The Students Association of Natural Science. Upsala.

Geological and Physico-Geographical Division.

Meeting January 25th 1912.

The following officers were appointed:

O. Bæckström, Secretary.

E. Warburg, Treasurer.

R. Loosström and E. Andersson, Reviewers.

Meeting February 12th 1912.

27 persons present.

Mr A. G. Högbom read a paper on geological factors in the colonization of Uppland (see Ymer, Tidskr. Antrop. o. Geogr. Stockholm 1912).

Meeting February 29th 1912.

18 persons present.

Mr C. Wiman spoke on impressions from a journey in North Italy.

Mr J. M. Sobral read a paper on the rapakivi rocks (see Sobral, J. M., Contributions to the geology of the Nordingrå region, Uppsala 1913).

Meeting March 14th 1912.

16 persons present.

Mr P. A. Geijer reviewed the researches by A. Lacroix on M:t Pelée.

Mr P. Quensel gave an account of new theories on the mechanics of the volcanismus, especially dwelling on some new works on this subject by R. Daly.

Meeting March 21st 1912.

17 persons present.

Mr C. WIMAN read a paper on the flint in Bohuslän (see Geol. För. i Stockholm Förh. B. 34. 1912).

Mr. P. QUENSEL spoke on a new occurrence of the mineral Newtonite (see this Bull., Vol. XI, Juan Fernandez by QUENSEL).

Meeting April 18th 1912.

24 persons present.

Mr R. SERNANDER gave an account of a journey to Harz which he together with L. v. POST and R. SANDEGREN had undertaken in the summer 1911 on purpose to study the geology of the peat bogs.

Mr C. WIMAN reviewed: BJÖRLYKKE, En hardpandannelse i Norge — i arid klima (Norsk Geol. Tidsskrift B. II. 1911).

Mr P. QUENSEL gave an account of a chemical analysis of a rutile containing chromium and vanadium from Käringbricka (see Geol. För. i Stockholm Förh. B. 34. 1912).

Meeting April 29th 1912.

14 persons present.

Mr J. ERIKSSON spoke on the geology of the Harz region.

Meeting May 23d 1912.

18 persons present.

Mr A. HAMBERG gave a detailed account of the thrust theory and reported the results which his own investigations in the Sarjek mountains had led to (see Geol. Rundschau B. III. 1912).

Mr P. QUENSEL gave a preliminary report of a newly discovered occurrence of nepheline-syenite in the parish of Almunge (see this Number of the Bull.).

Meeting September 26th 1912.

16 persons present.

The following officers were appointed:

E. WARBURG, Secretary.

E. ANDERSSON, Treasurer.

E. ANDERSSON and R. LOOSTRÖM Reviewers.

Mr P. QUENSEL spoke on some examples of dislocation-tectonics in Scotland chiefly reviewing works on this subject made by the Scotch geologists.

Mr A. G. HÖGBOM demonstrated some japanese minerals, which the geological institution newly had procured.

Mr A. G. HÖGBOM demonstrated a handspecimen of a double-breccia found as boulder at »Stora grustaget» and some other breccias from dislocations in Uppland.

Meeting October 10th 1912.

40 persons present.

Mr E. ANDERSSON read a paper on the Swedish expedition to Spitzbergen in the summer 1912.

Mr C. WIMAN gave an account of the digging out of sauria at Halberstadt and at Tendaguru.

Meeting October 24th 1912.

21 persons present.

Mr A. G. HÖGBOM read a paper on the geotectonics of Hardangervidda in Norway, especially dwelling on the stretch between Hallingskarven and Voss. Thrusts and with them connected crush-zones with mylonites etc. appear here as clearly as in the northern parts of the Scandinavian mountain-range. At Voss the movement has been to the west, at Hallingskarven probably to the southeast. The root-line seems to pass over the inner parts of Sognefiord, towards which the subcambrian land-surface, which seems to be remarkably little affected by the overthrusts and dislocations, suddenly sinks. A collection of rock-specimens from the district was demonstrated.

Mr J. SOBRAL spoke on the contact-rocks of Ulfön (see SOBRAL, J. M., Contributions to the geology of the Nordingrå region, Uppsala 1913).

Mr P. QUENSEL demonstrated some minerals from the nepheline-syenite of Almunge which had not been found in Sweden before (see this Number of the Bull.).

Meeting November 11th 1912.

44 persons present.

Mr H. SMITH opened a discussion on the postglacial shifting of the forest-boundaries in Scandinavian highlands.

Meeting November 21st 1912.

16 persons present.

Mr B. HÖGBOM spoke on the geology of Ural, especially dwelling on the coal-occurrences.

M. C. WIMAN demonstrated some »marlekor» (marl-concretions) of different ages and communicated a statement by POSILD about »mass-death» of *Malotus villosus*, which made it probable that the formation of some kinds of concretions depended on »mass-death».

Mr C. WIMAN reviewed: JŒKEL, O., Ein babylonischer Stierlöwe aus China (Ostasiatische Zeitschrift I. 1913).

Meeting December 11th 1912.

15 persons present.

Mr C. WIMAN demonstrated some Labyrinthodonts collected in the past summer by the Swedish expedition to Spitzbergen.

Mr A. HEDVALL demonstrated an improved method to make microscopical photographs of thin sections by using differently coloured filters.

Miss E. WARBURG showed some Old Red fossils from the Downtonian of Norway.

Meeting January 30th 1913.

9 persons present.

The following officers were appointed.

E. WARBURG, Secretary.

E. ANDERSSON, Treasurer.

S. ROSÉN and H. HAMILTON, Reviewers.

Meeting February 13th 1913.

