ASSOCIATION INTERNATIONALE POUR L'ETUDE DES ARGILES
INTERNATIONAL ASSOCIATION FOR THE STUDY OF CLAYS
INTERNATIONALE VEREINIGUNG ZUM STUDIUM DER TONE
МЕЖДУНАРОДНАЯ АССОЦИАЦИЯ ПО ИЗУЧЕНИЮ ГЛИН

AIPEA NEWSLETTER

OCTOBER 1974 NO. 10

Second Announcement
1975 INTERNATIONAL CLAY CONFERENCE

The 1975 INTERNATIONAL CLAY CONFERENCE will be held in Mexico City, Mexico, July 16-23, 1975. The Conference has been organized by the Instituto de Geologia, Universidad Nacional Autonoma de Mexico, under the auspices of the Association Internationale pour l'Etude des Argiles (AIPEA). The U. S. Clay Minerals Society will hold its 1975 meeting concurrently with the International Clay Conference.

The Second Circular containing information about the technical sessions, presentation of papers, abstract forms, field trips, accommodations and registration forms have been sent to all those indicating an interest in attending the Conference. If you have not received a copy of the Second Circular and are interested in attending the meeting, write immediately to the Organizing Committee. The deadline for receipt of abstracts is October 31, 1974.

The following technical program is planned:

Technical Sessions

- TS-1 Geology and diagenesis
- TS-2 Crystal chemistry and structures
- TS-3 Geochemistry, genesis, and synthesis
- TS-4 Colloidal properties
- TS-5 Surface chemistry
- TS-6 Analytical techniques
- TS-7 Interaction between clays and organic and inorganic pollutants

Symposia

- S-1 Kaolin
- S-2 Zeolites
- S-3 Clay mineralogy and soil studies
- S-4 Clay mineralogy and soil mechanics

Field Trips

- FT-1 Hydrothermal kaolins
- FT-2 Kaolins, bentonites
- FT-3 Kaolins, bentonites
- FT-4 Lateritic and tropical soils
- FT-5 Soil mechanics
- FT-6 Industry and research laboratories

A session on "Clays and the origin of life" is being planned for Tuesday, July 15, 1975, under the leadership of Dr. C. Ponnamperuna (USA). Dr. G. Poncelet, Laboratoire de Physico-chimie Minérale, de Croylaan 42, 3030 Heverlee, Belgium, is secretary for this session.

The U. S. Clay Minerals Society is planning a field trip that will include attapulgite deposits in Florida and kaolins in Georgia, U.S.A. It will be preceding or a continuation of Field Trip No. 1 from Mexico City to Sombrerete, Zacatecas, in Mexico. Participants will have opportunity to compare the sedimentary type U.S. deposits with the primary hydrothermal ones from Mexico.

The Conference will be held at the Centro Medico in Mexico City. The Centro Medico has excellent auditoriums well suited for this type of meeting.

SUBMISSION OF PAPERS: Those participants wishing to present a paper at the Conference should send an abstract of about 350 words, in English, typed on the special sheets included with the Second Circular, as well as four carbon or duplicate copies. Since the acceptance of the paper will be based on the abstract, please include the information you consider relevant to its objectives, results, etc. Abstracts should reach the General Secretary of the Organizing Committee not later than Oct. 31, 1974.

The abstracts will be published in a Book of Abstracts prior to the Conference. Those with insufficient information or which are poorly written will not be considered. Authors whose papers are accepted for oral presentation will be so informed by the General Secretary by February, 1975.

The typescripts of the abstracts will be printed as they are received. It is therefore important to follow very carefully the detailed instructions given in the Second Circular.

PRESENTATION OF PAPERS: Outstanding scientists will act as chairmen and co-chairmen of the sessions. They will present general lectures, lead the discussions, and summarize the main conclusions and advances. They will be responsible for selecting the papers for oral presentation at the Conference.

Authors of accepted papers will be allowed 20 min. for the oral presentation plus 10 min. for discussion. Slides (50 x 50 mm. or 2 x 2 in.) and transparencies can be accommodated by the projectors which will be used. Detailed instructions will be given in the Third Circular.

The Proceedings will be edited under the guidelines established by the Editor-in-Chief. Papers selected for publication should be received by the Editor prior to June 30, 1975, so as to start the reviewing process before the Conference. However, authors will be allowed to revise their manuscripts after their oral presentation. The Proceedings will also include the general lectures presented by the chairmen of the sessions.

LANGUAGES: English is recommended as the working language. Invited and general lectures will be simultaneously translated. For the Proceedings, English, French, German, and Russian will be accepted but all papers must include an abstract in English.

REGISTRATION: Membership to the Conference is open to all persons interested in clay science, soil science and mechanics, ceramics, and clay technology.

Registered members will receive the book of abstracts, detailed program, and the Proceedings. The registration fees are:

Members	US $70.00
Accompanying members	30.00

Fees may be paid by check payable to the 1975 International Clay Conference. Student registration will be free of charge. Students are kindly requested to state in the registration forms their status as students. As the financial possibilities of the Conference are worked out, other facilities may be offered to participating students who present papers.

