1975 INTERNATIONAL CLAY CONFERENCE

The 1975 INTERNATIONAL CLAY CONFERENCE is to be held in Mexico City, Mexico July 16 - 23, 1975. The Conference is being organized by the Instituto de Geologia de la Universidad Nacional Autonoma de Mexico under the auspices of the Association Internationale pour l’Etude des Argiles (AIPEA). Through its technical sessions, field trips before and after the meetings, publications and personal contacts, this Conference will promote, as its predecessors, world cooperation for the study of clays. The Clay Minerals Society (USA) will hold its national meeting concurrently with the International Clay Conference and its officers are cooperating closely with Prof. J. J. Fripiat, President of AIPEA, and the Organizing Committee to make this a very successful and profitable meeting.

Membership of the Conference will be open to all persons interested in clay science, soil science, ceramics and clay technology from all countries. The registration fee for the Conference will be about $70 (US) for members and $30 (US) for accompanying persons. Members will receive the Proceedings, detailed program, and book of abstracts.

Scientific Sessions: The following technical sessions are planned:
1. Geology and diagenesis
2. Crystal chemistry and structures
3. Geochemistry, genesis, and synthesis
4. Colloidal properties
5. Surface chemistry
6. Analytical techniques
7. Interaction between clays and organic and inorganic pollutants

Special Symposia: The following symposia will be included:
S-1 Kaolin
S-2 Zeolites
S-3 Clay mineralogy and soil studies
S-4 Clay mineralogy and soil mechanics

Field Trips: The following field trips will be arranged before and after the Conference:
F-1 Kaolin - with a possible connection with a trip to sedimentary deposits in the United States, arranged by the Clay Minerals Society.
F-2 Hydrothermal kaolin
F-3 Bentonites
F-4 Sedimentary zeolites
F-5 Clays
F-6 Industry and research laboratories
Detailed program of field trips will be announced in the Second Circular.

LOGS PROGRAM. A special program for ladies accompanying members will be arranged and will include visits to well-known anthropological sites in Mexico.

PRESENTATION OF PAPERS. Manuscripts will only be accepted from registered members who have paid the registration fee. The reviewing committee reserves the right to accept papers and suggest minor changes. Abstracts of papers should reach the organizing committee before October 30, 1974. Detailed information on the submission of abstracts will be given in the Second Circular. Papers accepted for oral presentation at the conference will be allowed 20 min. plus 10 min. for discussion.

LANGUAGES: English is recommended as the working language for the conference. For the proceedings, English, French, German, and Russian will be accepted but all papers must include an abstract in English.

ACCOMMODATIONS: Comfortable accommodations for members and their families will be available. Information concerning hotels and weather conditions will be included in the Second Circular. Some suitable facilities (hotel and transportation) will be made available within the limits of the financial possibilities to those young members of the international society who have collaborated or presented a paper. Regular members are encouraged to use the facilities provided by the organizing committee.

The official travel agency for the conference is: Wagen-Lite Cook, Ave. Juarez 88, Mexico 1, D. F., Mexico.

EXHIBITS: Facilities will be available for technical exhibits and demonstrations. Detailed information will be given in the Second Circular.

PRELIMINARY REGISTRATION: The first circular included a preliminary registration form which should have been returned before November 30, 1973 to the organizing committee. If you plan to attend the conference but have not yet completed and returned the preliminary registration form, you should write immediately to: 1975 International Clay Conference, Apartado Postal 70-296, Mexico 20, D. F., Mexico.

This will ensure that you are included in the mailing list for future circulars and make it possible for the organizing committee to have a better estimate of the number of participants in the specific sessions and field trips.

SECOND CIRCULAR. The second circular containing the program of the technical sessions, field trips, accommodations and registration form will be distributed no later than April 30, 1974.

The organizing committee sincerely welcomes all comments and suggestions related to the 1975 international clay conference from their international colleagues. All correspondence should be addressed as follows:

1975 International Clay Conference
The organizing committee
Apartado Postal 70-296
Mexico 20, D. F.
Mexico

PROGRESS REPORT: Dr. Liberto de Pablo, secretary general, organizing committee (Mexico), reports that the return of preliminary registration forms up to Dec. 17, 1973 indicates that over 180 scientists plan to participate in the meetings. Of this number 168 plan to present papers in the technical sessions and approximately 76 papers will be offered for the symposia.

Considerable interest was shown in the field trips as 159 persons indicated they desired to participate in one or more of the excursions. Field trip No. 1--Kaolins with possible visit to sedimentary deposits in U.S.--was requested by 46 registrants.

Ladies Program: A special program for ladies accompanying members will be arranged and will include visits to well-known anthropological sites in Mexico.
The publication price is $45.00 (US). Participants in the Conference should receive their copies gratis in the mail soon. The Proceedings publication has been beautifully printed and is one that you will be proud to have on your bookshelf.

The number of ALPEA are very much indebted to Dr. Servatou and his associates for their dedicated services in the preparation and publication of the Proceedings. The Editorial Committee for the Proceedings consisted of:

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RECENT DEATHS

Professor Dr. J. L. Martin-Vivaldi, Departamento de Cristalogrific y Mineralogia, Ciudad Universitaria, Madrid, Spain, died unexpectedly the evening of January 6, 1974 of an apparent heart attack. Professor Martin-Vivaldi was Secretary General for the 1972 International Clay Conference and was responsible for directing the way of the Organizing Committee which arranged for the excellent facilities, meetings, publications, excursions, and cultural events enjoyed by the participants in that Conference.

