

### BOOK REVIEW

**BÁRDOSSY GY.:** **Karsztbauxitok. Bauxittelepek karbonátos kőzeteken.** (Karstbauxites. Bauxite deposits on carbonate rocks.) Akadémiai Kiadó (The Publishing House of the Hungarian Academy of Sciences), Budapest, 1977, 413 p, 178 figures, 23 colour-photos and coloured figures, 49 tables, 3 supplements. (In Hungarian)

The bauxite ranks among those exploitable rocks which are connected with numerous branches of geology by means of their special mode of genesis and their usability for indicating facies and climate. On the basis of a profound examination of the bauxite deposits a lot of genetic theories arose, but neither of them was applicable unrestricted to other types of deposit. With progress of the investigations more and more occurrences were discovered of which constitution did not perfectly keep to the patterns of the former theories.

The author properly recognized that only an objective investigation and classification, as many-sided as possible, could show the way out of this chaos. In the focus of his investigation the karstbauxites are placed to which also the Hungarian bauxites belong. But in connection with any question of importance, also the lateritebauxites are drawn into comparison. Till now nobody in the world has undertaken a similar synthesis having so great pretensions and more detailed analyses supported both qualitatively and quantitatively, being in spite of that concise and easy to survey. Of course, a study like this contains many compilative data, too. However, this matter is not simply taken over by the author, but it is — often passed through the filter of his proper investigations — critically summarized. At the same times — if necessary — attention is called to questions unsolved and thus left open.

This book is an excellent example to show how the dispersity of the genesis has to be picked out of the initially analytic, subsequently comprehensive view of the formal and material features of a geologic formation. Starting from the geographic frames of the karstbauxite belts and the periods of the bauxite deposition, a qualitative and quantitative analysis firstly of the modes of genesis, then the same of the petrographic features (bauxite-varieties, their textural, structural and physical properties), further the mineralogic composition — including also the relationships between texture and mineralogy — are given. Description of the bauxite-minerals is succeeded by the outlining of their condition of formation and their genetic system, then the analysis of the relations between karstbauxites and terra rossa. Examining the connection of the bauxite deposits with the local and major tectonics, the author establishes — so to say — a transition to the last, genetic chapter of his book, that comprises a discussion and criticism of the theories on bauxite genesis, the questions regarding the source rock and transport, the environmental conditions and the factors of transformation into bauxite, the characteristics of the depositional areas,

finally the geochronology of bauxite-formation and the relevant paleogeographic conclusions.

Beside the many-sidedness perhaps the greatest merit of the book consists in its never being satisfied with only qualitative distinctions, but — by means of the simple though laboursome methods of mathematical statistics (that under the present circumstances are alone applicable to materials of this kind) — the author always endeavours to assess the quantitative distribution or frequency of the recognized types, components or minerals, too. Because of the rarity of similar calculations, the given numbers are perhaps not always of absolute value. Nevertheless they — as properly grounded estimations — augment the veracity of the conclusions drawn these from.

The statements of the book are based on self-made field-observations and samplings taken over the major share of the bauxite occurrences of the Earth by the author himself. Beside the profound knowledge of the methods and the world literature, this "personal connection" with his object made possible the creation of this outstanding synthesis clothed by zealous efforts of the Publishing House of the Hungarian Academy of Sciences into a worthy guise. It is a great pleasure to hear that this book — comprising the products of 25 years of tireless labour, for which its author was awarded the Joseph Szabó Medal by the Hungarian Geological Society — will soon be issued by foreign publishers both in English and Russian.

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