FIELD TRIPS: The following field trips are being organized:

FT-1 Hydrothermal kaolins: Mexico City - Los Azufres - San José Purua - Guanajuato - San Luis Potosi - Zacatecas - Sombrerete - Mexico City (Tourist stop at Guanajuato)

Five days Approximate cost US $230.00 (double room)
270.00 (single room)

FT-2 Hydrothermal kaolins, bentonites: Mexico City - Pachuca - Huayacocotla - Pachuca - San Juan del Rio - Pathé - Tula - Tepeji del Rio - Mexico City (Tourist stop at Tula)

Two days Approximate cost US $115.00

FT-3 Bentonites, kaolins: Mexico City - Puebla - Cuernavaca - Iguala - Coacoyula - Taxco - Mexico City (Tourist stop at Taxco)

Two days Approximate cost US $115.00 (double room)
135.00 (single room)

FT-4 Lateritic and tropical soils: Mexico City - Villahermosa - Teapa - Cardenas - Pichucalco - Villahermosa - Mexico City (Tourist stop at Pichucalco)

Two days Approximate cost US $230.00 (double room)
270.00 (single room)

FT-5 Soil mechanics: Mexico City
Half day Approximate cost US $ 8.00

FT-6 Industry and research laboratories: Mexico City
One day Approximate cost US $ 8.00

EXHIBITS: Facilities will be available for technical exhibits and demonstrations. Those interested are kindly requested to contact the General Secretary.

ACCOMMODATIONS: The approximate cost of hotel rooms in Mexico City has been given in the Second Circular along with forms for indicating accommodation needs and preferences. For example, the cost of a single room in 1st, 2nd, and 3rd categories is approximately $28, $20, and $16 per day, respectively.

TRAVEL AGENCY: The official travel agency for the Conference is: Wagons - Lits Cook, Av. Juarez 88, Mexico 1, D. F., Mexico.

CORRESPONDENCE: All correspondence should be addressed to:

1975 International Clay Conference
The Organizing Committee
Instituto de Geologia
Universidad Nacional A. de Mexico
Aptdo. 70296
Mexico 20, D. F., Mexico

RECENT DEATHS

Ronald Greene-Kelly died suddenly from a heart attack on May 27, 1973 while on holiday in Derbyshire. His early death is a great loss to his family, his friends, his colleagues at Rothamsted and to the scientific community at large.

Ronald Greene-Kelly, familiarly known as Robin, was born on May 15, 1924. He was educated at Highgate School, and on leaving school in 1941 he read Chemistry and Mathematics at Queen Mary College, London, for one year. He worked for some months in the Chemistry Department at Rothamsted before joining the Royal Navy in 1944. He served at sea as a Petty Officer Radio Mechanic and after demobilization in 1947 he resumed his studies at Queen Mary College, gaining a B.Sc. degree with honors in Chemistry in 1949. In October, 1949 he joined the Pedology Department at Rothamsted on a special Agricultural Research Council grant for work on the surface and interlamellar absorption by clay minerals and related substances. At the end of the period of the grant he transferred to the staff of the Pedology Department at Rothamsted. He remained there until he died except for a nine-month period spent in the Soviet Union.

All his work was concerned with clays and can be divided into main periods. The first, in which his interests were in sorption by clay minerals lasted from 1949 until 1960. In 1953 he was awarded the Ph.D. degree from London University for research reported in his doctoral thesis "Studies of the Sorption of Polar Molecules by Layer Lattice Silicates". The thesis has three sections, effect of pre-

Ronald Greene-Kelly 1924-1973

heating on the sorption properties of montmorillonite, sorption of water by sodium montmorillonite and sorption of aromatic ring compounds by montmorillonite. He developed and expanded these topics after completing his Ph.D. studies, publishing his results in some twenty papers. Results of his work of special significance to clay mineralogists were the specific test for distinguishing montmorillonite from the other members of this group, now referred to as the Greene-Kelly test, and in collaboration with Alan Weir the confirmation of beidellite as a distinct species.

As a Royal Society Exchange Fellow, Robin Greene-Kelly spent the 1957-58 academic year in the Soviet Union. Although he was attached to the Department of Soils, Moscow State University, he worked on the structure of thin liquid films absorbed on surfaces in collaboration with Professor B. V. Derjaguin, Institute of Physical Chemistry, Academy of Sciences, U.S.S.R., measuring the birefringence of clay aggregates with intercalated liquid films to obtain information about the structure of sorbed films on surfaces. Characteristically, he showed how the optical measurements could be used not only to give information about the sorbed films but could also provide information to characterize clay minerals.

Two years after his return from U.S.S.R. a serious illness was diagnosed that required a major surgical operation. This was successful but a long period of recuperation followed before he regained his former vitality. For the rest of his life, however, he was never fully fit, though he did not complain.