He was active in clay mineralogy throughout his professional career and was personally acquainted with a large number of clay mineralogists through his participation in international clay conferences (CCPAP and ALPEA) as well as in many national clay meetings. He was a leader in promoting interest in clay research and served as Secretary of the Spanish Clay Group (Grupo Espanol de Minerales de la Arcilla) when it was organized in 1959. He served as first President when this Group became an independent society (Sociedad Espanola de Arcillas) in 1969.

His warm and friendly smile and his enthusiastic comments and discussions will be sorely missed by his many friends and associates. Perhaps it may be appropriate to consider that the personal contacts, the scientific exchanges, the Proceedings, a glimpse of the culture and people of Spain which we experienced during the 1972 International Clay Conference in Madrid are a part of the generous legacy bequeathed to us by Professor Martin-Vivaldi.

A more complete memorial statement will be published in the next Newsletter.

The scientific thought of Jacques Mering

The scientific methods
Structure and reactivity of clays
Structural aspects of graphitization
Actual studies and perspectives

CALENDAR OF MEETINGS

March 13-15, 1974 GROUPES EUROPÉENS DES ARGILES, Second Meeting, Strasbourg, France. (Dr. Héloïse Paquet, Institut de Géologie, J. Rouxelle, 87049-Strasbourg, France)


Oct. 7-10, 1974 CLAY MINERALS SOCIETY (USA), Annual Meeting, Cleveland, Ohio. (Dr. John Howard, Local Chairman, Dept. of Geology, Case Western Reserve University, Cleveland, Ohio 44106, USA).

NEWS OF NATIONAL CLAY GROUPS

GROUPES EUROPÉENS DES ARGILES

The composition of the new committee of the Belgian Clay Group elected in December 1973 is:

President: Dr. J. U. Uytterhoven (Louvain)

Secretary-treasurer: Dr. J. Thorez (Liège)

Members of the Council: Prof. B. Demen (Tournai) M. Della Faille N. Fourmau Prof. P. Basset (Louvain) Prof. E. Collin (Brussels)

M. H. Lejeune was named Honorary Administrator. The new address of the Secretary is:

Institut du Mélangeur 9, place du 20 Août 8000, Liège, Belgium

5th CONFERENCE ON CLAY MINERALOGY AND PETROLOGY IN CZECHOSLOVAKIA, OCT. 2-5, 1973

The Conference on Clay Mineralogy and Petrology is held every third year, with the participation of experts from the whole of Czechoslovakia as well as foreign guests. This was the sixth conference (the first one being held in 1953) and was sponsored jointly by the Faculty of Science, Charles University in Prague, the Czechoslovak Academy of Science, the Ceramic Society in Prague, the Faculty of Science of Charles University, the Czechoslovak Academy of Science, and the Clay Mineralogy and Petrology of the Czechoslovak Society.
of Mineralogy and Geology, and by the Institute of Raw Materials in Kutna Hora. The Organizing Committee consisted of: Dr. Z. Haverce, Dr. A. Cvaclimová, Prof. Dr. J. Kanta (Chairman), Br. K. Velka, Assit. Prof. Ing. J. Jedlička, Dr. J. Perichášek, M. Reichelt, B.Sc., Dr. J. Sindelář (Secretary), Dr. J. Šedma and Ing. J. Poláček.

The Conference was held at the Faculty of Science, Charles University, Albertov 6, Praha 2 (Oct. 2, 1973) and in Kutna Hora (Oct. 3-5, 1973). A program guidebook containing abstracts of lectures (44 pages) and a list of participants with addresses was published by the Faculty of Science, Charles University, prior to the Conference. Manuscripts of the lectures are in press and are to appear in 1974 at Proceedings of the 5th Conference on Clay Mineralogy and Petrology in the Acta Universitatis Carolinae, series Geologica, Praha (approximately 400 pages).

Professor Dr. Udo Schwertmann, Secretary General of AICPA, addressed the Conference in its opening session. The first three days were primarily devoted to lectures and discussions while the fourth day was devoted to excursions. Of the 51 communications presented, three dealt with the crystallography and chemical crystalinity of phyllosilicates, three papers were concerned with the method of quantitative determination of minerals in natural or artificial mixtures, three papers described the interlayer materials in phyllosilicates, 14 papers covered the mineralogy, petrology or geochmistry of residual rocks and sediments and their conditions of genesis; the results of a number of these papers were aimed at the practical use of clay raw materials especially in the ceramic industry. Further clay minerals of hydrothermal origin were the subject of two papers; two papers dealt with the clay minerals derived from volcanogenic deposits, eight papers covered soil studies, and one paper was on curative wad. An exhibition of papers published by Czechoslovak authors from 1969 to 1973 as well as experimental materials (clay minerals and silicate glasses) was arranged in the Conference Hall.

