



CONFERENCES

1st and 2nd UNESCO IGCP 442 Project Workshops: – Bratislava, Slovak Republic, June 21–23, 1999, and Veszprem, Hungary, October 11–13, 1999

More than 25 years ago, the International Union of Geological Sciences (IUGS) and UNESCO created the scheme of International Geological Correlation Programs (IGCP). In February, 1999, at the 27th Session of the IGCP Board in Paris, a new interdisciplinary project was founded: “Raw materials of the Neolithic/Aeneolithic polished stone artefacts: their migration paths in Europe”, Project 442. The project combines geological and archaeological aspects, and this field of interdisciplinary science has its own tradition, especially in central Europe, where multilateral co-operation between several universities has been carried on for quite a long time. Among the leading centres of “petroarchaeology” in this area are: Bratislava, Brno, Poznań, and Wrocław universities. IGCP project 442 is co-ordinated by Prof. Gerhard Trnka (archaeologist, University of Vienna, Austria) and Prof. Dušan Hovorka (geologist, Comenius University, Bratislava, Slovak Republic).

The correlation of the current knowledge of raw materials of Neolithic/Aeneolithic stone artefacts with data obtained within the frame of Project 442 provides a basis to define communication paths of raw materials in various periods of Europe’s history. An important aspect of the Project is the application of petrologic methods to detailed studies of polished stone artefacts. These methods include microscopic studies of thin sections, major and trace elements analysis (including microprobe), geochronology etc.

The first Workshop of the Project which was held in Bratislava (21st – 23rd June, 1999) was attended by scientists from 7 countries, who presented the results of research activities related to the Project, and discussed current methodological questions, as well as formal organisational issues. Several working groups were established for further co-operation on particular problems: “Jadeitites and eclogites” (leaders: C. Amico & E. Starnini, Italy), “Serpentinites and nephrites” (leader: P. Gunia, Poland), “LITHOTHECA database of raw material sources” (leader: K.T. Biro, Hungary). The creation of national working groups of scientists representing both specialisations (archaeology and geology) was also recommended, along with the extension of the field of studies within the Project.

The scientific session in Bratislava included many interesting presentations on the sites and history of polished stone artefacts and the methods of their examination. Of particular interest were reports of by C. Amico & E. Starnini (Italy): “Eclogites, jades and other HP metaophiolites of Neolithic polished stone tools from northern Italy”, and by S. Dominguez-Bella, M. Perez-Rodriguez and D. Morata (Spain): “Mineralogical and petrological characterisation of polished lithic material from the la Vina/Cantarrannas Neolithic/Aeneolithic site (Puerto de Santa Maria, Cadis, Spain).

Two presentations dealt with petroarchaeological problems

of SW Poland: E.M. Foltyn, E. Foltyn, L.Jochemczyk and J. Skoczylas: “Basalts and nephrites of the polished stone industry in the Neolithic in Upper Silesia and Polish Lowland”, and A. Majerowicz, A. Wójcik, P. Gunia and P. Cholewa: “Serpentinite structures of Neolithic artefacts from Lower Silesia – comparison with serpentinite structures from SW Poland”.

On the 22nd of June, 1999, an excursion to the famous Roman excavation of Carnuntum was planned, but because of extremely bad weather conditions, the programme was modified and the participants visited the Naturhistorisches (Natural History) Museum in Vienna (Austria). In the Museum, they went through the exhibition of a famous collection of objects from Palaeolithic times (Venus of Willendorf, bronze and gold objects from the Balcans and Carpathians etc.), objects from the earliest Neolithic settlement south of Vienna (Brunn am Gebirge) and a fascinating collection of minerals, fossils and rock specimens. Dr. Vera Hammer also presented the newest x-ray diffraction apparatus being used to determine the mineralogy of stone artefacts.

