

The „Sopron School of Soil Biology „

The „Sopron School of Soil Biology“ was founded and headed in 1951 by professor **Dániel Fehér**, soil(micro)biologist and by **Lajos Varga**, soil zoologist as the main classics of the Hungarian soil scientists, working in the University of Forest and Wood Sciences in Sopron, Hungary. This Soil Biological Laboratory moved to Budapest lately in 1959 to the Research Institute of Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences (RISSAC HAS); headed by professor **József Szegi** for about 40 years. Members of this „first generation of Hungarian soil biologists“ become also well-known scientists in their subjects.

„School of Soilbiology“ in Sopron

Professors **Dániel Fehér** and **Lajos Varga** were founding the „School of Soil biology“ in Sopron in 1951. As a result of this activity the Department of Plantphysiology of the University of Forest and Wood Sciences (West-Hungarian University) in Sopron become the most well-equipped institute in Hungary of studying the Anatomy, Ecophysiology and Soilmicrobiology. The team achieving a national and an international reputation become the „Soilbiological Research Laboratory of the Hungarian Academy of Sciences“. First members of this „Sopron School of Soilbiology“ are also well-known scientists: **Rezső Bokor, Ilona Buti, Mária Marton, Ernő Manninger, Pál Gyurkó, Mihály Kecskés and István Mihály Szabó**.



Most of them remained together in one team, after the laboratory moving to Budapest in 1959, as a leading Institute of the Hungarian Academy of Sciences in the soil biology. „In Sopron there was an enthusiastic and outstanding research team of studying the soil(micro)biology“ (citation from the Annual Book of Section Soilbiology, the Hungarian Society of Soil Sciences, 1981). At that time the significance of the soil-life in the soil-quality-formation become more and more recognised and appreciated in the World. „The impact of soilbiology towards the soil fertility needs to be utilised more efficiently in the agriculture“ said **Lajos Kreybig** in 1952 at the statutory meeting of the Soilbiological Section. Since that time, soilbiological knowledge has got a key-importance not only in the agriculture, but also in the environmental-protection-, the risk-assessment-, the remediation- and the restoration- of the soils and in the soil formation of spoil-banks in general. The new scientific subject, the soilbiology has proved that the soil is a living entity with the enormous abundance of soil-microorganisms and are acting as an independent organisms, which can be affected by the three main environmental abiotic stress-factors, as **the temperature, the light and the water-content** (Fehér D, 1954: Soilbiology, Academic Publ House, Budapest).

Five-volumes book of **István Mihály Szabó**, D.Sc., member of the the Hungarian Academy of Sciences, Budapest. The „Microbiology of the biosphere I-V“ (Publ. House of Academy, Budapest).