The technical part of the Conference was complemented by a cultural program. The Conference participants visited the Vlasky Courtyard in Kutna Hora on the afternoon of Oct. 2 where they saw historical buildings of the Vlasky Courtyard, including medieval mints of Czech kings where well-known silver Czech groschen were coined from the ore mined in the Kutna Hora mines and refined in smelting works. The participants saw the original way in which groschen were coined in medieval times and each received a hand-made copy of a Czech groschen as a souvenir. Other events included an afternoon dinner party and an excursion to the "Břidlo" Municipal Museum where exhibits showing the medieval way of mining in Kutna Hora and an exhibition of minerals and rocks of the Kutna Hora district were seen. An evening sight-seeing tour through the gothic cathedral of St. Barbara—a pearl of East Bohemian architecture—was a highlight of the cultural program.

Several laboratories of the Institute of Raw Materials in Kutna Hora were visited on the 4th day of the Conference: the study of clay raw materials for different practical purposes is undertaken in these laboratories. A short visit to the Kostoví historical chancel-house in Sedlec followed. The participants were shown two deposits of kainite-keivassite of the Monastery lime-works and Vyšehrodska situated between Kutna Hora and Prague. The raw material, used widely as refractory white-fired ceramic material, is mined in open pits of a length of several hundred meters. Because of the occurrence of traces of these sediments are sometimes mentioned in the literature as "fossil clays", yet they are free of any alluvial material which is characteristic of sedimentary clays. These clays were described and discussed by Ing. J. Frantíček, Geological Institute.

There were 122 participants in the 5th Conference including 15 guests from abroad as follows: Bulgaria (2), France (2), the German Democratic Republic (2), the German Federal Republic (1), Hungary (1), Italy (2), Poland (4), S.R.S.R. (1), and Yugoslavia (1).

The 7th Conference will be held in May 1976.

Jiří Kanta
Department of Petrology
Charles University
Albertov 6
Praha 2, Czechoslovakia

GROUPES FRANÇAIS DES ARGLÈES

The Groupe français des Argiles holds two meetings per year in April and November. The Groupe français des Argiles publishes a Journal, the Bulletin du Groupe français des Argiles, which has two issues per year. These issues contain abstracts of lectures as well as other communications that have been submitted to the Editorial Board.

The latest issue of the Bulletin, t. XIV, fasc. 2, 1973, had the theme "Organic matter—clay bonding".

Persons who wish to subscribe for an abonnement to the Bulletin du Groupe français des Argiles (30 FF for two issues) are invited to write to Dr. Michel Robert, C.R.A., Laboratoire des Sols, Route de Saint-Cyr, 78000 Versailles, France.

Officers of Groupens français des Argiles are:

President: Georges Pédro
C.R.A., Laboratoire des Sols
Route de Saint-Cyr
78000 Versailles, France

Vice-Président: Raymond Ney
E.P.R., Laboratoire de Chimie Minérale
2, Rue Alfred Werner
68300 Mulhouse, France

Secrétaires:
Michel Robert
Théodore Giraud
(Coordinations)
C.R.A., Laboratoire des Sols
Route de Saint-Cyr
78000 Versailles, France

Jeanne Berlier
(Sécrétaire adjointe)
C.N.R.A Laboratoire des Sols
Route de Saint-Cyr
78000 Versailles, France

GERMAN CLAY AND CLAY MINERAL GROUP

The German Clays and Clay Minerals Group met in Regensburg October 26-27, 1973. The main purpose of the meeting was to discuss the results of the research program of the Clay Mineralogy sponsored by the Deutsche Forschungsgemeinschaft. Twenty-two papers were presented covering various aspects of the following general subjects:

a. Processing and technological behavior of clays
b. Clay mineral formation and transformation in nature
c. Surface chemistry and catalytic properties
d. Chemical, structural, and textural analysis of clays in association with other disciplines.

The main results of the research program in 1974 are to appear in a special publication.

The British Clay Minerals Group (founded in 1947) is one of three constituent groups of the Mineralogical Society of Great Britain and Ireland that cater for specialist interests in mineralogy—the other two being the Applied Mineralogy and Geochemistry. Membership of the Group entails full membership of the Society and payment of the annual subscription of 9 Pounds ($22) entitles each member to receive five issues (one an index) of Mineralogical Abstracts, four of Mineralogical Magazine and two of the Group’s own Journal, Clay Minerals.

Following the termination of the research program in 1974 the main results of the project will be summarized in a special publication.

CLAY MINERAL GROUP OF GREAT BRITAIN AND IRELAND

The British Clay Minerals Group (founded in 1947) is one of three constituent groups of the Mineralogical Society of Great Britain and Ireland that cater for specialist interests in mineralogy—the other two being the Applied Mineralogy and Geochemistry. Membership of the Group entails full membership of the Society and payment of the annual subscription of 9 Pounds ($22) entitles each member to receive five issues (one an index) of Mineralogical Abstracts, four of Mineralogical Magazine and two of the Group’s own Journal, Clay Minerals. The Group entails £1111 (Publication) a year, plus an annual subscription of 9 Pounds (Publications) for the annual meeting of the Group.

The Group has also published a successful series of monographs dealing mainly with clays and clay minerals, the most recent, "The Clay Mineralogy of British Sediments" and "The Electron-Optical Investigation of Clays" are soon to be followed by volumes covering Infrared absorption spectroscopy and the chemistry of clays.