The second Workshop of IGCP Project 442 took place in Veszprem, an old historical town in Hungary, on the 11th – 13th of October, 1999. The first day of the Workshop was dominated by presentations concerning archaeological problems of Lengyel culture, whilst geological problems were presented on the second day. Among several interesting presentations were reports by:

- A. Prichystal (Brno): “Lithic raw material used by people with Moravian painted pottery – Lengyel cultural complex”,
- G. Zsolt-Szakmany Kasztovszky (Hungary): “Prompt gamma activation analysis of neolithic greenschist polished stone tools”,
- A. Majerowicz (Wrocław): “Das Ślęza Massiv als Rohstoff-Gebiet für urgeschichtliche und mittelalterliche archäologische Geräte Herstellung”, and
- P. Gunia (Wrocław): “Nephrites from SW Poland as potential raw material of European Neolithic artefacts”.

On the last day of the Workshop, an excursion to surface Neolithic sites in Veszprem County was organised, covering such places as: Vazsonyi-medence (linear pottery culture) and Tuzkoveshegy (ancient flint-stone mine).

The presentations, discussions and exchange of experiences during the workshops helped in better understanding the migration paths of raw materials in ancient Europe. Overall, the first year of co-operation under the IGCP Project 442 has proved the usefulness of this interdisciplinary approach to solve a range of problems in studies on various fields of human activities in the past.

*Piotr Gunia
(Wrocław University)*

The anniversary of the birth of Abraham Gottlob Werner (1749–1817)

Abraham Gottlob Werner was born on the 25th of September, 1749, in the small village of Osiecznica (Wehrau) located 12 kilometres NW of Boleslawiec, Poland. The 250th anniversary of this event created an opportunity for international memorial meetings. The Freiberg University of Mining and Technology and the International Commission on the History of Geological Sciences (INHIGEO) arranged an international symposium, "Abraham Gottlob Werner (1749–1817) and his times", which was held in Freiberg in Germany and in Osiecznica in Poland on the 19th – 24th of September, 1999.

The memorial celebrations in Poland took place in the village of Osiecznica. Preparation began in 1998, when an Organizing Committee of Polish geologists was established in Wrocław, with members from the Polish Geological Association from the University of Wrocław, the Polish Academy of Sciences, the Polish Geological Institute and the Technical University of Wrocław. The Committee, chaired by Prof. A. Zelaźniewicz, invited the most prominent geoscientists of Poland to participate in the Honour Committee and submitted to them a proposal of memorial activities.

Thanks to the efforts of the Organizing Committee, supported by our German colleagues from the Freiberg University of Mining and Technology, a memorial plaque with Polish and German inscription was placed on the wall of Werner's home:

1749 1817
W TYM DOMU
URODZIŁ SIĘ
ABRAHAM GOTTLOB WERNER
WSPÓŁTWÓRCA NOWOŻYTNEJ
MINERALOGII I GEOLOGII
PROFESOR AKADEMII GÓRNICZEJ WE FREIBERGU
(1775–1817)
UFUNDOWANO W 250 ROCZNICĘ URODZIN
PRZEZ POLSKICH I NIEMIECKICH NAUKOWCÓW

1749 1817
GEBURTSHAUS
VON
ABRAHAM GOTTLOB WERNER
MITBEGRÜNDER
DER WISSENSCHAFTLICHEN
MINERALOGIE UND GEOLOGIE
PROFESSOR AN DER BERGAKADEMIE FREIBERG
VON 1775 BIS 1817
GESTIFTET VON POLNISCHEN UND DEUTSCHEN
WISSENSCHAFTLERN ANLÄSSLICH
SEINES 250. GEBURTSTAGES



Memorial plaque on the house of Abraham Gottlob Werner.

In the local school, a small museum with documents, illustrations and rock samples connected with Werner's life and scientific activity was arranged by Dr. A. Pacholska from the Geological Museum of Wrocław University, with support from the Polish Geological Institute and the Polish Academy of Sciences. Moreover, permanent posters designed by Dr. A. Solecki and Dr. W. Śliwiński, explaining the local geology were erected on the picturesque banks of the Kwisa River, forming a geological educational route. These activities were supported by the Osiecznica community, Euroregion Nysa and Polish and German geological institutions.

The official presentation took place on the final, excursion day of the Freiberg–Osiecznica symposium, on the 24th of September, 1999. Polish and German geologists met in Boleslawiec near the school building where Abraham Gottlob Werner started his education. Next, a visit to the well preserved and still-working Ławszowa smelter introduced the participants to the atmosphere of Werner's times and the place where both he and his father were employed.

