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INTERNATIONAL SOCIETY OF SOIL SCIENCE
ASSOCIATION INTERNATIONALE DE LA SCIENCE DU SOL
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TRIBUTE TO PROF. F.A. VAN BAREN
HOMMAGE AU PROFESSEUR F.A. VAN BAREN
ZU EHREN VON PROFESSOR F.A. VAN BAREN

The ISSS congratulates Prof. F.A. van Baren on the occasion of his 70th anniversary on 26 June 1975. At the same time the Society would like to render tribute to Prof. van Baren for the outstanding contribution he made to the objectives of the International Society during the 24 years he was its Secretary General.

Ferdinand Alexander van Baren, born on 26 June 1905 graduated in Tropical Agriculture from the Agricultural University at Wageningen, the Netherlands. He was a student of his father, Johan van Baren, professor of agrogeology, and of Prof. Edelman. He obtained his doctorate in 1934 upon which he joined the Agricultural University as scientific officer. In 1937 Dr. van Baren was appointed to the Soil Research Institute at Bogor, Indonesia, of which he became the director in 1945. He concurrently served as professor of soil science at the University of Indonesia, Bogor, and was nominated as Dean of the Faculty of Agriculture in 1950. From 1950 to 1966 Dr. van Baren served as Director of the Soils Department of the Royal Tropical Institute at Amsterdam. Upon his retirement from the institute he remained its scientific advisor.

Following the 4th Congress of the ISSS held in Amsterdam in 1950, Dr. van Baren was entrusted with the Secretariat General of the Society which he served until the 10th International Congress held in Moscow in 1974. During his term of office the membership of the Society increased from 107 to over 4 000 and spread to more than 100 different countries. Dr. van Baren initiated the publication of the ISSS Bulletin in 1952 and took care of the preparation of 45 successive issues. Thanks to his personal initiative the ISSS obtained consultative status with FAO, Unesco and WMO and became a scientific associate of ICSU. In 1965 Dr. van Baren was appointed professor of soil science at the State University of Utrecht where he had been extraordinary professor since 1956. He will be retiring from this position in September 1975. By dint of Prof. van Baren's initiative and with the support of FAO, Unesco and the Government of the Netherlands an International Soil Museum was created as part of the International Institute for Aerial Survey and Earth Sciences (ITC). Dr. van Baren became its first director, a position which he still holds. Prof. van Baren was honoured by many awards, including honorary membership of the Royal Geographical Society of the

Netherlands and of the Egyptian Society of Soil Science. In 1971 he was elected corresponding member of the Academy of Agricultural Sciences of the U.S.S.R.

On 24 April 1975 Dr. van Baren suffered the great loss of his wife, Mrs. H. van Baren-de Nobel. Many members of our Society remember the support which Mrs. van Baren gave her husband in discharging his numerous duties. She was the one who edited the ISSS Bulletins and who took an active part in reviving the Society's activities after 1950. The ISSS shares Prof. van Baren's bereavement and wishes to express its feelings of deep sympathy.

L'AISS exprime ses meilleurs voeux au Prof. F.A. van Baren à l'occasion de son 70ème anniversaire le 26 juin 1975. L'Association désire par la même occasion rendre hommage au Prof. van Baren pour son éminente contribution à l'Association internationale au cours des 24 années où il fut son Secrétaire général.

Ferdinand Alexander van Baren, né le 26 juin 1905, a été diplômé en agriculture tropicale à l'Université agricole de Wageningen, aux Pays-Bas. Il etait l'élève de son père, Johan van Baren, professeur d'agropédologie, et du Prof. Edelman. Il obtint son doctorat en 1934, à la suite duquel il entra à l'Université agricole comme fonctionnaire scientifique. En 1937, Dr. van Baren fut nommé à l'Institut de recherche des sols de Bogor, Indonésie, dont il devint le directeur en 1945. Il fut simultanément professeur en pédologie à l'Université d'Indonésie à Bogor et Doyen de la Faculté d'agriculture en 1950. De 1950 à 1966, Dr. van Baren fut Directeur du Département des sols de l'Institut tropical royal d'Amsterdam. A sa retraite, il demeura le conseiller scientifique de l'Institut.

A la suite du 4ème Congrès de l'AISS tenu à Amsterdam en 1950, le Secrétariat général de l'Association fut confié au Dr. van Baren, tâche qu'il assuma jusqu'au 10ème Congrès international de Moscou, en 1974. Pendant son mandat, les membres de l'Association passèrent de 107 à plus de 4 000, couvrant plus de 100 pays. Dr. van Baren commença la publication du Bulletin de l'AISS en 1952 et eût la charge de la préparation des 45 numéros successifs. Grâce à son initiative personnelle, l'AISS obtint le statut de consultant auprès de la FAO, de l'Unesco et de l'OMM et devint un associé scientifique de l'ICSU. En 1965, Dr. van Baren fut nommé professeur de pédologie à l'Université d'Etat d'Utrecht dont il était professeur extraordinaire depuis 1956. En septembre 1975, Prof. van Baren prendra sa retraite de l'Université d'Utrecht. Sur l'initiative du Prof. van Baren et avec l'appui de la FAO, de l'Unesco et du Gouvernement des Pays-Bas, un Musée international des sols, rattaché à l'Institut international pour la reconnaissance aérienne et les sciences de la terre (ITC), fut créé. Dr. van Baren en devint son premier directeur, position dont il détient encore la charge. Prof. van Baren a reçu de nombreuses distinctions honorifiques, notamment celle de membre honoraire de la Société royale de géographie des Pays-Bas et de l'Association de la science des sols égyptienne. En 1971, il fut élu membre correspondant de l'Academie des sciences agricoles de l'U.R.S.S.

Le 24 avril 1975, Dr. van Baren a eu la grande douleur de perdre son épouse Mme H. van Baren-de Nobel. De nombreux membres de notre Association se souviennent du soutien apporté par Mme van Baren à son mari en le déchargeant de nombreuses tâches. Ce fut elle qui édita les bulletins de l'AISS et qui prit une part active à la reprise des activités de l'Association à partir de 1950. L'AISS partage la perte du Prof. van Baren et désire lui exprimer ses sentiments de profonde sympathie.

Die IBG gratuliert Prof. F.A. van Baren zu seinem 70. Geburtstag am 26. Juni 1975. Gleichzeitig möchte die Gesellschaft Prof. van Baren für seine hervorragenden Verdienste an der Gesellschaft in den 24 Jahren seines Amtes als ihr Generalsekretär ehren.

Ferdinand Alexander van Baren, geboren am 26. Juni 1905, promovierte in Tropenlandwirtschaft an der Landwirtschaftlichen Universität Wageningen, Niederlande. Er studierte unter seinem Vater, Johan van Baren, Professor für Agrogeologie, und unter Prof. Edelman. 1934 machte er seinen Doktor und trat als wissenschaftlicher Mitarbeiter in die Landwirtschaftliche Universität ein. 1937 wurde Dr. van Baren an das Bodenforschungsinstitut in Bogor, Indonesien, berufen, dessen Direktor er 1945 wurde. Gleichzeitig war er Professor für Bodenkunde an der Universität von Indonesien, Bogor, und wurde 1950 zum Dekan der Landwirtschaftlichen Fakultät ernannt. Von 1950-1966 war er Direktor der Bodenabteilung des Königl. Tropeninstitutes in Amsterdam. Nach seiner Pensionierung war er weiterhin wissenschaftlicher Berater des Instituts.

Nach dem 4. Kongress der IBG 1950 in Amsterdam übernahm er die Leitung des Generalsekretariats der Gesellschaft und hielt dieses Amt bis zum 10. Internationalen Kongress 1974 in Moskau. Während seiner Amtszeit stieg die Mitgliederzahl der Gesellschaft von 107 auf über 4 000 an und dehnte sich auf mehr als 100 Länder aus. Dr. van Baren führte 1952 die Veröffentlichung der IBG-Mitteilungen ein und war für die 45 folgenden Ausgaben verantwortlich. Dank seiner persönlichen Initiative erhielt die IBG einen Beraterstatus mit FAO, Unesco und der WMO und wurde wissenschaftliches Mitglied von ICSU. 1965 wurde Dr. van Baren zum Professor für Bodenkunde an der Staatsuniversität von Utrecht ernannt, deren ausserordentlicher Professor er seit 1956 war. Im September wird Prof. van Baren sich von der Universität in die Pension zurückziehen. Durch Prof. van Barens Initiative und mit Unterstützung von FAO, Unesco und der Regierung der Niederlande wurde ein internationales Bodenmuseum als Teil des International Institute for Aerial Survey and Earth Sciences (ITC) gegründet. Dr. van Baren wurde zum ersten Direktor des Museums ernannt und hält diese Stellung bis heute. Prof. van Baren erhielt zahlreiche Auszeichnungen, u.a. die Ehrenmitgliedschaft der Königl. Geographischen Gesellschaft der Niederlande und der Bodenkundlichen Gesellschaft von Ägypten. 1971 wurde er zum korrespondierenden Mitglied der Akademie der Landwirtschaftlichen Wissenschaften der UdSSR gewählt.

Am 24. April 1975 erlitt Dr. van Baren den schweren Verlust seiner Frau, H. van Baren-de Nobel. Vielen Mitgliedern unserer Gesellschaft ist die Unterstützung in Erinnerung, die Frau van Baren ihrem Mann in der Ausübung seiner vielfältigen Pflichten zuteil werden liess. Sie redigierte die IBG-Mitteilungen und nahm an der Wiederbelebung der Tätigkeit der Gesellschaft nach 1950 aktiv teil. Die IBG möchte Prof. van Baren ihre tiefe Anteilnahme an dem schweren Verlust ausdrücken.

25 YEARS AGO: the 4th Congress of the International Society of Soil Science
IL Y A 25 ANS: le 4ème Congrès international de la Science du Sol
VOR 25 JAHREN: der 4. Internationale Bodenkundliche Kongress

Prof. Dr. C.H. Edelman
(† 1964)

President, 4th Congress of the ISSS
Président, 4ème Congrès de l'AISS
Präsident, 4. *IBG* Kongress

Twenty- five years have lapsed since the 4th Congress of the International Society of Soil Science was held at Amsterdam in 1950. This Congress meant in fact the revival of the ISSS which had been in abeyance for over 10 years as a result of world events.

The Congress and its organizing Commitee were presided over by Prof. Dr. C.E. Edelman. He was also the one who in 1947 had been the spokesman of the Government of the Netherlands and of the Dutch Society of Soil Science in extending an invitation for the 4th Congress to be held in the Netherlands. Dr. Charles E. Kellogg chaired the business meetings which prepared the new constitution of the ISSS, elected the officers of the Society and planned for its future work programme.

The 4th Congress was a remarkable success on account of the scientific contribution which were made and because it offered the long awaited opportunity for renewing international relations 15 years after the 3rd International Congress at Oxford in 1935. Six-hundred scientists from 32 countries gathered in Amsterdam from July 24 through August 1, 1950, and many of them took part in a two-week field tour in the Netherlands and a one-week tour in Belgium. The Dutch soil scientists showed the achievements which they had obtained in developing the soils of their country. The impression which they left with the participants can best be summarized by an excerpt from the report which the USA delegation prepared following the Congress: * "If all the soils in the world with at least as good potentialities as those in Holland were reclaimed and managed with similar efficiency, world food production would be truly astronomical. What they (Dutch engineers and soil scientists) have done in the Rhine delta with a lot of water and a lot of work and a little soil material is amazing".

* Report made available to the ISSS Secretariat by courtesy of Dr. Charles E. Kelogg.

From the early days of the ISSS, and for 50 years, the Netherlands also offered hospitality to the Society's Secretariat for which the ISSS wishes to express its gratitude on this occasion.

The 4th Congress of the International Society of Soil Science, to which Prof. C.E. Edelman's memory is closely linked, will remain a benchmark in the life of the ISSS.

Vingt-cinq ans se sont écoulés depuis le 4ème Congrès de l'Association internationale de la science du sol qui s'est tenu à Amsterdam en 1950. Ce Congrès était en fait la renaissance de l'AISS dont les activités avaient été interrompues pendant 10 ans à la suite des événements mondiaux.

Le Congrès et son Comité organisateur étaient présidés par le Prof. Dr. C.E. Edelman. Ce fut lui également qui, en 1947, se fit le porte-parole du Gouvernement des Pays-Bas et de l'Association hollandaise de la science du sol pour inviter le 4ème Congrès aux Pays-Bas. Dr. Charles E. Kellogg présidait les réunions techniques qui préparèrent la nouvelle constitution de l'AISS, élirent les membres du bureau de l'Association et établirent les bases du programme de travail futur.

Le 4ème Congrès fut un succès remarquable en raison des contributions scientifiques qui y furent apportées et aussi parce qu'il offrait l'occasion, si longtemps attendue, de renouer les relations internationales, 15 ans après le 3ème Congrès international d'Oxford en 1935. Six-cents spécialistes provenant de 32 pays se réunirent à Amsterdam du 24 juillet au ler août 1950 et beaucoup d'entre eux prirent part au voyage d'étude de deux semaines aux Pays-Bas et d'une semaine en Belgique. Les pédologues hollandais montrèrent les résultats qu'ils avaient obtenus dans la mise en valeur des sols de leur pays. L'impression qu'en retirèrent les participants peut être résumée par un extrait d'un rapport établi par la délégation des Etats-Unis à la suite du Congrès: * "Si tous les sols du monde dont le potentiel est au moins égal à celui des sols de Hollande étaient mis en valeur et cultivés avec une efficacité identique, la production alimentaire mondiale serait réellement astronomique. Ce qu'ils (les ingénieurs hollandais et les pédologues) ont réalisé dans le delta du Rhin avec beaucoup d'eau, beaucoup de travail et peu de sol est étonnant".

Ce sont également les Pays-Bas qui dès les premiers jours de l'AISS, et pendant 50 ans, ont offert l'hospitalité au Secrétariat de l'Association. Celle-ci tient, en cette occasion, à exprimer toute sa gratitude.

Le 4ème Congrès de l'Association internationale de la science du sol, auquel la mémoire du Prof. C.E. Edelman est étroitement liée, restera un événement marquant dans la vie de l'AISS.

Fünfundzwanzig Jahre sind vergangen seit in Amsterdam im Jahre 1950 der 4. Internationale Bodenkundliche Kongress abgehalten wurde. Dieser Kongress bedeutete die Wiederbelebung der Internationalen Bodenkundlichen Gesellschaft, die infolge der Weltgeschehnisse über 10 Jahre lang ihre Tätigkeit nicht ausüben konnte.

Herr Professor Dr. C.E. Edelmann war der Präsident des Kongresses und seines Organisationskomitees. Er war auch derjenige, der 1947 als Sprecher der Niederländischen Regierung und der Niederländischen Bodenkundlichen Gesellschaft zur Abhaltung des 4. Kongresses in den Niederlanden einlud. Dr. Charles E. Kellogg war der Vorsit-

* Rapport obligeamment mis à la disposition du Secrétariat de L'AISS par le Dr. Charles E. Kellogg.

zende jener Besprechungen, in denen die neue Satzung der Internationalen Bodenkundlichen Gesellschaft vorbereitet wurde, der neue Vorstand gewählt und das zukünftige Arbeitsprogramm geplant wurden.

Der 4. Kongress war ein bedeutender Erfolg im Hinblick auf die wissenschaftlichen Beiträge und wegen der lange erwarteten Gelegenheit zur Erneuerung internationaler Beziehungen, 15 Jahre nach dem 3. Kongress, der 1935 in Oxford stattfand. Sechshundert Wissenschaftler aus 32 Ländern trafen sich in Amsterdam vom 24. Juli bis 1. August 1950 und viele von ihnen nahmen an einer Studienreise teil, die sie zwei Wochen lang durch die Niederlande und eine Woche lang durch Belgien führte. Die holländischen Bodenkundler zeigten ihre Erfolge bei der Verbesserung der Böden ihres Landes. Der Eindruck auf die Teilnehmer kann am besten durch folgendes Zitat aus dem Bericht der Delegation der USA über den Kongress zusammengefasst werden: * "Wenn alle Böden der Welt mit mindestens so guter Produktionsfähigkeit wie die holländischen mit ähnlicher Wirksamkeit verbessert und kultiviert würden, wäre die Welt-Nahrungsproduktion wirklich astronomisch. Was sie (die holländischen Ingenieure und Bodenkundler) im Rhein-Delta mit vielem Wasser, vieler Arbeit und wenig Bodenmaterial erreicht haben, ist erstaunlich".

Es sind auch die Niederlande die seit den frühen Tagen der IBG und 50 Jahre hindurch dem Sekretariat der Internationalen Bodenkundlichen Gesellschaft ihre Gastfreundschaft geboten haben. Die Gesellschaft möchte bei dieser Gelegenheit ihrer Dankbarkeit dafür Ausdruck geben.

Der 4. Kongress der Internationalen Bodenkundlichen Gesellschaft, mit dem das Andenken an Professor C.E. Edelman eng verbunden ist, wird ein Markstein bleiben im Leben dieser Gesellschaft.

* Der Bericht wurde dem Sekretariat freundlicherweise von Dr. Charles E. Kellogg zur Verfügung gestellt.

BIOSPHERE, SOILS AND THEIR UTILIZATION

by V.A. Kovda

Excerpts of the Presidential Report at the Opening Session of the 10th Congress of the ISSS, Moscow, 12 August 1974

Extraits de l'allocution Présidentielle lors de la seance d'ouverture du 10ème Congrès AISS, Moscou, 12 août 1974

Auszüge aus der Ansprache des Präsidenten auf der Eröffnungssitzung des 10. Kongresses der IBG, Moskau, 12. August 1974

. . .Much has happened in the six years which have passed between the 9th and 10th ISSS Congresses. Six years are a long period even in the life of an individual. Six years in the life of a scientist are much more. Six years in our epoch of revolutions, transformations, and technological progress are particularly much. Soil science together with a complex of adjacent sciences may be proud of great progress in the theory, methods and practice made for the past six years. The techniques of our research have changed considerably. We began to use satellites and spacecraft for mapping and survey, land utilization control, yield prediction and other purposes. These studies were in their incipiency six years ago. We constantly try to use mathematical means not only for evaluating statistical reliability of research results, but for local, regional and global predictions of changes in the soil cover and for information on soil fertility.

. . .Rates of chemical fertilizers application have been appreciably increased for the past ten years and for the past six years in particular. We were afraid of high rates before; now rates of 200-300 kg/ha for cereals and 400-500 kg/ha for vegetables have been tested not only under experimental conditions, but also under large-scale field conditions. These large fertilizer applications in combination with modern heavy and high-speed land machinery and aircraft and plant protection measures allow to obtain yields of new varietes of cereal crops which were unbelievable in the past. Now yields of 6-8 t/ha are not a dream, they are being obtained in practice.

. . .The potential yield of cereals has already exceeded 10t/ha. At the same time, it is common knowledge that the food problem has not been solved as a whole. Indeed, there are reasons to worry since present world food reserves are lower than ever before, according to United Nations estimates. However, factual data show that on the earth average yields increase and in some states they grow very rapidly outstripping population growth. So there is no room for Malthusian statements, though it is no secret that Neomalthusianism experiences a certain "pseudorenaissance". Neomalthusians' loud voices may be heard now. However there is no ground for such anxiety as the food problem can be solved scientifically, experimentally and practically . . . The rise in agricultural productivity of developed countries for the past 10-12 years is very appreciable and outstrips the total growth of the population. However in developing countries the growth of agricultural productivity for the last ten years was very slow. Prior to 1968 the per capita increment in yields, food products and plant raw materials was not over 1-2%, and in 1970-73 it fell lagging behind the population growth. If agricultural data of developed and developing countries are summed up, the rise in agricultural productivity becomes concealed and the yield excess over population growth becomes insignificant. The limiting factors, here, are unsolved social problems. Our Congress does not discuss social all the more so political problems, though, of course, everyone of us understands the importance of the social factor in the application of scientific and technological achievements.

. . .Droughts are one of the adverse factors which are responsible for low agricultural productivity. In the past three to five years droughts have affected vast areas of Asia and Africa, from India through the Near East to Marocco, Senegal, Mauritania, North Nigeria, and Ghana. The transitional zone between the Sahara and the tropics of

North and West Africa was particularly affected. How did this drought originate? Is it the effect of a recurrent climatic cycle? What is the duration of this climatic cycle? These questions are being vigorously discussed. The climatic cycle seems to interweave with the geomorphologic and tectonic cycle of the postglacial epoch. I mean the general slow land elevation and ground water level fall that was called by me xerotization. Many of us believe that the social factor also played a very significant role in aggravation of drought after-effects. The areas affected by drought have a very low-productivity agriculture. Here, ancient nomadic cattle breeding, pasture overgrazing, destruction of sod and soil cover by cattle and dusty storms still dominate. All this intensified the drought after-effects. Some scientists consider that our planet is undergoing the dryest period of a bicentennial or tercentennial climatic cycle, and that we are on the eve of a general rise in precipitation over arid zones of the earth. Other scientists consider that small changes in the mean earth temperature (0.3-0.4° C), which occurred after the forties, are accompanied by the general 300-500 km displacement of the climatic zonality system to the south, particularly in the northern hemisphere. Such phenomena occurred in the past of our planet. Climatic zones migrated over 100, 300 and 500 km. Some researchers believe that we are now witnessing a migration that may last for 1000 to 2000 years and more. This is very alarming. Extended studies of the history and trends of development of climate and droughts in particular, solutions of problems of the surface water regime, moisture condensation and evaporation control, abnormal runoff and soil erosion control, maintaining a high level of fresh ground water, i.e. "sound hydromorphism", are needed. All these problems have become particularly urgent world problems of conservation and raising the level of land biological productivity.

Irrigation is naturally the key method of combating droughts, but it is common knowledge that our planet is insufficiently provided with fresh water supplies. The problem of desalinization of salt water and the problem of careful utilization of ground water (without overdraft and salinization of artesian basins) also need urgent study. The problem of controlling the secondary salinization of irrigated soils is not solved. Drainless irrigation which is broadly introduced in arid zones of some continents, particularly in Africa and Asia, results in secondary soil salinization and malfunction of irrigation systems. Alkalinization and loss of structure of soils, formation of toxic compounds, hydrogen sulfide, and other sulfides, resulting in decreasing the yield of irrigated crops, also occur. There are many scientific problems to be solved, however, irrigation holds the greatest promise.

