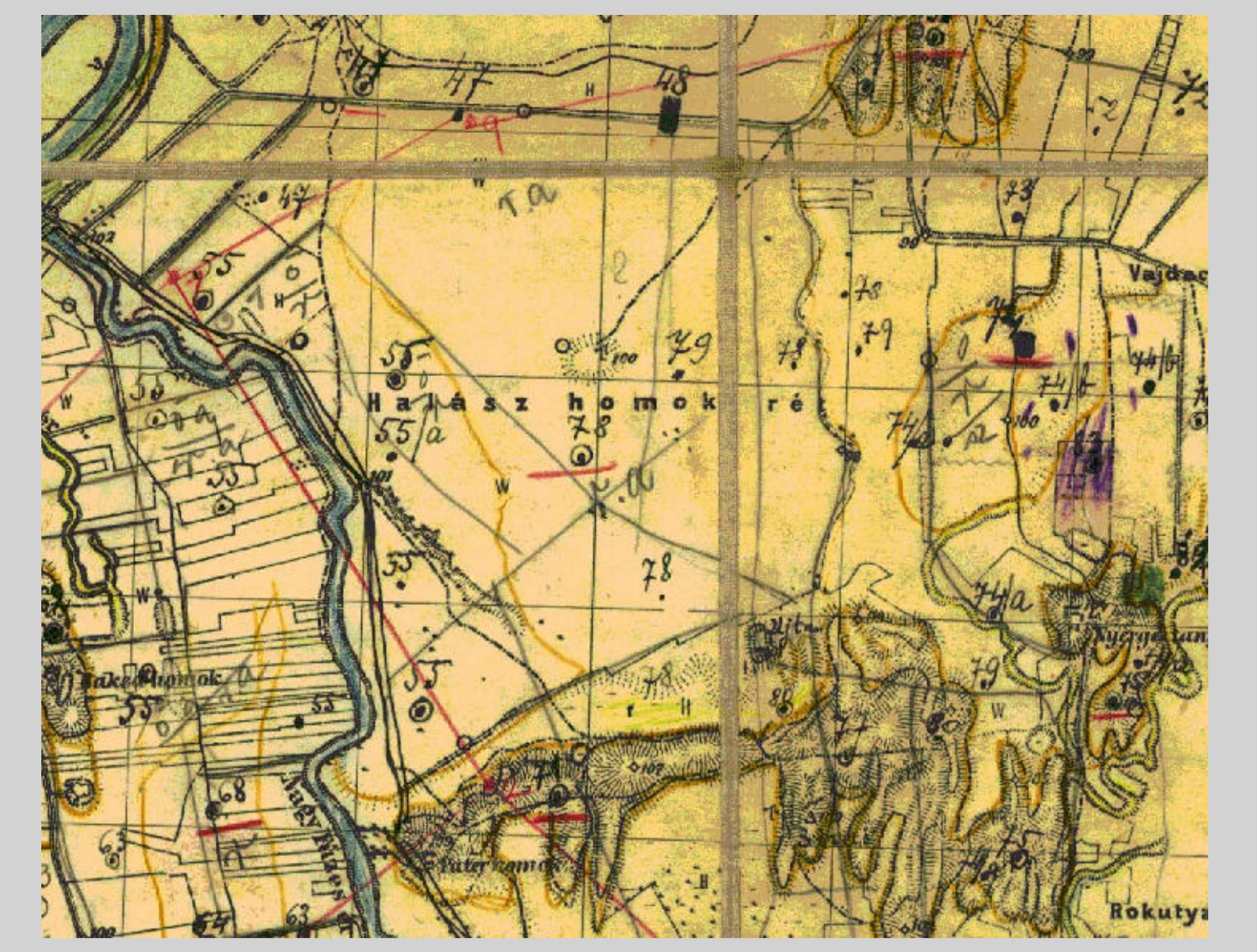


Kreybig- soil survey 1933-1944 (1951)



The national soil mapping project initiated and led by Lajos KREYBIG was unique, being a national, large-scale survey based on field and laboratory soil analyses and at the same time serving practical purposes. The Kreybig-dataset represents valuable information on the soil chemical and physical properties concerning the soil conditions in the middle of the last century.