The culmination of the day was a ceremony of unveiling the plaque on Werner's house at Osiecznica led by Prof. M. Borkowska, Prof. A.S. Kleczkowski and Prof. D. Wolf. It was preceded by a speech by W. Nalazek, the Mayor of the village.

Next, fragments of the 2 km long geological educational route were presented. Within the local tectonic zone, outcrops of Tertiary, Cretaceous and Triassic sediments can be observed. Unique silicified palaeosoils, with well-preserved remnants of roots and trunks, and natural outcrops of lignite on the steep erosional banks of the river particularly impressed the participants.

Participants, exhausted by that impressive day, were refreshed by the lunch offered at the "Osiecznica Glass" sand mine.

*Andrzej Solecki & Wojciech Śliwiński
(Wrocław University)*



Permanent poster – the third stop of the geological route beside the outcrop of Tertiary palaeosoils

“Euroclay’99” – The 9th European Clay Groups Association Conference, Kraków, September 3–12, 1999

The Euroclay’99 Meeting of the European Clay Groups Association Conference was held in Poland and Slovakia on the 3rd – 12th of September, 1999. The meeting was organised by Polish and Slovak argillologists, and Professor Jan Środoń (the Polish Academy of Science, Kraków) was the President of the Organising Committee. The main part of the meeting, which took place in Kraków (5th – 9th of September), was preceded by pre-conference field trips in SW Poland (Wrocław, 3rd – 5th of September), and followed by a post-meeting workshop in Slovakia (Banská Štiavnica, 9th–12th of September).

The conference was attended by nearly 450 participants from six continents. The scientific session was held at the Mining and Metallurgy University in Kraków. The opening ceremony included an opening lecture given by R.C. Reynolds, Jr: “Illite/smectite in three dimensions”.

During the conference, over 160 oral presentations were given and more than 260 posters were presented. The presentations were organised in 15 thematic sessions. The greatest numbers of contributions were submitted to the following sessions: “New techniques of clay mineral research”, “Order-disorder features of clay minerals”, “Clay barriers and waste management”, and “New developments in the traditional industrial application of clays”. Other sessions which also attracted many participants were: “Particle size analysis in clay science”, “Low-grade metamorphism of sheet silicates”, “Clay minerals as tools in basin analysis” and “Surface modification of clay minerals and application of such materials”. Traditionally, several presentations addressed the problems of “Physical and chemical properties of clays”, “Crystal chemistry of clay minerals”, “Clays in soils and weathering” and “Origin of clay minerals”. Special sessions included “Comparison between alterations of seafloor and land-based basalts” and “Clays in hydrocarbon reservoirs”.

The pre-conference field trips focused on clay mineralisation related to basic and ultrabasic rocks in the Fore-Sudetic block in SW Poland. Two simultaneous trips were organised, with a total of 34 participants. The first trip (“Clay alteration of ultrabasic rocks in Lower Silesia”) was led by E. Dubińska (Warsaw University) and P. Bylina (the Polish Academy of Science, Warsaw). Several localities were visited with variable clay mineral and other layer-silicate assemblages developed at the contact zones of serpentinites with granites (Jordanów Śląski, Wiry) and with rodingites (Naślawice), and within a laterite cover on ser-

pentinites (Szklary). The second trip (“Hydrothermal and weathering clay alteration of Tertiary volcanic and volcanoclastic rocks in Lower Silesia”), led by C. August and M. Awdankiewicz (Wrocław University) concentrated on clay mineral associations in basaltic plugs, lavas and volcanoclastic rocks in the vicinities of Niemcza and Złotoryja (5 stops). This trip also included two additional localities with kaolinite mineralisation in Devonian quartzites and schists (Jęglowa) and Variscan granites (Strzeblów) (leader B. Witek, Wrocław Technical University).