. . .Needs for development of new lands will increase in future. But areas of potentially productive land are limited. World public opinion worries about destruction and plunder of developed productive land. At the initiative of the ISSS President, the problem of land resources and their conservation was raised at the United Nations and included in the agenda of the Stockholm Conference on Human Environment. Unesco, FAO and the ISSS established a group of experts which prepared basic documents for the Conference. This work showed a highly disturbing picture. As a whole land resources of the earth are limited in area and not perfect in quality. Our planet is imperfect in general, it has vast areas of cold and hot deserts, and relatively small areas convenient for agriculture, forestry and life . . . Furthermore the soil cover is being spent too wastefully. This problem should be carefully analysed and measures should be recommended for rational utilization and conservation of land resources. We, soil scientists, foresaw this earlier. We can say with pride that this problem was posed at the 6th ISSS Congress in Paris, in 1956, the 7th Congress in Madison in 1960, the 8th Congress in Bucharest in 1964 and the 9th Congress in Adelaide in 1968.

Some projects of global significance developed in the past six years. Above all I mean the collective compilation of a new world soil map. Soviet pedologists put forward this idea at the Congress in Paris in 1956. The significance of this problem was not immediately understood at that time, but the idea was endorsed by the Congress session, and later the 7th, 8th and 9th Congresses not only supported the project, but discussed repeatedly the nomenclature and classification of soils of the world. Hesitations and suspicions occurred sometimes as it was the time of cold war. Nevertheless

co-operation of pedologists continued, and we, dear colleagues, may say with pride that we are at the threshold of completing this great work.

. . .Now we know the earth's soil cover better. There are many more map units than we distinguished before, but this soil genetic information should be transformed into soil agronomical data. The area covered by soils is to be evaluated and estimated from the viewpoint of world and national requirements in food. At present a group of soil scientists of FAO, using the help of international and national organizations and members of the International Society of Soil Science, is attempting to estimate comprehensively the potentialities of land resources shown on the soil maps. Land resources are being estimated not only from the standpoint of agriculture, but also with allowance for forestry, water economy, hunting, for farming, road construction, urban and rural building, establishing of reservations, recreational zones and sanatoria, i.e. land resources are being estimated with allowance for several indices. The new careful, economic attitude to earth's land resources that was formed for the past six years is the result of a collective effort at national, regional and international levels.

A second very important problem is the compilation of a world map of soil salinization sponsored by the 9th International Congress of Soil Science in Adelaide where the Subcommission on Soil Salinization was reestablished. The Subcommission is compiling in cooperation with Unesco and FAO a world schematic map of the distribution of salinized soils. Such schemes were first published in the U.S.S.R. in the forties and are being worked out at the Dokuchaev Soil Institute now. A review of salinized soils of Europe has been completed and a map of their distribution has been published.

. . .In our century, dear colleagues, virgin soils disappear like many species of plants and animals . . . This occurs due to lack of reservations which often have small territories and are surrounded by large industrial enterprises. The virgin soil cover disappears together with flora and fauna. Even undisturbed soils undergo abrupt changes due to fallouts of dust and precipitation admixtures. These factors of soil pollution act through the atmosphere and aerosols. According to a Soviet scientist, Dr. Kondratyev, up to 5-10 billion tons of fine materials circulate annually in the earth's atmosphere in the form of aerosols.

. . .In addition to atmospheric fallouts, chemicals, fertilizers, ploughing and erosion produce the same effect. Another aspect of this problem is that soils of many regions are contaminated with mercury, cadmium, and lead. One may speak about "neogeochemical anomalies" caused by anthropogenous factors of environmental pollution. We must have undisturbed reference samples of soils to estimate the degree of changes in the content of polluting components in soils. Therefore old soil collections, museum soil samples, and preserved land areas are exceptionally valuable for comparing and estimating the extent of soil contamination by certain chemical elements.

. . .It is to the credit of our Secretary General, Prof. Ferdinand van Baren that he put forward at Unesco a proposal for establishing an international museum of soil reference samples. This museum has become a reality for the past six years owing to the support of the Dutch Government. The museum still needs support, in that it should be supplied with good soil samples. The museum was opened in 1972 and functions with the help of a small but able staff.

Another major collective work of general importance is the pubblication of the International Source Book on Irrigation and Drainage, prepared by the efforts of soil scientists, reclamation engineers of various fields, FAO and Unesco staff members. It is now in its second edition; it won recognition and enjoys certain popularity.

Thus we can say that soil scientists were not taken by surprise by the difficult problems of land resources and food. We are armed scientifically, we have done something and are doing something. But we must admit that still much more needs to be done. We are faced with enormous, difficult and complicated tasks, the further study of the world's soil resources, the control of soil processes, the development of reclamation methods and soil conservation techniques. I shall dwell on three most important and interesting problems which are included in the programmes of international organizations.

. . .Half a billion tons of acidic gaseous and aerosol agents at the minimum and perhaps a billion tons at the maximum enter the atmosphere. These substances are incorporated into the global atmospheric circulation, clouds, precipitation and fall out over the surface of the land and ocean. They are chlorine and hydrochloric acid compounds amounting to about 100 million t/year, hydrogen sulfide and sulfurous acid anhydride summing up 300-400 million t/year, nitrogen oxides entering the atmosphere in amounts of 90 to 400 million t/year, according to different researchers, and ammonium compounds amounting to 80-200 million t/year. On oxidation all these compounds form hydrochloric, sulfuric, and nitric acids. Carbon dioxide emission amounts to about 14 billion t/year. Thus acidic agents are present in huge quantities in the atmosphere. If carbon dioxide is excluded, the total of these agents still amounts to about 0.5-1 billion t/year. Acidification seems to become a problem of world concern; the regions where the effect of acidic aerosols and gaseous substances on soils is most pronounced are western and northwestern Europe, Scandinavia, Canada, and the northern part of the U.S.A. Highly acidic soils were observed in some regions of the U.S.S.R. These facts call for thorough research and swift action. Fertilizer applied against the acidic background produces a small and sometimes negative effect. Acidified precipitation increases losses of calcium, magnesium, and potassium and activates aluminium, iron and manganese, which induces phosphorus fixation. Lowering of the pH increases the toxic effect of mercury, lead and cadmium. To arrest the toxic effect of heavy metals acid soils must be limed not only for the purpose of raising general fertility and fertilizer efficiency, but also for reducing the mobility of alien "neogeochemical agents" entering the soil cover as pollutants.

Despite certain environmental pollution, fertilizers and proper water use will remain the main measures to further an increase in agricultural productivity. This is shown by the experience of the past twenty years and of the past six years in particular. Nitrogen and then phosphorus play a leading role in promptly raising yields. The countries with high rates of fertilizer application begin to feel sometimes its negative after-effects: nitrates, nitrites, and ammonium penetrate into aquifers to a depth of tens of metres. A high content of nitrates and ammonium in river, lake and estuarine water is noted. New and less mobile forms of nitrogen and phosphorous compounds, are required.

At present, probably no more than 70 million tons of fertilizers in the form of effective agents are being produced. However 100-150 million tons are needed.

. . .Prospects of using biological fixation of nitrogen and general possibilities of controlling biological intrasoil processes should be studied. The possibility of controlling redox processes, the mechanism of reduction and oxidation, fixation and gasification of nitrogen are virgin fields of research.

. . .The problems of management of phosphorus compounds in modern agriculture should also be considered. The earth's mineral resources of phosphorus are highly limited. Phosphorus famine may begin earlier if existing phosphorus reserves are carelessly used and if wastes of phosphorus and its organic compounds are not utilized for compost as fertilizers. The total solid wastes of the world economy discharged to the land surface are estimated at about 20-30 billion t/year. Approximately 50-60 percent of these wastes are organic, i.e. may they be utilized as organic fertilizers after composting.

. . .We are faced with the problem of scientific analysis and implementation of local, regional and international recycling of wastes which may be useful or harmless to soil restoration and recultivation, relief improving, creation of terraces and of artificial soils.

. . .It seems to me that it makes sense to analyse scientifically and select possible principles of controlled exchange of substances between the developed society and the earth biosphere system. The main activities of society may be generally divided into two groups. The first group includes industrial and urban activities that consume biogenic and hydraulic energy, organic compounds, food, fodder, fuel, timber, oxygen and biologically pure water. It produces toxic by-products, huge amounts of carbon dioxide, nitrogen and sulphur oxides, but also fixes nitrogen and produces fertilizers. This

group of functions creates the material basis of modern society. All we value in our society – industrial products, transport facilities, houses, services, medicine, etc. – are being produced within this sphere. The by-products of this system are pollutants, i.e. useless and harmful products of a certain character. In future, they will undoubtedly be reduced, but they cannot be excluded entirely. They should be competently incorporated into existing global and local cycles of substances, skilfully taking into account the special features of the soil cover, land use, geochemistry, climate and hydrology of a given area.

The second group of man's economic activities produces biomass and biogenic energy, supplies oxygen, uses carbon dioxide for photosynthesis and stimulates the nitrogen cycle in the environment. This system includes forests, grass associations, pastures, agriculture, reclaimed landscapes, and aquatic plants. This mechanism must be productive and deliberately used for consumption of wastes which may be utilized by the soils-plants system. It seems to me that this is the most important economic problem facing us at present, particularly in countries of the planned socialist economy. We are obliged to consider scientifically the interrelationship between these two spheres of man's activities and find their rational forms of organization and interaction.

I have tried to illustrate the grandiose character of the problems which are faced by soil scientists in our epoch. We are proud of certain progress made for the past six years, but we should do much more, and do it more successfully in the years to come. We should strengthen our International Society of Soil Science and should collaborate more closely with the world's scientific community and scientific unions. The greetings received at this Congress show that our Society enjoys universal esteem but much more is expected from us. We should probably modify our statutes to a certain extent to give our leaders more mobility, operational possibilities and opportunities to be more collective and democratic. The problems facing the International Society of Soil Science are highly important. They will be discussed by international scientific organizations and agencies affiliated with the United Nations. I am convinced that our Congress will be highly useful in preparing the solution of these problems.

FURTHER ECHOS FROM THE 10th CONGRESS' TOURS
D'AUTRES ÉCHOS DES EXCURSIONS DU 10ème CONGRÈS
WEITERE BERICHTE ÜBER STUDIENREISEN DES 10. KONGRESSES

Exkursion Nr. 3, Karelien-Komi

Die von über 40 Bodenkundlern aus 18 Staaten belegte Exkursion 3 führte 10 Tage in die Karelische ASSR, nach Leningrad und in die ASSR Komi. Für Karelien und die Komi waren ausführliche Exkursionsführer zusammengestellt worden. Die Gesamtleitung hatte Prof. Dr. N.A. Nogina, die von Prof. Dr. O.V. Makeev und Prof. Dr. F.R. Zaidelman unterstützt wurde. In beiden ASSR war die spezielle Vorbereitung durch die jeweiligen Filialen der Akademie der Wissenschaften der USSR erfolgt, in Petrosavodsk unter Leitung von R.M. Morosova und V.M. Zavarsin mit Beteiligung von Dr. E.H. Rudneva, Dokutschajev-Institut Moskau, in Syktyvkar von Dr. I.V. Saboeva und G.V. Russanova.

In Karelien wurden in der näheren und weiteren Umgebung von Petrosavodsk 7 Profile gezeigt. Von besonderem Interesse war die Ansprache der podsolierten Böden. Die sowjetischen Kollegen stellten sie als Podsole mit einem durch Humus- und Eiseneinwanderung geprägten typischen B_s -Horizont vor. In der Diskussion wurde als weitere Möglichkeit der Klassifikation ihre Einordnung in die Gruppe der Braunpodsole (Brown podsolic soils) bis Braunerden behandelt, deren brauner Horizont als B_v mit schwacher Humus- Eisenilluviation gedeutet wird. Übereinstimmende Meinungen ergaben sich bei der Ansprache der hydromorphen Böden (Gleypodsole und Torfböden).

Im Gebiet der Komi wurden in der Umgebung von Syktyvkar 4 Profile auf lössähnlichem Sediment und auf Sand gezeigt. Interessant ist, wie weit auf Sand die Braunpodsole verbreitet und wie ähnlich sie trotz z.T. sehr unterschiedlicher klimatischer Bedingungen (Syktyvkar: +0,4 °C mittl. Jahrestemp., 514 mm mittl. Jahresniederschlag) ausgebildet sind. In der Taigazone sind die B-Horizonte nur etwas geringmächtiger. Die schlufflehmigen Böden wurden als podsolierte Böden (mit und ohne Vergleyung) vorgestellt. Ein Teil der ausländischen Teilnehmer ordnete sie in die Gruppe der texturdifferenzierten Böden ein (Fahlerde, Albic Luvisol, Cryoboralf). Gegenüber den südlicher vorkommenden Bildungen zeichnen sie sich besonders durch das Fehlen grosser breiter Zungen aus. Über die Ansprache und Beurteilung der hydromorphen Bodeneigenschaften, wozu umfangreiche und wertvolle Untersuchungsergebnisse vorgezeigt wurden, konnte auch hier weitgehende Übereinstimmung in der Diskussion erzielt werden.

Interessant für die Teilnehmer war die unterschiedliche Ausbildung des braunen Horizontes innerhalb des A_2 im oberen Profilteil der schlufflehmigen Böden. An den trockneren Standorten gleichen sie dem B-Horizont der Sand-Braunpodsole, an den feuchteren handelt es sich hingegen um diffuse, stellenweise nur fleckenhaft ausgebildete (g_o?)-Horizonte als Resultat bodenfrostbedingter Oberflächenvergleyung. Fast alle Profile zeigten Erscheinungen, die mit der Wirkung von Bodeneis in Verbindung gebracht werden können. So waren verschiedene Generationen von Eiskeil-Pseudomorphosen zu beobachten, wobei allerdings auch andere Entstehungsmöglichkeiten (ehemalige Wurzeltöpfe) in Betracht gezogen wurden. Durch Einbeziehung der am Profil sichtbaren kryogenen Merkmale kam es zu einer fruchtbaren Diskussion hinsichtlich der Interpretation der Bodenentwicklung.

Abschliessend kann zur Diskussion gesagt werden:

– Die Klassifizierung und Interpretation der Profile erfolgte vorwiegend nach dem Konzept der klimabedingten Zonierung der Böden. Dementsprechend wurden die Podsol-Merkmale stark hervorgehoben.

– Zur Kennzeichnung der Struktur der Bodendecke liegen von sowjetischen Bodenkundlern richtungsweisende Arbeiten vor. Auf Exkursionen hat sich die Demonstration von Bodengesellschaften und Catenen noch nicht voll durchgesetzt.

– Die im Gebiet der Komi entwickelten Böden bilden ein wertvolles Material für

das Studium der Entwicklungsgeschichte der rezenten, aber auch der fossilen Bodenbildungen in den Feuchtprovinzen der gemässigten Breiten. Hier liegt nicht nur der Schlüssel für die Interpretation der Bodenentwicklung während der umstrittenen spätglazialen und früholozänen Periode, sondern auch für die Deutung fossiler Bodenbildungen des Eem und Frühwürm auf gleichem Material. Eine stärkere Verknüpfung bodengenetischer und quartärgeologischer Arbeiten ist nicht nur für die Interpretation der Bodenentwicklung, sondern vor allem der rezenten Bodenprozesse von hohem aktuellem Wert. Die davon abhängige Diagnostizierung reliktischer Bodenmerkmale wird für die Beurteilung der Meliorationsbedürftigkeit in der Nichtschwarzerdezone von ausschlaggebender Bedeutung sein.

Der Besuch in der Korsinsker Moorversuchsstation (Karelien) wie auch in der Sovchose in Visinga (ASSR Komi) vermittelten den Exkursionsteilnehmern wertvolle Einblicke in die Organisationsformen der sozialistischen Landwirtschaft der USSR. Besonders beeindruckten die seit Jahren systematisch durchgeführten Versuche zur Einführung neuer frostharter Futterkulturen (insb. die Umbelliferae Herakleum) in der ASSR Komi. Sowohl die Besichtigung der Akademiefiliale in Syktyvkar und des Agrophysikalischen Instituts sowie des Dokutschajev Bodenmuseums in Leningrad als auch der Vortrag von Prof. Dr. V.I. Chalyshev über die fossilen Böden in der nordosteuropäischen Region der USSR waren wertvolle Bereicherungen des Programms. Die Organisation durch Intourist und die Gewährleistung der Übersetzung waren vorbildlich. Die Exkursionsteilnehmer hatten nicht nur Gelegenheit, die kulturelle Perle der Karelischen ASSR, Kishi, sondern auch viele andere restaurierte Kulturdenkmäler und Sehenswürdigkeiten, insb. in Leningrad zu besichtigen. In Syktyvkar war sogar ein gesondertes Damenprogramm aufgestellt worden. Es wurden vor allem soziale Einrichtungen gezeigt. Für die ausländischen Teilnehmer war es immer wieder erstaunlich, welche grosse Popularität die Bodenkunde unter der Bevölkerung der SU geniesst. In den jeweiligen Gebietszeitungen wurde nicht nur allgemein über die Exkursion berichtet, sondern auch über spezielle Disputation, z.B. ob die Böden podsoliert sind oder nicht.

Die Teilnehmer denken auch gern andie gemeinsamen schönen Stunden, die sie mit den sowjetischen Kollegen in dem innenarchitektonisch einzigartigen Restaurant in Petrosavodsk, bei der Dampferfahrt auf dem Fluss Vyčegba, beim Besuch des vom Gesang- und Tanzensemble der ASSR Komi gestalteten Konzertes, beim Abschiedsabend in Syktyvkar und beim Picknick im Freien erleben konnten. So hatten die Ausländer die Möglichkeit neben den Böden das Land, seine Bewohner und den sozialistischen Aufbau in Gebieten kennenzulernen, in denen die Naturressourcen unter erschwerten natürlichen Bedingungen genutzt bzw. erschlossen werden müssen. Für all diese Bemühungen sei den Organisatoren der Exkursion nochmals ein herzlicher Dank ausgesprochen.

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Tour No. 3: 40 scientists from 18 countries!
Excursion No. 3: 40 pédologues de 18 pays!
Exkursion Nr. 3: 40 Bodenkundlern aus 18 Staaten!

Excursion No. 4, Transcaucasie, Géorgie, Azerbaïdjan

Le tour 4 a mené une quarantaine de participants Allemands, Australiens, Britanniques, Français, Japonais, Néo-Zélandais et Soviétiques, à travers la Transcaucasie des côtes de la Mer Noire en Géorgie à celles de la Caspienne à Azerbaïdjan. Le Professeur S.V. Zonn, de l'Institut de Géographie de l'Académie des Sciences d'U.R.S.S. a été l'animateur de cette tournée qui a fait l'objet de discussions nombreuses et passionnées. On doit le remercier ici pour la maitrise et le dynamisme avec lesquels il a su mener cette entreprise.

La partie géorgienne a été préparée par l'Institut Interétats du Theier et des Productions Subtropicales et de l'Institut Géorgien de Science du Sol, sous l'autorité du Professeur M.A. Daracelia de l'Académie des Sciences de Géorgie. Pour l'Azerbaïdjan, le tour a été proposé et étudié par l'Institut de la Science du Sol et de la Chimie Agricole et l'Institut de Géographie de l'Académie des Sciences locale sous la responsabilité de l'Académicien Professeur G.A. Aliev. Tout au long du parcours de nombreux spécialistes, tant géorgiens qu'azerbaïdjannais, ont participé à nos travaux offrant des possibilités d'élargissement très fructueuses aux discussions.

Durant ce périple, 17 profils ont été observés. Les participants ont également visité plusieurs Instituts, Stations de Recherches, Fermes d'Etat, et admiré des sites et monuments historiques nombreux et variés. Au plan pédologique, les sols étudiés peuvent être regroupés en deux ensembles:

– le premier concerne les sols des régions occidentales de basses altitudes de Géorgie, à l'intérieur d'un triangle Soukoumi, Koutaisi, Batoumi. Largement ouvertes à l'ouest sur la Mer Noire, ces régions sont bordées au nord, à l'est et au sud par les hauteurs du Grand et du Petit Caucase. Cette disposition en fait un périmètre à climat chaud et humide, peu contrasté. Les précipitations sont abondantes (1500 à 2000 mm/an); la température moyenne annuelle avoisine 15° C; les jours de gelée sont rares et de toute façon peu marqués.

– le second regroupe les sols de cuvette intérieures de Géorgie vers Tbilissi et ceux des piedmonts méridionaux du Grand Caucase jusqu'à Bakou. Il s'agit de régions à climats plus contrastés et plus secs, l'aridité croissant d'ouest en est, de 700-800 mm à 200 mm/an. Dans les régions de basses altitudes, la température moyenne annuelle est de 14° C, mais en janvier le thermomètre descend fréquemment au-dessous de 0° C.

Parallèlement à ces ensembles climatiques, les sols de l'ouest sont, en majorité, profondément altérés à leur base, alors que les horizons de surfaces sont appauvris en argile et acidifiés. A l'est et à l'exception des sols de montagne, dominent les sols steppiques à figuration calcaire, à plus ou moins grande profondeur. En altitude se développent des sols brunifiés plus on moins lessivés. Très généralement, et à l'opposé de ce que l'on observe en bordure de la Méditerranée, les couvertures meubles sont partout très épaisses – souvent plusieurs mètres –, même sur les pentes les plus fortes. Il en résulte un modelé à formes molles, le long desquelles il est difficile d'observer les traces d'héritages pédologiques anciens. Il apparait que les processus d'érosion anthropiques ont, à ce jour, peu marqué ou alors très localement, la morphologie des sols – peu de remaniement superficiel ou de décapage, tout au plus des effets de "creep".

Pour nos collègues soviétiques, les sols présentés sont, pour la plupart, à classer dans le domaine subtropical. Or, les manifestations pédologiques de tels milieux nous ont souvent paru peu évidentes, sinon discrètes. On peut tout au plus les observer, ou plutôt les interpréter, au niveau de la profondeur et de l'intensité des altérations, de la présence de matériaux plus argileux et structurés dans les horizons B. Dans ce dernier cas, argiles et sesquioxydes paraissent relativement bien liés en complexes stables. Par contre sur les terrasses actuelles et subactuelles qui bordent les côtes de la Mer Noire, les sols qui se développent sur des matériaux sédimentaires hétéromorphes, très altérés en profondeur, montrent dans leurs horizons de surface un appauvrissement généralisé en argile, fer et manganèse. Corrélativement à cet amaigrissement, s'individualisent dans les horizons sous-jacents des pseudo-gley, où fer et manganèse s'immobilisent de concert sous forme de taches et de concrétions, plus ou moins indurées, parfois cimentées en noyaux et banc cuirassés. Il apparait ici qu'aux effets du lessivage vertical se super-

posent les effets d'un lessivage oblique qui amènent à certaines concentrations latérales bien typées dans les parties déprimées.

