The Annual Symposium of the Polish Clay Group, Sobótka, June 16-17, 2005

The annual meeting of the Polish Clay Group was held in Sobótka, near Wrocław, on the 16th and 17th of June, 2005. Both the accommodation and the symposium were in a nineteenth century hunter's castle. Organized by the Clay Section of the Polish Mineralogical Society, with financial support from the Mining Academy in Kraków and Wrocław University, the Sobótka Symposium gathered 31 clay scientists from Poland and Slovakia. It was traditionally run as a workshop during which the invited lecturers gave their presentations. E. Dubińska and P. Bylina gave a talk entitled "Serpentine minerals", and P. Komadel's was "Information obtained from selected chemical treatments of bentonites". A. Wiewióra's spoke on "The effect of sonication on the structure and particle division of pyrophyllites". P. Wyszomirski's presentation had the title "Ceramic raw materials - the wealth of the Nysa Euroregion", and K. Górniak's was "The crystallochemical record of the origin of smectitic minerals in the marls of the Flysch Carpathians (examples from the Sub-Silesian Unit). The final guest presentation was by C. August and J. Wojewoda, entitled "The clay mineral composition of late Carboniferous regolith from Kudowa (Sudetes)".

The eleven presentations of the poster session covered a wide spectrum of topics related to various issues in clay mineral research, including: layered silicates as molecular sieves (K. Bahranowski and co-workers); illite-smectite and vitrinite reflectance as geothermometers (T. Szydłak and co-workers); the clay components of the Flysch Carpathians marls and the microfabric of mudrocks (K. Górniak and co-workers); chlorite and chlorite/vermiculite intergradient minerals (E. Sokalska); the crystal chemistry and sorption properties of smectites (P. Komadel and co-workers); the influence of the layer charge on the sorption of montmorillonite (J. Madejova and H. Palkova); the mineralogy of volcanigenic clay minerals from Slovakia (V. Sucha, J. Madejova and P. Komadel); and the layer charge of clay minerals (A. Czimerova and J. Bujdak).

The symposium was attended, among others, by two past chairmen of the Polish Clay Group: Professor Leszek Stoch, the Nestor of Polish clay science, and Professor Jan Środoń, the President of the European Clay Groups Association.

On the evening of the first day, a meeting of the council of the Clay Group of the Polish Mineralogical Society



The participants of the Polish Clay Group Symposium, 2005, at Sobótka

took place. The participants elected Dr. Katarzyna Górniak (Mining Academy in Cracow) as the new chairperson of the Polish Clay Group for 2006-2007.

The field trip began with an introduction to the geology of the Ślęża ophiolite massif (by S. Sosnowski) and the Strzegom-Sobótka granite massif (by C. August). The participants were taken to the Strzeblów quarries, and shown excellent examples of post-magmatic alteration and hypergenic kaolinisation of granite. At the end of the trip, the participants were invited by Strzeblowskie Kamieniołomy Surowców Mineralnych Ltd to visit Stary Łom, the oldest quarry in the Strzegom-Sobótka massif (opened in 1765, closed in 1971). The quarry was known as a deposit of kaolinized granodiorite used for ceramics. Today, the quarry is an example of recultivated mining area (geotop), a nice tourist site.

The Sobótka Symposium was a great success, with lively discussions of the lectures and the posters and a well-run field trip. The participants expressed their enjoyment, and anticipation of next year's meeting.

Czesław August, Chair of the Symposium (Wrocław University)

The CEEPUS Summer School in Petrology, Geology and Geoecology, "The Sudetes (SW Poland): a root-zone of the Variscan Orogen of Central Europe. Its outline structure, magmatism and metamorphism, and geosite protection", Wrocław and Bolków, Poland, May 28 to June 8, 2006



Participants of the CEEPUS Summer School in front of the Collegium Maximum of Wrocław University (Photo R. Kryza)