At about this time he began a new program of work on the physics of clay soils in which he was still deeply engaged when he died. He was concerned with elucidating how the fundamental physical and colloidal properties of clays affected the physical (engineering) properties of soils and latterly he turned his attention to the problem of finding basic physical measurements to characterize that elusive entity - soil structure. For this he had to devise methods and design apparatus that was ably constructed by his colleague, Ron Gallavan.

As always, Robin Greene-Kelly's work was painstaking and thorough. He was concerned with factors that control soil swelling and shrinking and with how disturbance of the soil, necessary in sampling and making measurements, affected the results obtained. His first papers on this work appeared in 1970, and although only a few papers had appeared several others were in preparation when he died. A study of his notebooks reveals a wealth of ideas and experimental results but sadly much of his valuable work is likely to be lost for his colleague and right-hand man, Ron Gallavan, died one day before him, on May 27, 1973

In addition to his laboratory studies, Robin Greene-Kelly took an active part in the affairs of the Clay Minerals Group of the Mineralogical Society. He was a frequent contributor at meetings; from 1964 to 1966 he served as editor of the journal "Clay Minerals" which superseded the original publication "Clay Minerals Bulletin" and he was largely responsible along with the publishers, Blackwells of Oxford, for producing the improved journal in the new format and style that continues today. From 1964 to 1968 he was a member of the Committee of the Clay Minerals Group. In the international sphere he visited the U.S.A. in 1960 to attend the 9th National Clay Conference where he read a paper, and he attended the first International Clay Conference in Stockholm in 1963 where he was co-chairman of the section on clay-organic complexes.

Robin Greene-Kelly will be remembered by all who knew him as much for his personal qualities as his scientific ability. He was a careful and gifted research worker, a person with a wide knowledge of the surface and colloidal properties of clays and a kind and generous colleague whose advice and assistance was given unsparingly to all who sought it.

--George Brown

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Prof. J. L. Martin Vivaldi, President of the Spanish Clay Society, died suddenly in Madrid on January 7, 1974. His death is a great loss for international clay research and especially for the Spanish scientists.

J. L. Martin Vivaldi 1918-1974

Prof. Martin Vivaldi was born in Granada in 1918. He graduated from the University in 1941 and initiated his research work in the group of Prof. Gutierrez Rios at the University of Granada. He received his doctoral degree in chemistry in 1949; his thesis dealt with the influence of exchangeable cations on the hydration properties of montmorillonite. He spent one year in the United States working with Dr. S. B. Hendricks. After his return to Spain he was appointed as a Research Scientist of the National Research Council of Spain, and for several years collaborated closely with Dr. D. M. C. MacEwan, then Guest Professor at the University of Granada.

In 1959 he was appointed Professor of Crystallography and Mineralogy of the University of Granada and Head of the Clay Mineralogy Section of the Zaidin Experimental Station. He moved in 1968 to the University of Madrid and was appointed Head of the Mineralogical Section of the Natural History Museum.

His scientific work, recorded in more than 100 papers, has made a major contribution to clay mineralogy. Of special interest are his studies on fibrous clay minerals - attapulgite and sepiolite - and on the quantitative analysis of clays. In recent years he turned his attention to the genesis and synthesis of clay minerals, especially kaolinite. His contribution in this field has been outstanding and his ideas on this subject will be the basis of future work of his collaborators. Three papers by Prof. Martin Vivaldi on genesis and synthesis of clay minerals were presented at the European Clay Meeting in Strasbourg.

As a teacher he was very much respected by his students for the depth of his understanding and the clarity of presentation. He had exceptional ability to motivate young people and was always ready to discuss with them any scientific or personal problem.

He was the leader of the Spanish Clay Mineral Group (GEMA) since its founding in 1959. When the group became an independent society in 1969 he served as first president. He was very active in promoting scientific relations through the organization of meetings with other national groups.

In 1970 he organized the Spanish-Belgian conference on clay minerals. He will always be remembered for his work in the organization of the 1972 International Clay Conference. The great success of this conference was mainly due to his dedication and leadership.

Prof. Martin Vivaldi was a distinguished member of several national and international scientific societies, including the International Union of Crystallography, International Mineralogical Society (U.K.), and AIPEA. He was a member of the Council of AIPEA since 1969 and was a member of the Working Group of the Kaolin Correlation Program (UNESCO). He also served as liaison officer for the International Confederation for Thermal Analysis.

All who knew Prof. Martin Vivaldi, and especially those of us who had the privilege of collaborating with him, recognized him as a unique scientific personality. His dynamic personality, optimism and frankness will never be forgotten by his friends.

We do indeed mourn the loss of a great man.

--J. M. Serratosa

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Prof. Richard L. Sloane died on May 5, 1974. Dick Sloane remained active as Professor of Civil Engineering at the University of Arizona, Tucson, Arizona over the last few years. Dick had consulted on several complicated clay mineralogy-stratigraphic problems related to the geologic proof of nuclear power plants in California in addition to other work in Arizona and Puerto Rico. He was a wounded combat veteran of World War II and was on detached duty with the British Commandos. He leaves a second wife René, a son and daughter.