L'étagement dans le paysage de ces différentes surfaces à sols concrétionnés rappelle certaines chaines (catena) des régions tropicales où les sols lessivés de l'amont alimentent le concrétionnement ferrugineux des sols de l'aval. A ces caractéristiques, dont la généralisation peut être qualifiée de subtropicale, s'opposent celles des horizons humifères de surface. Ici, ces horizons sont généralement épais (25 à 30 cm), à matière organique de type "mull"; ils sont bien structurés et friables; toutes données apparemment en contradiction avec le développement d'un sol acide et lessivé de climats chauds.

Parmi tous les sols qui nous ont été présentés, ce sont les krasnozems qui présentent les traits les mieux marqués de milieux tropicaux. Ceux observés (région de Batoumi) se développent sur basalte, dans un paysage à collines à pentes accusées, et, originellement, sous forêt (ici remplacée par une plantation de theiers). Les roches sont altérées sur une grande épaisseur (plus de 5 mètres) et la structure originelle du matériau est relativement bien conservée. Les analyses minéralogiques signalent une ferrallitisation peu poussée. Les sols qui se développent sur cette "croûte d'altération" sont humifères, friables, à petits agrégats arrondis, mais peu différenciés en horizons. Ils sont aussi peu épais (60-70 cm), car fortement érodés aux sommets des collines. Sur les pentes, les produits déposés sur une courte distance donnent des sols à structure prismatique plus large, paraissent plus compacts et prennent l'aspect de sols bruns Méditerranéens. Le drainage accéléré, lié à la structure de la roche et à la topographie est le moteur primordial de l'évolution de ces sols.

Sur schistes le drainage en profondeur est ralenti par une argilisation marquée. Il se différencie des jeltozems. Ces sols présentent en surface les caractéristiques de sols bruns forestiers, à structure élargie, et, en profondeur, celles des sols brunifiés des régions chaudes (concept français); mais la couleur est ici beaucoup plus claire (jaune), la structure, subanguleuse à cubique est aussi plus marquée. Ils sont également plus acides, mesotrophes, voir oligotrophes, alors que sous les tropiques ils sont plutôt eutrophes. Krasnozems et jeltozems paraissent être des sols de transition, ceux des régions tropicales humides à saisons peu contrastées. Par contre, ils semblent assez éloignés des sols dits "méditerranéens" qui se développent sous des climats plus contrastés et plus secs.

L'étude de tous ces sols a été grandement facilitée par la remise d'une documentation abondante, illustrée de descriptions morphologiques et micromorphologiques, de tableaux d'analyses physiques, chimiques, minéralogiques et microbiologiques. L'ensemble de ces données a permis de préciser certaines différences de définitions entre les écoles pédologiques. Il est en particulier apparu un certain décalage entre les classification des diverses républiques de l'U.R.S.S., différences surtout sensibles dans le domaine des sols steppiques (sols bruns forestiers, sols cinnamoniques, sols marrons, etc. . . .). Plus surprenante a été la large utilisation du terme podzolique par les pédologues soviétiques. Cet adjectif est utilisé dès que dans un horizon supérieur on observe un faible éclaircissement de la couleur ou des traces d'amaigrissement de la texture, sans que l'on constate obligatoirement de liaisons entre ces faits et les horizons sous-jacents. Ainsi sur aucun des profils étudiés, nous avions décelé des signes de podzolisation au sens géochimique du terme. Par contre les traits morphologiques liés au lessivage et au dépôt des produits entrainés (présence de cutanes) étaient souvent présents. Un effort de corrélation de langage est à mener dans ce domaine auprès de nos collègues soviétiques.

Pour les sols steppiques et les sols forestiers d'altitude, les concepts sont convergents. Les discussions ont porté essentiellement sur la distinction et les limites entre sols bruns forestiers, chernozems, sols cinnamoniques, sols marrons, sols chatains, sols bruns steppiques. Il n'est cependant pas paru toujours évident que les relations entre le lessivage et les accumulations de sels, en particulier du calcaire et de gypse, étaient strictement liées à une plus ou moins forte argillisation (caractère subtropical!); par contre les discontinuités lithologiques semblaient favoriser de tels processus. D'après les résultats analytiques présentés, ces néosynthèses argileuses étaient beaucoup plus appa-

rentes que réelles. Elles étaient interprétées par un élargissement de la structure, avec parfois des tendances cubiques et la présence de faces de glissements (slickensides).

Un effort de précisions dans les définitions est là aussi nécessaire, de même qu'il apparait important de préciser le rôle de certains facteurs d'évolution (historiques, régimes hydriques, thermiques, etc. . . .). Par contre sur la caractérisation des humus aussi bien des sols à caractères steppiques que des sols bruns forestiers, l'accord a été quasi général.

En conclusion, excursion extrêmement intéressante en particulier pour les pédologues français qui ne connaissaient pas, ou très mal, les milieux subtropicaux humides et peu contrastés.

R. Maignien, ORSTOM, Paris

Tour No. 4a, Zakavkazie - Armenia

The first part of this excursion was common for both the 4 and 4a groups. This report is related only to the part of excursion through Armenia. This was an excursion in very pronounced mountainous region, in which more than 90% of the total area is situated above 1000 m. On the line Idzevan-Erevan, over a distance of not more than 180 km, we crossed forest, steppic and semi-desertic zones.

In the Caucasian mountainous belt, 500-900 m, a profile of cinnamonic soil under xerothermic forest (Quercus iberica-Carpinus orientalis) was presented. Above this belt the vertical zone of brown forest soil (1400-1600 m) under the beech-hornbeam forest was investigated. Both profiles are developed on the mixture of quartzo-porphyric, tuffitic and limestone material, with well marked layering. The classification of layered profiles was the main subject of discussion.

In the zone of mountainous steppes (1500-2400 m) on the vast upland area of the Sevan basin a profile of mountainous chernozem was presented. Very young neogen-quaternary andesite-basaltic substrate, covered by loamy calcareous material in a thickness of 2-3 m and more, was considered as parent material. Because the same parent materials prevail in the desert zone too, the pedogenetic or hydrothermal origin of calcareous loam was most lively discussed. During the whole excursion, very useful correlation took place between different schools of classification. Unfortunately, because of bad weather conditions, the participants could not fully enjoy the beauty of the wonderful lake Sevan, which in its depths embeds the graves of ancient civilization, which originated about 3000 years BC, and which have inspired many poetic legends.

In the semidesert zone, in the vicinity of Erevan, we got acquainted with chestnut semidesert soils. The efforts of Armenian soil scientists to convert these stony and arid sites into grape and fruit growing areas were most impressive. Specially constructed machines were demonstrated, taking up and grinding big boulders, and making fine soil, which with irrigation water from lake Sevan turn the desert into green gardens. Also Erevan, a beautiful reddish city built of red tuff, although situated in a semidesertic zone, delights with its green areas and parks, made by diligent hands of Armenian people. The remnants of several thousand years old culture is another attraction of this town.

The most impressive point of the excursion was the visit to the experimental station for the melioration of sodic solonchaks in the Ararat plains. The melioration includes the lowering of ground water level by lateral drainage and leaching of salts, along with the application of 200 ton/ha sulphuric acid. This acid being an industrial waste, is brought to melioration sites at no charge since such disposal concurrently prevents pollution. Thus melioration works become economic, solving at the same time the problem of protecting the environment. The results already show after 3 months, and many thousand hectares of man-made fertile lands are the best evidence of the efficiency of this method. This exceptionally useful day was ended by a traditional

Armenian picnic, which will remain as a memorable experience of cordial friendship between the representatives of different countries.

The excursion was very well organized. The excellent guidebook deserved the compliments of all participants because of its completeness. A considerable activity of all participants, a tolerant and constructive discussion, friendly relationships within the group, and the reknown and cheerful hospitality of the Armenian people, contributed to the success of this very pleasant and useful excursion.

M. Cirić, Sarajevo, Yugoslavia

Exkursion Nr. 6, Westsibirien

An der Exkursion durch Westsibirien vom 21.8. bis 31.8.1974 haben insgesamt 29 ausländische Bodenkundler (aus Australien, Kanada, den USA, Frankreich, Holland, Finnland, der DDR, Polen, Ungarn und der Bundesrepublik Deutschland) und 30 sowjetische Bodenkundler teilgenommen.

Das Westsibirische Tiefland ist mit fast 3 Millionen km^2 eines der grössten der Erde. Etwa Dreiviertel dieses Gebietes die Tundra im Norden und der nach Sünden folgende breite Gürtel der borealen Nadelwaldtaiga, sind wegen der kurzen Vegetationsperiode und starker Versumpfung ackerbaulich nicht nutzbar.

Südlich einer Linie, von Celjabinsk im W bis Novosibirsk im O, ist Westsibirien von Natur aus ein Waldsteppen- und Steppenland. Als Folge der grösseren Kontinentalität des Klimas zerfällt der osteuropäische breite Schwarzerde-Gürtel in einzelne Inseln mit Solonezböden. Die Schwarzerden in Westsibirien sind vielfach solonziert oder solodiert und besitzen in der Regel ein mit A-Material gefülltes Polygonnetz (Zungentschernosjom). Die Ausläufer der grossen Schwarzerdezone der Sowjetunion liegen in den Vorbergen des Altaj-Gebirges. Die Westsibirien-Exkursion führte ins Altaj-Gebirge, in die Baraba-Steppe und in den Salairrücken.

1) Der sowjetische Altaj besteht hauptsächlich aus Gesteinen des Paläozoikums (u.a. metamorphe, meist grüne Chloritschiefer), die während der kaledonischen und variszischen Gebirgsbildung gefaltet, anschliessend abgetragen und später im Tertiär in Form von Horsten herausgehoben wurden. Zwischen den Horsten liegen mit älteren Sedimenten oder jüngerem Abtragungsschutt gefüllte Gräben. Das Relief wird in dem besuchten nordwestlichen Teil des Altaj von schwachgegliederten Plateaus bestimmt, die dem Gebirge stellenweise Mittelgebirgscharakter verleihen. Das Klima ist kontinental, die Westflanken des Gebirges stehen unter dem Einfluss niederschlagsbringender Westwinde und sind bewaldet. Das trockene Vorland im W und N trägt Waldsteppen- und Steppenvegetation. An Südhängen sind bei einem Jahresniederschlag von 700 mm und einer durchnittlichen Jahrestemperatur von +1,4° C unter Wiesensteppe geringmächtige "Ausgelaugte Schwarzerden", an Nordhängen podsolige "Dunkelgraue Waldböden" und "Podsolierte Schwarzerden" unter Mischwald mit durchweg besonders hohem Humusgehalt verbreitet. Da die Altaj-Schwarzerden in sehr bewegtem Gelände verbreitet sind, besteht bei Ackerbau eine starke Gefährdung durch Erosion. Diese Böden werden in der Nähe von Gorno-Altajsk im Terrassenbau (Obst- und Gemüsebau) genutzt.

Mit zunehmender Höhe und Durchfeuchtung folgen im Nadelwaldgürtel (Abies und Pinus sibirica) der Bergflanken des Altaj-Gebirges Dernopdsole, Braune Bergwaldböden (Braunerden) und Saure Braunerden. Der Dernopodsol, der von den sowjetischen Kollegen als Subtyp des Podsols aufgefasst wird, zeichnet sich vor allem durch ausgeprägte A_1 - und B_f-Horizonte aus, Horizonte also, die dem Podsol fehlen. Ob die unterschiedlichen Tongehalte im Ober- und Unterboden auf Tonverlagerung oder anderen Ursachen beruhen, ist in der Sowjetunion noch umstritten. Sehr wahrscheinlich spielen bei der Profildifferenzierung noch andere Ursachen eine Rolle, insbesondere Schichtung, vielfach mit deutlicher äolischer Komponente.

2) Die Barabasteppe: die im Süden des Westsibirischen Tieflandes zwischen dem

Irtỳs im W und dem Ob im O hauptsächlich in der Waldsteppe gelegene Barabasteppe weist eine ebene, kaum geneigte Oberfläche auf, die von zahlreichen NO-SW verlaufenden flach geböschten Rücken und entsprechend weiträumigen abflusslosen Senken gegliedert wird. Im Norden ist die Barabasteppe von Kolki, das sind inselartige Birkenwälder in kleinen runden Senken, durchsetzt. Stellenweise ist die Barabasteppe versumpft und versalzt. Das Klima ist kontinental, im besuchten nördlichen Teil beträgt die durchschnittliche Jahrestemperatur – 1° C, die durchschnittlichen Niederschläge betragen 340 mm. Im nördlichen Teil der Barabasteppe wurden in der Umgebung des Karaći-Sees (520 km westlich von Novosibirsk) sechs Profile von Salz- und Alkaliböden besichtigt. Diese Böden verdanken ihre kennzeichnenden Merkmale entweder einem hohen Gehalt an löslichen Salzen im Oberboden oder einem hohen Gehalt an austauschbarem Natrium. Sie entstehen in der Barabasteppe vor allem durch Salzzufuhr aus dem Grundwasser, durch Grundwasserverdunstung, die in Westsibirien auf Grund der Klimaverhältnisse bei einer Tiefe des Grundwasserspiegels von etwa 170 cm aufhört. Die maximalen Salzgehalte im Grundwasser betragen in der Barabasteppe 40 bis 50 g/L. Bei dieser niedrigen Salzkonzentration ist das Grundwasser infolge Anwesenheit von $NaHCO_3$ und Na_2CO_3 stark alkalisch. Durch starke Natriumsorption aus den alkalischen Salzen des Grundwassers kommt es Bildung von Soda-Solonez- und Soda-Solontschakböden. In den zahlreichen flachen Kolki-Senken kommt es durch Anreicherung von schwach mineraliertem und alkalisch reagierendem Oberflächenwasser zur Auslaugung des in alkalischer Lösung peptisierten Humus und einer Zerstörung des mineralischen Bodenanteils. Auf diese Weise entstehen die Solodi. Das freigewordene SiO_2 reichert sich im A-Horizont als amorphe Kieselsäure an und überzieht als weissliche Schicht die Säulen des im vorhergehenden Stadium solonzierten Horizonts.

Eine Melioration der Solonezböden ist durch säurebildende Stoffe, wie S, $CaSO_4$, H_2SO_4, $FeSO_4$ u.a. zu erzielen. Der Einfluss des ungünstigen physikalischen Zustandes wird vor allem durch Bewässerung stark gemildert. Da in der Sowjetunion- vor allem in Westsibirien und Kazachstan – insgesamt rund 100 Millionen Hektar Solonezböden und solonzierte Böden verbreitet sind, wird die nachhaltige Verbesserung dieser Böden mit Nachdruck verfolgt. Durch die geplante Umleitung von bis zu 250 Kubikkilometer Wasser jährlich aus dem Flussgebiet des Ob und Irtỳs erhofft man sich eine starke Entfaltung des Bewässerungsbaues und der Weidewirtschaft. Zur Zeit werden die besichtigten Bodenflächen hauptsächlich als Trockenweiden genutzt.

3) Der Salairrücken: als variszich gefalteter Höhenzug (bis 588 m hoch) erstreckt sich der Salairrücken auf etwa 300 km in nordwestlicher Richtung am Westrand des Kusbas (ca. 240 km östlich von Novosibirsk). Im westlichen Vorland wurde in der Tubačinsk-Ebene das Profil eines mässig mächtigen, mässig humosen, schwach ausgelaugten Zungen-Tschernosjoms aus stark tonhaltigem Löss (über dessen Entstehung noch wenig Klarheit herrscht) besichtigt.

Diese Böden besitzen eine hohe Wasserkapazität und einen natürlichen Vorrat an Pflanzennährstoffen. Als nachteilig für die Pflanzenproduktion wirkt sich die kurze Vegetationszeit und die Trockenheit, vor allem im Frühjahr nach der Schneeschmelze, aus. Die Einsaat kann erst kurz vor Beginn der Juniniederschläge beginnen. Wichtig sind daher kurzreifende Sommerweizensorten (z.B. Novosibirskaja 67). Die Durchschnittserträge betrugen in den letzten fünf Jahren ohne Düngung 17-20 dz/ha. Mit Düngung können die Erträge auf 28-30 dz/ha erhöht werden. Die Produktionskapazität dieser fruchtbarsten Böden Westsibiriens ist bei weitem nicht ausgeschöpft.

Diese Böden wurden erst vor 20 Jahren im Zuge der Neulanderschliessung in Kultur genommen. Durch den Ackerbau kam es inzwischen zu einer deutlichen Strukturverschlechterung, die zu weit verbreiteter Bodenerosion durch Wasser geführt hat. Auch bei dem auf dem Salairrücken besichtigten "Tiefpodsolierten (pseudopodsolierten) Dernoboden mit oberflächennaher Vergleyung", der sich aus "Lössähnlichen Karbonatlehmen" entwickelt hat, dürfte es sich um einen mehrschichtigen polygenen Boden handeln, dessen A_1-B_t-Grenze durch die Materialgrenze vorgegeben ist (s. 1.). Die natürliche Vegetation dieses bodengeographischen Raumes ist Nadelwald mit Birken. Die landwirtschaftliche Nutzung dieser Böden wird hauptsächlich vom Klima stark beeinträchtigt. Mit nur 80-90 frostfreien Tagen, einem Januarmittel von – 20° C

und einem Julimittel von +10° C ist vor allem die Temperatur der ökologische Minimumfaktor. Ausserdem sind diese Böden bei landwirtschaftlicher Nutzung stark erosionsgefährdet.

4) Schlussbemerkung: die Exkursion durch Westsibirien hat einen breiten Überblick über den internationalen Stand der bodenkundlichen Forschung und die Arbeitsweise der sowjetischen Bodenkunde vermittelt. Die gegenwärtig wichtigsten Aufgaben der sowjetischen Bodenforschung bestehen vor allem darin, alle erschliessbaren Möglichkeiten der pflanzlichen Produktionssteigerung zu untersuchen. Die hierfür wichtigsten Möglichkeiten in Westsibirien sind: Melioration der Salz- und Alkaliböden, Bekämpfung der Wasser- und Winderosion, Bewässerung durch Umleitung der grossen sibirischen Flüsse, Anwendung von Mineraldünger, Förderung der Neulandgewinnung. In den kommenden 15 Jahren sollen vom Baltikum bis nach Westsibirien 50 Millionen Hektar als Acker- und Weideland nutzbar gemacht werden, fast das Vierfache der Anbaufläche in der Bundesrepublik Deutschland. Die sowjetische Bodenforschung arbeitet somit hauptsächlich an der Lösung der ihr vom Staat gestellten Aufgaben, ihre Ausrichtung auf eine praktische Nutzanwendung ist unverkennbar.

J. Breburda, Zentrum für kontinentale
Agrar-u. Wirtschaftsforschung, Justus Liebig-Universität, Giessen

Tour No. 6, West-Siberia

This post-congress tour, in which a small, enthusiastic group of only 25 soil scientists participated, was the most distant of the series. It started immediately after the well-remembered closing reception with a flight to Novosibirsk, the rapidly expanding capital of the largest industrial and agricultural region of the Asiatic Soviet Union, West-Siberia, occupying 2.5 million square kilometres.

Under the able and charming leadership of Professor Kovalyov, and with the efficient help of numerous colleagues and interpreters, the excursion covered four different physico-geographical regions in, and bordering, the southern-most part of the West-Siberian plain.

Most places visited have in common the very low temperatures (mean – 15 to – 20° C, absolute about – 50° C), high summer temperatures (mean 15-20° C, absolute about 40-45° C) and a short growing season of 3-3.5 months, strongly limiting the agricultural possibilities. Frost may reach a depth of 250 cm, but it is usually 100-200 cm in agricultural land and less under forests and thick snow cover. Annual precipation varies from as little as 100 mm in some intermontane basins and river valleys of the Altai Mountains, to 350-600 mm in most of the plain, and reaching 800-1300 mm in the windward slopes of the Altai Mountains.

The soil pits were very well prepared, measuring 10 m length, and deep enough to study the whole profile; they could accomodate nearly all the participants at one time. At each profile experts gave introductions on different aspects of the soil, climate, vegetation and land use. One of the visitors was invited to chair the, usually lively, discussions, mainly on genesis, classification, and correlation with USA, Canadian, French, East and West German and Australian soil classification systems and the FAO/Unesco Soil Map of the World legend.

In all about seventeen profiles were shown. Brown and Grey Forest Soils and (leached and podzolized) Mountain Chernozem Soils occurred in the Altai Mountains bordering the Mongolian People's Republic. Chestnut, Solonchak and Solonetz Soils were seen in the drier intermontane basins and river valleys. In the Barabinsk Low Plain, a part of the West-Siberian plain, the summits of crests and upper parts of the slopes showed Chernozems. In the depressions all soils are salinized, and many of them solonized to a certain degree. Meadow Chernozems, Solonetzes and a Solod were shown.

The Prasalair Drained Plain and Salair Mountain Range have Chernozems, part of

which are podzolized and Grey Forest Soils in the plains, flat ridges and slopes, while Soddy Podzolic Soils and Podzolized Grey Forest Soils occur in the mountains. Near Novosibirsk Chernozems and Grey Forest Soils were studied. For most soils sufficient physical and chemical data were available, but the group regretted that too little information was given on the agricultural aspects. Soil maps were also not available to participants.

We were treated very well: the food was excellent and abundant, transport by bus efficient but bumpy, and camping at minus 8° C quite an experience. Professor Kovalyov, and his collaborators and supporting staff deserve full credit for the success of the tour from all participants. A special word of thanks is due to the interpreters.

Hans van Baren, Utrecht, The Netherlands

Tour No. 8, Volga-Don Region

Tour 8 of the 10th Congress of the International Congress of Soil Science travelled from Moscow to Rostov-on-Don by air; from Rostov to Kazan on the Volga River by motor ship N.A. Nekrasov; and from Kazan to Moscow by air. The tour lasted from 21st August to 3rd September with about 240 participants under the guidance of Professor V.A. Kovda and several other Soviet soil scientists. Both scientifically and culturally it was an extremely stimulating experience and the standard of organisation was of an impressively high order. Quite extensive excursions by bus were made from Rostov, Volgograd, Zhiguli, Ulyanovsk and Kazan and a number of State farms, agricultural institutes and a collective farm were visited.

