INTERNATIONAL SOIL MUSEUM[1)]

INTRODUCTION

Although soils are derived from geological materials, and many soil characteristics are directly or indirectly related to this origin, only a few articles have appeared in this journal on subjects in the field of soil science.

It was, nevertheless, thought that an introduction to the programme carried out by the International Soil Museum, which is hardly known outside the circle of pedologists, would also be of interest to geologists.

The idea of assembling a collection of tropical soils was first put forward in a report to the Food and Agriculture Organization of the United Nations (FAO) by Prof.Dr. F.A. van Baren, staff member of the Royal Tropical Institute, as early as 1952.

As a result of a recommendation adopted at the 7th International Congress of Soil Science, FAO and Unesco, in co-operation with the International Society of Soil Science (ISSS), decided in 1961 to prepare a Soil Map of the World. This decision gave a new impetus to the earlier thoughts on the collection of soils, and the proposal of Prof. van Baren at the 8th Congress in 1964 to found an International Soil Museum (ISM), which would work in close co-operation with the soils programmes of FAO and Unesco, and especially with the Soil Map of the World Project, was favourably received. A very firm support was given by Unesco, which made the ISM a project within Unesco's activities in the field of earth sciences.

The Netherlands Government, convinced of the importance of such a project, offered hospitality and material support. It was decided to incorporate the Museum in the International Institute for Aerial Survey and Earth Sciences (ITC), the budget being financed by the Ministry of Education and Sciences. A bureau to guide the ISM was established on 1 January 1966, Prof. van Baren acting as Honorary Director.

An international Advisory Panel, at present consisting of the following members: Prof. G. Aubert (France), Dr. R. Dudal (FAO), Dr. S.V. Govinda Rajan (India), Dr. W.M. Johnson (USA), Prof. V. Kovda (USSR), Dr. K. Lange (Unesco), Dr. P. Ryan (Ireland, consultant to FAO), Dr. L.D. Swindale (USA, consultant to FAO), and Prof. F.A. van Baren, met for the first time in September 1967.

A Netherlands Consultative Body was established by the Rector of the International Institute for Aerial Survey and Earth Sciences with the following soil scientists as members: Prof. J. Bennema, Prof. P. Buringh and Prof. A.P.A. Vink.

The Board of the Museum is composed of Prof. P. Buringh, Mr. A.P. Minderhoud (both Agricultural University, Wageningen) and Prof. A.J. van der Weele (ITC, Enschede).

The Museum is provisionally located in the premises of the Soils Department of the State University of Utrecht. It is planned to construct in Wageningen a specially designed building to house the collection, with adequate research facilities and rooms for staff members and guest workers. This building will also contain the complete, world-wide documentation that served as the basic source of information for the FAO/Unesco Soil Map of the World.

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1) International Soil Museum, Oude Kamp 9-11, Utrecht, Netherlands.

THE AIM OF THE MUSEUM

The purpose of the International Soil Museum is to assemble a collection of the world's major soils, which will be studied, compared and evaluated. Each of the soils is represented by a soil monolith (an artificially hardened lacquer peel) which can be displayed for instruction and demonstration purposes. The collection of soil monoliths will form the bulk of the Museum. In addition, samples are taken for laboratory analysis and other pertinent data are collected to get a clear concept of the genesis and classification of the soil, and to form a basis for comparative research.

The collection of soils may be used in two ways. Firstly, it is a helpful instrument in instruction and demonstration to students in soil science, physical geography, agriculture, etc. Secondly, it allows different kinds of scientific research by the staff of the Museum or by guest workers on a large number of soils from many regions of the world. Although it is difficult to foresee what variety of uses can ultimately be made of the collection of soils and data of the ISM, it is thought that, together with the Soil Map of the World, it could have a great impact and stimulating influence on all those who are concerned in furthering our knowledge of soils, with the ultimate aim of assisting mankind -notably in the developing countries- to reach a higher standard of living.

To enable this the ISM is co-operating in the soils programmes of FAO and Unesco, and plans are being discussed to make the Museum a center for the whole world, which anyone interested in soil classification, land evaluation and soil data in general can draw upon for information.

THE PROGRAMME

The soil monolith illustrates the soil profile as a vertical succession of soil horizons and also permits the macroscopic and stereomicroscopic study of the characteristics of the individual horizons, such as colour, structure, pores, and other pedological features. In addition to the soil monoliths, samples are taken from the various horizons for physical, chemical, mineralogical and micromorphological investigations, some of these being carried out in co-operation with, or by, the laboratories of the Soils Department of the State University of Utrecht, the Soil Survey Institute of the Netherlands and the Soils Department of the Agricultural University in Wageningen.

As a matter of course a field description of the soil profile is made. Data on physiography, geology and lithology, climate, vegetation and land use are also collected. Colour photographs and slides of the profile, landscape and vegetation supplement this information. At present more than 300 soil monoliths from 21 countries, viz. Australia, Belgium, Botswana, Czecho-Slovakia, Finland, France, Germany, Greece, Greenland, Hungary, India, Ireland, Italy, Netherlands, Norway, Spain, Syria, Thailand, USSR, Yugoslavia and Sweden are available at the Museum. It is foreseen that the collection will ultimately contain 2000-3000 soil monoliths.

ACTIVITIES IN THE NEAR FUTURE

It is planned that during 1972-1973 staff members of the Museum will visit some East European countries, Greece, West Africa and the USA to collect soil monoliths or to make the necessary arrangements with the local soil survey institutes.

An important issue wil be the second meeting of the Advisory Panel, which will take place from 2-6 October 1972. Concurrently with this meeting an exhibition of a selection of the collected soil monoliths with supporting data will be organized in the museum of the Royal Tropical Institute, Amsterdam. This exhibition of monoliths, together with the results of physical, chemical, mineralogical and micromorphological investigations, and other supplemental information, will take place from 2-24 October 1972.

Readers of "Geologie en Mijnbouw" are cordially invited to visit this first ever international exhibition of soils from a selected number of countries from all over the world.

After the exhibition in Amsterdam, the collection will be moved to the ITC in Enschede, where it will remain for an indefinite period.