The Clay Minerals Group normally meets twice a year, the Spring meeting usually being held outside London. Joint meetings with other societies are common since clay investigations infringe on many other disciplines. At a joint meeting with the British Society of Soil Science in April 1973 on "Soil-Clay Minerals" an introductory lecture was given by Professor J. P. Quick on soil clay mineralogy and their surface characteristics. Papers were then presented on the value of scanning electron microscopy and electron probe microanalysis, and the pedological significance of trace elements in soil clay minerals, the weathering of clay minerals, and the chemistry of clays.

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mechanism of adsorption, and the influence of external factors such as pH. The application of research results to the Electronic Ceramic technology, e.g. in the modification of green strength and casting behavior, is an important feature of some of the contributions.

The group is responsible for organizing the 1974 Spring meeting of the parent Society. This will be held at the University of Southamptan on 28-29 March 1974 and the subject for discussion will be the Quantitative Determination of the Composition of Mineral Mixtures.

Although members of the Group reside in over 40 countries, approximately half the current membership of 302 are in Britain. The Journal Clay Minerals, which is now in its 25th year of publication, accepts papers, technical notes and letters from non-members of the Group and many foreign scientists have made valuable contributions in its pages.

The Current Chairman and Secretary of the Group are, respectively, Dr. R. C. MacKinnon, Macleay Institute for Soil Research, Craighetbanker, Aberdeenshire AB9 2BD, Scotland, and Mr. A. Bain, Institute of Geological Sciences, 84-78 Gray's Inn Road, London WC1X 8SG, England.

--- A. Bain, Secretary

ITALIAN GROUP OF A.I.P.E.A.

An International Seminar on CLAY MINERALOGY AND CERAMIC PROCESSES AND PRODUCTS was held in Milan, Italy December 12-14, 1972. The Seminar was organized by the Italian Group of A.I.P.E.A. in cooperation with the ASSICERAM (Associazione Italiana Ceramica), and under the auspices of the USA-Italy Cooperative Science Program (supported by the Consiglio Nazionale delle Ricerche of Italy and the International Cooperation Office of the U.S. Department of State). The Seminar was attended by 240 participants from Italy, and foreign countries, including the USA, Japan, France, Germany, Spain and the U.S.S.R. The Seminar was co-chaired by Professor A. Mangano (Italy) and C. V. Brandley (USA).

The Seminar was addressed by invited lecturers, including such leading experts as: F. Veniale (Italy) and G. C. Brandley (USA). The aim of the Seminar was to discuss the advances and developments made during recent years in the field of clay mineralogy and in the study of the Chemical behavior of clays and individual clay minerals, and to integrate them with ceramic technology.

Distinguished experts in clay mineralogy and ceramic technology from the USA (C. V. Brandley, R. E. Gruen, F. Chabi, N. Murray, G. Phillips, W. D. Williams) and from Europe (A. Mangano - France, J. Rojta - Czechoslovakia, and R. Calam Haute - Spain) presented invited lectures; other contributions were to be given by invited presenters.

The Seminar was concerned with basic areas of study involved in the raw materials, processing and properties of clay ceramic products. Three general lectures on mineralogy, structure and composition of clay minerals and related to certain environmental problems; five papers were given on the relationship of clay behavior of clay minerals and mixtures of clay minerals; four papers discussed clay-water interactions and texture of clay bodies as related to methods of preparation; three papers considered properties of materials related to industrial and technological processes. One paper described Spanish ceramic clays; a monograph on the occurrences of clay minerals in Italy was published by the organizers of the Seminar.

About thirty Italian observers were present as well as nationals from other countries, including: S. P. Latge (France), A. Heydemann (Germany), F. Duran, J. Kepios and J. N. Hettiaratchy (Spain) and J. L. White (USA). The Proceedings (including the contributions to the discussion and the monograph "Occurrence of Ceramic Clays in Italy") will be published in two special issues of the Bulletin LA CERAMICA during the first third of 1974.

A forthcoming meeting organized by the Italian Group of A.I.P.E.A. will be the Tavola Scientifica Italiana sulla MINERALOGIA DELLE CRISTALLITI DEI CEMENTI to be held in Palermo (Sicily) c/o Istituto Mineralogia-Petrografia Università, via Archirafi 36 (Information can be obtained from Prof. P. Furla or c/o address).

---Fernando Veniale, President

CLAY SCIENCE SOCIETY OF NETHERLANDS

Activities in clay research in Japan were lost reported in the Newsletter of May 1968.

Topics of symposia held at the general annual meetings since 1968 are as follows: 12th meeting (1968) at Hokkaido University: "Clay Minerals Originated from Volcanic Ash"; 13th meeting (1969) at Hall of Japan Plaza Class Club: (a) "Properties and Utilization of Clay-Organic Complexes", and (b) "Chlorites for the Class Industry and Their Raw Materials"; 14th meeting (1970) at the Hall of the Chemical Society of Japan: "Clays and Thermal Analysis"; 15th meeting (1971) at Aita University: "Properties and Utilization of Hochellellitic Clays"; 16th meeting (1972) at Ehime University: "Clay Studies by Means of Electron Microscopy"; 17th meeting (1973) at the Tokyo Institute of Technology: "Recent Progress and Results of clay and Means for the Study on Minerals of Low Crystallinity".