A wide range of soils at about 15 sites was inspected. The dominant theme was expressed by the sequence from chestnut soils, through chernozem to gray forest soils and sod-podzolic soils. Solod and solonetz soils associated with chestnut soils and chernozem were displayed as well as a number of chernozem variations. The profile pits were splendidly prepared with all modern conveniences and vigorous discussion was encouraged. The main points of debate centred on the distinction between podzolizing and lessivage processes particularly in the gray forest and sod-podzolic soils; the application of soil data to practical land use; and as to whether the deposits of loess and loess-like loams, particularly in the chernozem and chesnut soils, were aeolian or fluviatile in origin. There was surprisingly little discussion on soil classification, but processes were continually under scrutiny.

A feature of the excursion was the opportunity to participate in friendly scientific discussions on a wide variety of topics almost every evening in the ship's dining room. These sessions were initiated and chaired by Professor Kovda and many Congress members from a number of nations discussed and outlined problems of concern and interest to their countries. These sessions depended very much for their success and impact on the dedicated and skilled efforts of the interpreters – and particularly V.I. Sverdlov. One evening was devoted to a very successful and well organised concert at which Congress members were both performers and audience. Time was scheduled throughout the tour to enable participants from overseas to become acquainted with aspects of Soviet society.

Table 1 gives details of the soils inspected, with approximate equivalent classification in the U.S. Taxonomic system and according to the FAO/Unesco World Soil Map Legend.

M.L. Leamy, Lower Hutt, New Zealand

Location	Russian soil type	Approximate equivalent	
		FAO/Unesco	US Taxonomy
1. About 180 km SE Rostov, Don Valley	Sub-Caucasian Chernozem	Calcic Chernozem	Calciustoll
2. Don Valley about 20 km E Rostov	Terrace soil related to sub-Caucasian Chernozems with alkalinity induced by irrigation	Calcic Chernozem intergrading towards a Mollic Solonetz	*
3. Don Valley about 10 km E Rostov	Moist meadow soil (Smolnitza of E. Europe)	Pellic Vertisol	Pellustert? *
4. Novocherkassk	North Azov Chernozem	Calcic Chernozem	Calciustoll *
5. Near Ilyovka, Volgograd Region	Chestnut soil	Calcic Kastanozem	Calcixeroll? *
6. As for 5	Solonetz	Mollic Solonetz	Natrixeroll? *
7. As for 5	Irrigated Chestnut soil (Solonetz prior to irrigation)	Calcic Kastanozem intergrading to Mollic Solonetz	
8. Zhiguli State Forest	Dark grey forest soil transitional to Chernozem	Luvic Chernozem	Argiustoll
9. Zhiguli State Forest	Dark grey forest soil	Luvic Phaeozem	Argiustoll
10. Zhiguli State Farm	Leached paleohydromorphic Chernozem	Calcic Chernozem	Calciustoll
11. Near Ulyanovsk	Typical Chernozem	Calcic Chernozem	Calciustoll
12. Ulyanovsk	Solod	Solodic Planosol	Natraqualf
13. Ulyanovsk Institute	Leached Chernozem	Luvic Chernozem	Calciustoll
14. Near Kazan	Light grey forest soil	Eutric Planosol	Albaqualf
15. Near Kazan	Sod-podzolic soil	Humic Podzol	Haplohumod

(*) Relevant analytical data not available

ACTIVITIES OF THE COMMISSIONS AND WORKING GROUPS
ACTIVITÉS DES COMMISSIONS ET GROUPES DE TRAVAIL
TÄTIGKEIT DER KOMMISSIONEN UND ARBEITSGRUPPEN

The Canadian Society of Soil Science has nominated the 3rd Vice-Chairmen and the Secretaries of the ISSS Commissions as follows:

La Société Canadienne de la Science du Sol a designé les 3èmes Vice-Présidents et les Secrétaires des Commissions AISS comme suit:

Die Kanadische Bodenkundliche Gesellschaft hat die folgenden 3. Vizepräsidenten und Sekretäre der IBG-Kommissionen ernannt:

Commission Kommission	3rd Vice-Chairman 3ème Vice-Président 3. Vizepräsident	Secretary Secrétaire Sekretär
I. Soil physics/ Physique du sol/ Bodenphysik	Dr. B.P. Warkentin Dept. of Soil Science Macdonald College Quebec, Canada	Dr. G.C. Topp Soil Research Institute Central Experimental Farm Ottawa K1A OC6, Canada
II. Soil Chemistry/ Chimie du sol/ Bodenchemie	Dr. J.S. Clark Dept. of Soil Science University of Laval Ste. Foy, Prov. of Quebec Canada	Dr. E.D. Spratt India Co-ordinated Research Project for Dryland Agriculture 2-2-58/60, Amberpet Hyderabad - 500013 A.P., India
III. Soil biology/ Biologie du sol/ Bodenbiologie	Dr. E.A. Paul Dept. of Soil Science Univ. of Saskatchewan Saskatoon, Saskatchewan Canada	Dr. R.L. Thomas Dept. of Soil Science University of Guelph Guelph, Ontario, Canada
IV. Soil fertility and plant nutrition/ Fertilité du sol et nutrition des plantes/ Bodenfruchtbarkeit und Pflanzenernährung	Dr. M.H. Miller Dept. of Land Resource Science University of Guelph Guelph, Ontario, Canada	Dr. K.B. MacDonald Potash Institute of Canada 100 Dixie Plaza Mississauga, Ontario Canada
V. Soil Genesis, classification and cartography/ Genèse du sol, classification et cartographie/ Bodengenetik, Klassifikation und Kartographie	Dr. R. Protz Dept. of Land Resource University of Guelph Guelph, Ontario, Canada	Dr. L.M. Lavkulich Dept. of Soil Science Univ. of British Columbia Vancouver 8, Canada
VI. Soil Technology/ Technologie du sol/ Bodentechnologie	Dr. E.E. Mackintosh Dept. of Land Resource Science University of Guelph Guelph, Ontario, Canada	Dr. W.E. Janke Research Agronomist Sherritt Gordon Mines Ltd. 770 - One Thornton Court Edmonton, Alberta, Canada
VII. Soil Mineralogy/ Minéralogie du sol/ Bodenmineralogie	Dr. J.E. Brydon Environment Protection Service Dept. of Environment Ottawa, Canada K1A OH3	Dr. G.K. Rutherford Dept. of Geography Queen's University Kingston, Canada

Commission II - Chimie du Sol

La commission II a tenu ses assises à Moscou (août 1974) dans le grand amphitéâtre de la Faculté de Biologie de l'Université Lomonossov. Malgré l'absence de son président, le Professeur H. Laudelout, qui n'a pu participer au congrès pour raisons de santé, les travaux se sont déroulés dans les meilleurs conditions, grâce à l'activité et à la compétence du vice-président soviétique, le Professeur M.G. Zyrin. C'est ainsi que, dans cette commission, les discussions concernant chaque communication se deroulaient aussitôt, ce qui a permis de longs et très intéressants échanges de vues, au cours de plusieurs séances.

Les travaux avaient été divisés en plusieurs sections qui ont d'ailleurs toutes été très suivies:

- Etude des propriétés physico-chimiques des sols (pH, état de saturation, charge . . .)
- Etude de la constitution des matières organiques des sols (structure chimique - extraction - séparation)
- Etude des composés organominéraux et de l'interaction argiles - matières organiques
- Etude du cycle géochimique de certains oligo-éléments
- Etude du cycle géchimique du carbone et du soufre

A côté des travaux qui lui étaient propres, la commission II a participé à l'organisation de plusieurs séances communes, soit avec la commission III (substances physiologiquement actives et enzymes dans les sols), soit avec la commission V (les facteurs de la différenciation des sols acides), soit enfin avec la commission VII (étude de la constitution minéralogique des sols).

Ceci étant, il n'en reste pas moins que la "Chimie du Sol", en tant que telle ne représente plus du tout ce qu'elle était au moment de la création de l'Association internationale pour l'étude des sols en 1924. Les travaux afférant à ce vocable sont, comme on le voit par l'analyse précédente, très variés, très divers . . . et ne correspondent plus à une ligne de pensée scientifique *bien tracée*, comme c'était le cas autrefois. Doit-on imposer une nouvelle ligne de nos jours: "Physico-chimie", "Géochimie", "Biochimie"? Tout ceci est possible, mais necessiterait la participation d'autres commissions. Ce n'est donc pas un simple découpage ou encore un remplacement de terme relatif à une commission qu'il faut; ce qui paraît nécessaire, c'est la refonte complète des différentes commissions avec une nouvelle répartition, qui corresponde réellement aux voies actuelles d'étude de la Pédologie. Souhaitons qu'une telle réorganisation puisse avoir lieu à l'avenir pour le plus grand bien des prochains congrès.

G. Pedro
Vice-président, Commission II - 10ème Congrès AISS

Working Group on Soil Micromorphology

On the 13th of August 1974 a symposium on soil micromorphology, presided by Prof. Dr. D.V. Dobrovolski, was organized as a part of the 10th. Congress of the ISSS. On behalf of the Working Group on Soil Micromorphology Dr. G. Stoops presented a report on the past activities of the group and, on the last draft of "A manual of micromorphological terms".

Since its creation in 1969 the activities of the Working Group have been directed towards three central subjects: 1. the compilation of a multilingual glossary of micromorphological terms (presented now as a manual), 2. the critical study of problems of microfabric analysis and classification, and of micromorphological description, and 3. some individual attempts for the establishment of new classification schemes. The present draft (fourth and last approximation) of "A manual of micromorphological terms" contains about 900 terms grouped under 62 entries. Each term is explained in

English and "translated" in French, German, Russian and Spanish. Symbols are used to indicate wether the "translation" is an equivalent term, a litteral translation or a translitteration, proposed or generally accepted. Alphabetical indexes in the five languages are added. Terms, definitions and translations have been collected by different members of the group and the editorial work was accomplished by Dr. A. Jongerius and Prof. Dr. G.K. Rutherford, respectively Secretary and President of the Working Group. At a special meeting held on the 15th of August, the content and composition of the manual were discussed by the members of the Working Group participating in the Congress (Prof. Dr. G.V. Dobrovolski, Dr. N. Federoff, Prof. Dr. S. Kowalinski, Dr. G. Stoops and Dr. E.A. Yarilova) and a group of Soviet specialists. Special attention was given to the further contribution of the Soviet scientists to the critical review of the Russian translations and the Russian terminology. Meanwhile, copies of the draft have been forwarded for review to about 30 micromorphologists in different countries. The publication is scheduled for 1975.

G. Stoops, Gent, Belgium

Meeting of the Working Group on Soil Information Systems
Réunion du groupe de travail sur l'informatique en pedologie
Tagung der Arbeitsgruppe für Informationssysteme in der Bodenkunde

1-4 September 1975, Soil Survey Institute, Staringgebouw, Marijkeweg 11, P.O. Box 98, Wageningen, The Netherlands.

The agenda of this meeting includes topics on description of complete information systems, data inputs, data based management systems, automated cartography, methodology and applications. The last day of the meeting will be devoted to international cooperation with special reference to FAO activities. A field excursion will be organized on 5 September in the Veluwe hills and Polder region of the Netherlands.

It is the intention of the Working Group to prepare a catalogue on activities related to soil information systems. All those interested in this field of work are invited to send a short report to the Chairman of the Working Group on activities they are dealing with, classified according to the topics listed above. The meeting of the Working Group will be conducted in English.

Information and registration: Dr. Ir. J. Schelling, Deputy Director, Soil Survey Inst., P.O. Box 98, Wageningen, The Netherlands.

Meeting of the Working Group on Soil Conditioning
Réunion du groupe de travail sur la stabilisation de la structure du sol
Tagung der Arbeitsgruppe für Bodenstrukturverbesserung

8-12 September 1975, Laboratory of Soil Physics, Faculty of Agricultural Sciences, State University, Coupure links, 9000 Gent, Belgium. The technical sessions and general discussions will be held from Monday 8 September through Thursday 11 September. A half day-excursion is foreseen on 9 September to the hilly regions of the Flemish Ardennes. On 12 September a visit will be paid to stabilization trials along the Belgian sea coast.

Registration fee: including 12 September excursion, lunch and dinner: BF 1500 without the Friday excursion: BF 1000.

Information and registration: Prof. Dr. M. De Boodt, State Agricultural University, Coupure links, 9000 Gent, Belgium.

Joint Meeting of Commissions I, IV, V and VI, Savannah Soils of the Sub-Humid and Semi-Arid Regions of Africa and their Management
Réunion Conjointe des Commissions I, IV, V et VI, Sols des Savannes des Régions Sub-humides et Semi-arides d'Afrique et leur aménagement
Gemeinsame Tagung der Kommissionen I, IV, V und VI, Savannenböden der sub-humiden und semi-ariden Regionen Afrikas und deren Bewirtschaftung

20 November-4 December 1975, Ghana.

Registration fee per delegate is $ 45.00 (includes a free copy of the proceedings).

Tour I for 2 days (21-22 November) within the Coastal Savannah Zone of Ghana (Accra Plains) at a cost of approximately $ 10.00 - $ 15.00 per person exclusive of hotel expenses.

Meeting for 4 days, Conference Hall, State House, Accra (24-27 November). Hotels: Accra-Tema Metropolitan Area (esclusive of meals)

Single, air-conditioned with bath, per day $ 14.00 - $ 22.00

Double, air-conditioned with bath, per day $ 22.00 - $ 30.00.

Tour II for 4 days, road inspection of soils, Accra to Kumasi (Soil Research Institute) and Kumasi via Tamale to Bolgatanga within the Interior Savannah Zone at a cost of approximately $ 65.00 - $ 70.00 per person inclusive of hotel expenses and meals.

Tour III for 3 days, road inspection of soils, Bolgatanga, Ghana, to Ouagadougou, Upper Volta, and visits to soil sites within the Sahelian Region at a cost of approximately $ 100.00 - $ 110.00 per person inclusive of hotel expenses and meals.

Information and registration: Dr. H.B. Obeng, President, Soil Science Society of Ghana, c/o Soil Research Institute Academy Post Office, Kwadaso-Kumasi, Ghana.

Joint Meetings of Commissions II, IV and VII, Agrochemicals in Soils
Réunion Conjointe des Commissions II, IV et VII, Agrochimie dans le sol
Gemeinsame Tagung der Kommissionen II, IV und VII, Agrochemikalien in Böden

14-18 June 1976, Jerusalem, Israel. The following are the main topics suggested for the presentation of papers:

1) Surface reactions of agrochemicals in soils: (a) Adsorption of organic agrochemicals in soils; (b) Organo-clay complexes; (c) Surface structure of clay minerals in relation to their chemical activities.

2) Movement of agrochemicals in soils: (a) Movement and uptake by plants; (b) Degradation of organic agrochemicals; (c) Mathematical modelling of the dynamics of agrochemicals in soils.

3) Agrochemicals and soil structure.

4) Agrochemicals and pollution: (a) Effect of agrochemicals on the environment; (b) Impact and possibilities of reuse of urban wastes in agriculture; impacts on the soil system.

5) The fate of nutrient applied to the soil (uptake by plants, immobilization, losses).

The rapid increase in the agricultural use of chemicals has developed intense scientific activity in each separate field of interest. The exchange of information between members of the above three commissions could stimulate academic research and enrich practical experience.

Research scientists and policy makers in industry will participate in a panel discussion on aspects of current and future modes of interaction between governmental research and industry in the field of agrochemicals in soils.

Information and registration: The Secretariat, Agrochemicals in Soils, P.O. Box 16271, Tel Aviv, Israel.

6th International Colloqium on Soil Zoology (Commission III, ISSS)
6ème Colloque International de la Zoologie du Sol (Commission III, AISS)
6. Internationales Colloqium über Bodenzoologie (Kommission III, IBG)

19-23 June 1976, Agricultural College, Uppsala, Sweden.

The 6th International Colloqium on Soil Zoology will be hosted by the Swedish Society of Soil Science and the Swedish Ecological Society Oikos. The theme of the colloqium centres on soil organisms – both soil fauna and microorganisms, including plant roots – and their role in the ecosystem. The interactions of various groups of soil organisms and their importance for plant productivity will be a major topic of the colloqium.

Information and registration: Dr. U. Lohm, Department of Entomology, University of Uppsala, P.O. Box 561, S-751 22 Uppsala 1, Sweden.

Joint Meeting of Commissions I and VI, Symposium on Water in Heavy Soils
Réunion Conjointe des Commissions I et VI, L'eau dans les sols de texture lourde
Gemeinsame Tagung der Kommissionen I und VI, Wasser in schweren Böden

22-25 September 1976, Bratislava, Czechoslovakia. This joint meeting of Commissions I and VI of the ISSS will be organized in cooperation with the International Commission on Irrigation and Drainage (ICID). The meeting will be hosted by the Institute of Hydrology and Hydraulics of the Slovak Academy of Sciences in collaboration with the National Committee of the ICID. The technical sessions will take place from 22-25 September 1976 and will be followed by a field tour from 26-29 September. The main topics suggested for the presentation of papers are:

(1) Solid-liquid interface phenomena as related to flow of water in swelling soils.

(2) Flow of water in swelling and shrinking soils. Laboratory and field data and methods.

(3) Theory and practical determination of design parameters for reclamation of heavy soils (e.g.: the spacing and depth of underground drainage and the dimensioning of land constructions drainage exclusive of technological aspects of reclamation).

Papers should not exceed 4000 words, 2 tables and 5 illustrations. Manuscripts are requested to be in English, French or Russian. Applications and title of proposed papers should be sent to the Organizing Committee by 1 September 1975. Abstracts should be submitted by 1 May 1976.

Information and registration: Organizing Committee, Symposium on Water in Heavy Soils, Trnavská 20, 881 46 Bratislava Czechoslovakia.

Working Group on the application of remote sensing
Groupe de travail pour l'application de la télédetection
Arbeitsgruppe für die Anwendung der Fernerkundung

The Executive Committee of this Working group is composed of Dr. I.S. Tolchelnikov (USSR), Chairman, Dr. M.F. Baumgardner (USA), Dr. D. Goosen (Netherlands), Mr. M.C. Girard (France), Dr. R.S. Murthy (India) and Dr. S. Bialousz (Poland),Secretary. This Committee will meet in Leningrad on the occasion of the International Botanical Congress, from 3-10 July 1975. The provisional agenda for this meeting includes the following:

1) Activities of the Working group during the period 1975-1978.
2) Preparation of a Symposium on the Application of Remote Sensing in Soil

Science for the 13th Congress of the International Society of Photogrammetry to be held in Helsinki, Finland, in July 1976.

3) Organization in 1977 of a summer school on "Remote Sensing for Soil Surveys".

4) Preparation of papers to be presented to the 11th Congress of the ISSS in Canada in 1978.

5) Creation of a sub-Commission for the Application of remote sensing in soil science within Commission V of the ISSS.

6) Exchanges of bibliography and information.

7) Organization of and financial support for the activities of the Working group.

Members who wish further information on the programme of the Working group may contact Dr. I.S. Tolchelnikov, Laboratory for Aerophotomethods, Leningrad B-164, Birzevoi proezd, 6, U.S.S.R., or Dr. S. Bialousz, Polytechnical Institute, 1, Plac Jrdności Robotniczej 00-661, Warsaw, Poland.

NEWS FROM NATIONAL SOCIETIES
NOUVELLES DES ASSOCIATIONS NATIONALES
NACHRICHTEN DER NATIONALEN GESELLSCHAFTEN

Australia

The Australian Society of Soil Science awarded the 1974 Prescott Medal to Dr. T.J. Marshall based on his important contributions to soil science through both his research, largely concentrated on aspects of relations between water and soil, and the leading role he played in initiating and developing soil physics research in Australia. Dr. Marshall has been Vice-President of Commission I (Soil Physics) of the International Society of Soil Science from 1956-1960 and President of Commission VI (Soil Technology) from 1968-1974.

The Office Bearers of the Federal Council of the ASSS are:

President:	Dr. M.J. Mulcahy
Vice-President:	Dr. A. Smith
Secretary:	Dr. N.J. Barrow
Treasurer:	Mr. G.M. Dimmock

c/o CSIRO Div. of Land Resources Management, Private Bag, P.O. Wembley, W.A. 6014.

Belgique

Une journée d'études sur la Géographie des Sols, tenue à Louvain, le 9 octobre 1974, fut organisée par la section de Pédologie de la Faculté des Sciences Agronomiques de l'Université Catholique de Louvain (K.U.L.).

Dans son introduction le Prof. D'Hoore (K.U.L.) a situé la géographie des sols dans le cadre de la géographie générale et souligné les rapports étroits entre la géographie des sols et leur classification. Le Prof. C. Sys (R.U. Gand) a fait part de son expérience en matière de cartographie de grands territoires sous les climats tropicaux divers. Le Dr. Dudal (FAO), Secrétaire Général de l'AISS a commenté la carte des sols du monde (FAO/Unesco) dont il est le coordonnateur général et il a présenté les feuilles couvrant l'Afrique et les Amériques. Le Prof. I. Scheys (K.U.L.) a traité de cartes d'utilisation des sols et plus spécialement de leur application à certains problèmes belges d'aménagement de territoire. Enfin, le Dr. Gombeer (K.U.L.) a illustré l'application de la télédétection à la géographie des sols, en commentant une série de projections multispectrales en couleurs, réalisées à partir de cliches ERTS I.

Bulgaria

On 13 and 14 December 1974 the Bulgarian Soil Science Society, together with the N. Poushkarov Institute of Soil Science, held a jubilee session on the occasion of the 100th anniversary of the birth of Nicola Poushkarov, founder of Bulgarian soil science and patron of the Soil Science Institute. In 1911 Nicola Poushkarov founded the Soil Department at the Central Agricultural Research Institute in Sofia and carried out a number of soil investigations in the country. In 1931 he published the first soil map of Bulgaria at scale of 1:500 000. His work was influenced by the Dokouchaev genetic school in soil science. Five scientific reports were delivered at the session on some modern problems in soil science, such as cartographic and soil genetic investigations, programming, fertilization technology, erosion control and new trends in soil microbiology. Together with the town community of Pirdop, Nicola Poushkarov's birthplace, life and activities of this remarkable scientist were commemorated. After restoration and furnishing, the house in which he was born, shown on the photograph below, was turned into a permanent exhibition of the life and creative work of this great soil scientist.