The post-conference workshop entitled “Clays in Environment” at Banská Štiavnica in Slovakia, organised by V. Sucha and P. Komadel (Bratislava), addressed three main topics: 1) clays under acid conditions, 2) clay-toxic element interactions, and 3) clay barriers. About 100 participants attended the workshop. Ten lectures by invited speakers were given and 11 posters were presented during the workshop. The last day of the workshop was a field trip to bentonite and pyrophyllite deposits in the Banská Bystrica and Banská Štiavnica areas (led by V. Sucha and I. Kraus, Bratislava). On the way, problems of environmental protection were also discussed.

The scientific level and organisation of the conference were highly evaluated by Professor E. Galan, the President of the ECGA 1995–1999, Professor G. Lagaly, the President-elect of the ECGA and, also, by the Participants of the Meeting. The social program of the conference, including visits to Royal Kraków, the Wieliczka salt mine and Pieskowa Skała Castle, as well as the social meeting (“Talking clays over a glass of wine” – after Jan Środoń), were highly appreciated. The Participants of the pre-conference field trips and the post conference workshop also had the opportunity to visit interesting tourist stops near Mt. Słęża, Henryków, Legnickie Pole, and Wrocław in Lower Silesia, and Banská Bystrica, Banská Štiavnica and Zvolen in Slovakia. The conference was also accompanied by exhibitions and promotions of 13 companies offering scientific equipment, books, periodicals, raw materials and ceramic products.

The Conference Proceedings with Abstracts, and the Excursion Guidebook and Workshop Program with Abstracts were edited for the Participants. Undoubtedly, the Conference was a significant event for all mineralogists, earth- and other scientists interested in problems related to clay minerals.

*Czesław August & Marek Awdankiewicz
(Wrocław University)*

PACE Mid-Term Review & 4th PACE Network Meeting, Copenhagen, October 9–10, 1999

PACE – “Palaeozoic Amalgamation of Central Europe” is an international research project funded by the European Commission, scheduled for 1998–2000, and with the basic aim of (a) providing a surface correlation to the configuration of the shallow and deep lithospheric structure obtained by the EURO-PROBE TESZ (Trans-European Suture Zone) group, and (b) understanding the process and timing of the amalgamation of the various central European terranes with the East European Craton. The Network had its Mid-Term Review Meeting in the Geological Institute of Copenhagen, Denmark, on the 9th – 10th of October, 1999.

Thirteen institutions participate in the Project: 9 from the EU and 4 from Central European countries. The Project Coordinator is Dr. John A. Winchester, of the Keele University, in the U.K. The Network employs 9 postdoctoral Young Visiting Researches, all from EU countries, in 9 labs engaged in collaborative projects.

As per the scientific programme of PACE, the principal research activities related to the Network in the participating partners’ laboratories are as follows:

Keele University, U.K.: Structural, metamorphic, magmatic and sedimentary provenance studies.

British Geological Survey, U.K.: Seismic analysis and interpretation. Gravmag analysis and interpretation (North Sea).

Gent University, Belgium: Assessment of faunal provinciality.

GFZ Potsdam, Germany: Seismic analysis and interpretation. Gravmag analysis and interpretation (North Germany, Baltic).

JLU Giessen, Germany: Tectonometric record analysis from sediments. U-Pb dating of zircons from drill-cores.

MLU Halle-Wittenberg, Germany: Provenance studies of metasediments; links with U Gent for faunal analysis.

Copenhagen University, Denmark: Seismic analysis and in-

terpretation. Gravmag analysis and interpretation (Denmark, N. Sea, Baltic).

CNRS Montpellier, France: Ar-Ar dating of mylonites in shear zones.

NERC Isotope Geoscience Laboratory, U.K.: U-Pb dating of rocks to solve deformational problems in the Sudetes.

Polish Academy of Sciences, Warsaw, Poland: Seismic analysis and interpretation. Gravmag analysis and interpretation (Poland).

Wrocław University, Poland: Petrological, geochemical and structural studies in SW Poland.

Polish Geological Institute, Wrocław, Poland: Field work, petrology and structural studies, and provision of crucial cores from boreholes in S and W Poland.

Czech Geological Survey, Prague, the Czech Republic: Petrological, geochemical and structural studies in the northern Czech Republic.