Since the first meeting, the annual general meeting of the Society has been held under the auspices of other societies related to clay studies, such as geologists, soil science, civil engineering, chemical engineering, and petroleum industries, with an overall and 200-300 participants and 10 papers from a wide scope of clay studies. Most of the papers read at the meetings have been printed in "Clay Science" or "Nonokagahari", both of which are the periodical journals of the Society, or in other scientific journals related to clay studies. Professor E. Iwase, Toyo University is currently president of the Society. Correspondence related to the Clay Science Society of Japan should be addressed to: The Clay Science Society of Japan, c/o Nihon Building, 3-20, Kanda-Mitsuke-cho, Chiyoda-ku, Tokyo, Japan.

The 1969 International Clay Conference was held in Tokyo; the results of the Conference were reported in the A.I.P.E.A. Newsletter as well as in several journals.

The U.S.-Japan Cooperative Science Program sponsored the following symposia concerning clay studies: (a) "Non-crystalline Clay Minerals" (Chairman: Professor S. Amemiya, Kyushu University; U.S.A. coordinator: H. van Olphen, N.A. Acad. Sci.) held in Fukuoka Sept. 11-13, 1969, immediately following the 1969 International Clay Conference. (b) "Clay-organic Complexes" (Japanese coordinator: Professor S. Iwao, Tokyo University; U.S.A. coordinator: C. W. Brindley, Pennsylvania State University) held in Chiba July 19-24, 1971. Invited participants from Japan, the U.S.A. and several other countries met and discussed the above problems.

The Japanese Ministry of Education has granted funds for scientific research to selected scientists every year in addition to the ordinary budget for universities and research institutes belonging to the Ministry of Education. These grants have been called "Grant-in-aid for Science Research of the Ministry of Education" and grouped into several kinds. One is "Grant-in-aid for Cooperative Research" which is to promote cooperation among scientists of a speciality branch including geologists, soil scientists, chemists, etc. In 1972 a cooperative research project in the Netherlands was selected to receive a 3-year grant. It is entitled "Mineralogy Between the Properties and the Environmental Conditions for the Formation of Natural and Artificial Minerals". The Japanese cooperative research project was divided into two research subgroups; one is concerned with the chemical problems and the other with interstratified clay minerals. The members of the clay mineral subgroup of the Shirozu cooperative research project about 200 in number, have held seminars every year and discussed the property and origin of the interstratified minerals such as the combinations of chlorite, montmorillonite or montmorillonite-kaolin. Some samples of the above interstratified clay minerals have been distributed to different laboratories and the results of the study have been discussed and will be published in an appropriate journal.

The research project "Koilin Genesis and Age" was approved as one of the projects of the International Geological Correlation Program (Chairman: Professor M. Kuzvart, C.S.R.), of which Professor M. Koizumi, Osaka University, was selected to receive a 3-year grant. Professor Toshio Sudo, Kyushu University, was selected to receive a 3-year grant. Professor M. Shirozu, Kyushu University was selected to receive a 3-year grant. Professor Toshio Sudo, Kyushu University, was selected to receive a 3-year grant. Professor M. Shirozu, Kyushu University was selected to receive a 3-year grant. Professor Toshio Sudo, Kyushu University, was selected to receive a 3-year grant.

---Professor Toshio Sudo

Geological and Mineralogical Institute

FACULTY OF GEOLOGY

Tokyo University of Education

Tokyo, Japan

CLAY ACTIVITIES IN THE NETHERLANDS

In the Netherlands clay mineralogy is not a separate field of research. It is always tied up with disciplines such as geology, pedology, geochemistry, soil science, civil engineering, agricultural engineering, etc. In spite of this, many clay activities in the Netherlands, the following meetings may be mentioned (chronologically):

June 25, 1973

Meeting organized by the Netherlands Soil Survey Institute. Dr. A. Brauwens discussed some results of a study of the chemical and mineralogical composition of the clay fraction of the marine sediments (from 0 to 4000 years old) in the northern part of the Netherlands. Special attention was paid to the
characterization (isotachifractionation, charge density, chemical composition, etc.) of the main constituents of the clay fraction, namely the illite-muscovite complex.

Oct. 11, 1973

Meeting of the Mineralogical Division of the Netherlands Geological and Mining Society (RNMG). Dr. C. Quakernaat (RNMG, So(Ref) reported on the identification of swelling clay minerals in the sediment-geological analysis.

Nov. 27, 1973

Meeting of the Netherlands Soil Science Society. Three papers were of particular interest with regard to clay minerals. Dr. L. van den Plas (Agricultural University Wageningen) discussed the use of petrochemical calculation methods in soil formation. The chemical analysis of the soil may be calculated in terms of a (quantitative) normative mineralogical composition. This can provide a better understanding and detection of soil formation processes (e.g. formation of clay minerals) as was demonstrated by Dr. J. van Schoonhoven (Univ. of Amsterdam) in a paper on soil formation in sediments. Finally, Ing. H. van Driessen (Agricultural University Wageningen) made a contribution on chemical equilibrium in soils, with special attention to the buffering phenomena (pH-stat, chem-stat). It was shown that pH values calculated for aqueous dispersions of clay minerals at given R (values correspond well with pH values found in soils that are rich in these minerals).