The Directory of the Society is presently composed as follows: Chairman, Dr. L.P. Raikov; Deputy Chairmen, Prof. Dr. I.P. Garbouchev and Prof. Dr. V.J. Koinov; Secretary, Dr. I.P. Atanasov; Members, Prof. G.F. Gjurov, Prof. Dr. Z.V. Raikova, Prof. K.H. Enikov, Dr. V.H. Donov and Dr. N.G. Onchev. Correspondence for the Bulgarian Society of Soil Science should be addressed to: 5, Shosse Bankya, Sofia 24, Bulgaria.

Bundesrepublik Deutschland

Mit Rundschreiben vom Dezember 1974 an ihre Mitglieder gibt die Deutsche Bodenkundliche Gesellschaft Aufschluss über die Tätigkeit ihrer Kommissionen und des Vorstandes. Die Kommissionen tagten im Jahr 1974 zu folgenden Themen:

Kommissionen I und VI: "Einfluss von Meliorationen auf physikalische Bodeneigenschaften und deren Auswirkung auf qualitative und quantitative Eigenschaften des Wasserhaushaltes";

Kommission II: "Methodische Probleme der Stoffbilanz von Böden und Ökosystemen";

Kommission III: "Demonstration neuerer bodenbiologischer Arbeitstechniken";

Kommissionen IV und V: "Pedologie und Fruchtbarkeit tropischer Böden";

Kommission VII: "Tonmineralbildung und -umbildung in Böden des gemässigt-humiden Klimabereiches".

Die nächste Tagung der DBG findet im September 1975 in Regensburg statt. Generalthema: "Aufgaben der Bodenkunde in Umweltforschung und Landschaftsplanung". 4 Exkursionen und 1 Sonderexkursion im Anschluss an die Tagung und eine Ausstellung zum Generalthema sind vorgesehen.

Canada

The Canadian Society of Soil Science held its 20th Annual Meeting in conjunction with the Annual Convention of the Agricultural Institute of Canada at Lavalle University, Quebec City, 4-8 August 1974. The Society appointed the following members of its Board:

President: R.J. St. Arnaud; President-Elect: G.K. Rutherford

Councillers: Eastern Canada - Y. Martel, Agriculture Canada Research Station, Ste-Foy, Quebec; Western Canada - W.W. Pettapiece, Department of Soil Science, University of Alberta, Edmonton, Alberta;

Secretary: D.L. Massey, Ministry of Agriculture and Food, Box 2004, Kemptville, Ontario, KOG 1JO;

Treasurer: W.E. Henderson, Agricultural Institute of Canada, Suite 907, 151 Slater Street, Ottawa, Ontario, K1P 5H4.

The Society extended fellowship awards to K.F. Nielsen and to R.C. Turner. The 1975 Annual Meeting will be held in Brandon, Manitoba, 23-27 June 1975 jointly with the Annual Meeting of the Agricultural Institute of Canada. The theme of the convention is "Canadian Agriculture in the World Community".

Colombia

The Colombian Society of Soil Science is organizing the Quinto Congreso Latinoamericano de la Ciencia del Suelo, which will be held from 17-21 August 1975 in Medellín. This Congress will be held concurrently with the Cuarto Coloquio Nacional de Suelos, of the Colombian Society.

The following Officers were elected to the Board of the Colombian Society of Soil Science:

President: Luis A. León S., Instituto Colombiano Agropecuario, Palmira-Valle;

First Vice-President: Abdón Cortés Lombana, Instituto Geográfico "Augustín Codazzi", Bogotá;

Second Vice-President: Oscar Ospina, Facultad de Agronomía - U.N. Medellín;

Treasurer: Francisco Silva Mojia, Instituto Geográfico "Augustín Codazzi", Bogotá;

Secretary: Fabio Garavito Neira, Instituto Geográfico "Augustín Codazzi", Bogotá.

Denmark

The Danish Society of Soil Science held its Annual General Meeting on 25 February 1975. The composition of its new Board is as follows:

President: S.Storgaard Jørgensen, Royal Veterinary and Agricultural University, Chemistry Department, 40, Thorvaldsensvej, DK-1871 Copenhagen V.;

Secretary and Treasurer: Aage Henriksen, State Laboratory for Soil and Crop Research, 24, Lottenborgvej, DK-2800 Lyngby; H. Sørensen, A.E.G. Research Establishment, Agricultural Department, Risø, DK 4000 Roskilde.

Deutsche Demokratische Republik

Die Bodenkundliche Gesellschaft der Deutschen Demokratischen Republik gibt die Zusammensetzung ihres Vorstandes bekannt:

Vorsitzender der Gesellschaft: Prof. Dr. P. Kundler, DDR - 1278 Müncheberg, Wilhelm-Pieck-Str. 72;

Vorsitzende der Kommissionen
I: Dr. H. Lindner, DDR - 1278 Müncheberg, Wilhelm-Pieck-Str. 72;
II: Prof. Dr. W. Borchmann, DDR - 25 Rostock, Satower Strasse;
III: Prof. Dr. G. Müller, DDR - 402 Halle, Weidenplan 14;
IV: Prof. Dr. G. Markgraf, DDR - 104 Berlin, Invalidenstrasse 42;
V: Prof. Dr. I. Lieberoth, DDR - 13 Eberswalde, Schicklerstrasse 3;
VI: Prof. Dr. K. Schwarz, DDR - 69 Jena, Naumburger strasse;
Sekretär der Gesellschaft: Dr. W. Barufke, DDR - 108 Berlin, Krausenstr. 38/39.

Egypt

On the occasion of its Annual Meeting from 22-24 March 1975, in Cairo, the Egyptian Society of Soil Science celebrated the Silver Jubilee of its foundation. The session was opened by Eng. Sayed Marei, President of the People's Assembly of Egypt. The Ministers of Agriculture and Irrigation, the President of the Academy of Sciences and the President of Agricultural Cooperation took part in the ceremony. 24 scientific papers were presented during the sessions. Resolutions and recommendations were formulated with a view to intensified research particularly towards improving soil fertility, more effective use of low quality irrigation water and to new methods of irrigation aiming at saving water to reclaim new areas. The ISSS congratulated Prof. Dr. Hassan Hamdi, President of the Soil Science Society of Egypt and all its members by telegramme.

Hungary

On 18-19 December 1974 the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, Budapest, celebrated the 25th Anniversary of its foundation.

Soil Science and agricultural chemistry have long-standing traditions in Hungary. The research activities in these fields were centralized in 1949, when the institute was organized in its present form. Since that time it is the central institution in Hungary for fundamental research concerning soil science and agricultural chemistry.

A festive occasion: Dr. I. Szabolcs (on the left) Director of the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, illustrating 25 years activities of his Institute.

The institute which has at present 190 staff members, among them 46 research workers, consists of the following units: Soil Science Department; Sandy Soils Department; Salt-affected Soils Department; Fertilization Department; Soil Biochemistry Department; Soil Microbiology Department; Isotope Laboratory; Fine Structure Analytical Laboratory; Library; Financial Department.

"Agrokémia és Talajtan" quarterly journal of the institute publishes papers by eminent Hungarian and foreign scientists.

The institute has four experimental stations located on different soil types of Hungary.

The two day Jubilee Session was opened by Prof. Dr. I. Làng, Deputy Secretary General of the Hungarian Academy of Sciences. Prof. Dr. I. Szabolcs, the Director of the Institute, delivered a report on the activities and achievements of the past 25 years. The Heads of the Departments reported on the research projects carried out in their departments. The ISSS was represented at the celebrations by its Secretary General.

Japan

The Society of the Science of Soil and Manure of Japan elected the following members to the Board of the Society:

President: Tomoji Egawa, Director General, National Institute of Agricultural Sciences, Nishigahara 2-1-7, Kita-ku, Tokyo;

Vice-Presidents: Yasuo Takai, Professor of Soil, University of Tokyo, Yayoi 1-1, Bunkyo-ku, Tokyo; Kazue Kurokawa, Counsellor, National Federation of Agricultural Cooperation, Ohtemachi 1-8-3, Chyoda-ku, Tokyo;

Secretary: Sueo Asoh, Professor of Plant Nutrition, Tokyo University of Agriculture, Sakuragaoka 1-1-1, Setegaya-ku, Tokyo.

New Zealand

For 1974 the New Zealand Society of Soil Science extended its Senior Award for an outstanding contribution to soil science to Alan James Metson, who has pioneered the field of soil chemistry in New Zealand. He is the author of "Methods of Chemical Analysis for Soil Survey Samples", a publication which has received wide acceptance in New Zealand and overseas. He has also worked in the difficult field of soils in relation to animal nutrition and metabolic diseases and has become an authority in this area.

An award for outstanding thesis relating to soil science has been given to V.E. Neall. His Ph. D. work dealt with the geology and pedology of Western Taranki, a study which has thrown a new light on soil surveys in this region.

The Board of the New Zealand Society of Soil Science (c/o Soil Bureau, Private Bag, Lower Hutt) is composed of: President, T.E. Ludecke; Vice President, M.L. Leamy; Secretary, L.C. Blakemore; Treasurer, R.J. Furkert.

Österreich

Auf der Jahreshauptversammlung der Österreichischen Bodenkundlichen Gesellschaft am 15. Januar 1975 wurde der folgende Vorstand gewählt:

Präsident: Hofrat Dipl. Ing. Adolf Stecker, Bundeministerium für Finanzen;
Vizepräsident: Doz. Dipl. Ing. Franz Solar, Hochschule für Bodenkultur;
Schriftführer: Dr. Dipl. Ing. Walter K., Forstliche Bundesversuchsanstalt Wien;
Kassier: Dipl. Ing. Karl Fischer, Fin. Land. Dio. Wien (Bodenschätzung).

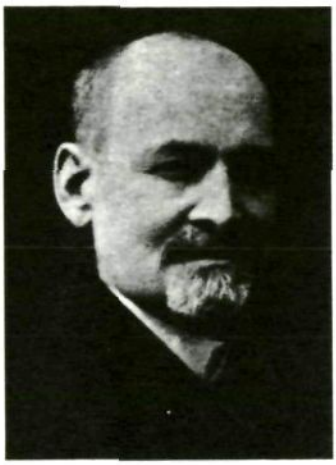
Poland

The Polish Society of Soil Science commemorated the 100th anniversary of the birth of Slawomir Miklaszewski, the pioneer of soil science in Poland and a founding member of the International Society of Soil Science. Celebrations were organized from

16-20 June 1974 including scientific lectures and a field tour devoted to the study of rendzinas developed on different geological formations.

Romania

50 years since the death of one of the founders of the ISSS
G. Munteanu-Murgoci (1872-1925)



This year, March the 5th, 50 years passed since the death of one of the founders of soil science in Romania and one of the promoters of the international collaboration which lead to the establishment of the ISSS. G.M. Murgoci, who had a through knowledge of the main concepts on which the soil studies relied at *that time, understood the need for developing the* pedological studies in his country, as well as those of creating an international organization in this field, displaying constant and permanent activity for their achievement. For this purpose his specialization in Hilgard's laboratory, the close collaboration with Russian soil scientists, especially with Nabokich, as well as his scientific trips in numerous countries, proved to be very useful.

In 1906 he founded the Department of Agrogeology at the Romanian Geological Institute and with his collaborators, trained by himself, he carried out numerous research works both in the field and in the laboratory. Using the concepts of the Russian naturalistic school developed by V.V. Dokuchaev, he constructively supplemented and applied them for the preparation of the first general soil map of Romania at scale 1:2, 500, 000, submitted at the first Agrogeological Conference held in Budapest in 1909. The convening statement of this first international meeting was signed by Nabokich (Odessa), Murgoci (Bucharest), Treitz and Timko (Budapest). At the second International Conference – Stockholm, 1912 – Murgoci alongside of Ramann, Wahnschaffe and Schucht, founded the periodical publication "Die Internationalen Mitteilungen für Bodenkunde". At the Prague Conference (1923), he was elected president of the Commission for soil cartography, and, with the help of the Romanian Government he prepared and published at the Geological Institute the "Mémoires sur la cartographie du sol". This volume, containing extremely important documents for the history of soil cartography, represents an impressive work of international collaboration.

Altough already in weak health, Murgoci participated in the 1924 Rome Conference and with great satisfaction he assisted and subscribed to the foundation of the ISSS. Here, he was elected as President of the executive committee for drawing up of the soil map of Europe for which he had already proposed a legend based upon a surprisingly advanced conception for that time. He succeeded, together with his collaborators, in elaborating only the Soil map of Romania at 1: 1,500,000 scale, published in 1927.

Death interrupted his activity, glorious for his country and fruitful for the international collaboration in the field Soil Science.

Acad. Prof. Gr. Obrejanu
President of the National Romanian Soil Science Society

The ISSS joins the Romanian Soil Science Society in commemorating one of its founding members.

South Africa

The Soil Science Society of Southern Africa announced that its next General Meeting will be held in July 1975 on the occasion of the 6th Biannual Congress which will be organized at Blyde River in the Eastern Transvaal Lowveld. The present Council of the S.S.S.S.A. is composed of:

President: Prof. Dr. A.A. Theron, Univ. of Stellenbosch, Stellenbosch;
Vice-President: Dr. R.F. Loxton, P.O. Box 39265, Bramley, Johannesburg;
Secretary-Treasurer: J.J.N. Lambrechts, Univ. of Stellenbosch, Stellenbosch.
A new Council will be elected at the forthcoming General Assembly.

Switzerland

The Soil Science Society of Switzerland has been founded on 14 March 1975. The first Board of this new society is composed as follows:

L'Association Suisse de la Science du Sol a été fondée le 14 mars 1975. Le Bureau de la nouvelle association est composé comme suit:

Die Bodenkundliche Gesellschaft der Schweiz (BGS) wurde am 14. März 1975 gegründet. Der Vorstand der neuen Gesellschaft setzt sich wie folgt zusammen:

President/Président/Präsident: Dr. Erwin Frei, Eidg. Forschungsanstalt für landw. Pflanzenbau Zürich-Reckenholz, Postfach 8046 Zürich

Vice-president/Vice-président/Vizepräsident: Dr. Hans Sticher, Eidg. Technische Hochschule, Universitätstrasse 2, 8006 Zürich

2nd Vice-president/2ème Vice-président/2. Vizepräsident: Dr. Michel Pochon, Universität Neuchâtel, Rue Emile-Argand 11, 2000 Neuchâtel

Secretary General/Secrétaire Général/Geschäftsführender Sekretär: Dr. Luc-François Bonnard, Eidg. Forschungsanstalt für landw. Pflanzenbau Zürich-Reckenholz, Postfach, 8046 Zürich

Secretary/Secrétaire/Sekretär: Alfred Kaufmann, Schweizerisches Landwirtschaftliches Technikum, Abt. für Agrikulturchemie und Bodenkunde, 3052 Zollikofen BE.

The Netherlands

The Soil Science Society of the Netherlands (NBV), announced the composition of its Board for 1975/1976

Chairman: Ir. R.P.H.P. van der Schans, Director Soil Survey Institute, P.O. B. 98, Wageningen

Vice-Chairman: Dr. Ir. A. van Diest, Laboratory of Soils and Fertilizers Agricultural State University, De Dreyen 3, Wageningen

Secretary-Treasurer: Ir. J.C. Pape, Soil Survey Institute, P.O. B. 98 Wageningen.

The 76th scientific assembly of the NBG took place on the occasion of the 40th anniversary of its foundation. A field tour was organized in Belgium from 13 to 15 May 1975 to study soils and land use in the country.

U.S.A.

The 1974 annual meetings of the American Society of Agronomy, Crop Science of America and Soil Science Society of America were held in Chicago, Illinois on 10-15 Nov. 1974. The overall theme of the meetings was "All-Out Food Production: Strategy and Resource Implications". The SSSA sponsored two symposia: "Nitrogen Transformations and Transport in Soil and/or Water" and "Teaching Forest Soils in North America". The ASA and SSSA co-sponsored three symposia: "International and National Outlook - The Necessity for Efficient Nutrient Utilization", "Soil Loss Guidelines for Sediment Pollution Control Legislation" and "All-Out Food Production Through Soil Testing". All three societies co-sponsored three additional symposia, titled "Modeling the Dynamics of Plant and Soil Systems: Crop Yield and Management", "Modeling the Dynamics of Plant and Soil Systems: Soil and Atmospheric

Environments" and "Mineral Composition of Plants in Relation to Human and Animal Health" . Special publications will result from the symposia "Teaching Forest Soils in North America", "International and National Outlook – The Necessity for Efficient Nutrient Utilization" and "Soil Loss Guidelines for Sediment Pollution Control Legislation".

Dr. C.F. Eno of the University of Florida and Dr. C.B. Davey, North Carolina State University, were presented as the new president and vice-president and Dr. A.R. Bertrand, Texas Tech. University, became past-president. Gordon L. Hutchinson, Western Region, ARS-USDA, was the 1974 recipient of the Emil F. Truog Award in Soil Science. The SSSA Board honored Dr. Leonard D. Baver, Dr. George Bouyoucos, Dr. Richard Bradfield, Dr. Charles E. Kellogg, and Dr. C. Edmund Marshall for their dedication and outstanding contributions to the society and to soil science.

The 67th. annual meeting of the Soil Science Society of America will be held August 24-30 1975, at the University of Tennessee, Knoxville, Tennessee.

In Memoriam

Hammond J. Atkinson

Hammond J. Atkinson, a widely recognized Canadian soil scientist, died suddenly of a heart attack on November 4, 1974 in Ottawa, Ontario.

Prior to his retirement in May 1970, he was Research Co-ordinator (Soil Fertility) in the Research Branch, Agriculture Canada, Ottawa. He had served also as Chairman of the National Soil Fertility Committee, and as such was instrumental in the co-ordination and orientation of soil research on a national scale.

Born in New Brunswick in 1905, he received a BA degree in chemistry and natural sciences from the University of New Brunswick in 1925, and a PhD. degree in agricultural chemistry from McGill University in 1934. Following a brief period as a chemist with the National Research Council Associate Committee on Trail Smelter Smoke, Dr. Atkinson, joined the Chemistry Division, Science Service, Canada Department of Agriculture in 1936. He became Head of the Soil Chemistry Unit of that Division in 1950 and contributed much to the development of a competent research group wich became the nucleus of the Soil Research Institute established as a part of the Research Branch in 1959.

Dr. Atkinson was author of more than 50 scientific publications and he served as Chairman of the Editorial Board of the research journals of the Agricultural Institute of Canada. He was a Fellow of the Agricultural Institute of Canada and of the Chemical Institute of Canada. He served these Institutes as well as the Canadian Society of Soil Science in various capacities, and was a long standing member of the Soil Science Society of America and the International Society of Soil Science.

Professor Dr. S. Egerszegi

On December 30, 1974, Hungarian soil science suffered a heavy loss by the unexpected and untimely passing away of Prof. Dr. Sándor Egerszegi, Head of the Sandy Soils Department of the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences.

He was born in a small Hungarian village in 1920, and received his academic education at the Agricultural College of Keszthely. In 1949 he joined the staff of the then newly-founded Research Institute for Soil Science and Agricultural Chemistry, where he carried out valuable scientific activity to the very end of his life.

From the beginning of his scientific carrier, Dr. Egerszegi's attention was focussed on sandy soils and he became well-known for his research on the possibilities of increasing their fertility. He elaborated a method for creating a deep fertile layer in sandy soils. His dissertation on this subject, in 1960, earned him the degree of Candidate of Agricultural Sciences. His scientific work was recorded in 2 books and more than 70 papers. He was appointed Professor of Soil Science in 1966.

He was an active member of the International Society of Soil Science and participated in the work of two Congresses, particularly in Commissions I and VI.

Dr. Egerszegi maintained close connections with numerous soil scientists from all over the world. He travelled widely in Europe, in the Middle East and made a one-year study-tour in the U.S.A. He was a member of the jury of the World Competition of Ploughing on three occasions.

In recognition of his outstanding scientific achievements he received the Order of Labour in 1954 and the Kossuth Prize – one of the highest Hungarian awards – in 1956. His memory will be an inspiration to generations of Hungarian soil scientists.

Prof. Dr. I. Láng

Professeur Gian Pietro Ballatore

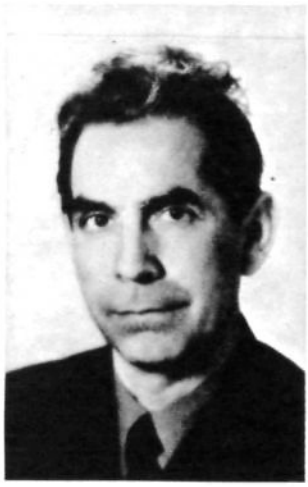
Le Dr. Gian Pietro Ballatore, Professeur d'agronomie générale et des cultures herbacées de l'Université de Palermo, est décédé le 2 avril 1975 à la suite d'une longue maladie.

Ancien président de la Faculté agronomique, Ballatore avait acquis – par la publication de plus de 150 travaux scientifiques – une grande réputation pour ses études de problèmes importants de l'agriculture méridionale et pour les solutions qu'il avait préconisées.

Auteur de la carte des sols de la Sicile, Ballatore avait contribué de façon décisive à la solution des problèmes pédologiques de l'île, surtout en ce qui concerne la mise en valeur des terres marginales et des sols lourds. Une partie considérable du travail de Ballatore fut consacré à la mise au point de techniques d'irrigation particulièrement adaptées au milieu sicilien. Ne se limitant pas aux aspects strictement techniques, Ballatore s'attachait également à la planification des réseaux irrigués en tant qu'éléments importants du développement économique et social des régions méridionales.

Le Professeur Ballatore reçut le prix national d'agriculture de la foire de Vérone, fut Président de l'Association italienne de la science du sol, Président du Centre d'étude italien pour le coton, et Directeur de l'Ecole supérieure des études méditerranéennes. Une mort précoce – à 53 ans – ne lui a pas permis d'achever le Traité d'agronomie générale dont il avait entrepris la préparation. Avec la disparition du Professeur Ballatore le monde académique italien et la science du sol perdent un de ses personnages les plus représentatifs.

