



New books

Guidelines for Analysis and Description of Regolith Thin Sections, Second Edition

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Book cover

A worldwide standard for the practical collection and analysis of microscopic soil samples, Georges Stoops revised and updated his landmark book, *Guidelines for Analysis and Description of Soil and Regolith Thin Sections*.

Filled with colorful micrographs, useful guidelines for studying thin sections, and descriptive themes for data presentation, the second-edition book is a must-have resource for soil scientists, geologists, ecologists, archeologists, and any other discipline interested in micromorphology.

Here, *CSA News* magazine discussed the book with its author, Georges Stoops. The following conversation was edited for clarity and length.

CSA News: How would you sum up the book?

Stoops: The book provides a system of concepts and terms to analyze soil thin sections according to international standards.

CSA News: Why did you decide to put this book together?

Stoops: In 1969, an International Working Group on Soil Micromorphology was created by the ISSS—now the IUSS [International Union of Soil Sciences]—to set up an international system for the analysis of soil thin sections and to stop the uncontrolled proliferation of terms. This resulted in a handbook (*Handbook for Soil Thin Section Description* by Bullock et al., 1985) that was accepted as a worldwide standard. When it was out of print in 1999, SSSA asked me, as one of the only authors alive and still active in this field, to prepare an updated version. The first edition of the *Guidelines for Analysis and Description of Soil and Regolith Thin Sections* (Stoops, 2003) was successful and used worldwide for scientific work and courses. It was also the base for a Spanish and a Portuguese manual. In 2017—or maybe before—it was out of print and only rarely available on the secondhand market for foolish prizes (up to \$1,000). On demand of colleagues and students, I contacted SSSA to propose a second, updated edition of the book.

CSA News: How did you collect the different soil types for the book?

Stoops: From 1963 until a few years ago, the International Training Centre for Postgraduate Soil Scientists of Ghent University provided specialized courses to more than 1,000 students in Europe and developing countries in Africa, Asia, and Latin America and attracted in addition many Ph.D. students and trainees. For their dissertations, they had to work on the soils found in their own countries. In this way, a very rich collection of thousands of thin sections and numerous micrographs (for those that had their own thin sections) was built up in the department, covering most

soils worldwide. In addition, we had a number of soil projects in tropical regions, and on demand of Hari Eswaran, Project Coordinator of the Soil Management Support Service of the USAID, I made the micromorphological and mineralogical analyses of soils to be discussed in the field during the meetings of the International Committees on Soil Taxonomy.

CSA News: What was the biggest challenge you faced in putting together the book?

Stoops: As a lecturer, it was clear to me that concepts should be clearly defined, mutually exclusive—which was not always the case in Bullock et al. (1985)—and easily understandable for people of different cultural backgrounds. Moreover, sufficient background information and references have to be given for scientists wanting a deeper understanding of the material.

CSA News: Who do you see benefitting the most from this book?

Stoops: Well, the system is accepted worldwide as a standard, allowing the exchange of analyses between scientists of different cultural backgrounds, which is a point often overlooked by only English-speaking persons. When the first edition was prepared, soil classification and genesis were the main fields of application of micromorphology. Meanwhile, these two fields became less popular, probably because of a lack of funding. However, other disciplines, such as geoarchaeology, Quaternary geology (or palaeosoils), and geomorphology became enthusiastic users. There are also several applications for this in applied soil science; for example, with respect to soil degradation.

CSA News: Is there anything else that you think readers should know?

Stoops: Compared to the first edition, several ameliorations were made. In the first edition, all micrographs were presented on a CD-ROM, whereas in the new one, they are printed and grouped as plates, comprising a few hundred micrographs. A large number of figures—line drawings—are now partially colored, enhancing their clarity. Based on questions and comments of colleagues, and especially of students, some ideas were better clarified, some extended, and referencing updated, since progress was made in many fields in the last 15 years.

Guidelines for Analysis and Description of Regolith Thin Sections, Second Edition by Georges Stoops is now available for purchase. You can find it in the Wiley Online Library, here: <https://bit.ly/3o6lQAj>

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