Field courses are an integral part of education in geology and related environmental sciences. Such courses are standard in curricula at most geological faculties; however, a common drawback is their limitation to the region near a given university (and the unavoidable meritorical shortages). In an attempt to rectify this situation, the Central European Educational Programme of University Studies Network (CEEPUS CII Network) offers unique conditions to organize international summer schools in geology and environmental sciences, extending the courses available in the regular curricula. Over the past few years, four geological field courses were organized. In 2002, one was held in the Austrian Alps, in 2003, in the eastern margin of the Bohemian Massif, and in 2005, in the Polish Carpathians and Sudetes. The following fourth Summer School (reported on here) was organized in the Sudetes (SW Poland) in May and June, 2006. It was arranged within the framework of CEEPUS CII-AT-0038-01-0506 "Geosciences in Central and Southeastern Europe" coordinated by Professor Volker Höck, University of Salzburg, Austria.

The programme of the Summer School focused on two issues:

1. recent key questions on the geology of Central European Variscides (e.g. high-pressure metamorphic rocks and their exhumation paths, ophiolites and their geological positions, Variscan plutonism and volcanism);

2. recent environmental issues and geosite protection.

The organizing institutions were: the Institute of Geological Sciences of Wrocław University (Professor R. Kryza (co-ordinator), Dr. M. Awdankiewicz); the Faculty of Geology of Warsaw University (Professor Ewa Słaby, Dr. Justyna Domańska-Siuda), and, as a guest leader, Professor Padhraig Kennan (Professor Emeritus, Dublin, Ireland).

The seven participants represented four universities from three countries: Irina Mihailescu, Maria Magdalena Terciu and Elena Mocanasu (undergraduates, Iasi, Romania), Carmen Natalia Precup (PhD student, Cluj, Romania), Hana Fajkovic (undergraduate, Zagreb, Croatia), and Milos Gregor and Peter Ružicka (PhD students, Bratislava, Slovakia).

The scientific programme of the Summer School ran as follows.

Day 1. Arrival in Wrocław.

Lecture I. An outline of the geology, igneous and metamorphic evolution of the Sudetes area (R. Kryza).

Day 2. Tour of Wrocław University's Institute of Geological Sciences, Geological Museum, and Mineralogical Museum. Sightseeing: Building Stone in Monuments and Architecture in Wrocław.

Day 3. The Ślęża ophiolite: Palaeozoic oceanic crust. The Góry Sowie Massif: granulites and migmatites, Devonian deep-crustal processes.

Day 4. Arrival in Bolków. The Śnieżnik Massif: eclogites and orthogneisses, Carboniferous exhumation of HP/T rocks.

Day 5. The Kaczawa Mts: early Palaeozoic rift magmatism, Devonian/Carboniferous subduction/accretion.

Lecture II. Environmental protection and geotourism in Lower Silesia (R. Kryza).

Day 6. National Parks, and historical mining and geological sites of special scientific interest.

Lecture III. Variscan and Alpine volcanic activity: volcanological and petrological aspects (M. Awdankiewicz).

Day 7. The Intra-Sudetic Basin: volcanism, tectonism and sedimentation in a Variscan intramontane trough.

Day 8. The North-Sudetic Basin: Permian mafic and felsic volcanism.

Day 9. Alpine basaltic volcanism in Lower Silesia.

IV. Variscan plutonic activity: the petrology and geochemistry of granitoids, and geochemical modelling (E. Słaby, J. Domańska-Siuda).

Day 10. The Karkonosze Massif: mixed origin granitoid pluton.

Day 11. The Karkonosze Massif: magma mixing, mingling and segregation.

Day 12. The Strzegom-Sobótka Massif: fractionation and hybridization processes. Return to Wrocław. Final/Closing meeting of the Summer School.

The scientific materials for the course were published

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as a special guidebook edited by Ryszard Kryza, the co-ordinator. The scientific and teaching programme was fully realized and both the participants and the educators were satisfied by the outcome. The School enabled the students to connect professionally and to integrate, both sci-

entifically and socially. The only drawback was that the grants given to the undergraduates were insufficient to cover the basic costs of their participation.