Hristo M. Trashliev



Hristo M. Trashliev, Senior Scientific Worker in charge of the Department of Soil Science at the Nicola Poushkarov Institute of Soil Science and Agrochemistry, died on 9 April, 1974. He devoted more than a quarter of a century to Soil Science.

The profound knowledge of Agrochemistry and the revival of our Soil Science which took place after World War II, had a considerable influence on the character of his scientific activity. He was one of the first to make a detailed description of saline soils in our country, in relation to the creation of irrigation and runoff systems. Hristo Trashliev devoted a great deal of attention and work to the problem of large-scale mapping (1:25000) of the soils in Bulgaria. One of his great scientific achievement is the composition of a soil map of Bulgaria at scale 1:40000 and the subdivision of the country into soil regions.

Hristo Trashliev was one of the initiators and an active participant in the scientific group working on land evaluation and on the introduction of a cadastre of the lands in Bulgaria. The methods which he developed for the evaluation of land and of ecological conditions represent a scientific base for determining soil, climatic and relief requirements of 20 basic agricultural crops.

In cooperation with a number of scientific workers Hristo Trashliev conducted research on the genesis, geography and classification of Bulgarian soils in which he applied ecological-genetic principles and took into account the specific character of soil processes. His most profound study was the research work on the biological rotation of substances in brown forest, grey forest and chernozem soils. As a result he established that coniferous and decideous forests in Bulgaria have a different influence on soils as compared to the effects observed in northern regions of the earth where podzols and podzolic soils are formed. This work was the beginning of a new and important contemporary tendency in the research of Bulgarian soils. During the last years Hristo Trashliev paid great attention to the study of two-layer profile soils and to soils with periodical surface waterlogging.

Hristo Trashliev participated actively in a number of international congresses, conferences and symposia of soil science where he successfully demonstrated the specific genesis of Bulgarian soils as well as the principles underlying their classification, melioration and agricultural management. He was the author of more than 70 scientific publications.

Hristo Trashliev had been Chairman of the Bulgarian Society of Soil Science for many years as well as a member of the ISSS. The Bulgarian soil scientists will greatly miss their friend, colleague and famous representative of Bulgarian Soil Science.

Bulgarian Society of Soil Science

MEETINGS, CONFERENCES, SYMPOSIA
RÉUNIONS, CONFÉRENCES, SYMPOSIUMS
TAGUNGEN, KONFERENZEN, SYMPOSIEN

1975

Third Asean Soil Conference (Association of South-East Asian Nations), Kuala Lumpur, Malaysia, 7-19 July 1975.

Information: Organizing Secretary, ASC III, Perkhidmatan Tanah dan Analisa, Jabatan Pertanian, Kuala Lumpur, Malaysia.

International Symposium on the Quaternary, Curitiba, Brazil, 15-31 July 1975, organized jointly by the International Union of Geological Sciences and the Union Internationale pour l'Etude du Quaternaire.

Information: Secretary General, INQUA, c/o Dept. Geology, Keele University, Keele St. 55 BG, U.K.

International Clay Conference, Mexico City, 16-23 July 1975, organized by the Association Internationale pour l'Etude des Argiles and the International Union for Geological Sciences.

Information: Prof. U. Schwertmann, Inst. Bodenkunde, Technische Hochschule, München, D 8050, Freizing - Weihenstephan, B.R.D.

9th International Congress on Irrigation and Drainage, organized by the International Commission on Irrigation and Drainage, U.S.S.R., 23 July - 16 August 1975, Moscow.

Information: Secretary General - ICID, Central Office, 48 Nyaya Marg, Chanakyapuri, New Delhi 110021, India.

30th Annual Meeting of the Soil Conservation Society of America, San Antonio, Texas, 10-13 August 1975. The theme of this meeting will be "Land Use: Food and Living".

Information: Soil Conservation Society of America, 7515 Northeast Ankey Road, Ankeny, Iowa 50021, U.S.A.

V Congreso Latinoamericano de la Ciencia del Suelo and **IV Coloquio Nacional Sobre Suelos**, Medellin, Colombia, 17-21 August 1975, organized by the Sociedad Colombiana de la Ciencia del Suelo.

Information: J. Lotero C., Coordinador General, Apartado Aéreo 568, Medellin, Colombia.

13th Pacific Science Congress, Vancouver, Canada, 18-30 August 1975, organized by the Pacific Science Association.

Information: Miss B. Bishop, P.O. B. 6037, Honolulu, Hawaii 96819, U.S.A.

6th Symposium "Humus et Planta", Prague, Czechoslovakia, 19-23 August 1975. Symposium devoted to research in the following fields: transformation of organic matter in soils, relationships between soil-organic matter and plants, methodological problems of soil-organic investigations. Languages: Russian, German, English.

Information: Ing. J. Damaška, Csc., Soil Research Institute – VURV, 161 06 Prague 6 – Ruyzně, Czechoslovakia.

Agronomic Research for Food, Knoxville, Tennessee, U.S.A. 24-30 August 1975, 67th. annual meeting of the American Society of Agronomy, Soil Science Society of America and Crop Science Society of America.

Information: Soil Science Society of America, 677 South Segoe Road, Madison, Wisconsin 53711, U.S.A.

12th General Assembly of the International Union for the Conservation of Nature (IUCN), Kinshasa, Zaire, 7-9 September 1975. Technical discussions related to tropical rain forests; arid, semi-arid and mountainous marginal lands; resources and conservation; development decisions. The general theme of the assembly will be "Conservation for Decision-Makers".

Information: IUCN, 1110 Morges, Switzerland.

Technical Consultation on Tropical Moist Forests, Rome, Italy, 29 September - 7 October 1975. One of the major agenda items will deal with environmental conditions of tropical moist forests with special reference to the correlation between vegetation and soils as a key to ecologically oriented land use planning.

Information: Mr. O. Fugalli, Executive Secretary, Technical Consultation on Tropical Moist Forests, c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italy.

10th International Symposium on Remote Sensing of the Environment, Ann Arbor, Michigan, U.S.A., 6-20 October 1975.

Information: Centre for Remote Sensing, Environmental Research Institute of Michigan, Ann Arbor, Michigan, U.S.A.

9th Meeting of the IGU Commission on Agricultural Typology, Fontenay-aux-Roses, France, 22-28 September 1975, organized under the sponsorship of the International Geographic Union (IGU). Identification and cartography of world types of agriculture.

Information: Prof. J. Bonnamour, Colloque de géographie rurale, Ecole Normale Supérieure, 5, rue Boucicaut, 92260 Fontenay-aux-Roses, France.

100 Jahre Glazialtheorie im Gebiet der skandinavischen Vereisung, Berlin, DDR, 3-7 November 1975, International Union of Geological Sciences.

Information: Secretary General IUGS, P.O.B. 379, Haarlem, The Netherlands.

2nd World Congress on Water Resources, New Delhi, India, 12-17 December 1975. Theme of the Congress: "Water for Human Needs".

Information: C.V.J. Varma, Executive Secretary IWRA, c/o Central Board of Irrigation and Power, Kasturba Gandhi Marg, New Delhi 110001, India.

International Symposium on Land Subsidence, Royal Inn, Anaheim, Calif. U.S.A., 13-17 December 1975, sponsored by the International Association of Hydrological Sciences, International Association of Hydrogeologists and International Society for Soil Mechanics and Foundation Engineering. Following the 1975 Fall Annual Meeting of the American Geographical Union in S. Francisco.

Information: A. I. Johnson, President, International Commission on Subsurface Water, U.S. Geological Survey, National Center, MS 417, Reston, Virginia 22092, U.S.A.

1976

Symposium on Arid Land Irrigation in Developing Countries, Alexandria, Egypt, 16-22 February 1976, organized by ICSU Scientific Committee on Water Research (COWAR).

Information: Prof. R. Keller, Schwarzwaldstr. 18, 7812 Bad Krozingen, Fed. Rep. of Germany.

5th National Congress of the Yugoslav Society of Soil Science, Sarajevo, 23-31 May 1976.

Information: Organizing Committee, Soil Science Congress, Sumarski fakultet, 71000 Sarajevo, Yugoslavia.

Symposium on Cycling of Mineral Nutrients in Agricultural Ecosystems, Amsterdam, The Netherlands, 31 May-4 June 1976, organized by Elsevier (Scientific Publishing Company), Amsterdam.

Information: Mr. K.C. Plaxton, Secretary of the Organizing Committee, P.O. Box 330, Amsterdam, The Netherlands.

7th Conference of the International Soil Tillage Research Organization (ISTRO), Uppsala, Sweden, 15-18 June 1976. Themes of the Conference: Tillage problems in ploughless farming systems (reduced tillage), secondary tillage and plant establishment, soil compaction and plant growth, performance of tillage tools and implements.

Information: ISTRO, Department of Soil Sciences, S-750 07 Uppsala 7, Sweden.

6th International Soil Zoology Colloqium, Agricultural College, Uppsala, Sweden, 19-23 June 1976. (Com. III, ISSS).

Information: Dr. U. Lohm, Dept. of Entomology, University of Uppsala, Box 561, S-75122, Uppsala I, Sweden.

16th Congress of the International Union for Forest Research Organizations (IUFRO), Oslo, Norway, 21-27 June 1976.

Information: The President IUFRO, N-1432, Aas-NLH, Norway.

International Conference on "Very Long-Term Fertilizer Experiments and their Results", organized under the patronage of the Ministry of Agriculture and under the Chairmanship of the Director of the Institut National Agronomique.

Centre de Grignon, 78850 Thiverval Grignon (15 km of Versailles), 6-8 July 1976.

Theme and objective: This conference is taking place on the centenary of the initiation in 1875 of Deherain's experiments and its objective is to analyse the recorded results of fertiliser trials of more than 50 years' duration and to extract information on: the interest in and scientific reasons for the work; the effects on soil and vegetation; the conduct of the experiments and their interpretation (various limitations).

Information: Mr. R. Gervy, 58, Av. Kléber, 75784 Paris Cédex 16, France.

Colloque International sur "Les essais de fertilisation de très longue durée et leurs enseignements", colloque organisé sous le patronage de Monsieur le Ministre de l'Agriculture et sous la présidence du Directeur de l'Institut National Agronomique.

Centre de Grignon, 78850 Thiverval Grignon (15 km à l'ouest de Versailles), 6-8 juillet 1976.

Thème et but: A l'occasion du centenaire du dispositif expérimental mis en place par Deherain en 1875, ce colloque a principalement pour objet d'analyser les résultats des essais de fertilisation d'une durée supérieure à 50 ans qui ont été recensés et d'en tirer les enseignements suivants: intérêt et motivations scientifiques; effets sur le sol et les végétaux; conduite et interprétation de ces experiences (contraintes diverses).

Information: M. R. Gervy, 58, Av. Kléber, 75784 Paris Cédex 16, France.

Internationales Kolloqium über "Langzeit-Düngerversuche und ihre Lehren". Das Kolloqium wird unter Ehrenschutz des französischen Landwirtschaftsministers und unter der Präsidentschaft des Direktors des "Institut National Agronomique" veranstaltet.

Centre de Grignon, 78850 Thiverval Grignon (15 km westlich von Versailles), 6-8 Juli 1976.

Thema und Zweck: Der Hauptgegenstand des Kolloqiums ist, aus Anlass des hundertjährigen Bestehens der Versuche, die Deherain im Jahre 1875 angelegt hat, die Ergebnisse von Düngeversuchen zu analysieren, die sich über einen Zeitraum von mehr als 50 Jahren erstreckt haben und ausgewertet wurden, und daraus die folgenden Lehren zu ziehen: Bedeutung und wissenschaftliche Motivierung; Wirkungen auf Boden und Pflanze; Durchführung der Versuche und deren Auswertung.

Information: M.R. Gervy, 58, av. Kléber, 75784 Paris Cédex 16, Frankreich.

13th Congress of the International Society of Photogrammetry, Helsinki, Finland, University of Technology, 11-24 July 1976.

Information: Dr. R.S. Halonen, Institute of Photogrammetry, Helsinki University of Technology, 02150 Otaniemi, Finland.

23rd International Congress of Geography, Moscow, U.S.S.R., 27 July-3 August 1976, organized by the International Geographic Union.

Information: The Secretary General, 23rd Int. Congress of Geography, 29, Staromonetni, per. Moscow 109017, U.S.S.R.

25th International Geological Congress, Sydney, Australia, August 1976.

Information: The Secretary General, 25th IGC, P.O. Box 1892, Canberra City, ACT 2601, Australia.

5th International Peat Congress, Poznań, Poland, 19-25 September 1976, organized by the Polish National Committee of the International Peat Society. Theme of the Congress: "Peat and Peatlands in protection of the Natural Environment".

Information: The Secretariat, 5th International Peat Congress, ul. Wspólna, 30 00-930 Warsaw 71, Poland.

1977

10th Congress of INQUA, Union Internationale pour l'Etude du Quaternaire, Birmingham, U.K., 16-26 August 1977.

Information: Secretary General, INQUA, c/o Dept. Geology, Keele University, Keele St. 55 BG, U.K.

TRAINING COURSES/COURS DE FORMATION/FORTBILDUNGSKURSE

Post-graduate Courses in Soil and Water Engineering

Programme: Course directed towards the development of agricultural resources. Lecture courses include basic subjects (computer techniques, statistics, soil-plant-water relationships, resource survey methods, agriculture) and applied subjects (soil conservation, irrigation, land resources planning, drainage and groundwater hydraulics, soil mechanics, water supplies, land surveying.

Information: Academic Secretary, National College of Agricultural Engineering, Silsoe, Bedfordshire, U.K.

Interpretation of Aerial Photography for Soil Surveys

Programme: Interpretation of aerial photographs and other remote sensing data applicable to soil surveys and inventories concerning soil erosion, soil conservation, land classification, and appraisal of productivity potentials. The courses concentrate on two major activities:

– practical training, including fieldwork, in the use of aerial photography and remote sensing data in soil survey;

– lectures and seminars on the principles and problems of surveys of soils, soil erosion and conservation, and other agricultural aspects.

Duration: Standard courses begin annually in January and have normally a duration of one year, although it is sometimes possible for participants to join these courses for the first period of seven months only. A special course mainly in agricultural aspects lasts 11 months and begins in the first week of September.

Information: ITC Office of Student Affairs, P.O. Box 6, Enschede, The Netherlands. Cables: AERSUR. Tel. 053-327272.

International Course on Land Drainage

Programme: The course is intended to provide a thorough knowledge of the physical and agricultural principles of land drainage, surveying methods, and principles of design and construction of drainage works in both humid and arid regions. Structures for flood control or other major hydraulic engineering works are not covered by the course which is mainly addressed to engineers, agricultural hydrologists, and drainage and irrigation agronomists.

Next session: Aug. 16-Dec. 3, 1975.

Information: Director, International Agricultural Centre, Lawickse Allee 11, P.O. Box 88, Wageningen, The Netherlands. Cables: INTAS. Tel. 09370-19040.

Post-graduate Courses in Soil Science

Programme: Three Masters courses are offered to students with a first degree in pure science, applied science including agricultural science, or geography:

(i) Soil Chemistry, one year; (ii) Pedology and Soil Survey, one year; (iii) Soil Science, two years.

Courses are designed to give a thorough understanding of the principles and applications of the subject.

Information: The Secretary, Dep. of Soil Science, University, Reading, U.K.

INTERNATIONAL RELATIONSHIPS

World Food Conference of the United Nations

Delegates from 130 countries participated in the World Food Conference of the United Nations which took place in Rome from 5-16 November 1974. The Conference expressed general acceptance of the assessment of the world food situation as presented by the Secretariat (see Bulletin No. 46). A three-point-strategy was developed for dealing with this situation, namely:

- increased food production in both developed and developing countries;
- improved consumption patterns and distribution, involving food aid;
- a world wide system of food security.

Action taken on these points included:

- the setting up of an *international fund for agricultural development* to channel additional investment resources into the agriculture of the developing world;
- approval of a commitment to provide *food aid* to a minimum level of 10 million tons of cereals each year beginning from 1975;
- adoption of an international undertaking on *world food security* which would coordinate national stock holding of basic foods with a view to avoid acute food shortages and to sustain a steady expansion of food consumption in countries with low levels of intake per capita; a component of the world food security system would be a *global information and early warning system on food and agriculture* providing for an international network to monitor production, stocks, prices, export availabilities and import requirements;
- the creation of a *World Food Council*. Its membership would be at the ministerial level and consist of states who belong to the United Nations or to its specialized agencies. The Council would review periodically major problems and policy issues affecting the world food situation and the steps needed or taken to resolve them. It should also recommend remedial action as appropriate.

In addition to these institutional arrangements the World Food Conference made a number of recommendations in the technical fields, related to seeds, water management, fertilizers, pesticides, and the effective use of land resources. The latter resolution, which is of particular importance to the ISSS, recommended that FAO, Unesco, and UNEP, in cooperation with WMO, and other competent international organizations, and in consultation with Governments concerned, prepare without delay an *assessment of the lands that can still be brought into cultivation*, taking proper account of forestry for the protection of catchment areas and of land required for alternative uses. Such an assessment should take into account primarily the hazards of irreversible soil degradation as well as the order of magnitude of costs and agricultural and other inputs required. The Food and Agriculture Organization of the United Nations was also urged that the most appropriate ways and means be selected to establish a *World Soil Charter* which would be the basis for an international cooperation towards the most rational use of the world's land resources.

During the debate on this resolution the ISSS was specifically mentioned as one of the organizations which could cooperate in its implementation. The Secretary general who represented the ISSS at the World Food Conference indicated the interest of our Society to cooperate in this undertaking. FAO is currently seeking support from its governing bodies to follow up on this resolution and it is envisaged that a joint action programme be worked out.

Unesco

On 14 November 1974 the General Conference of Unesco elected Amadou-Mahtar M'Bow, of Senegal, to succeed René Maheu as Director-General of Unesco. Amadou-Mahtar M'Bow was born in Dakar in 1921. He graduated in history and geography at the University of Paris in 1951. He became head of the Department of

Fundamental Education in Senegal and served successively as Minister of Education and Minister of Youth and Culture. From 1970 onwards he served with Unesco as Assistant Director-General for Education.

On 13 December 1974, the new Director-General of Unesco called a meeting of non-governmental organizations which have relationsships with Unesco. The ISSS was represented by Mr. G. Drouineau, President of the Soil Science Society of France. In his address to the meeting the Director-General expressed his desire to strengthen cooperation with non-governmental organizations. One of the means he envisaged was to systematically organize meetings with the Unesco departments in the different fields of specialization. He also called for suggestions regarding the programme of work of Unesco and indicated that he would invite the Permanent Committee of the Non-Governmental Organizations to assist Unesco in evaluating its activities.

RELATIONS INTERNATIONALES

Conférence mondiale des Nations Unies de l'alimentation

Les délégués de 130 pays ont participé à la Conférence mondiale des Nations Unies de l'alimentation qui a eu lieu à Rome du 5 au 16 novembre 1974.

La Conférence a reconnu la gravité de la situation alimentaire mondiale (voir Bulletin No. 46) et a développé une stratégie en trois points pour y remédier:

– accroître la production alimentaire à la fois dans les pays développés et en voie de développement;

– améliorer les circuits de consommation et de distribution, y compris l'aide alimentaire;

– établir un large système de sécurité alimentaire mondial.

L'action engagée sur ces points comprend:

– la création d'un *fonds international de développement agricole* visant à accroître les investissements dans le secteur agricole dans les pays en voie de développement;

– l'approbation d'un engagement pour forunir une *aide alimentaire* s'élevant à un niveau minimum de 10 millions de tonnes de céréales chaque année à partir de 1975;

– l'adoption d'un *engagement international sur la sécurité alimentaire mondiale* qui devrait coordonner les stocks nationaux d'aliments de base en vue d'éviter de graves pénuries et d'assurer une expansion régulière de la consommation alimentaire dans les pays où la consommation par habitant est basse; un des éléments de ce système de sécurité alimentaire mondiale devrait être un *système mondial d'information et d'alerte rapide* permettant, grâce à un réseau international, une surveillance de la production, des stocks, des prix, des disponibilités d'exportation et des demandes alimentaires;

– la création, au niveau des ministres ou des plénipotentiaires, d'un *Conseil mondial de l'alimentation*. Ce conseil servira de mécanisme général pour l'étude intégrée et permanente des politiques concernant la production alimentaire et la coordination des mesures nécessaires pour résoudre les problèmes qui s'y réfèrent.

En plus de ces dispositifs institutionnels, la Conférence mondiale de l'alimentation a formulé un certain nombre de résolutions dans le domaine technique relatives aux semences, aux engrais, aux pesticides, l'utilisation de l'eau et des ressources en terres. Cette dernière résolution, d'importance particulière pour l'AISS, recommande que la FAO, l'Unesco et le PNUE, en coopération avec l'OMM et d'autres organisations internationales compétentes, et en accord avec les gouvernements intéressés, entreprennent sans délai une *évaluation des terres pouvant encore être mises en culture*, tout en tenant compte de la couverture forestière nécessaire à la protection des bassins versants

et des terres requises pour d'autres utilisations. Une telle évaluation devra prendre en considération en premier lieu les risques de dégradation irréversible des sols ainsi que l'ordre de grandeur des coûts et des moyens de production agricoles et autres nécessaires. La FAO est priée de faire choix des voies et moyens les plus appropriés pour l'établissement d'une *Charte mondiale des sols* qui servirait de base à une coopération internationale en vue de l'utilisation la plus rationnelle des ressources en terres du monde.

Au cours du débat sur cette résolution, l'AISS fut spécialement mentionnée comme une des organisations qui pourraient coopérer à cette entreprise. Le Secrétaire général, qui représentait l'AISS à la Conférence mondiale de l'alimentation, a fait part de l'intérêt de notre Association pour une coopération dans ce domaine.

Unesco

Le 14 novembre 1974, la Conférence générale de l'Unesco a élu M. Amadou-Mahtar M'Bow, du Sénégal, pour succéder à M. René Maheu comme Directeur général de l'Unesco. Amadou-Mahtar M'Bow est né en 1921 à Dakar. Il fut diplômé en histoire et géographie de l'Université de Paris en 1951. Il devint Chef du Département de l'enseignement fondamental au Sénégal et successivement Ministre de l'enseignement et Ministre de la jeunesse et de la culture. A partir de 1970, il servit à l'Unesco comme Directeur général adjoint de l'éducation.