He was a meticulous engineer. He followed the literature in foundation engineering micro-materials, and the physico-chemical behavior of clay soils. Above all, he taught the ethics and moral fiber of engineering.

--Allen W. Hatheway

CALENDAR OF MEETINGS

Oct. 6-10, 1974 CLAY MINERALS SOCIETY (USA) Annual Meeting, Cleveland, Ohio. (Dr. John Hower, Local Chairman, Dept. of Geology, Case Western Reserve University, Cleveland, Ohio 44106 USA).

Nov. 8, 1974 CLAY MINERALS GROUP, Autumn Meeting, at the Geological Museum, Exhibition Road, London S.W. 7. Subject: Clays and Geology. (Mr. J. A. Bain, Secretary, Institute of Geological Sciences, 64-78 Grays Inn Road, London WC1X 8NG, England).

Nov. 14-16, 1974 SOCIETY OF ECONOMIC GEOLOGISTS, Kaolin and Fuller's Earth Field Trip, Macon Georgia to Tallahassee, Florida. (B. F. Buie, Dept. of Geology, Florida State University, Tallahassee, Florida 32306 USA).

April 3-5, 1975 CLAY MINERALS GROUP, Spring Meeting, at the Macaulay Institute for Soil Research, Aberdeen, Scotland. Subject: Alteration and transformation of clays.

May 12, 1975 CLAY MINERALS GROUP (in association with the Colloid and Surface Chemistry and other Groups of the Society of Chemical Industry and with the British Society of Soil Science). The meeting will be held at the Society of Chemical Industry, 14 Belgrave Square, London S.W. 1. Subject: Pore structure of clays, soils and cements.

July 16-23, 1975 1975 INTERNATIONAL CLAY CONFERENCE, Mexico City, Mexico. The Conference is being organized by the Instituto de Geologia da la Universidad Nacional Autonoma de Mexico under the auspices of AIPEA. The Clay Minerals Society (USA) will hold its national meeting jointly with AIPEA. (Dr. Liberto de Pablo, Secretary General, 1975 Intl. Clay Conference, The Organizing Committee, c/o Instituto de Geologia, Universidad Nacional Autonoma de Mexico, Apartado Postal 70-296, Mexico 20, D. F. Mexico).

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NEWS OF NATIONAL CLAY GROUPS

GERMAN SOIL CLAY MINERALOGISTS

A two-day symposium on "Clay mineral genesis in soils of the humid temperate climate" was organized by Commission VII of the Deutschen Bodenkundlichen Gesellschaft and was held in Göttingen. Invited speakers reported on single reactions of clay transformations which have been demonstrated to occur in actual soils. Among these were opening up of micaceous minerals on potassium loss and the reverse reaction, secondary chloritization with Al, Fe and Mg, transformation of mafic chlorites, neosynthesis of crystalline and amorphous clay minerals. It was recognized that not all of the reactions which may occur in vitro have been observed thus far in soils. The talks presented will be published together in a special issue of the Zeitschrift für Pflanzenernährung und Bodenkunde.

--U. Schwertmann

CLAY MINERALS GROUP OF GREAT BRITAIN AND IRELAND

The Autumn Meeting of the Group will be held on Friday, Nov. 8, 1974, in the Lecture Theatre of the Geological Museum, Exhibition Road, London, S.W. 7. The topic will be "Clays and Geology" and eight papers will be presented, preceded by an invited talk by guest speaker Dr. Ann Marie Byström-Brusewitz, of the Geological Survey of Sweden (Immediate Past-President of the Nordic Group for Clay Research). The program of papers is as follows:

The Clay Mineralogist and Geology by Dr. A. M. Byström-Brusewitz

Clay mineral studies of sediments from the Ludlovian (Silurian) of the Welsh Borderlands and South Central Wales by Mr. R. Marsh

Interstratified illite/montmorillonite clays (potassium bentonites) in the Silurian of the Welsh Borderlands: genesis, composition and properties by Mr. D. J. Morgan

The composition of separated size fractions from some clay sediments in the Coal Measures by Mr. D. Ashby and Dr. C. D. Curtis

Zeolite/clay/calcite relations in Triassic sediments, and the status of heulandite-analcime-quartz assemblages in burial metamorphism by Dr. C. V. Jeans

A late Cretaceous orogenesis discovered through the use of clay mineral diagenetic facies by Dr. M. Leikine and Dr. B. Velde

The two trinities associated with primary kaolin deposits of hydrothermal origin by Dr. C. Bristow

Variations of microfabric forms in natural soils by Mr. A. McGown and Mr. K. Collins

Clay Minerals in British Sediments - the present position by Dr. R. M. S. Perrin

Members are invited to visit the laboratories of the Mineralogy Unit, Institute of Geological Sciences, 64-78 Grays Inn Road, London, W.C. 1, Thursday afternoon Nov. 7.

