

GLOSSARY OF MICROMORPHOLOGICAL TERMS

by

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One of the earliest objectives of the Working-Group was to review current terminology and to produce a Glossary of existing micromorphological terms. The first approximation of the Glossary was produced in 1972. In it the terms were listed alphabetically. Many members considered that a better approach from a scientific and educational point of view was to produce a work in which terms were listed under a limited number of entries. The value of this latter approach was that it gave better insight into the relationship between terms from different systems of classification. This approach was adopted and a fourth approximation of the Glossary was presented to the 10th International Congress of Soil Science in Moscow, 1974. Copies were also sent to a number of soil scientists for comment. The final revision is now complete and the Glossary will be published by Pudoc, the publishing office of the Ministry of Agriculture of the Netherlands, during 1977. The work has been edited by A. Jongerius and G. K. Rutherford but - all present and former members of the Working-Group as well as some of their colleagues have contributed to the compilation.

There are some 54 entries and over 700 terms in the Glossary. In order to keep within practical limits only terms fulfilling certain requirements are included. The main criterion for selection is the use of a term in more than one publication. Rare exceptions to this rule are made for some terms which in the view of the Working-Group provide an important supplement to terms meeting the main criterion. Terms up to 1974 are included.

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A few non-micromorphological terms are also added. Such terms are ones that have been closely linked to soil micromorphology in the past e. g. humus forms. It was considered that the inclusion of such terms would aid completeness.

The Glossary is written in English but for each term there is translation or transliteration in French, German, Russian and Spanish. For each term the order observed is :

item (English); equivalents in French, German, Russian and Spain ; summary of the concept (where appropriate) ; source (s); definition (s); terms having a comparable meaning.

As general agreement in the translation of some terms is lacking, literal translations are provided where necessary. In the text original terms are indicated by capitals, accepted translations or transliterations by lower case letters and proposed translations or transliterations by lower case letters plus an asterisk.

At the end of the book there is a subject index for each of the five languages thus making it possible to find each term and its definition easily. The gender of each term is also given in the indexes to facilitate the use of the Glossary in translations.

An example of one of the shorter Entries in the Glossary is as follows: "SEPARATION (cf. Concentration")
separation - Separation - обособление - separación.

The process of isolation or the state of being disengaged as a separate body from a mixture or solution, or the separate body itself (free, after Webster). This implies accumulation of constituents in situ or over some distance. Used in this sense by Soviet soil scientists (Romashkevich and Turjina, 1971). Their "plasmic separations" include Brewer's plasmic fabrics (Cf. "Plasmic fabric") and some plasma accumulation on natural surfaces (cutans : Cf. "Surface features").

Russian terms (Romashkevich, Tursina, Gerasimova and Minashina):

Clay separation séparation d'argille - Tonseparation
Обособление глины - separación de arcilla.

"Concentration of clay particles and/or pseudo-crystals (Cf. "Pseudo-crystal") on natural surfaces as the result of the process of separation. Diffuse boundaries".

Clay separations around pores - séparations d'argille autour des pores - Tonseparationen um Hohlraumē - **Обособления глины вокруг пор** - separaciones de arcilla alrededor de poros.

"Concentrations of clay particles and/or pseudo-crystals on the contacts of dispersed fine mass (Cf. "Fundamental fabric components") and pores".

Note: This type of clay separations is said to be (partly) synonymous with Brewer's vosepic plasmic fabric (Cf. "Plasmic fabric").

Clay separations around skeleton grains - séparations d'argille autour des grains du squelette - Tonseparationen um Skelettkörner - **Обособления глины вокруг зерен скелета** - separaciones de arcilla alrededor de granos del esqueleto.

"Concentrations of clay particles and/or pseudo-crystals on the contacts of dispersed fine mass and skeleton grains".

Note: This type of clay separation is said to be synonymous with clay films around grains, clay rings (Cf. "Surface features") and Brewer's skelsepic plasmic fabric (Cf. "Plasmic fabric").

In Brewer's classification (1964) the term "separation" is used in two ways :-

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a) To indicate the state of reorientation in situ of the plasma with actual exclusion of accumulation, in :
PLASMA SEPARATIONS - séparations plasmiqnes - Plas-
maseparationen - сепарация плазмы - separacio-
nes plásmicas.

Brewer and Sleeman (1960, p. 177), Brewer (1964, p. 144) :

"Orthic features characterised by a significant change in the arrangement of the constituent, rather than a change in concentration of some fraction of the plasma".

b) DEGREE OF SEPARATION - degré de separation
Separationsgrad - степенъ сепарации - grado
de separacion.

Brewer (1960, 1964) :

Deals with the degree of contrast in fabric or concentration between soil materials".

The Working-Group hopes that the Glossary will be useful not only to those colleagues working full time in the field of soil micromorphology but also to those who wish to use micromorphology occasionally, such as students, but who in the past have been put off by the complex terminology.

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