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Graphical symbols for use on detailed maps, plans and geological cross-sections — Part II : Representation of sedimentary rocks

*Symboles graphiques à utiliser sur les cartes, les plans et les coupes géologiques détaillés —
Partie II : Représentation des roches sédimentaires*

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 82 has reviewed ISO Recommendation R 710/II and found it suitable for transformation. International Standard ISO 710/II therefore replaces ISO Recommendation R 710/II-1968.

ISO Recommendation R 710/II was approved by the Member Bodies of the following countries :

Belgium	Greece	Poland
Brazil	Hungary	Portugal
Chile	India	South Africa, Rep. of
Czechoslovakia	Italy	Spain
Egypt, Arab Rep. of	Japan	Sweden
France	Korea, Rep. of	Turkey
Germany	Netherlands	U.S.S.R.

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds :

New Zealand*
Yugoslavia

The Member Body of the following country disapproved the transformation of ISO/R 710/II into an International Standard :

Poland

Other documents in this series on graphical symbols for use on detailed maps, plans and geological cross-sections include :

Part I : *General rules of representation.*

Part III : *Representation of magmatic rocks.*

Part IV : *Representation of metamorphic rocks.* (In preparation.)

Part V : *Representation of minerals.* (In preparation.)

* Subsequently, this Member Body approved the Recommendation.

Graphical symbols for use on detailed maps, plans and geological cross-sections — Part II : Representation of sedimentary rocks

1 SCOPE AND FIELD OF APPLICATION

This International Standard provides a unified series of symbols and ornaments for the representation of sedimentary rocks on detailed maps, plans and geological cross-sections.

The symbols and ornaments may be divided in two groups, as follows :

- 1) principal types;
- 2) varia.

They are reproduced in two tables which, being derived from a logical system, may be completed easily in case of need.

2 PRINCIPAL TYPES

2.1 Principles of representation (see table 1)

In columns 1 to 15 of the table comprising 18 principal types, i.e. 18 rows numbered 1 to 18, the nature of the rock is specified as far as possible by means of an adjective; each column designates a petrographic property of the rock in question (box 3/12, for example, represents an area of sandy limestone.¹⁾ At the top of table 1 (line entitled "Elementary symbols") are given the individual symbols, several of which, when juxtaposed, form the ornaments of the corresponding rocks. The constituents of rocks are given from left to right : first the clastic constituents (from detritus to clay), followed by the chemical and organic sediments. In the main, the same order is observed for the horizontal subdivision of table 1.

2.1.1 The elementary symbols shown have been used to form the ornaments with an irregular arrangement to characterize loose rocks and a systematic staggered arrangement to represent consolidated rocks.

2.1.2 The column "Basic types", comprises rocks with no supplementary characterization, and pure types. "Mixed types", on the other hand, are rocks whose composition is

characterized by their petrographic peculiarities, for example, by a binder such as argillaceous sandstone, box 5/8, or by additional constituents such as gritty sand, box 2/3. The boxes at the intersection of a basic type (horizontal line) and of the same character (vertical column) are left white and are emphasized by a diagonal.

2.2 Individual symbols

As far as possible, the selected ornaments express in a diagrammatic way the nature of the rocks. This is relatively easy to accomplish in the case of clastic sedimentary rocks.

2.2.1 Detritus

This is represented by sharp-cornered particles; rounded gravel is represented by round particles. The smaller grain of sand is marked on the drawing by a dot. A more detailed subdivision according to the size of the grains, for example, division into coarse, medium or fine sand, may be obtained by a corresponding variation in the dimension of the symbols. As an example, the four following ornaments show the way in which it is possible to distinguish between the different types of sand depending on the size of the grains (see figures 1 to 4).

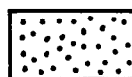


FIGURE 1 — Coarse sand



FIGURE 2 — Medium sand



FIGURE 3 — Fine sand



FIGURE 4 — Sand with grains of different sizes

1) In order to designate a box, always quote first the number of the column and second the number of the line, the two numbers being separated by a stroke, for example, 3/12.