The Group's Spring Meeting will be held in Aberdeen, at the Macaulay Institute for Soil Research, on April 3-4, 1975, and will take the form of 1 1/2 days of scientific sessions and either a half-day's field excursion or a visit to the Institute's laboratories. The overall topic for the meeting will be "Alteration and transformations of clay minerals" and the Secretary would like to receive offers of papers, accompanied by a short (100-word) abstract, by mid-November 1974.

The Group is to be associated with the Society of Chemical Industry (in particular, the constituent Groups for Colloid and Surface Chemistry, Road and Building Materials, and Agriculture) and the British Society of Soil Science in holding a meeting on "The pore structure of clays, soils and cements". This will be in London, at 14 Belgrave Square, S.W. 1 on Monday, May 12, 1975 at 10:30 a.m. Offers of papers on this topic may be forwarded through the Secretary, Mr. J. A. Bain, Institute of Geological Sciences, 64-78 Grays Inn Road, London WC1X 8NG, England.

CLAY MINERALS SECTION OF MINERALOGICAL SOCIETY OF POLAND

At the general meeting of the Mineralogical Society of Poland on March 22, 1973 the Clay Minerals Section was established as one of its special sections. There are presently about 60 members of this section.

The Council of the Clay Minerals Section consists of the following:

Chairman: Dr. Leszek Stoch, Academy of Mining and Metallurgy, Institute of Mineralogy and Mineral Deposits, al. Mickiewicza 30, 30-059 Krakow

Vice-chairman: Dr. Anna Langier-Kuzniarowa, Geological Institute, ul. Rakowiecka 4, 00-975 Warszawa

Secretary: Dr. Andrzej Wiewiora, Research Center of Geological Sciences, ul. Zwirki i Wigury 93, 02-089 Warszawa

Vice-secretary: Dr. Zenon Kłapyta, Academy of Mining and Metallurgy, Institute of Mineralogy and Mineral Deposits, al. Mickiewicza 30, 30-059 Krakow

Members of the Scientific Committee are: Prof. Dr. M. Budkiewicz, Mgr. O. Gawronski, Dr. B. Grabowska-Olszewska, Dr. A. Kabata-Pendias, Dr. A. Oberc, Dr. K. Olekysnowa, Dr. R. Pałubicki, Prof. Dr. R. Pampuch, Dr. H. Ropska, Dr. E. Stepkowska, Dr. St. Uziark, and Prof. Dr. J. Widaj.

As a result of the various professional and scientific interests of the members 8 study groups have been formed within the Section: 1. structural investigations, 2. mineralogical analysis, 3. infrared spectroscopy, 4. geology and genesis of deposits, 5. soil clay minerals, 6. engineering properties, 7. physical and chemical properties, and 8. technical properties and applications.

The first scientific meeting of the Clay Minerals Section of the Polish Mineralogical Society was held in Warsaw on Sept. 21, 1973. Prof. G. W. Brindley (USA) took part in this meeting and presented two lectures: "The hydrous nickel silicates-garnierites" and "Methylene blue sorption by clay minerals". Dr. L. Stoch discussed the problem of the layer silicates transformation during weathering and P. Zawidzki and A. Wiewiora described studies on the experimental replacement of Al by Li in micas.

Dr. Anna Langier-Kuzniarowa reported on AIPEA, its origin and activities and the 1972 International Clay Conference in Madrid at the March 22, 1973 meeting of the Section. She also made a similar report at the meeting of the Polish Soil Science Society, Dec. 18, 1973.

The Geological Institute in Warszawa intends to publish Polish summaries of all the papers from the Madrid Conference.

--A. Langier-Kuzniarowa and L. Stoch

THE CLAY MINERALS SOCIETY (USA)

The 23rd Annual Clay Minerals Conference will be held October 6-10, 1974, in Cleveland, Ohio, with Case Western Reserve University serving as host. Meeting Chairmen are Dr. John Hower and Dr. Samuel Savin, Department of Geology, Case Western Reserve University, Cleveland, Ohio. Technical sessions will be held at the Natural History Museum adjacent to the Case Western Reserve University campus.

Dr. Robert Reynolds of Dartmouth College will conduct a short course on the interpretation of clay mineral X-ray diffraction patterns on Sunday, October 6 at 1 p.m.

The general theme of the meeting will be "Clay Minerals as Related to Our Environment". There will be a symposium on "Clay Minerals and Environmental Problems" on Tuesday, October 8, and a symposium on "Quantitative Techniques in Clay Mineralogy" on Wednesday, October 9. In addition, there will be general sessions including emphasis on clay petrology and clay chemistry. Fifty-two papers have been scheduled for presentation. On Monday afternoon, October 7, there will be a field trip to examine Lake Erie shore erosion.

Current officers of the Clay Minerals Society are: Dr. John W. Jordan, President; Dr. John C. Hathaway, Vice-President; Dr. Charles I. Rich, Secretary; Dr. Finis Turner, Treasurer, and Dr. William T. Granquist, Editor.