BEFORE

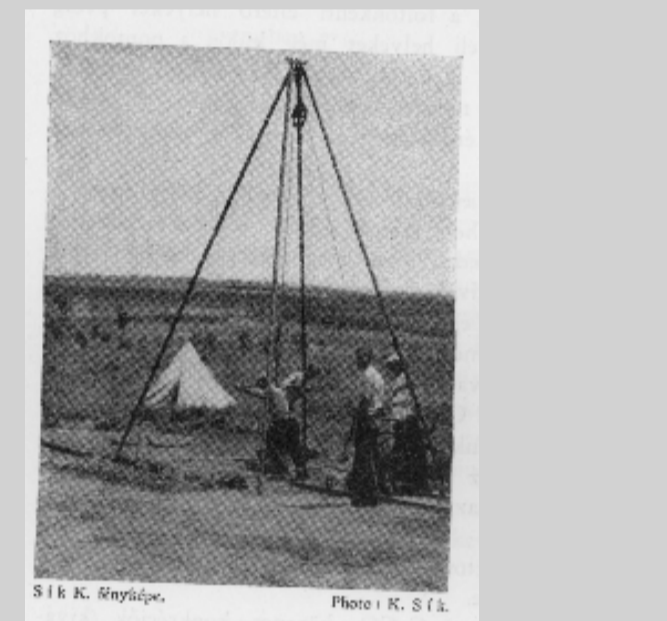
A great amount of geographical and soil information is available in Hungary due to agrogeological surveys conducted in the past 150 years. The aim and method of the consecutive surveys differed, and the different aims laid the emphasis on different soil characteristics. The first national soil mapping program was initiated and led by Lajos KREYBIG, based on field and laboratory soil analysis serving practical purposes. The preparation of the maps and the connecting explanatory notes started in 1933 and ended in 1944, the replacement of the sheets destroyed during the war ended in 1951. The main experts of the survey and the laboratory works were: Lajos KREYBIG (leader of the survey), Endre ENDRÉDY (co-leader of the survey), József BABARCZY, Róbert BALLANEGGER, György BUDAY, János DI GLÉRIA, Gyula ÉBÉNYI, Ferenc HAN, László MADOS (KOTZMANN), Károly SÍK, László TEÖREK, Endre WITKOVSKY and Jenő ZAKARIÁS.

THE SURVEY

The so-called "Kreybig-survey" was carried out under the leadership of the Soil Department of the Royal Hungarian Geological Institute based on topographical map sheets. A surveyor with routine, with the help of two assistants could conduct the survey of a sheet in six weeks time in a period from May to November. The survey was carried out with soil pits and boreholes, some of which were deepened to 10 m or to the groundwater level. Three basic types of the observation sites can be distinguished based on the survey methodology. The most detailed point data are the "representative sites", localized on manuscript map sheets, examined *in situ*, and sampled for laboratory analysis (approx. 30-110 points per sheet). The "observed sites" were examined *in situ*, with description in the explanatory notes, but without laboratory analysis (approx. 40-300 points per sheet). The "delineator sites" were examined *in situ*, they have not got description, and used for soil patch delineation purpose only (approx. 100-1500 points per sheet).

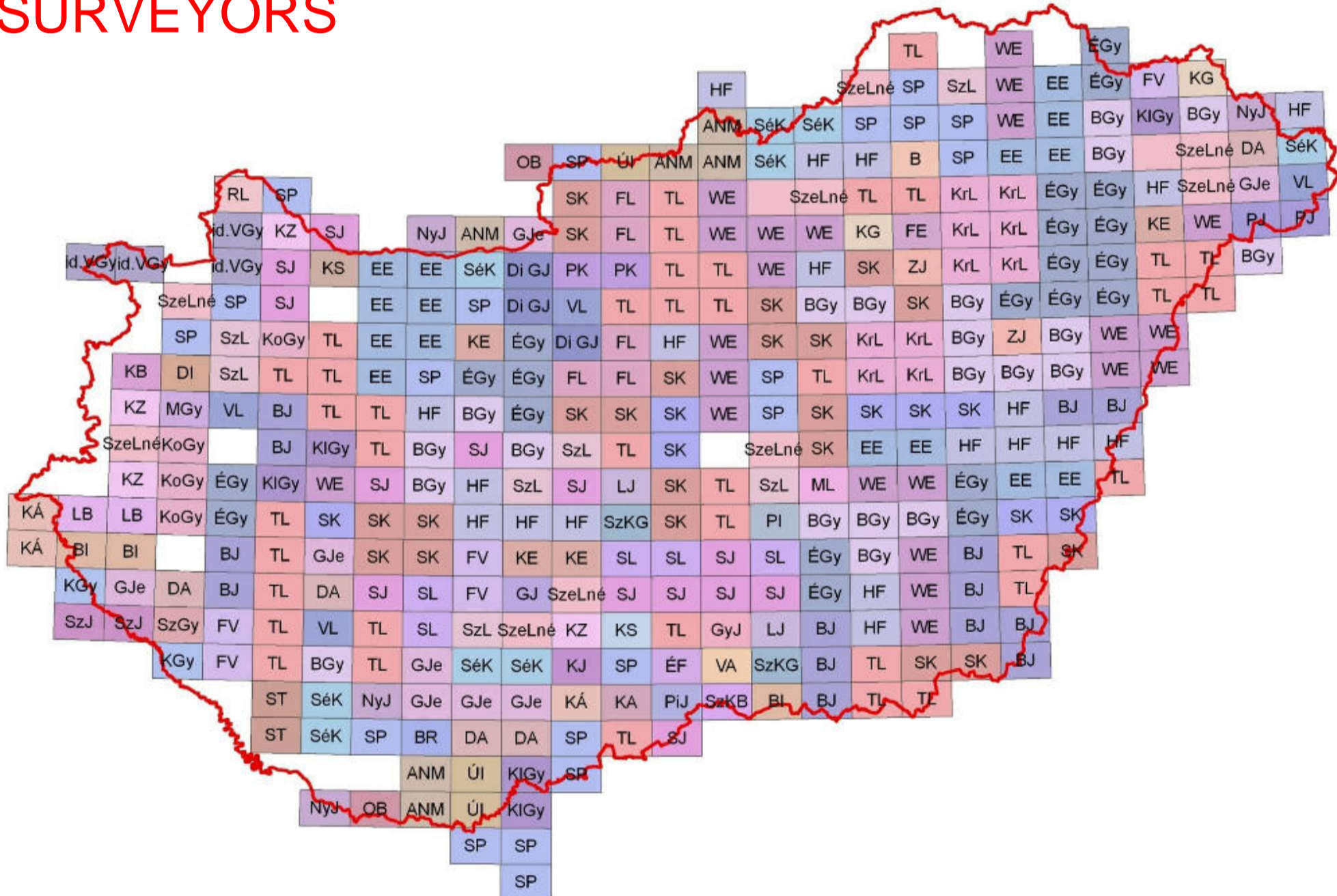
On the mounted topographic map sheets prepared for field survey, the surveyors indicated the location of boreholes, their identification code number and characteristics, making a distinction between the boreholes characteristic of the area and other boreholes occurring in the mapping unit. It was also distinguished which sites were examined *in situ*, described or were sampled for laboratory analysis.

