

The rock types exposed in the area are mainly gneisses, schists, amphibolites, marbles and quartzites. The schists, quartzite and marbles sometimes contain small amounts of graphite. These rocks occur in small alternating bands very often within small distances.

On the basis of mineralogical composition and texture, different types of gneisses and schists can be recognised viz. mica-schist, kyanite-sillimanite schist quartzo-felspathic gneiss, two mica gneiss and hornblende gneiss. They show remarkable change in their grain size in different parts of the area being coarse-grained towards west and more fine-grained towards east. The amphibolites show a mineralogical assemblage of hornblende, plagioclase and biotite with garnet, sphene and pyrite as accessories. The marbles are of dolomitic, tremolitic, or diopsiditic. The presence of dolomite in the marbles is confirmed by X-ray analysis and U-stage investigation. The whole series is intruded by concordant aplitic and pegmatitic sills which are folded together with the host rocks. Some concordant bands of lamprophyre and diopsidite are also seen in the area.

The general strike of the rocks is N. 15. E. The dip ranges from 45 to 75 degrees to the east and the lineation trend generally N—S slightly dipping to the north (sometimes quite horizontal).

The petrofabric study of preferred orientations of quartz, biotite, calcite and dolomite in these rocks provide additional informations which are conformable with the field observations.

The petrological investigations of the amphibolites suggests that they are formed by the metamorphism of basic tuffs laid down with the associated sediments. The mineralogical assemblage of the different rock-types indicate that they were formed under metamorphic conditions of amphibolite facies from different sediments.

The contact between the Para-series and Spitzer Gneiss to the west is found to be transitional and in this respect the authors like to suggest that further investigations would lead to interesting results about the relationship between these two formations.

Observations on the Metamorphics of Steinegg, Lower Austria

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This work essentially contains itself to the structural analysis of the granulites and associated rocks in the Bohemian Massif around Steinegg (Lat. 45°37' & Long. 33°13') with petrographical, petrochemical and trace element studies of them. The principal rock types of this area are the granulites (sense-restricto, SCHARBERT, 1964), amphibolites and Gföhler gneiss. The associated rock types include pyroxene granulites, serpentinites, quartzites and pegmatites. The average modal composition of the principal rock types, as determined with the integration of thin sections are: Granulite- Quartz 41%, alkali feldspar 30%, plagioclase felds. 10%, garnet 9.5%, hypersthene 2% and accessories 2%; Amphibolite- quartz 9%, alkali feldspar 4%, plagioclase felds. 19%, garnet 18%, hornblende 46% and accessories 4%; and Gföhler gneiss-quartz 30%, orthoclase 45%, microcline 10%, garnet 3%, plagioclase felds. 1%, biotite 9% and accessories 2%. The plagioclase varies in composition from 28% An. in granulites to 48% An. in amphibolites.

A well developed lineation is observed in the granulites. The mesoscopic structural features observed in the field are correlated with the microscopic fabric diagrams. The general strike of the rocks varies from N 80° W to N 30° W with dips ranging from 35° to 55° in a southerly direction. The lineation in general strikes N 80° W and dips 8° due W. The lineation appears to be of secondary origin. The granulite as well as the Gföhler gneiss have the same trend.

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The mutual age relationships of the various rock types of the area are that the Gföhler gneiss is the youngest and the granulites are the oldest. They form the basement complex. The contacts between the various rock types are tectonic in nature.

Quantitative and semi-quantitative measurements of the trace elements in these rocks have been determined spectrochemically and the results point out that the amphibolites are probably 'para' in nature while the Gföhler gneiss and the serpentinites are of 'ortho' origin. No decisive conclusions could be arrived at in regard to the granulites. However the trace element distribution is found to be fairly constant over the sampled area.

The petrographical and petrochemical studies indicate that the granulites have an excess amount of Al (SCHARBERT, 1964) and the sedimentary nature of the original material is not ruled out. One of the interesting observations is the similarity observed in the textural, structural and mineralogical character of the garnet-pyroxene granulite of this area with the garnetiferous intermediate Charnockite of India.

The observations made by the authors are suggestive that a more detailed and extensive investigations would lead to more conclusive results.

Dritter Abschnitt:

Internationaler Hochschulkurs in ausgewählten Teilgebieten der Geologie

(Post Graduate Training Center for Geology, Vienna)

Statuten

(Laut Hochschulorganisationsgesetz, BGBl. Nr. 154/155, § 62, vom Professorenkollegium der Philosophischen Fakultät der Universität Wien am 18. März 1964 beschlossen, mit Zl. 63.195-I/4/64 vom 30. Juli 1964 vom Bundesministerium für Unterricht genehmigt.)

§ 1. Auf Grund des Beschlusses des „Interministeriellen Komitees zur Förderung der Entwicklungsländer“ (IKFE) vom 15. November 1963¹⁾ und des Agreements zwischen Unesco und Geologischer Bundesanstalt (für die Republik Österreich)²⁾ und gemäß HOG § 62 wird von der Philosophischen Fakultät der Universität Wien ein Hochschulkurs eingerichtet. Er führt den Titel „Internationaler Hochschulkurs in ausgewählten Teilgebieten der Geologie“. Er hat die Aufgabe, Postgraduates aus Entwicklungsländern in Teilgebieten der Geologie einzuführen.

§ 2. Der Ort der Durchführung ist die Universität Wien und dem Schwerpunkt nach die Geologische Bundesanstalt in Wien (organisatorische Leitung). Die Kursdozenten regeln im Einvernehmen mit der Kursleitung die Einzelheiten der örtlichen Durchführung von Geländearbeit, Vorlesungen und Übungen innerhalb Österreichs.

§ 3. Die Dauer des Kurses ist 8 Monate, und zwar zwischen September und Mai eines jeden Studienjahres.

¹⁾ Empfehlungen des IKFE an das Bundesministerium für Finanzen, aus den Mitteln der Entwicklungshilfe für 1964 einen Betrag für die Durchführung eines Postgraduate-Kurses zur Verfügung zu stellen. Diese Empfehlung wurde in einer Sitzung des Ministerrates Anfang Dezember 1963 zustimmend zur Kenntnis genommen.

²⁾ Hierin wird Kursinhalt, Kursdauer, Teilnehmerzahl sowie Leistungen von seiten der Unesco festgelegt.