Dates and places for future meetings of the Clay Minerals Society are:

1975 - Mexico City. The 24th Meeting will be a joint meeting with AIPEA, July 16-23, 1975

1976 - Corvallis, Oregon. This meeting will be held during the summer vacation period at Oregon State University.

1977 - Kingston, Jamaica. This meeting will be in August and will provide a contrasting setting for field trips to visit bauxite deposits and tropical soils.

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NEWS OF INTERNATIONAL CLAY ACTIVITIES

SECOND MEETING OF THE EUROPEAN CLAY GROUPS

This meeting took place March 13-15, 1974 in the Institut de Géologie, Strasbourg, under the presidency of Professor G. Millot; Dr. H. Paquet was in charge of the conference organization. The number of registered participants was about 230 and 64 communications were presented.

The conference started with a session centered on crystallography of clay minerals. Subsequently parallel sessions were organized; in one session physico-chemical aspects were treated, with papers related to water, constitutional hydroxyls, ion exchange and adsorption of organic compounds being given in this session. The second session consisted of reports on geological studies dealing with sediments and clay deposits. The last day was dedicated to clay mineral transformations and the program included papers on clay alteration in soils as well as in laboratory studies of alteration and synthesis.

The Nordic Group for Clay Research will organize the 3rd meeting of the European Clay Groups. This meeting will probably take place in Oslo in the second half of May 1977.

It has not been found useful to formalize the organization of a European Clay Group as such. The conference of the European Groups has no official character but must be considered as a meeting in which groups of neighboring countries join to work together. At present the groups concerned are the following:

Groupe Français des Argiles
Groupe Belge des Argiles
Sociedad Española de Arcillas
Gruppo Italiano dell'AIPEA
Deutsche Ton- und Tonmineralgruppe
Nordic Group for Clay Research
Clay Minerals Group of Great Britain and Ireland

A general agreement has been reached on the principle of having one European Clay Journal. Discussions about practical aspects related to its publication led to significant progress and a concrete proposal is being prepared.

--P. Rouxhet

INTERNATIONAL GEOLOGICAL CORRELATION PROGRAM: CORRELATION OF KAOLIN GENESIS AND AGE

Professor J. Esteoule organized an excursion to French kaolin deposits Sept. 11-14, 1973. Details of this excursion were reported in AIPEA Newsletter No. 9, page 14, Jan. 1974. Sixteen participants, including eleven members of the Working Group, attended the excursion.

Four members of the Working Group made an excursion to examine Czechoslovakian kaolin and clay deposits October 8-11, 1973. Plans for the 3rd symposium on kaolin deposits in England and France to be held Sept. 3-11, 1974 were prepared by Dr. E. C. Freshney and Prof. J. Esteoule (AIPEA Newsletter No. 9, pages 14-15). Plans for future activities of the Working Group include: session and excursion of the Working Group during the 1975 International Clay Conference in Mexico, excursion to kaolin deposits in German Democratic Republic and Poland (1975), and the 4th symposium on kaolin deposits (Australia, 1976).

The following activities were conducted as part of the 3rd Symposium on Kaolin Deposits, South West England and Brittany, Sept. 3-11, 1974:

Presentation of regional papers on kaolin deposits. Reports on kaolin deposits of the following countries were submitted or are in preparation: Argentina, Egypt, Israel, Kenya, Mozambique, Pakistan, Portugal, Rhodesia, Romania, Sarawak, Thailand, and the USA.

Presentation of papers on genesis, age, mineralogy and technology of kaolin.

Meeting of the Working Group. Topics considered included classification of kaolins, criteria for prospecting, etc.

The symposium was sponsored by UNESCO and IUGS.

--M. Kuzvart, Secretary
Working Group

SYMPOSIUM ON CONVERSION OF PESTICIDES ON CLAY SURFACES

Dr. B. Yaron (Israel) organized a symposium on "Conversion of Pesticides on Clay Surfaces" as a part of a program on "Impact of Environmental Factors on the Chemical Behavior of Pesticides in Plants, Soils, and Waters" during the Third International Congress of Pesticide Chemistry in Helsinki, Finland, July 3-9, 1974. Dr. M. M. Mortland (USA) gave an invitational paper on "Clay-Organic Complexes and Interaction" and Dr. J. Chaussidon (France) discussed "Catalytic Reactions on Clay Surfaces". Dr. Yaron (Israel) and co-workers reported on the conversion of the organophosphorus insecticides on kaolinite and Dr. C. Rodriguez-Pascual (Spain) described adsorption of 2,4-D by montmorillonite. J. L. White (USA) presented a short communication on the protonation and hydrolysis of s-triazine herbicides by mineral surfaces.

FOURTH INTERNATIONAL CONFEDERATION OF THERMAL ANALYSIS (ICTA)

The Fourth International Confederation of Thermal Analysis was held in Budapest, Hungary, July 8-13, 1974. Papers in Section 4 (Earth Sciences) included contributions on dehydroxylation studies of chlorites and vermiculites, thermal studies of stevensite, "hydrated-talc" and sepiolite, thermal properties of Li-mica, quantitative analysis of quartz in soils and clays, combinations of thermal analysis techniques with gas analysis and mass spectrometry in the analysis of clays, and DTA as a tool for measurement of disorder in kaolinite and in the classification of montmorillonites.