Chair: Ann Marie Bystrom-Brusewitz
Representatives:
- Dr. A. Breeuwsma
- Netherlands Soil Survey Institute
- 11, Marijkeweg
- 7083 FZ. Veenendaal

NORDBYK SOCIETY FOR CLAY RESEARCH

The Nordic Society for Clay Research was constituted on May 16, 1973 from the 25 year old Scandinavian Soil Science Society. Representatives from all the member countries, Denmark, Finland, Iceland, Norway and Sweden were present at the constitutional meeting. This was held in Stockholm and was arranged as a Nordic clay day. On the program was a presentation of the clay research in the different countries.

The idea of a Nordic Clay Society has been discussed from time to time. The impetus to this idea came from the different countries when they refused to be represented as a Member Country in the IASCL. The Nordic Clay Society was elected with representatives from all countries could be elected. Initially Dr. Ann Marie Bystrom-Brusewitz, Geological Survey of Sweden, served as President and Arvid Jacobsson, Geological Institute, was elected as Secretary.

On November 27, 1973 the Society held its first meeting after the constitutional meeting in May 1973. A new board was elected with representatives from the five member countries Denmark, Finland, Iceland, Norway and Sweden. The board consisted of the following:

Chairman: Ann Marie Bystrom-Brusewitz (proxy Eivind Sol1)
Secretary: Tom Lundgren (proxy Geological Institute)
Treasurer: Erik Burton (proxy Ceramics Consultant)

The scientific part of the meeting had the following program:

Prof. H. Bard, Sedimentopetrografutsche Inst., Göteborgs "Clay mineral formation at surface temperatures"

Lto. agr. D. Storgaard-Jørgensen, Kgl Vetenskab Lendboden, Copenhagen "Experimental studies on the reaction between silica minerals and polychlorinated dibenzodioxins and its relation to mineral reactions in nature"" Clay minerals and chemical weathering in fracture zones in the Precambrian bedrock of Finland (preliminary notes of a recent study)"

Tak. Dr. Gunner Jacks, Dept. of Land Improvement and Drainage, Royal Inst. of Technology, Stockholm "Chemistry of some ground waters in saline areas"

A discussion followed each paper.

---Ann Marie Bystrom-Brusewitz

ROMANIAN GROUP FOR CLAY STUDY

The First Working Assembly of the Romanian Group for Clay Study took place May 18-19, 1973 in Bucharest, bringing together specialists from geological institutes, ceramic and refractory industries, pedology and agriculture, building materials research institutes, petroleum research institutes, prospecting enterprises, hydrochemical studies institutes and from university centers.

The aim of this Assembly was to discuss and coordinate research activities of different laboratories and industries in problem areas such as: inventory of clay deposits and clay ores, collaboration on the operational details for the most used laboratory methods, Romanian clay standards, and some Romanian nomenclature problems.

For the above reasons three working committees were elected: one for methodological problems (chaired by Dr. O. Oas), one for Romanian clay standards (chaired by Dr. Gh. Neacu) and one for nomenclature problems which included the activity for inventory of clay ores (chaired by Dr. G. Anton).

The First National Clay Conference of the Romanian Group for Clay Study was held Nov. 29-30, 1973 in Bucharest. The Conference was chaired by Prof. Dr. V. Inovici, first vice-president of the Geological Sciences Society, Dr. G. Anton, president of the Romanian Group for Clay Study, and Dr. V. Leznea, general secretary of the Geological Sciences Society. The Conference provided the occasion for several specialized laboratories to present their scientific results.

Papers on the following topics were presented: mineralogical studies of hydrothermal alteration phenomena in andesitic rocks, mineralogical and technological considerations on pyrophyllitic deposits in Marvidian Carpathian range, mineralogical and geochemical studies of the "Black" schists in the East Carpathian range, characterisation of clay fractions and clay minerals from soils using X-ray diffraction patterns and specific surface area, problems of clay minerals used in water-tight zones of dams, thermal dilution of clays in characterizing materials used in ceramic industry, physico-chemical properties of some Romanian clays in the preparation of drilling muds, mineralogical and geotechnical investigations in the glade regions and in the problems of land ameliorations, and X-ray age determinations on clay minerals from some fault gouges.

A general paper on characterization of clay mineral structures by infrared spectroscopy and the technological implications of infrared studies was presented by Dr. O. Anton.

Dr. Jacques Theres, secretary of the Belgian Clay Group, visited in Bucharest on the occasion of a scientific exchange between Bucharest and Liège and was invited to confer about problems of pyrophyllite and clay determination in clay minerals.

A working meeting for X-ray diffraction problems was established for the end of January 1974 in Bucharest.

---Dr. Gh. Neacu, Secretary Romanian Group for Clay Study Geological Prospecting Enterprise Str. Cocieni 1 Bucharest 8, Romania

More detailed information regarding the Romanian Group for Clay Study may be obtained by writing to Dr. Gh. Neacu at the above address, or to Dr. O. Anton, Geological Institute, 29, Kiseleff 55, Bucharest, Romania.
SOUTH AFRICAN CERAMIC SOCIETY


The theme for the 1974 Symposium is still tentative but it will most probably be "Recent and Future Developments in the Ceramics Industry". It will be held on the 18th and 19th of September 1974 in Johannesburg.