Le 13 décembre 1974 le nouveau Directeur général de l'Unesco a convoqué une réunion des organisations non gouvernementales qui avaient des relations avec l'Unesco. L'AISS, y était représentée par M. G. Drouineau, président de l'Association de la science du sol de France. Dans son allocution d'ouverture, le Directeur général exprima son désir de renforcer la coopération avec les organisations non gouvernementales. Un des moyens envisagés était d'organiser des réunions systématiques avec les départements de l'Unesco dans les différents domaines de spécialisation. Il demanda aussi des suggestions sur le programme de travail de l'Unesco. Il a également indiqué qu'il désirait demander au Comité permanent des organisations non gouvernementales d'assister l'Unesco dans l'évaluation de ses activités.

INTERNATIONALE VERBINDUNGEN

Welternährungskonferenz der Vereinten Nationen

Delegierte aus 130 Ländern nahmen an der Welternährungskonferenz der Vereinten Nationen in Rom vom 5. - 16. November 1974 teil. Die Konferenz zeigte allgemeine Übereinstimmung mit der Einschätzung der Welternährungssituation, wie das Sekretariat sie dargestellt hatte (s. Mitteilungen Nr. 46). Eine 3-Punkte-Strategie zur Verbesserung der Situation wurde ausgearbeitet, und zwar:

– Steigerung der Nahrungsmittelproduktion in entwickelten und Entwicklungsländern;

– verbesserter Konsum und bessere Verteilung, einschliesslich Nahrungsmittelhilfe;

– ein weltweites System zur Nahrungssicherung.

Massnahmen in diese Richtungen wurden getroffen und umfassten:

– die Gründung eines *internationalen Fonds für landwirtschaftliche Entwicklung*, um zusätzliche Investitionsreserven in die Landwirtschaft der Entwicklungswelt zu leiten;

– Zustimmung zur Leistung von *Nahrungshilfe* auf einer Mindestebene von 10 Millionen Tonnen Getreide jährlich ab 1975;

– Beschluss einer *internationalen Nahrungsmittelsicherung*, die die nationalen Vorräte von Grundnahrungsmitteln koordinieren würde, um akute Nahrungsmittelknappheit zu vermeiden und eine ständige Zunahme des Nahrungsmittelkonsums in Ländern mit niedrigem Pro-Kopf-Verbrauch von Nahrungsmitteln zu unterstützen; eine Komponente des Systems zur Sicherung der Welternährungslage wäre ein globales *Informations- und Frühwarnsystem für Nahrungsmittel und Landwirtschaft* mit einem internationalen Netz zur Feststellung und Koordinierung von Erzeugung, Vorräten, Preisen, Exportbeständen und Importerfordernissen.

– die Gründung eines *Welternährungsrates* auf Ministeriumsebene.

Mitglieder wären die Staaten, die den Vereinten Nationen oder deren Sonderorganisationen angehören. Der Rat wird periodisch Hauptprobleme und politische Entwicklungen, die die Welternährungslage beeinflussen, und die unternommenen oder zu unternehmenden Schritte zu ihrer Lösung überprüfen. Er sollte auch angemessene Aktionen zur Abhilfe der Probleme vorschlagen.

Ausser diesen institutionellen Vorkehrungen machte die Welternährungskonferenz eine Reihe von Vorschlägen auf technischen Gebieten, wie z.B. Saatgut, Wasserwirtschaft, Dünger, Pflanzenschutzmittel und die wirksame Nutzung von Bodenreserven. Dieser letzte Beschluss, der von besonderer Bedeutung für die IBG ist, sieht vor, dass FAO, Unesco und UNEP in Zusammenarbeit mit der WMO und anderen kompetenten internationalen Organisationen und in Beratung mit den betroffenen Regierungen unverzüglich jene *Landreserven* auszusuchen, die unter Berücksichtigung der Bedeutung des Waldes für den Schutz von Gewässereinzugsgebieten und des für andere Zwecke benötigten Landes noch landwirtschaftlich nutzbar gemacht werden können. Solche Untersuchungen sollten in ersten Linie die Gefahr irreversibler Bodendegradierung in Betracht ziehen, sowie die Grössenordnung der Kosten und die erforderlichen landwirtschaftlichen Produktionsmittel und andere Leistungen. Die Ernährungs und Landwirtschaftsorganisation der Vereinten Nationen wurde ebenfalls dringend ersucht, die geeigneten Wege und Mittel zu finden für die Erstellung einer Welt- Bodensatzung, welche die Grundlage für eine internationale Zusammenarbeit im Hinblick auf die rationellste Verwendung der Bodenreserven der Welt sein würde. Während der Debatten wurde die IBG besonders als eine der Organisationen erwähnt, die an der Durchführung dieses Beschlusses mitarbeiten könnte. Der Generalsekretär, der die IBG auf der Welternährungskonferenz vertrat, betonte das Interesse unserer Gesellschaft and der Mitarbeit an diesem Unternehmen. FAO bemüht sich zur Zeit um Unterstützung vonseiten seiner leitenden Organe, um diesen Beschluss weiter verfolgen zu können, und die Ausarbeitung eines gemeinsamen Aktionsprogrammes ist vorgesehen.

Unesco

Am 14. November 1974 wählte die Unesco-Hauptversammlung Herrn Amadou-Mahtar M'Bow Senegal, zum Generaldirektor der Unesco als Nachfolger von René Maheu. Amadou-Mahtar M'Bow wurde 1921 in Dakar geboren; 1951 promovierte er in Geschichte und Geographie and der Universität Paris. Er leitete das Department for Fundamental Education in Senegal und war nacheinander Erziehungsminister und Minister für Jugend und Kultur. Ab 1970 arbeitete er bei der Unesco als Assistant Director-General für Erziehungsfragen.

Am 13. Dezember berief der neue Generaldirektor eine Versammlung der Fachverbände. ein, die Verbindung zur Unesco haben. Die IBG wurde von Herrn J. Drouineau, Präsident der Französischen Bodenkundlichen Gesellschaft, vertreten. In seiner Ansprache and die Versammlung drückte der Generaldirektor den Wunsch aus, die Zusammenarbeit mit den Fachverbänden zu verstärken. Er sieht dafür die systematische Organisation von Zusammenkünften dieser Organisationen mit den Unesco-Abteilungen der verschiedenen Sachgebiete vor. Er bat auch um Vorschläge bezüglich des Arbeitsprogramms der Unesco und wies darauf hin, dass er das ständige Komitee der Fachverbände zur Mithilfe bei der Evaluierung der Unesco-Tätigkeit auffordern würde.

NEW PUBLICATIONS *
NOUVELLES PUBLICATIONS *
NEUE VERÖFFENTLICHUNGEN *

Jubilee Book/Livre du Jubilé/Jubiläumfestschrift
Fifty Years Progress in Soil Science, Geoderma, Special Issue, Volume 12, No. 4, pp. 145, 1974.

Published on the occasion of the 50th anniversary of the International Society of Soil Science, 1924-1974. Contents: Introduction, by V.A. Kovda and F.A. van Baren Fifty years progress in soil physics, by J.R. Philip; A few aspects of 50 years of soil chemistry, by A.C. Schuffelen; Die Geschichte der Bodenzoologie und ihre Einbeziehung in die bodenkundliche Forschung, by H. Franz; Trends and advances in soil microbiology from 1924 to 1974, by J. Macura; Progrès réalisés dans la fertilité du sol et la nutrition des plantes, by O.T. Rotini and P. Sequi; Soil genesis, classification, and cartography: 1924-1974, by C.E. Kellogg; The role of Commission VI during the last 50 years, by E. W. Russell; Subcommission on Salt Affected Soils, by I. Szabolcs; From mutable compounds to soil minerals, by L. van der Plas and L.P. van Reeuwijk.

Orders to: Elsevier, P.O. Box 211, Amsterdam, The Netherlands.

On Irrigation Efficiencies, ILRI Publication 19, by M.G. Bos and J. Nugteren.

The International Commission on Irrigation and Drainage (ICID), New Delhi, the University of Agriculture, Wageningen, and the International Institute for Land Reclamation and Improvement (ILRI), Wageningen, dealing with irrigation practices in areas where small farms prevail.

Orders to: The International Institute for Land Reclamation and Improvement / ILRI, P.O. Box 45, Wageningen, The Netherlands.

Soil Survey Interpretation, ILRI Bibliography 10, by Ronald H. Brook.

Selected references to the literature on soil survey interpretation chiefly covering works published during the period between 1960 and 1972 and; with a few exceptions, confined to publications in English, French and German.

Orders to: The International Institute for Land Reclamation and Improvement / ILRI, P.O. Box 45, Wageningen, The Netherlands.

Ecopedology – With Fundamentals of General Soil Science (Ecopedologie – cu baze de pedologie generală), by C.D. Chiriță, collaborators: S. Andrei, P. Papacostea und N. Hondru, 590 pp., Edit. Ceres, Bucharest, 1974.

This book, based on Romanian experience and on recent international information, reflects more than 40 years of the author's activity in the field of soil science. A few chapters have been written by specialists in soil physics, soil water and soil biology. The problems are discussed from pedological and ecological points of view, the aim being to offer a basic guideline to an understanding of soil as the ecological environment of plant life. The volume comprises the following parts: I. Introduction to Ecopedology; II. Soil Constituents and Properties, Physical and Physical-Chemical Processes as Ecological Determinants, Factors and Indicators; III. Life in Soils; IV. Morphogenetic Soil Systematics; V. The Soil as an Ecological Entity (Soil Fertility, Integral Ecological Soil Study, Ecological Soil Classification.

Research Inst. for Soil Science and Agrochemistry, Bd. Mărasti 61, Bucharest 1, Romania.

Die Produktionskapazität der Böden der Erde, von Eduard Mückenhausen
Globale Energiebilanz und Klimaschwankungen, von Hermann Flohn.

Veröffentlichung der Rheinisch-Westfälischen Akademie der Wissenschaften, Natur-, Ingenieur- und Wirtschaftswissenschaften Nr. 234, 1973, 124 Seiten, 19 Abb., 17 Tab., 16 Tafeln.

Der Hunger in den Entwicklungsländern zwingt zu der Überlegung, ob und wieweit die Böden der Erde eine hinreichende pflanzliche Nahrungsmittelproduktion erlauben. Die wichtigsten bodengeographischen Räume der Erde werden in der vorliegenden Arbeit auf ihr diesbezügliches Ertragspotential untersucht. Mit der Vergrösserung der Ackerfläche und mit Hilfe nachstehender Techniken könnte auf jeden Fall das Zehnfache der augenblicklichen Bevölkerung ernährt werden: Bodenverbesserung (Melioration), Bekämpfung der Bodenerosion, Düngung, Bewässerung (in Trockenklimaten), Grünlandverbesserung, Maschineneinsatz, Pflanzenschutz, Züchtung leistungsfähiger Kulturpflanzen, Verbesserung der Agrarstruktur.

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Neuere paläoklimatische Daten liefern Belege für mehrere sehr intensive, rasch verlaufende, offenbar globale Abkühlungs- und Erwärmungsperioden. Doch auch konstante geo- und astrophysikalische Bedingungen werden schon nach 2-3 Generationen zu potentiell irreversiblen Klimaänderungen globalen Ausmasses führen: Durch CO_2-Emissionen aus fossilen Brennstoffen, Luftverschmutzung, Energiekonsum, Umwandlung der natürlichen Landschaft (Vegetationszerstörung, künstliche Bewässerung), Steigerung des Wasserverbrauchs. Preis: kartoniert DM 29,50.

Bestellungen: Westdeutscher Verlag Opladen, 4 Düsseldorf, Postfach 1507, BRD.

Phyllosilicates and Clay Minerals, A Laboratory Handbook for Their X-Ray Diffraction Analysis, by J. Thorez, 558 pages, 111 four coloured hemicyclic diagrams, 420 (hkl) tables, 190 schematized diffractogram patterns. 2 800 selected and codified references from the bibliography, English and French texts, 22,5 x 27,5 cm. Price: FB 3.000.

Orders to: Imprimerie G. Lelotte, rue Pisseroule, 109, B-4820 Dison, Belgium.

Pesticides in Soil and Water, publication of the Soil Science Society of America. Editor: Wayne D. Guenzi, pp. 562.

In this book Dr. Guenzi and 22 other researchers examine the effects of pesticides on soil organisms and plant life, on their persistence in soils and water, and methods of removing pesticides after use. Pesticides are still essential for the protection of human and animal health; their efficient use and good management require up-to-date knowledge of theory and the best application technology. This 16-chapter book is designed to provide the latest material research to those concerned with soil and water quality. Price: US $ 14.00 (50 c postage required on all orders outside the US).

Orders to: American Society of Agronomy, 677 South Segoe Road, Madison, Wisconsin 53711, U.S.A.

Histosols: Their Characteristics, Classification, and Use. Publication of the Soil Science of Society of America. Editors: A.R. Aandahl, S.W. Buol, D.E. Hill, and H.H. Bailey.

Proceedings of a symposium on the subject held in 1972. Histosols produce a significant part of the world's food and forest products. Sustained use of these fragile soils require that their characteristics be understood and classified and that effective management systems be developed. Recognizing the distinct properties of Histosols and planning for them is the aim of the authors and editors of this new compilation. Price: ASA, CSSA, SSSA members: US $ 4.00 for first copy; non-members: US $ 5.00 (50 c postage required on orders outside the U.S.A.).

Orders to: American Society of Agronomy, 577 South Segoe Road, Madison, Wisconsin 53711, U.S.A.

Soil Microscopy

Proceedings of the 4th International Working Meeting in Soil Micromorphology, held in Ontario, Canada, 27-31 August 1973. Editor: Prof. G.K. Rutherford. Price: Can. $ 25.00. Cash orders sent post free.

Orders to: The Limestone Press, P.O. Box 1604, Kingston, Ontario, K7L 5C8, Canada.

The Nature and Properties of Soils, by Nyle C. Brady, 8th Ed. pp. 640, fig., tabl., litt. ref. Collier Macmillan Publishers, 35 Red Lion Square, London, WC1R 4SG.

Few text books on soil science have a publishing history as Professor Brady's recent edition of "The Nature and Properties of Soils".

Starting with the first edition by Lyon and Buchenon in 1922 a comparative study of these earlier editions reflects the growth in scope and depth of soil science over the past 50 years. The 22 chapters are indications of this development. A marked change relates to the treatments of soil water. Chapters 6, 7 and 8 tell the new story based on the concept of a soil-plant-atmosphere continuum. The author has also included chapters that put forward the present day's concern with environmental pollution by industrial as well as animal wastes, pesticides and fertilizers and the like (chapters 15-21). Chapters containing standard information on soil characteristics and properties, classification and survey are equally informative. A final chapter on Soils and World's Food Supply makes this very clearly written textbook a most valuable asset to the world literature on soil science and merits a place in any pedologist's library. Price: L. 3.95.

F.A. van Baren

L'emploi des Fertilisants et leur Effet sur l'Accroissement des Récoltes, notamment par rapport à la Qualité et à l'Economie.

Use of Fertilizers and its Effect on Increasing Yields, with Particular Attention to Quality and Economy.

Proceedings of a Study Week organized by the Pontificia Academia Scientiarum in Rome from 10-16 April 1972, covering the following themes: 1. Soil and plant analysis for the determination of fertilizer requirements; 2. Use of fertilizers under different climatic conditions; 3. Ecological aspects of crop production; 4. Effects of fertilization on crop yields; 5. New fertilizers and prospects for their future use; 6. Data processing techniques to determine fertilizer requirements. Pontificiae Academiae Scientiarum Scripta Varia 38. Two volumes, 1423 pages (French or English).

Orders to: Pontificia Academia Scientiarum, Casina Pio IV, Città del Vaticano.

Soil Science Dictionary with corresponding terms in Romanian, French, German, English, Russian, by Ana Conea, Irina Vintilă, A. Canarache; pp. 960.

Soil Science Dictionary including more than 4 500 terms. Definitions are given in Romanian and the terms are listed in alphabetical order, according to this language. Alphabetical indexes for foreign translations are to be found in each of the other four languages. Soil Science Dictionary refers to all branches of soil science, in the broader sense of this term: soil physics; soil chemistry; soil biology; soil fertility and plant nutrition; soil genesis, classification and cartography; soil technology; soil mineralogy and micromorphology. Names of soils from various national and international nomenclature systems have been included, as for instance the classical Russian genetical school, the American Soil Taxonomy, the FAO/Unesco list, the classical and the new Romanian classifications. Terms belonging to related fields of science (agronomy, forestry, reclamation, engineering), as well as to general fields of science (physics, chemistry, geology, geography, biology) have been included.

Subscription to: Editura Stiintifică Scînteii 1, Bucharest, Romania.

Proceedings of the 1972 International Clay Conference, Edited by J.M. Serratosa, Instituto de Edafología, C.S.I.C., Madrid, 848 pp.

Proceedings of the International Clay Conference held in Madrid on 25-30 June 1972, organized by the "Spanish Clay Society" under the auspices of the "Association Internationale pour l'Etude des Argiles" A.I.P.E.A. This publication comprises the following sections: 1. Crystal Chemistry of Clay Minerals; 2. Clay Mineral Genesis and Synthesis; 3. Colloidal Properties of Clays and Symposium on K-Exchange in Micas; 4. Surface Properties of Clays; 5. Volume Absorption Phenomena; 6. Technical Properties and Application of Clays and Clay Minerals; 7. General Papers and Symposium on Quantitative Analysis of Clays by X-Ray Diffraction. Price: US $ 45.00.

Orders to: División de Ciencias, C.S.I.C., Serrano, 113, Madrid 6, Spain.

Soil Organic Matter and its Role in Crop Production, Developments in Soil Science, Vol. 3, by Franklin E. Allison. 1973 VIII, 637 pages, 52 tables, 39 illus., over 1 300 lit. refs.

The main emphasis of this publication is on the biological contributions of soil organic matter to soil quality and to crop production rather than on its chemical nature. It also includes discussions of the soil and living organic matter in it, formation and nature of soil organic matter, sources and possible fate of nitrogen therein, various functions and effects of organic matter, crop management problems, and the formation and use of organic soils. Price: US $ 50.00 / Dfl. 130.00.

Orders to: Elsevier /Excerpta Medica / North Holland, P.O. Box 211, Amsterdam, The Netherlands, or American Elsevier Publishing Company, Inc., 52 Vanderbilt Ave., New York, N.Y. 10017, U.S.A.

The Biology of Nitrogen Fixation, Frontiers of Biology, Vol 33, edited by A. Quispel. 1974. VIII, 746 pages.

The first part of the book examines the biological aspects of nitrogen fixation, dealing with the various organisms involved. The second part deals with current biochemical and genetical knowledge and draws comparisons between different systems and prerequisites for nitrogen fixation. Price: US $ 63.50 / Dfl. 165.00.

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Soil and Water, Physical Principles and Processes, by Daniel Hille, volume in the Physiological Ecology Series, 1971. 302 pp.

A comprehensive text on the physical basis of soil-water interactions, with particular emphasis on the soil as a dynamic reservoir of water (and nutrients) for plant growth, describing and interpreting current theories and findings on the state and movement of water in soil. Price: US $ 14.75 / L. 6.90.

Orders to: Academic Press, Inc., 111 Fifth Avenue, New York, 10003, U.S.A., or Academic Press, Inc., 24-28 Oval Road, London NW1 7DX, U.K.

Soil Properties and Behaviour, Developments in Geotechnical Engineering, Vol. 5, by Raymond N. Yong and Benno P. Warkentin, 1974, about 300 pp.

Fundamental appreciation and understanding of the physical constituents and their interactions which define the property and structure of the soil water system. Designed for students, workers and researchers in the fields of soil mechanics, geotechnical engineering, soil science, agronomy and agricultural engineering. Price: US $ 36.50 / Dfl. 95.00.

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Tropical Agriculture, Special Issue, Volume 51, n. 2, April 1974. Edited by N. Ahmad, H.K. Ashby and D. Walmsley.

This special issue of "Tropical Agriculture" is devoted to the Caribbean and Tropical American Soil Science Conference, held at the University of the West Indies, St. Augustine, Trinidad, from 6-17 January 1973. The conference was organized to mark the 50th anniversary of the

Faculty of Agriculture of the University of the West Indies, established in 1922 when Professor F. Hardy arrived at St. Augustine, and where he is still active at the age of eighty four. This volume contains the 30 papers presented at the conference dealing with soil fertility, fertilizer use and crop production, and soil genesis in the Caribbean region, neighbouring tropical countries, and the tropics in general. The contributions reflect the growing amount of applied and pure soil research which is carried out in this tropical region. By including the papers and related discussions in Tropical Agriculture, the publishers made it possible to give this interesting special issue a large circulation. Price: L. 3.50 ($ 9.10 in U.S.A. and Canada).

Orders to: The Department of Soil Science, University of the West Indies, St. Augustine, Trinidad, W.I.

International Soil Museum, Utrecht, The Netherlands

Soil Stabilization, Principles and Practice, by O.G. Ingles and J.B. Metcalf, Butterworths, Sydney, Melbourne, Brisbane, 1972, 266 pp.

This book reviews the theory and practice of soil stabilization mainly for engineering purposes. The first part discusses the effects of various processes and additives on the properties of soils, showing how density, strenghth, resistance to water, softening, etc., may be changed; the second part describes ways of effecting stabilization in practice, the machines and methods necessary.

Orders to: Butterworths & Co. (Publishers) Ltd., 88 Kingsway, London, W.C. 2B 6AB, U.K.

Soil Mechanics - New Horizons, edited by I.K. Lee, 1974, 286 pp.

This book reviews recent developments in selected areas of soil mechanics. The first four chapters are concerned with material behaviour and properties such as cover compaction, stabilization and the behaviour of unsaturated soils. Subsequent chapters are devoted to an analysis of soil structures including consolidation, structure behaviour and stability. The final chapter is an analysis of piles and pile groups showing the application of the linear elastic analysis to pile systems. Price: L. 8.50.

Orders to: Butterworth & Co. (Publishers) Ltd., 88 Kingsway, London WC2B 6AB, U.K.

Salt Affected Soils in Europe, by I. Szabolcs, 63 pp. 2 maps, Martinus Nijhoff, The Hague, and Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, Budapest, 1974.