After a welcome of Prof. Hans Thybo, of Copenhagen University, the President of the Organizing Committee, the first part of the Report Session was chaired by Dr. Michael Carpenter (Cambridge), the Scientific Assessor, and Jane Shiel (Brussels), the EC Representative. The Network Coordinator, Dr. John A. Winchester gave a review of the Network's progress, and this was followed by the "Tour de Table" Session in which each scientist-in-charge at each affiliated institute reported on the role and contribution of his research team. The afternoon session consisted of the Young Researchers' reports and an open discussion on Network progress and its future.

Oral and poster presentations were scheduled for the second day of the Meeting. In total, 15 talks and 5 posters were presented, mostly showing the results of recent co-operative studies. Among others, of particular interest were talks dealing with important questions of the geology of the Bohemian Massif, e.g.:

Franke W. & Zelaźniewicz A. : The eastern termination of the Variscides: terrane correlation and kinematic evolution. (Oral).

Aleksandrowski P., Kryza R., Mazur S. & Hladil J.: Pre-Late Devonian unconformity: a record of Middle/Late Devonian exhumation of Eo-Variscan metamorphic complexes in the Sudetes, NE Bohemian Massif. (Oral).

Marheine D., Kachlik V., Patocka F. & Maluski H. : Variscan polyphase tectonothermal development in the South Krkonoše Complex (W.Sudetes, Czech Republic), deduced by Ar-Ar age determinations. (Poster).

Several other presentations, including those given by Young Researchers, showed valuable new results obtained from co-operative research.

Both parts of the Meeting, the Mid-Term Review Session and the 4th PACE Scientific Session, have proved the Project to be a well running international research scheme, contributing significantly to the understanding of basic questions of the geology of Central Europe. Apart from that, the participants greatly appreciated the perfect technical arrangement and hospitality of the organizers: Prof. Hans Thybo and Dr. Mireille Laigle.

*Ryszard Kryza
(Wrocław University)*

6th Meeting of the Petrology Group of the Mineralogical Society of Poland, Sobótka-Górka, October 15–17, 1999

The sixth meeting of the Petrology Group of the Mineralogical Society of Poland was held in Sobótka-Górka located at the foot of Mt. Słęża on the 15th – 17th of October, 1999. The first meeting of the Group was organized in October, 1994 and since that time it has become an annual review of much of the current research in the field of petrology and metamorphic geology in Poland. Traditionally, the conference was commenced by a session devoted to recent research in a selected region. This year the inaugural session focused on the metamorphic evolution, igneous activity and structural development of the Strzelin crystalline massif.

The first three talks were:

– "The metamorphic and structural development of gneisses and older schist series in the Strzelin crystalline massif (Fore-Sudetic Block, SW Poland)" by T. Oberc-Dziedzic,

– "Jęglowa beds – record of polyphase deformation and metamorphism in the Strzelin crystalline massif (Fore-Sudetic Block, SW Poland)" by J. Szczepański & D. Józefiak, and

– "Extensional tectonics in the eastern part of the Fore-Sudetic Block: Evidence from the Henryków gneiss" by S. Madej, and they provided a general geologic overview of the Strzelin area and gave an introduction to the field trip.

The meeting was attended by 53 participants from both Poland (22 from Wrocław and 26 from other research centers of the country) and the Czech Republic (5). Contributions presented by participants of the session (both Polish and Czech) covered the variety of geologic studies being carried out in Poland and the Czech Republic, including metamorphic and igneous petrology, structural geology, isotope geology, geochemistry and mineralogy. The diversity of the presentations and increasing interest of the Czech geologists contributed to the success of the meeting. The field trip was guided by Teresa Oberc-Dziedzic

and Jacek Szczepański, and presented the structural evolution of the massif and the petrology of the Strzelin granitoids. Abstracts of all the presentations were published in English in the 14th volume of Special Papers of the Mineralogical Society of Poland.

The meeting was very well organized in an old palace situated in an attractive park. The charming surroundings stimulated many interesting and fruitful discussions. We look forward to the next meeting in October, 2000, which is to be organized in the vicinity of Kraków.

*Jacek Szczepański
(Wrocław University)*



The participants of the 6th Meeting of the Petrology Group on the field trip to the Strzelin Massif, guided by T. Oberc-Dziedzic.