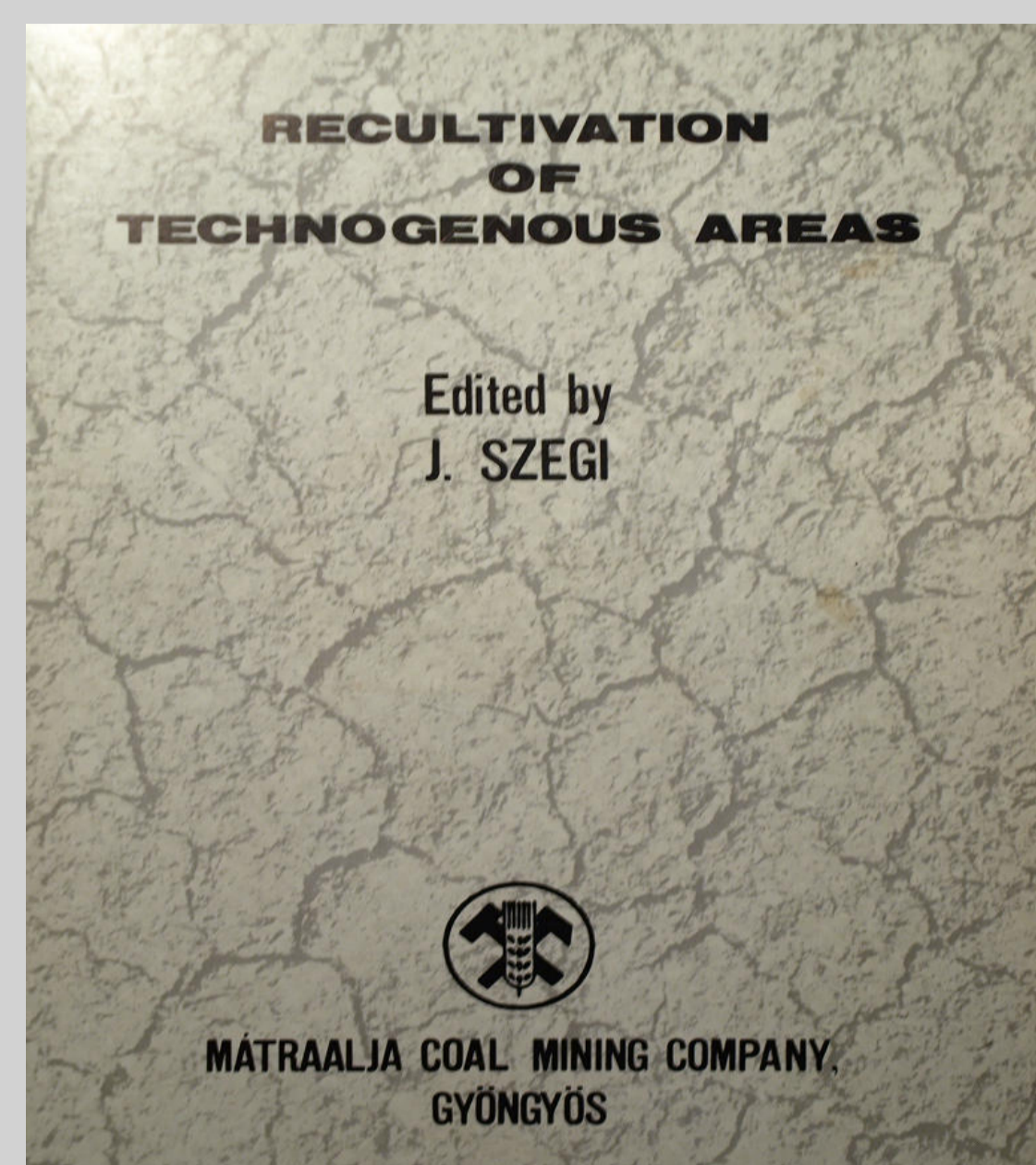
„Sopron School of Soilbiology“ in Budapest

The „Laboratory of Soilbiology“ had to move to Budapest in 1959 to the Research Institute for SoilScience and Agricultural Chemistry of the Hungarian Academy of Sciences (RISSAC HAS). There are three main departments of the Institute, beside the Soilphysics and Agrochemistry, the Department of „Soilbiology and Soilbiochemistry“ was founded and headed by professor **József Szegi** from 1949-1994, who was born in Aba at 14th of January 1928. He is the Doctor of Academy (D.Sc.), and He was a member of the editorial board of „Agrokémia és Talajtan“ (Agrochemistry and Soilsience) in the RISSAC HAS up till his retirement. As a result of his scientific activity, a large variability of the research topics have been started in the Department at that time in connection with the soilbiology.

A potential recultivation process of the technogenous areas of the coal-mining activities in Gyöngyösvisonta (Hungary) have been developed by the Department of Soilbiology. There were several scientific meetings organised on the subject and several books in Hungarian and in English was edited by **J. Szegi**. Such research results, the way of improving and testing of the soil-fertility at a consequence of the human industrial activity was awarded by the Hung. Government prize in 1960. Studies about the men-made soil-changes has started at that time. Following the book of **Lajos Kreybig** about the „Life of soil, its quality improvement and the fertilizer use from biological point of view“ in Budapest (1928), there was a great progress towards the practical application of soilbiological results.

Scientific activities and some of the achievements

The scientific activity of the „Sopron School of Soilbiology“ team was followed by fundamental and practical books, among them the 5-volumed book of „Microbiology of the biosphere“ by **István Mihály Szabó**, and the „Microbiological Investigating methods“ by **József Szegi**, which are still intensively used and studied by