During the last decade it has been increasingly realized that the heavy demand on the limited land resources of the world has made it necessary to protect cultivated soils from degradation and to reclaim those areas which have lost their productivity. With special reference to saline and alkaline soils the International Society of Soil Science set up, in 1964, a Subcommission on Salt Affected Soils with a view to identifying and locating the salt affected soils of the world. This subcommission was entrusted with the preparation of a world map of salt affected soils at scale 1:5 000 000, a project which it is conducting in cooperation with the Hungarian Academy of Sciences and Unesco.

The present publication covers the European section of the world map of salt affected soils. It is the outcome of an international cooperation of soil scientists from different European countries who contributed the material necessary for the compilation of the map. Cooperation was also established with the FAO/Unesco Soil Map of the World project in order to secure correlation with the international legend.

The profile descriptions included in this explanatory text and the criteria proposed for the subdivision of salt affected soils provide a basis for the transfer of information and experience within the framework of a global inventory of soil resources.

The publication draws attention to the potential hazards of salinity and alkalinity wich may be a cause of-failure of costly irrigation and land reclamation projects. These data should be made full use of by planners in their decisions for the utilization and improvement of land resources.

The Map of European Salt Affected Soils represents a first inventory of these soils in this region. It is a valuable contribution to an international approach aiming at a more effective use of the world's soil resources.

V.A. Kovda and R. Dudal

Orders to: Martinus Nijhoff, The Hague, The Netherlands.

Orders from Eastern European countries can be sent to the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, Budapest II, Hungary.

Moscow University Soil Science Bulletin (Vestnik Moskovskogo Universiteta Pochvovedenie), Vol. 29, No. 1-2, cover-to-cover translation from the Moscow University Soil Science Bulletin. Editor: N.P. Naumov, published by Allerton Press, Inc. Price: annual subscription for 6 issues US $ 75.00, single issue (2 numbers per issue) US $ 35.00.

Orders to: Allerton Press, Inc., 150 Fifth Avenue, New York, N.Y. 10011, U.S.A.

Prof. Dr. A.A.J. de Sigmond, 1873-1939, Special Issue, vol. 23 of Agrokémia és Talajtan (Agrochemistry and Soil Science), 1974, 240 pp.

Papers presented on the occasion of the celebration of the 100th anniversary of Prof. de Sigmond's birthday. His research concerning the general problems of soil formation and classification, as well as the genesis and melioration of salt affected soils are reviewed. The part

he took in setting up the International Society of Soil Science is commemorated.

Orders to: Research Institute of Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, Herman Ottó út 15, 1022 Budapest II, Hungary.

Soil Fertility and Plant Nutrition, Special Issue, Vol. 22, No. 4 of the Netherlands Journal of Agricultural Science, 1974.

Papers dedicated to Prof. Dr. A.C. Schuffelen, on the occasion of his retirement in January 1975 from the Department of Soils and Fertilizers at the Agricultural University in Wageningen. Prof. Schuffelen was formerly President of the Royal (Netherlands) Society of Agricultural Science and is also a Past-Chairman of Commission II (Soil Chemistry) of the International Society of Soil Science. Prof. Schuffelen's scientific research has been mainly on ion absorption by plant roots in relation to ion activities in solutions and in soil. He also investigated potassium fixation phenomena and the chemistry of humic compounds. His wider interests have included the application of radio-active isotopes in agricultural research and the role of fertilizers in the world food supply.

Price: Dfl. 50.00 (including postage).

Orders to: Royal Society for Agr. Science, P.O. Box 79, Wageningen, The Netherlands.

The Classification of Some British Soils According to the Comprehensive System of the United States, by J.M. Ragg and B. Clayden, Soil Survey Technical Monograph No. 3, pp. 227, 1974.

The primary aims of this book is to increase understanding of the American classification for those mainly familiar with British soils. The monograph also provides the first comprehensive collection of soil profile descriptions for the British mainland as a whole. In the main body of the text (6 chapters), one or more profiles from Britain have been selected for each American Great Group believed to be of importance here. The book presents a collection of 78 soil profile descriptions, representative of American Great Groups, with accompanying analytical and micromorphological data. In classifying each profile to subgroup level an international label is provided for some of the most important types of soil occurring in Great Britain. The classification of the selected profiles is discussed in the text and comments on both the U.S.D.A. System's limitations and usefulness for soil survey in this country are given in the final chapter. Price: L. 1.20.

Orders to: The Soil Survey, Rothamsted Experimental Station, Harpenden, Herts, U.K. or The Macaulay Institute for Soil Research, Graigiebuckler, Aberdeen, U.K.

Glossary of Soil Science Terms, published by the Soil Science Society of America, 1975.

This revised edition contains 733 terms. It includes appendices dealing with clay mineralogy, soil classification, soil chemistry, soil microbiology and biochemistry, tillage and soil fertility. These appendices contain 278 definitions and several tabular listings. Price: US $ 1 for 1-4 copies; USct. 80 for 5-25 copies; USct. 70 for 26 or more copies. Special prices on large quantity orders.

Orders to: Soil Science Society of America, 677 South Segoe Road, Madison, Wisconsin 53711, U.S.A.

Proceedings of the International Symposium on Salt-Affected Soils. This symposium was held under the sponsorship of the Soil Science Society of Egypt and the ISSS Sub-Commission on Salt-Affected Soils, November 4-9, 1972 in Cairo. The proceedings contain 95 papers spread over the following sections: 1. Salt Balance Study; 2. Dynamics of Water in Soils; 3. Sampling and Interpretation of Data; 4. Reclamation and Management; 5. Clay Minerals Transformation. Price: US $ 15.00 .

Orders to: President of the Soil Science Society of Egypt, Faculty of Agriculture, University of Ain Shams, Cairo, Egypt.

Salinity in Water Resources, edited by J.E. Flack and Ch. W. Howe, proceedings of the 15th Annual Western Resources Conference held in July 1974 at the University of Colorado, 1974, pp. 177.

Review of broad systems and long-term perspectives for the solution of salinity problems with special reference to the Colorado Basin.

Orders to: Merriman Publishing Company, Boulder, Colorado, U.S.A.

Earth Manual, Bureau of Reclamation, U.S.D.I.

The manual deals with the use of soils for water resources structures, provides technical information on field and laboratory investigations, construction control, and testing of soils used as foundations and as materials for dams, canals, and other types of reclamation structures. The book contains general guidelines to assist engineers in solving soil mechanics problems and provides standardized procedures for obtaining uniform results. Price: US $ 13.70.

Orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, U.S.A.

Peat and its Use, by Prof. Viljo Puustjärvi, 1975. A handbook for growers, producers and users of peat, gardeners, hobby gardeners, scientists and all who are interested in peat as a growing medium. Main chapters: 1. Peat and its use; 2. Watering; 3. Fertilization; 4. Basin culture; 5. Productivity.

Price: Fmk 30, plus mailing costs.

Orders to: Satoturve, P.O. Box 8, 01511 Vantaa, 51 Finland.

Transactions of the 10th International Congress of Soil Science
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Banca Commerciale Italiana, FAO Branch, Rome, Italy.

Financial Situation

The Ad-hoc Committee on Finances, set up by the ISSS Council, met with Prof. F.A. van Baren in Amsterdam on 14 January 1975 to review the Society's accounts over the period 1968-74. The Committee was composed of Prof. R. Tavernier, Chairman, Prof. P. Buringh, and Dr. M. Jamagne on behalf of Mr. J. Drouineau. Dr. R. Dudal participated in the meeting with a view to the transfer of the accounts. The Committee's report is being prepared and will be published in the next issue of the bulletin.

The Committee on Finances noted that a number of membership fees for 1974 are still outstanding. An appeal is made to members and to National Societies to settle arrears for 1974 and to remit – if not already done – the dues for 1975. Dr. Dudal reported that FAO had subventioned the installation of the ISSS Secretariat in Rome and the printing of bulletin No. 46.

Committee on Rules

The Committee on Rules which was established by the Council at the 10th Congress of the ISSS invites members to submit suggestions which they may have for amending the rules of the Society. Suggestions should be sent to Dr. E.G. Hallsworth, Chairman of the Committee, Land Resources Laboratories, Private Bag No. 1, P.O. Glen Osmond, S.A. 5064, Australia, with a copy to Dr. R. Dudal, Secretary of the Committee, c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italy.

Advertisements

The ISSS Secretariat will accept advertisements, for publication in the Bulletin, on materials, equipment, services and publications related to the study of soils, to the application of soil science, and to land development. Conditions and rates of advertisement can be obtained from the Secretary General, c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italy.

In the next issue . . .

This Bulletin is a newsletter issued twice a year to members of the International Society of Soil Science. It aims at keeping members in touch with developments related to the world of soil science. Contributions from members and national societies for the next issue should reach the Secretariat General (c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italy) in one or more of the three languages of the ISSS, English, French and German, prior to 30 October 1975.

NOUVELLES DU SECRÉTARIAT AISS

Changement d'adresse

Les membres sont priés de bien vouloir noter le changement d'adresse et du compte en banque de notre Association:

Secrétaire général
Association internationale de la science du sol
c/o FAO, Via delle Terme di Caracalla
00153 Rome, Italie

Compte: *Dudal, International Society of Soil Science, 95214/01*
Banca Commerciale Italiana, Branche FAO, Rome, Italie

Situation financière

Le Comité financier ad hoc, mis en place par le Conseil AISS, et le Prof. F.A. van Baren se sont réunis à Amsterdam le 14 janvier 1975 afin d'examiner les comptes de l'AISS pour la période 1968-74. Le Comité était composé du Prof. R. Tavernier, président, du Prof. P. Buringh, et de M. Jamagne représentant M.G. Drouineau. M.R. Dudal participait à la réunion en vue de la reprise des comptes. Le rapport du Comité sera publié dans le prochain Bulletin.

Le Comité a noté qu'un nombre de cotisations pour 1974 sont encore dues. Les membres et les associations nationales intéressés sont priés de bien vouloir régler les arriérés ainsi que les contributions pour 1975. Dr. Dudal a informé le Comité que la FAO avait subventionné le transfert du Secrétariat AISS à Rome ainsi que l'impression du Bulletin No 46.

Comité du Règlement

Le Comité du Règlement, établi par le Conseil lors du 10ème Congrès international de l'AISS, sollicite des propositions d'amendement au Règlement. Ces suggestions doivent être envoyées à M. E.G. Hallsworth, Président du Comité, Land Resources Laboratories, Private Bag No 1, P.O. Glen Osmond, S.A. 5046, Australia, avec copie à M.R. Dudal, Secrétaire du Comité, p.a. FAO, Via delle Terme di Caracalla, 00153 Rome, Italie.

Publicité

Le secrétariat de l'AISS accepte des annonces publicitaires concernant du matériel, de l'équipement, des services et des publications relatifs à l'étude du sol, l'application de la science du sol et la mise en valeur des terres. Les conditions et tarifs de publicité peuvent être obtenus au Secrétariat Général, c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italie.

Dans le prochain numéro . . .

Ce Bulletin, destiné aux membres de l'Association internationale de la science du sol, paraît deux fois par an. Son but est de tenir les membres informés des progrès accomplis dans le monde de la science du sol. Les contributions des membres et des associations nationales pour le prochain numéro doivent être envoyées au Secrétariat général (c/o FAO, Via delle Terme di Caracalla, 00153 Rome, Italie) dans une ou plusieurs des trois langues de l'AISS: anglais, français et allemand avant le 30 octobre 1975.

MITTEILUNGEN DES IBG-SEKRETARIATS

Neue Anschrift

Das IBG-Sekretariat teilt seine neue Anschrift und Bankkonto mit:
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Banca Commerciale Italiana, FAO Branch, Rom, Italien.

Finanzsituation

Das vom IBG-Beirat eingesetzte Ad-hoc Finanzkomitee kam am 14.1.1975 in Amsterdam mit Prof. F.A. van Baren zusammen, um die Konten der Gesellschaft für den Zeitraum 1968-74 zu überprüfen. Das Komitee setzte sich aus Prof. R. Tavernier, Vorsitzender, Prof. P. Buringh und Dr. M. Jamagne (für Herrn G. Drouineau) zusammen. Dr. R. Dudal nahm hinsichtlich der Verlegung der Konten nach Rom an der Versammlung teil. Der Bericht des Finanzkomitees wird in der nächsten Ausgabe der Mitteilungen veröffentlicht.

Das Finanzkomitee stellte fest, dass zahlreiche Mitgliedsbeiträge für 1974 noch ausstanden. Mitglieder und nationale Gesellschaften werden hiermit gebeten, die Rückstände von 1974 und – fals noch nicht geschehen – auch ihre Beiträge für 1975 zu überweisen. Dr. Dudal berichtete, dass die FAO die Verlegung des IBG-Sekretariats nach Rom und den Druck der Mitteilungen Nr. 46 subventioniert hat.

Satzungskomitee

Das vom IBG-Beirat ernannte Satzungskomitee bittet Mitglieder und nationale Gesellschaften um die Einsendung von Vorschlägen zur Änderung der Satzungen an den Vorsitzenden des Komitees, Dr. E.G. Hallsworth, Land Resources Laboratories, Private Bag No. 1, P.O. Glen Osmond, S.A. 5064, Australien, mit Kopie an Dr. R. Dudal, Sekretär des Satzungskomitees, c/o FAO, Via delle Terme di Caracalla, 00153 Rom, Italien.

Werbung

Das IBG-Sekretariat nimmt Anzeigen entgegen, die in den Mitteilungen veröffentlicht werden und sich mit Materialen, Geräten, Dienstleistungen und Veröffentlichungen aus den Gebieten der Bodenforschung, der angewandten Bodenkunde und der Landentwicklung befassen. Anzeigebedingungen und -preise sind von dem Generalsekretariat, c/o FAO, Via delle Terme di Caracalla, 00153 Rom, Italien, zu erfahren.

In den nächsten Mitteilungen . . .

Das Mitteilungsblatt der Internationalen Bodenkundlichen Gesellschaft erscheint zweimal im Jahr. Sein Ziel ist, die Mitglieder laufend mit Nachrichten und Neuheiten aus der Welt der Bodenkunde zu versorgen. Beiträge von Mitgliedern und nationalen Gesellschaften zur nächsten Ausgabe des Mitteilungsblattes sollten bis 30. Oktober 1975 beim Generalsekretariat (c/o FAO, Via delle Terme di Caracalla, 00153 Roma, Italien) eingehen. Manuskripte sollten in einer oder mehreren der offiziellen Sprachen der IBG verfasst sein (english, französisch, deutsch).

AN EMBLEM FOR THE ISSS

Members and National Societies are invited to participate in a competition for the design of an emblem for the ISSS. This emblem will identify the Society's correspondence, publications and newsletters and thus facilitate international relations. The emblem should symbolize the Society's objectives – the promotion of soil science and of its applications – and its international character. The emblem should be a graphic design which does not require translation of letter symbols. The design may be based on a composition of different colours, but the emblem schould also lent itself for reproduction in black and white.
Entries should reach the Secretary General by 31 December 1975. They will be submitted to the Officers of the Society and to the members of the Council for the selection of the design which will be retained. The emblem and its author will be presented in the 1976 mid-year issue of the ISSS Bulletin. The winner of the competition will be offered a commemorative award.

UN EMBLÈME POUR L'AISS

Les membres et les associations nationales sont invités à participer à un concours pour la création d'un emblème AISS. Cet emblème servira de symbole distinctif de la correspondance de l'Association, de ses publications et bulletins d'information et contribuera à la promotion de ses relations internationales. L'emblème devra exprimer les buts de l'Association – l'avancement de la science du sol et de ses applications – et son caractère international. L'emblème est à concevoir sous forme de maquette graphique ne requérant pas de traduction de symboles lettrés. La maquette peut s'inspirer d'une composition en différentes couleurs, mais devra également se prêter à la reproduction en noir et blanc.
Les maquettes doivent parvenir au Secrétaire général avant le 31 décembre 1975. Elles seront soumises aux membres du Bureau et du Conseil AISS pour le choix de l'emblème qui sera retenu. L'emblème choisi et son auteur seront présentés dans le Bulletin de l'Association paraissant mi-1976. L'AISS présentera au lauréat un souvenir commémorant sa contribution.

EIN EMBLEM FÜR DIE IBG

Mitglieder und nationale Gesellschaften werden aufgefordert, sich am Wettbewerb für den Entwurf eines Emblems für die IBG zu beteiligen. Das Emblem soll Korrespondenz und Veröffentlichungen der IBG kennzeichnen und die internationalen Beziehungen fördern. Das Sinnbild sollte die Ideen und Zwecke der Gesellschaft – besonders die Förderung der Bodenkunde und ihre Anwendung – zum Ausdruck bringen und ihren internationalen Charakter widerspiegeln. Es sollte aus einer graphischen Darstellung bestehen, die keine Übersetzung von Buchstabensymbolen erfordert. Der Entwurf könnte auf einer vielfarbigen Komposition beruhen, müsste aber auch für Reproduktionen in schwarz/weiss verwendbar sein.
Einsendungen werden bis zum 31. Dezember 1975 an den Generalsekretär erbeten. Die Entscheidung erfolgt durch den Vorstand und die Mitglieder des Beirates der IBG. Der Entwurf des Emblems und sein Autor werden in den Mitteilungen Mitte 1976 vorgestellt werden. Der Gewinner des Wettbewerbs wird eine Ehrengabe in Anerkennung seiner Mitarbeit erhalten.

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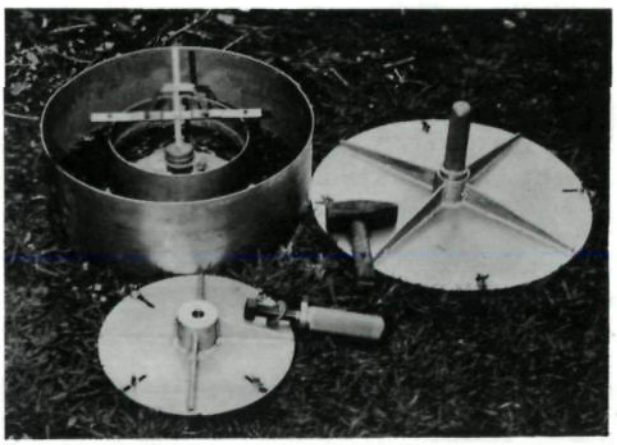

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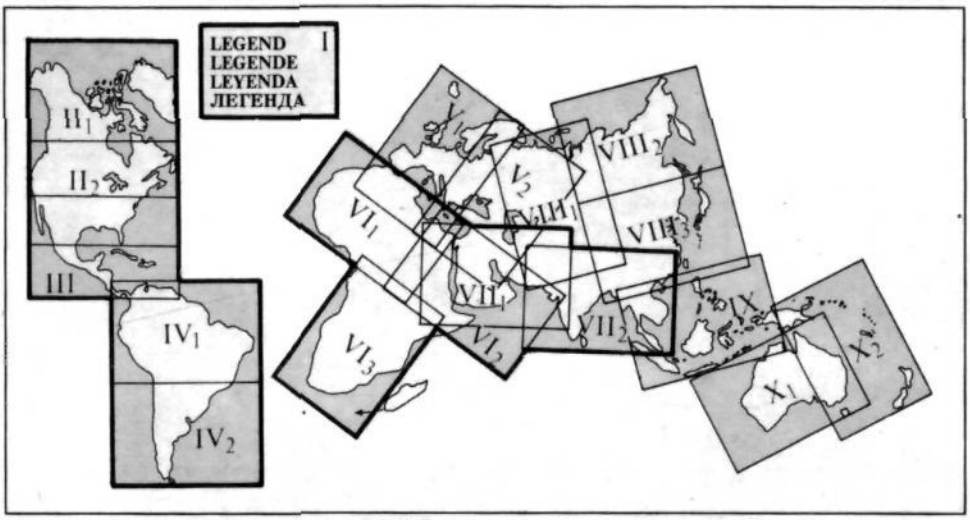

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ISSS Membership

Membership of the International Society of Soil Science is open to all persons and institutions engaged in the study and the application of soil science. Membership applications can be addressed to the National Societies or directly to the Secretariat General. The yearly subscription, due each January, is 3 US dollars, or equivalent in any other convertible currency. In order to reduce bank charges it is recommended that subscriptions be remitted, whenever possible, through medium of the National Societies. Individual payments can be made by cheque, by international money order or by direct transfer into the ISSS bank account. Unesco coupons are also accepted.

The low subscription fee aims at making the Society accessible to all those interested in participating in its activities. Voluntary contributions by sponsors of the Society will be highly appreciated and acknowledged in the Bulletin.

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Toutes personnes et institutions engagées dans l'étude et l'application de la science du sol peuvent adhérer à l'Association internationale de la science du sol. Les demandes d'inscription peuvent être faites par l'intermédiaire des associations nationales ou adressées directement au Secrétariat général. La souscription annuelle, due au mois de janvier, est de 3 dollars E.U. ou son équivalent dans une autre monnaie convertible. En vue de réduire les frais de banque il est recommandé, dans la mesure du possible, de faire parvenir les souscriptions par l'intermédiaire des associations nationales. Les versements individuels peuvent être faits au moyen d'un chèque, d'un mandat international ou par transfert direct au compte en banque de l'Association. Des coupons Unesco peuvent également être utilisés.

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IBG-Mitgliedschaft

Die Internationale Bodenkundliche Gesellschaft heisst Personen und Institute, die auf dem Gebiet der Forschung und Anwendung der Bodenkunde arbeiten, als Mitglieder willkommen. Aufnahmeanträge können direkt an das Generalsekretariat der Gesellschaft geschickt oder über die nationalen Bodenkundlichen Gesellschaften an dieses geleitet werden. Der jährliche Mitgliedsbeitrag, der jeweils im Januar zu entrichten ist, beträgt 3 US-Dollar oder den Gegenwert in einer konvertierbaren Währung. Um die Bankkosten niedrig zu halten, sollten Beiträge wo möglich durch die nationalen Gesellschaften gezahlt werden. Einzelzahlungen können durch Scheck, internationale Postanweisungen oder direkt auf das Konto der Gesellschaft erfolgen. Unesco-Kupons werden auch akzeptiert.

Durch den niedrigen Mitgliedsbeitrag wird allen Interessenten die Möglichkeit gegeben, an der Tätigkeit der Gesellschaft teilzunehmen. Freiwillige Beiträge zur Unterstützung der Gesellschaft sind herzlich willkommen und werden in den Mitteilungsblättern erwähnt.

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