AIPEA members who submitted papers to the Program Committee or who otherwise participated in the meeting included: Prof. A. Caballero (Spain), Prof. J. L. Martin Vivaldi (Spain), Dr. K. V. G. K. Gokhole (India), Dr. Max Müller-Vonmoos (Switzerland), Prof. Olga Šarc-Lahodny (Yugoslavia), Prof. R. Otsuka (Japan), Dr. Ewa Stepkowska (Poland), and Dr. Anna Langier-Kuzniarowa (Poland).

10th INTERNATIONAL CONGRESS OF SOIL SCIENCE

The International Soil Science Society met in Moscow, USSR, August 12-20, 1974. Commission VII (Soil Mineralogy) sponsored three separate sessions as well as joint sessions with Commission II (Soil Chemistry), Commission III (Soil Biology), and Commission V (Soil Genesis, Classification and Cartography). Papers presented in these sessions included topics such as: ammonium adsorption on hydrobiotite and montmorillonite, adsorption of fulvic acid by non-expanding clay minerals, formation of organo-mineral colloids in soils, reactions of herbicides with smectites, hydrothermal mineral formation, mineralogy of ferralitic desilicified soils in tropical regions, genesis and evolution of amorphous and crystalline minerals, weathering of biotite, evolution of glauconites and illites as related to prob-

lems of studying smectites in soils, model for ion adsorption on variable charge surfaces, characterization and adsorptive properties of amorphous and crystalline hydrated ferric oxides, and thermoluminescence of clay minerals as influenced by chemical treatment. Several papers in a session on "Statics and Dynamics of Soil Moisture" arranged by Commission I (Soil Physics) dealt with observations on clay-water systems.

AIPEA members who authored papers for the Congress include: Dr. Robert Gast (USA), Dr. Philip Low (USA), Dr. J. P. Quirk (Australia), Dr. A. Banin (Israel), Dr. P. M. Huang (Canada), Dr. D. J. Greenland (England), Dr. K. Wada (Japan), Dr. H. Kodama (Canada), Prof. F. Ovcharenko (USSR), Dr. U. Kafkafi (Israel), Dr. M. Robert (France), Dr. A. Kabata-Pendias (Poland), Dr. G. Pedro (France), Prof. G. Millot (France), Dr. U. Schwertmann (W. Germany), Dr. R. M. Taylor (Australia), Dr. M. L. Jackson (USA), Dr. G. G. C. Claridge (New Zealand), Dr. M. F. de Coninck (Belgium), Dr. J. B. Dixon (USA), and Dr. T. R. McKee (USA).

NEW AND FORTHCOMING BOOKS

"The Infrared Spectra of Minerals" edited by V. C. Farmer, Mineralogical Society, London, 1974. This is a companion volume to "The X-Ray Identification and Crystal Structure of Clay Minerals", "The Differential Thermal Investigation of Clays", and "The Electronoptical Investigation of Clays". The price is $38 (USA) postage free; order from the Publications Manager, Mineralogical Society, 41 Queen's Gate, London, S.W.7 5HR, England.

"Zeolite Molecular Sieves: Structure, Chemistry and Use" by Donald W. Breck, John Wiley and Sons, New York, N.Y. 1974, 775 pages. This is the only extensive reference book published on molecular sieves and gives special attention to the structure, synthesis, and chemistry of zeolites, as well as ion exchange reactions. Much previously unpublished information on synthesis, physical properties, adsorption, and commercial molecular sieves is also included. More than 300 illustrations and 400 tables are provided. Specially prepared stereophotographs of all basic zeolite framework structures are reproduced.

"Minerały Ilaste" (Clay Minerals) by Leszek Stoch, Wydawnictwa Geologiczne, Warszawa, Poland, 1974, 503 pages. Dr. Stoch, Institute of Mineralogy and Mineral Deposits, Academy of Mining and Metallurgy, Krakow, Poland has authored a well-balanced reference book on clay minerals that will be useful to mineralogists, geologists, ceramicists, soil scientists, chemists as well as students. He has five major sections in his book--definition and classification of clay minerals, methods of analysis, structure and properties, genesis, and physico-chemical properties and technology of clay minerals. Dr. Stoch has incorporated many useful figures and tables and the literature citations are very extensive. The book is written in Polish; hopefully an English translation may be published in the future.

"Minerals and Their Roles in the Soil Environment" edited by J. B. Dixon, preparation and publication of the book is being sponsored by the Soil Science Society of America, Madison, Wisconsin, 1976. The organizing committee for this effort consists of M. L. Jackson, M. M. Mortland, C. I. Rich, M. E. Harward, and J. B. Dixon. The proposed book is intended to meet the needs for a graduate text for courses in soil mineralogy, clay mineralogy for earth science students and engineers, and soil chemistry with an emphasis on soil mineralogy and for a reference for teachers and researchers of soil chemistry, general soil science, civil engineering, geology, and sedimentology.