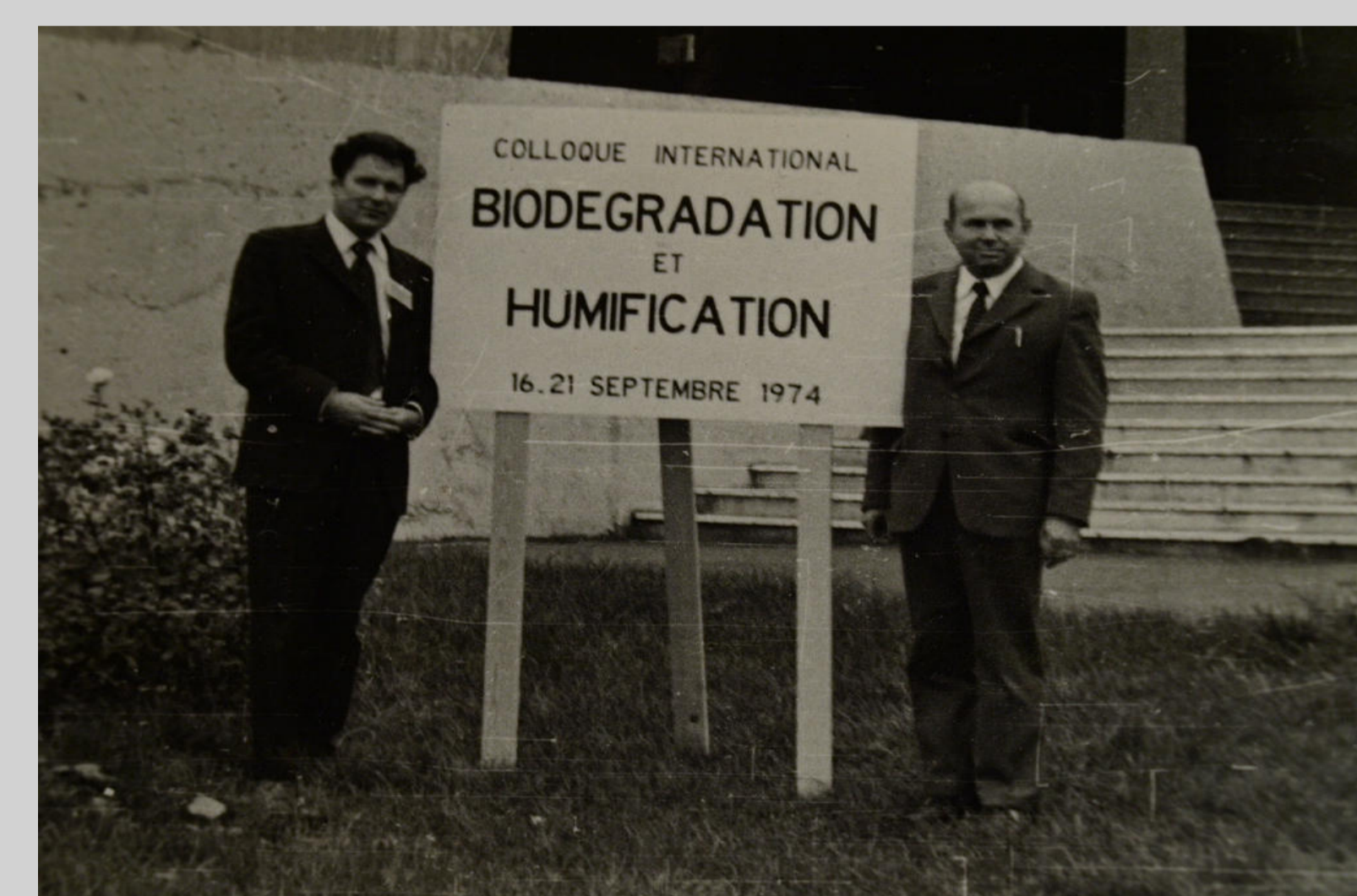
Book about the results of recultivation processes, published in Gyöngyös, 1983.

the „third generation of Hungarian soilscientists“. Further books were concentrating on the diversity of soil-organisms, such as the „Taxonomy of bacteria, fungi and mossae“ edited by **Tibor Simon** and **Mihály Kecskés** in 1991 among several other representatives. New, „up to date“ methods are currently being under construction nowadays, which are applicable not only for the quantification but also for the qualification of the microbiological partners in the soils and growing substances.

The regular National and International meetings, Symposiums, Conferences, such as the classical and well-known ones, as the „Soilbiology and Conservation of the Biosphere“ and the „Biodegradation and Humification“, as the most important subjects of the soilbiology was giving a further chance for the next generation of soil sciences to learn and to improve our common scientific knowledge about the living soils, which is the essential fundament of the human life.



„Soilbiology and Conservation of the Biosphere“ International Scientific Conferences were organised by Professor **József Szegi** (3rd in the photo) in Hungary.



„Biodegradation and Humification“ International meetings were organised in Praha with regular Hungarian participation. **József Szegi** was the member of the organising committee.

Bridging the Centuries
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