20 persons present.

Mr I. SEFVE read a paper on the localities where fossil mammals were found at Ulloma in Bolivia (see this Number of the Bull.).

Mr I. HÖGBOM reviewed: F. OMORI, The Usa-san eruption and earthquake, and elevation phenomen.

Meeting February 27th 1913.

23 persons present.

Mr R. Loostrom reviewed: Hambruch, Entstehung, Bildung und Lagerung des Phosphats auf Nauru.

Mr. A. G. Högbom read a paper on the mineral plant food-substance in the soil. After having made a comparison between the supply of these substances and the yearly consumption necessary to produce a normal crop, he held forth that the soil became what is called exhausted much earlier than what one would expect from the proportion between supply and consumption, and in connection with that, he gave an account of investigations made by an american scientist (Frank Cameron) which seem to indicate that the rapid dicrease of the power of growth (when harvesting without manuring) is partly due to infection of the soil by some toxines.

Then the lecturer made a survey of the different ways in which the agriculture in ancient and modern times had conquered the difficulty, which is to be found in the rapid exhausting (resp. infection) of the soil.

He distinguished between four essentially different agricultural methods: burn-beating cultivation, primitive prairie cultivation, irrigation cultivation and manuring cultivation.

The methods were characterized and their likely genetical relations were displayed. The manuring cultivation had as early as during the time of old Romans (cfr. Columella) reached a standpoint, which was hardly altered, until the chemistry in the beginning of the nineteenth century made its great contribution to the rationel management of the same. It seems to be left to the physical-chemistry to make the next great contribution. The industrialisation of the world has led to a thorough revolution of the conditions of the agriculture, not least regarding the manuring. Especially for the exporting countries the artificial manuring has become of fundamental importance. The stater made a survey of the occurrences of the mineral manuring-substances and laid stress on the fact, that their restriction to only a few countries, to a certain degree, monopolized them. As the potash and nitrogen manuring substances further were of great importance for the making of explosive substances, and therefore might be considered as contraband of war, there was a general aim to become independent of these countries. This problem was already solved as to the nitrogen, and it seems rather likely that the same soon would be the case with the potash also. At last it was held forth that the farming in our country ought to get profit of our supplies of

water-power, potassic rocks and apatite-ores to fill the demands of artificial manuring substances.

Meeting March 13th 1913.

16 persons present.

Mr P. QUENSEL read a paper on the regional metamorphosis of the quartz-porphyries (see this Number of the Bull.).

Mr K. E. SAHLSTRÖM read a paper on some experiments concerning the permeability of the soils (see Sveriges Geol. Unders. Årsbok 1911).

Meeting March 27th 1913.

22 persons present.

Mr G. FRÖDIN read a paper on ice-damed lakes in western Jämtland (see Sveriges Geol. Unders. Årsbok 1911).

Meeting April 10th 1913.

21 persons present.

Mr C. WIMAN reviewed: WALCOTT, CH. D., Cambrian Brachiopoda. Washington 1912, and HUENE, F. v., Die Herkunft des Os interparietale der Mammalia. Anat. Anz. B. 42. 1912.

Mr B. HÖGBOM spoke on the geology of Further India (see this Number of the Bull.).

Meeting April 24th 1913.

20 persons present.

Mr S. ROSÉN read a paper on mineral-occurrences at Håkansboda.

Mr A. G. HÖGBOM spoke on the supply of iron-ore in Sweden, and its iron-ore politics.

Meeting September 18th 1913.

17 persons present.

The following officers were appointed.

E. WARBURG, Secretary.

E. ANDERSSON, Treasurer.

S. ROSÉN and H. HAMILTON, Reviewers.

Mr C. WIMAN spoke on the Perm formation of Spitzbergen (see WIMAN C., Karbonbrachiopoden Spitzbergens u. Beeren Eilands. Nova Acta Reg. Soc. Sc. Ups. Ser. 4, Vol. 3. 1914).

Mr I. HÖGBOM read a paper on drift-sands formation in Dalarne (see Geol. För. i Stockholm Förh. B. 35. 1915).

Mr R. SERNANDER reviewed papers in »Naturen» by OEIEN, REUSCH and BJÖRLYKKE about the finding of a mush-deer at Indsæt in the valley of the Orkne-river.

Meeting October 6th 1913.

22 persons present.

Mr A. HAMBERG read a paper on radioactivity and geology (see Geol. För. i Stockholm Förh. B. 35. 1913).

Mr A. G. HÖGBOM reviewed papers by french authors dealing with the Atlantis-myth as corroborated by the modern geology.

Meeting October 23d 1913.

22 persons present.

Mr K. E. SAHLSTRÖM read a paper on the erosive power of the inland-ice.

Meeting November 13th 1913.

20 persons present.

Mr S. ROSÉN spoke on some experiments to illustrate the epigenetic nature of the nickel and cobalt ores.

Mr A. G. HÖGBOM reported the part about Fennoscandia in Handbuch d. Regionale Geologie, which he himself had written.

Mr C. WIMAN gave an account of a journey to Germany and Austria.

Meeting November 24th 1913.

23 persons present.

Mr P. QUENSEL spoke about the geological congress in Canada 1913 and demonstrated a collection of rock specimens, which he had made during the congress excursions.

Meeting December 8th 1913.

27 persons present.

Mr A. G. HÖGBOM spoke on faults and fault-breccias.

Mr. R. SERNANDER demonstrated some casts of plants in a mortar from the Middle Ages.

Mr C. WIMAN demonstrated a method of reconstruction of fossils, used by Prof. SOLLAS in Oxford.