In addition to the symposium and the Annual General Meeting, visits to works and four evening meetings are planned. The theme for the 1973 Symposium Sept. 19-20, 1973 was "Properties and Testing". The following talks were also presented before the Society during 1973:

- April 26, 1973: "History of Sanitaryware" by Mr. G. T. Forrester
- May 24, 1973: "Tile Adhesives" by Mr. J. T. Smidy
- July 12, 1973: "Ceramics Research in the C.S.I.R.O. Australia" by Mr. E. Legget
- Sept. 6, 1973: "The Performance and Behavior of Blast Furnace Refractories" by H. Richardson
- Nov. 15, 1973: "Glass a Bright Future" by Dr. D. J. Lloyd

THE CLAY MINERALS SOCIETY (USA)

The 22t Clay Minerals Conference was held Oct. 7-11, 1973 in Banff, Alberta, Canada. A total attendance of 175 was recorded with about 40 delegates being present.

Prof. George Brindley outlined the many accomplishments of our late president, William F. Bradley, in the presentation of the society's Distinguished Member Award to Dr. Bradley's daughter, Mrs. John Nabors during the annual banquet. Robert R. Legget, retired from the National Research Council of Canada, was guest speaker at the banquet and he traced the Mackenzie River from north of Banff to its discharge into the Baffin Sea, pointing out its growing importance to Northwest Canada.

Field trips in the Canadian Rockies were well attended. Of particular interest was the study at Moraine Lake, which was formed when a landslide dammed the small valley stream. The rock forming the dam is not typical of landslide deposits, and one theory suggests that the rock was first deposited on a glacier, which moved the rock to its present site and left it there when the ice melted.

J. R. Elliot of the University of Calgary was chairman of the meeting, which was well organized and efficiently managed. It is impossible to mention all of the fine papers presented at the meeting. So a few highlights will be abstracted.

The technical sessions were led off by P. H. Everett of the University of Bristol, who discussed the nature and origin of forces between small particles and their modification under different environments. A symposium on clay fabrics followed, with several papers that made use of X-ray, assuming electron microscopy, electron microscope and electron diffraction patterns in determining fabric conditions. The term "fabrics" was defined as "the orientation of crystals relative to a reference plane" and was discussed in terms of structures and ordering of crystal deposition. Deposition by "flocculation" leads to a carbonate structure in which a great deal of disorder results. One author noted a greater random orientation for illite than kaolinite and that flocs were generally made up of boulders of crystals with the carbonate or edge-to-face configurations. Manipulations of undisturbed samples can be confusing if sample preparation is not carefully controlled. This includes the method by which the sample is obtained and its subsequent treatment in the laboratory. Any step may be applied at any time will alter the natural fabric of the clay, thus affecting the final observations.

Walter D. Walter described a strikingly different type of kaolinite found in southeastern Mexico. This particular clay is very dense and resists disintegration by hydraulic means. It was found in a stream where water flowed little or no effect on its physical stability.

I. H. Koziol and A. D. Scott described the effect of heating on the exchange rate of potassium by using C50p muscovite. Maximum effect was observed with samples heated to 900°C, in which case ex-

change took place in less than 2 weeks. At lower temperatures, exchange would require about 2 years.

A. A. Belyaev reported on the composition of recent marine sediments from the Gulf of St. Lawrence. Deep-water samples contained twice as much chlorite as shallow-water samples, but illite and kaolinite concentrations did not vary significantly.

A. E. Tossolub and H. Xudzina investigated clay minerals found in outcrops of the Lower Cretaceous Buckinghorse Formation (3,250 ft. thick): the upper and middle parts of the formation (2,250 ft.) fell within the middle range of diagenesis, and the lower 1000 ft. are believed to be the beginning of late diagenosis.

John Hower and others have been involved in studies of diagenetic reactions in argillaceous sediments; among the major minerals they found was an illite/vesicular intergrade that had undergone conversion from less than 70% to about 90% illite layers over the interval 5,000 - 12,000 ft. In change in illite clay concentration was noted at deeper depths. Argill6 release from the sample was used in one study and the Argill6 content markedly decreased with depth of burial. Conversely, KI content increased from 1.6 to 4.8% over the same depth range.

E. Hay and Paul Kerr studied slope failures in Wyoming; several landslides that disrupted highways were investigated and in most instances montmorillonite was found. However, it was almost entirely absent where 5 slides occurred, with illite and kaolinite being the predominant clays; thus, presence of montmorillonite is not essential for unstable conditions.

R. L. Handy and others reported on their findings concerning edg9-pupping of montmorillonite under pressures to 5,200 kg/cm; spacings gradually decreased with pressure and the pressure required to attain a certain spacing greatly exceeded the swelling pressure of the clay. Usually 2 hydration stages were found for each particular pressure. They also found that the cation associated with the clay greatly changed the results. This was particularly noted for the sodium and calcium clay; the calcium clay retained more water at comparable pressures.

The 23rd Annual Clay Minerals Conference will be held October 7-10, 1974 at the Natural History Museum at the edge of the Case Western Reserve University, Cleveland, Ohio. The theme of the meeting will be: "City Minerals as Related to Our Environment". Inquiries may be addressed to:

Dr. John Hower
Department of Geology
Case Western Reserve University
Cleveland, Ohio 44106

More information on the meeting will be sent out soon by Dr. Hower. Contributors will be invited to submit papers on the general theme or other topics.