AVAILABILITY OF PROCEEDINGS OF INTERNATIONAL CLAY CONFERENCES 1963, 1966, 1969, 1972

Proceedings of previous International Clay Conferences may be obtained from offices indicated below.

Proc. Intl. Clay Conference 1963, Stockholm, Vol. I & II
Pergamon Press, Headington Hill Hall, Oxford OX3 OBW, England

Proc. Intl. Clay Conference 1966, Jerusalem, Vol. I & II
Israel Program for Scientific Translations, Kiryat Moshe P.O.B. 7145, Jerusalem, Israel

Proc. Intl. Clay Conference 1969, Tokyo, Vol. I & II
Israel Program for Scientific Translations, Kiryat Moshe P.O.B. 7145, Jerusalem, Israel

Proc. Intl. Clay Conference 1972, Madrid, Vol. I ($45)
Division de Ciencias, C.S.I.C., Serrano 113, Madrid 6, Spain

NEWS OF MEMBERS

Dr. James Kittrick, Dept. of Agronomy and Soils, Washington State University, Pullman, Washington 99163 USA, has been asked by AIPEA to represent the organization on the I.U.P.A.C. Solubility Data Project. Dr. Kittrick was nominated as a specialist from AIPEA at the request of the International Union of Geological Sciences.

We regret to announce that Dr. William T. Granquist, Bariod Division, National Lead Co., P. O. Box 1675, Houston, Texas 77001 USA, is seriously ill. Dr. Granquist has made significant contributions to the synthesis of smectites and has been active in the Clay Minerals Society, serving as Councilor and as Editor of Clays and Clay Minerals since 1972.

Prof. J. J. Fripiat, President of AIPEA, has been chosen to succeed the late J. Mering as Director, C.N.R.S. Laboratory (Centre de Recherche sur les Solides a Organisation Cristalline Imparfaite), Orleans la Source, France. Dr. B. Delmon succeeds Prof. Fripiat in the new University of Louvain (French section), Ottigny, Belgium.

Prof. Jan Uytterhoeven continues as head of the Centrum voor Oppervlaktescheikunde en Colloidale Scheikunde (Laboratory of Surface and Colloidal Chemistry), University of Louvain (Flemish section), Louvain, Belgium.

Dr. Israela Ravina is now acting as president of the Israel Society of Clays and has arranged for collective payment of AIPEA dues for members of the Society. New AIPEA members from Israel include Dr. Israela Ravina (President ISC), Dr. Jan Kinsky (Treasurer ISC), Dr. Vera Rohrlich, Dr. Nava Narkis, Dr. Isaac Shainberg, Dr. Uzi Kafkafi, Dr. Rachel Levi, Dr. Noam Lahav, Mr. Arie Goren, Dr. Yaakov Natan, Dr. Arie Singer, and Dr. Shmuel Yariv. We hope to have a report on the activities of this newly organized group for the next AIPEA Newsletter.

Dr. J. F. Moreau, Professor of Mineralogy, University of Louvain, Louvain, Belgium, is presently on sabbatical leave for one year in the Department of Geosciences, Purdue University, West Lafayette, Indiana 47907 USA. He will work with Dr. H. O. A. Meyer on diamond inclusions, lunar samples and possibly phase equilibria.

MEMBERSHIP DRIVE IN AIPEA CONTINUED

There are many workers in clay science and technology who are not members of AIPEA. The cost of membership in AIPEA is very low and is within the reach of most workers. If your colleagues are not members of AIPEA please encourage them to complete an AIPEA Membership Application Form and return it to the Treasurer along with dues ($2.30 per year) payment.

Aim of AIPEA

The aim of AIPEA is to promote international cooperation in clay research and technology. To this end the activities of AIPEA include: the organization of meetings--such as the International Clay Conferences every three years--of field excursions, and of visits to centers of clay research and technology; the issue of publications on clay research and technology and of discussions thereon; cooperation with other organizations having an interest in clay research and technology.

Brief History

During the 18th International Geological Congress, London, 1948, Comité international pour l'étude des argiles (CIPEA) was established. Professor Ralph E. Grim, University of Illinois, USA, was elected the first president of the executive committee. Scientific sessions were arranged by CIPEA at the International Geological Congresses in Algiers 1952, Mexico City 1956, and Copenhagen 1960. In cooperation with other organizations scientific sessions were arranged in Amsterdam 1950, Paris 1954, and Brussels 1958.

In 1960 Professor Ivan Th. Rosenqvist, Oslo, Norway, was elected president. CIPEA arranged the 1963 International Clay Conference in Stockholm, Sweden, and the 1966 International Clay Conference in Jerusalem, Israel.

At the conference in Jerusalem the Association internationale pour l'étude des argiles (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 July 16-23, 1975.

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Membership

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 $2.30
Institutional membership $5.75
Company membership $23.50
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