The survey sheets are 1:25 000 scale mounted topographic maps (area: 25 000 ha), which indicate field observations and marks, the boreholes are shown, indicating their original location and category. Thematic resolution of the sheets can be different, depends on the period of the survey (financial opportunities were limited in the latest period of the survey), the geographical conditions and the surveyor's habit.

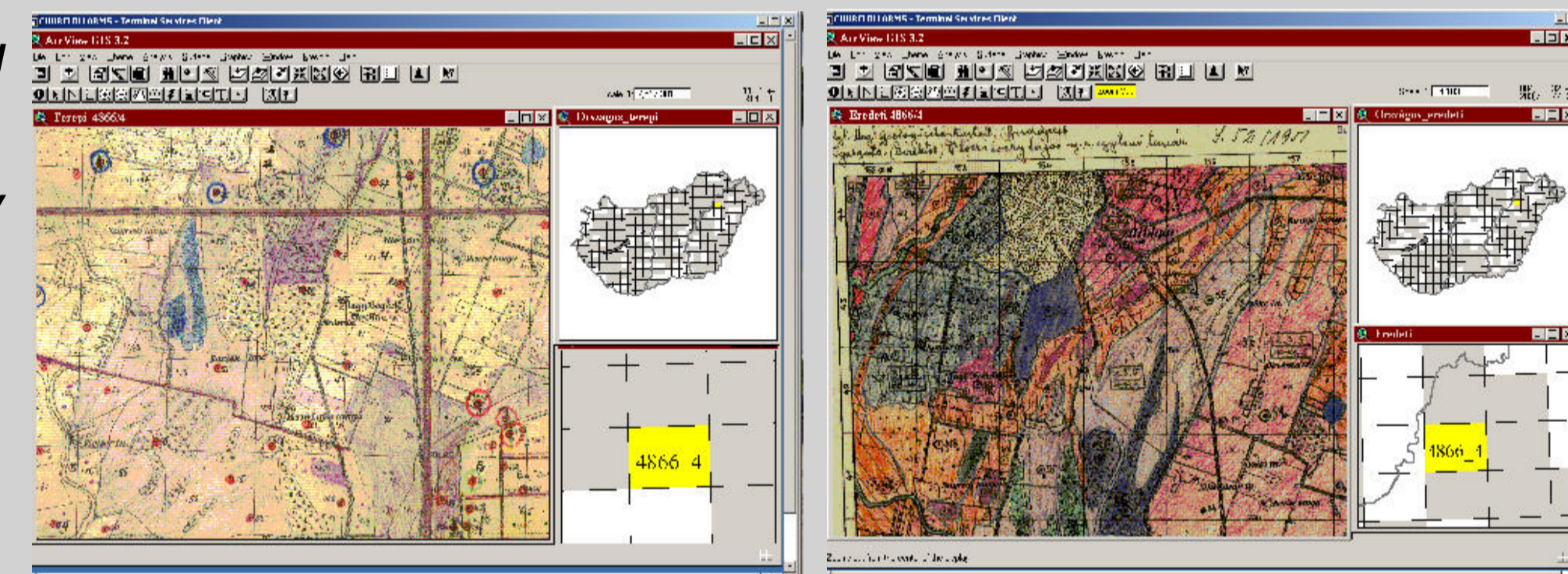


Soil survey photos: Károly SÍK

SURVEYORS

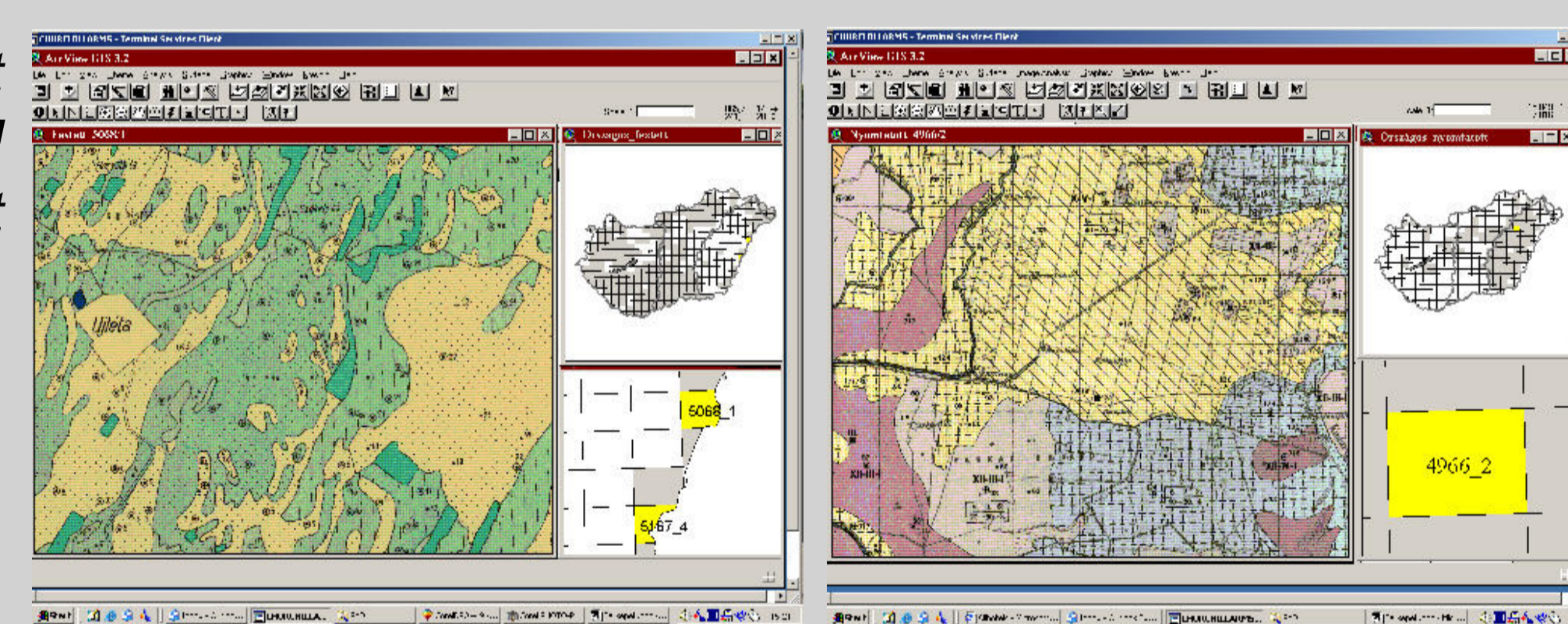


Detailed topographic map, served as survey sheet.



Handcoloured topographic map, shows the separated soil patches, with cross-checked boundaries.

Painted map sheet displays the soil properties, without detailed topography.



Printed version, with all the available information (soil patches and point data), supplemented with soil classes defined by Elek 'SIGMOND'.

AFTER

The Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences is the preserver of the Kreybig archive, and at the same time its user, as these maps were utilized in the course of the preparation of regional scale maps (1:200 000 scale „Soil Map of Hungary” (Stefanovits & Szűcs, 1961), the 1:100 000 scale „Map on soil factors determining the agro-ecological potential of Hungary” (Várallyay et al., 1979), agrotopographical map series (Várallyay, 1985).

The GIS processing of the Kreybig detailed soil maps and the construction of Kreybig Digital Soil Information System started in 1998 at the GIS Laboratory of RISSAC. This process includes the archiving of the maps, transformation into the Uniform National Map System, the determination of the logical data model of the Information System, the planning of I/O processes, the development of the database and spatial elements, data compilation of a sample area and the thematic reamblance of the database in the future.

Bridging the Centuries
1909–2009

Hungary – B u d a p e s t
16–17 September, 2009