Meeting places for the 1975, 1976 and 1977 Annual Clay Minerals Conferences are as follows:

1975 - Mexico City: This will be a joint meeting with ATPEA
1976 - Corvallis, Oregon: This meeting will be during the summer vacation period at Oregon State University
1977 - Kingston, Jamaica: This meeting will be in August and will give us a contrasting setting for field trips to visit ancient deposits and other geological and soil features. Hotel and meeting facilities are excellent.

--Wayne F. Hower
Hillisomt Services
Oxon, Oklahom
**REGISTRATION REGULATIONS**

The registration fee for membership is 60 FF. The meeting will involve two and one-half days for scientific sessions and one-half day for sight-seeing.

**FIELD TRIP TO FRENCH KAOLIN DEPOSITS, SEPTEMBER 1973**

Dr. H. M. Acter (German), Prof. Dr. J. L. Martin-Vivaldi (France), Prof. Dr. P. Y. Chen (Taiwan), and Gentlemen J. Esteoule and J. Esteoule-Choux led a field trip to various kaolin deposits in France during September 1973. The field trip began in Paris on Sept. 11, and ended near Valence (Drôme) on Sept. 14 and included the following participancies:

- Dr. J. Doudin (Switzerland), Dr. G. M. Bristow (England), Dr. Castaldo and Mrs. Castaldo (Italy), Prof. Dr. M. Kister (Germany), Prof. Dr. J. L. Martin-Vivaldi (Spain), Prof. Dr. P. Y. Chen (Taiwan),
- Dr. G. Renoult (France).

The quarries visited were chosen in order to show deposits of different types:

1. Primary kaolins considered as hydrothermal
2. Kaolinitic and feldspathic sands
3. Kaolinitic clays
4. Kaolinitic clays

The trip began with a visit to the kaolinic clay deposits of Provence, which were deposited during the Cretaceous in a system of lagoons in the southern part of the Bassin de Paris. The second day was devoted to primary kaolin deposits coming from hydrothermal alterations of two types of granite in the Massif Central des Colettes (N.W. of Massif Central). The third day at Fleury-Mérogis was devoted to kaolin deposits coming from hydrothermal alterations of two types (sandstone and granite in the Massif Central). The third day at Fleury-Mérogis included a visit to the kaolin deposits of the south (Rotonde) and the north (Rotonde). The field trip ended in Hostun, in the Royans (Drome), in a quarry of kaolinitic but not kaolinitic clays backed against the Creteean wall which forms the western boundary of the Varcones.

**INTERNATIONAL GEOLOGICAL CORRELATION PROGRAM: CORRELATION OF KAOLIN GENESIS AND AGE SYMPOSIUM AND FIELD TRIP IN SOUTH WEST ENGLAND AND SOUTH FRANCE, SEPT. 12-14, 1971**

It is proposed to hold a symposium on kaolin deposits at Exeter, England, Sept. 12-14, 1971. This will follow on from one held in Prague in 1968 and in Madrid in 1972. The following is the preliminary program:

**Tuesday, Sept. 12**
- Assembly in Newquay, Cornwall, connected by rail and air with London.
- Field trip by bus to the main Cornish china clay deposits at St. Austell.
- Refining plant and laboratories. Right stop at Newquay.
- Field trip by bus to the main Devon Ball Clay basin and the South Devon Ball Clay basin. Right stop at Exeter.
- Symposium at Exeter University.
- Right at Exeter.
- Symposium in the morning, afternoon free, possibly for sight-seeing.
- Travel by air from Exeter to Dinard with possibility of visiting St. Malo and the tidal generating station on the Rance.
- Evening dinner at 8 p.m. Visit to the mineraux de quartz and lunch in the vicinity - Visit to the Pléneuf deposit - Dinner and night stop at Lorient.
- Visit to the kaolins at Avranches and Mondeville Pit and quality control laboratories - Lunch at Lorient and departure for Rennes.
- Departure from Rennes at 8 a.m. Visit to lattices in the Chatellerault region. Lunch at Rennes. Closing session at the National Institute of Applied Sciences at Rennes.

**Wednesday, Sept. 13**
- The fees for the symposium and excursion (including registration, transport, all meals and accommodation) will be 70 FF. Payment of this fee will be requested when the final registration form is sent out around May 1974.

Those interested may obtain further information from Dr. E. C. Freshney, Institute of Geological Sciences, ROUSE Building, 101 Pennsylvania Road, Exeter, England.

--Dr. Edward C. Freshney

At the conference in Jerusalem Association Internationale pour l'étude des argilees (AIPEA) was founded. The 1969 International Clay Conference was arranged in Tokyo, Japan. This was followed by the 1972 International Clay Conference in Madrid, Spain.

The 1975 International Clay Conference will be held in Mexico City, Mexico July 16-23, 1975.

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AIPEA accepts as members clay scientists, institutions, and companies. Members may join individually or through cooperating national scientific societies. Please fill in the attached form for joining AIPEA and send it along with your dues payment to the Treasurer.

The annual membership fee is as follows:

- Individual membership $2.20
- Institutional membership $5.75
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- Sustaining membership $31.50
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Your cooperation in observing the following suggestions in paying your membership fee will be appreciated:

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Dr. Joe L. White
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Dept. of Agronomy
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A.I.P.E.A. MEMBERSHIP APPLICATION FORM

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