was promoting the construction of a railroad, called the East Coast Railroad, along the southwestern coast of the Bothnian Sea. The geology of this part of Sweden was little known at the time, and Von Eckermann used the opportunity to examine all the new fresh rock cuts. The paper that resulted, in 1928, contains a description of some carbonatite dikes. It was his first contribution to the geology of the Alnö area, with which his name has become so closely connected.

About this time, his interest in the geological sciences had become so deepened that he retired from his administrative positions in order to devote himself to research. At first, he had a private laboratory in Stockholm but later he moved it to his estate, Edeby, about 60 miles SW of Stockholm.

His research interests had now moved to the stratigraphic problems of



June 1946 *Harry von Eckermann*

the Precambrian of Central Norrland. In this region there occur volcanics, rapakivi granites, and well preserved sediments. In 1936, he published a monograph about the Loos-Hamra region, and also a series of papers about the Jotnian rocks of the Nordingrå-Sundsvall region.

As a geologist, he is best known for his work on the rocks of the Alnö area. This famous carbonatite occurrence had been described in 1895 by A. G. Högbom, who correctly interpreted some of the rocks as "igneous limestones". Further studies at that time were hampered by the extreme scarcity of natural outcrops in the area. In fact, Von Eckermann's observations, already mentioned, provided the first new information since that time.

Curiously enough, the depression years during the 1930's provided the opportunity to reinvestigate the whole region. The Alnö island was renowned for its abundance of lumber mills. They now had to close, and the unemployed workers were helped by a government road construction program. These activities, which applied to the adjacent mainland as well, resulted in a great number of new rock cuts which were studied

by Von Eckermann. I remember a student excursion in 1938 to the Alnö region with Von Eckermann as the leader, when he demonstrated many beautiful exposures. Because of weathering, many of these could not be used at an excursion in 1951, and in 1965 some were impossible to locate. This gives an indication of the intense weathering of the sövite rocks and the consequent difficulties facing the field geologist there.

The depression was only the start of a series of unexpected events which gave Von Eckermann chances to broaden his investigations in all directions. One company, for example, considered the possibility of using sövite as a raw material for cement. They had an extensive drilling program, and Von Eckermann had access to the cores.

Another company opened a quarry in the sövite and ground the rock to a powder which was used as an addition to the poor soils of this portion of Sweden. The background was the observation that some portions of the sövite are rich in phlogopite (potassium) and apatite (phosphorus). Von Eckermann was consulted during the whole period of operation and in this way had excellent opportunities to study the sövite rocks in detail. Some barite-fluorite veins, which he had found during his field mapping, were also being quarried during World War II.

After the war, one project followed the other. A hydroelectric power station was being constructed at Bergforsen, a rapids on the Indal river close to its mouth. Extensive tunnelling was necessary, not only for the power station itself, but also for the water supply of the industries in the neighborhood. These projects exposed for the first time completely unweathered dikes of the Alnö rocks, and Von Eckermann used this opportunity to its full extent. Perhaps the most interesting discovery was the extent of montmorillonitization of the country rocks close to the dikes.

The construction of a modern highway system in the area and particularly the building of a bridge to the Alnö island resulted in new possibilities for detailed observations. The bridge especially increased the housing development on the island and thus produced many temporary exposures.

The results of his Alnö studies were published in a great number of papers, from small notes each treating some peculiar dike rock to his large monograph published by the Geological Survey of Sweden. He intended to publish the mineralogical observations separately and worked with this project for over 30 years; new material continually postponed its publication. In his last letters to me he indicated that he had almost finished this work.

It is only natural that Von Eckermann should also become interested in other areas with alkaline rocks. However, the Alnö region always pre-

sented new problems so his work on other occurrences suffered. He was particularly interested in the Norra Kärr area (Southern Sweden), which is characterized by the presence of minerals like eudialyte and catapleite. He did a lot of work there, but never found time to publish the results, except for some small notes. It may be remembered that Norra Kärr is the type locality of the alkali amphibole eckermannite (Adamson 1942).

Harry Von Eckermann was a hard worker, I remember him advising me how to schedule a day. His own day ran something like: rise at 4:30 a.m.; work in the laboratory till 8 a.m.; breakfast; run the business of his estate till 5 p.m., with a lunch break; then dinner; then two hours sleep followed by scientific work until 1 a.m. The important point, he said, was the nap after dinner. Even if the schedule as outlined is not true to the letter, his working capacity was astonishing and allowed him to have hobbies besides his work in business and science.

First among these was his deer. It all started when in 1946 he found an almost newly born fawn which for some reason had been left by its mother. He successfully saved the animal, and this deer, "Bambi" (see figure), was the first in a long series of domesticated or semi-domesticated deer. He told his friends about them like a proud mother talking about her children. He made many interesting observations, for example: when walking with them in the forests, their behavior, when he took a rest, depended on their number. If he was accompanied by only one deer, it would face in the direction opposite to him. If there were two, they would divide the circumference into three 120° sections, thus again including him in the guarding. However, if there were three or more, he was relieved of his duties.

During the last two decades of his life, he had trouble with his heart and with his stomach. When he had recovered from an incident, he always started working as if he had never had any trouble. This pattern repeated itself over the years, and must have been a source of anxiety for his family. However, when it comes to the way of living one's life, it is perhaps appropriate to apply the words of Frederick II "Hier muss ein jeder nach seiner Fassung selig werden," and for him blessed were those days that he could spend in his laboratory. Harry Von Eckermann had a genial personality. This is shown for instance in Negley Farson's account of meeting him as a young Swedish officer during World War I (*The Way of a Transgressor*, pp. 110–111 and 229–230). He had, in addition, a gift for languages and he was therefore an ideal excursion leader. He took many international excursions to his field areas.

Most of us probably think that it would be ideal to be so rich that one could make a scientific career without having to compete with others for positions. However, there is the other side of the coin, the difficulty of

convincing people about the sincerity of one's interest. There is no doubt that Von Eckermann had to fight against that kind of reception. He was long regarded as someone who could afford to play around with science. His great skill in optical mineralogy and petrographic microscopy in general was waved away as depending on his excellent equipment. His choice of subjects did not ordinarily meet much enthusiasm either. The geological work in Sweden has always been dominated by the Geological Survey which puts Precambrian stratigraphy at a premium. Alkaline rocks definitely belonged to the curiosities. But his persistent work slowly changed the opinion of the geologic community. There is one side of him, however, which should not be passed over and which partly explains this reluctance of full acceptance. He did not have the patience to check and recheck his data, and so the reader of his papers must be prepared for small errors and diffuse writing here and there. It is particularly evident in the number of misprints in his analyses. It is only natural that these features were exaggerated by local, subconsciously somewhat envious, colleagues.

In due time he received all kinds of honors such as an honorary degree at the University of Oslo, the title of honorary professor, member of the Royal Swedish Academy of Sciences, and honorary memberships in many other scientific bodies. The notification of his election as an Honorary Fellow of this society did not reach him in time. He would certainly have been very happy for this high distinction. But I am convinced that no scientific honor he received counted as high in his mind as the fact that his deer entrusted him with participation in the maintenance of guard.

No bibliography of Von Eckermann's writings has been published, and it would have been very difficult to compile one with the library facilities available here. However, a complete bibliography will no doubt be published by one of the several scientific societies in Sweden of which he was such a prominent member.

## REFERENCES

- FARSON, NEGLEY, 1936 *The Way of a Transgressor*. Harcourt, Brace and Company, New York, 602 pages.
- ADAMSON, O., 1942 Eckermannite, a new alkali amphibole. *Geol. Fören. Stockholm Förhandl.* 64, 329-334.