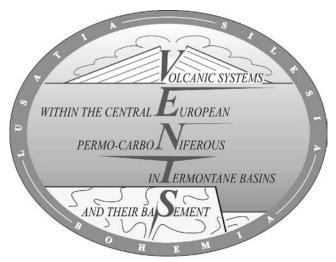
Ryszard Kryza (Wrocław University)

An assessment field workshop on the Late Paleozoic volcanism at the northern margin of the Bohemian Massif (southwestern Poland, northern Czech Republic, eastern Saxony), Bolków, Poland, June 14-18, 2006

During the Late Carboniferous to Early Permian period, the northern margin of the Bohemian Massif was characterized by the formation of tectonically controlled basins and by strong volcanic activity. The volcanic and subvolcanic products of this predominantly calc-alkaline magmatism are intercalated within intermontane basins, like the Intra-Sudetic Basin and the North-Sudetic Basin in southern Poland, the Karkonosze-Piedmont Basin in the Czech Republic and the Döhlen Basin in eastern Saxony". In addition, important information on the magmatic evolution of these systems can be yielded through the investigation of the subvolcanic bodies cropping out in adjacent basement blocks like the Lusatian Block in eastern Saxony and the Karkonosze-Izera Block in Poland and the Czech Republic.

Funded by a DFG (Deutsches Forschungsgemeinschaft) grant, with support from the Czech Geological Survey and Wrocław University, a group of 15 geologists and students from Germany, Poland and the Czech Republic carried out a field assessment workshop from June 14th to 18th, 2006, in Bolków, Poland. The main goals of the workshop were: i) to assess the existing data and ideas on the Late Palaeozoic volcanic and subvolcanic evolution of the area, and ii) to define a concise outline of a future research project divided into program steps and thematic topics. The participants (Fig. 1) represented both academic institutions and state geological surveys, including TU Bergakademie Freiberg and Landesamt für Umwelt und Geologie, Freiberg (Germany), Wrocław University, Warsaw University, and Adam Mickiewicz University, Poznań (Poland), and Charles University, Prague and the Czech Geological Survey, Prague (the Czech Republic).

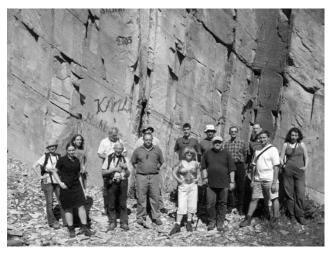
The program of the workshop included three conferences with eight lectures, and three days of field trips covering 21 localities. The opening lecture by C. Breitkreuz entitled "Permocarboniferous volcanic and subvolcanic activity in Europe: what do we know and what do we want to know?" introduced the participants to the current issues in the research of late Palaeozoic magmatism, with emphasis on the physical volcanology and SHRIMP dating of volcanic rocks. The following lectures provided summaries of the most recent studies and results on the Permo-Carboniferous igneous complexes in the Elbe Zone (U. Hoffmann) and eastern Saxony (A. Renno), the volcanic rocks in the Bohemian part of the Intra-Sudetic Basin (V. Prouza), the Teplice-Altenberg Caldera (B. Mlčoch), the Karkonosze granite (E. Słaby), and the Żelaźniak intrusion (A. Mu-



Logo of the VENTS project

szyński). J. Ulrych, who was not able to attend the meeting in person, provided an abstract on the geochemistry of the volcanic rocks in the late Variscan basins of the Bohemian Massif. The last lecture, by M. Awdankiewicz, was an overview entitled "Carboniferous and Permian magmatism in the Sudetes: volcanic centres, intrusions, magmatic evolution and open questions" and stood as an introduction to the field trips.

The field trips were led by M. Awdankiewicz, V. Prouza, E. Słaby and C. Breitkreuz. 19 localities were visited in the Intra- and North-Sudetic Basins, including the Czech part of the Intra-Sudetic Basin near Broumov. The localities represented the whole spectrum of volcanic products emplaced within the late Palaeozoic intermontane basins of the Sudetes, starting from the oldest andesitic and rhyodacitic lavas and sills in the Viséan of the northenmost part of the Intra-Sudetic Basin, through the acidic laccolith and diatreme complexes of the Carbonifeous Wałbrzych Basin, to mafic and felsic lavas, pyroclastic deposits and shallow-level intrusions in the regionally most extensive Permian deposits. Also, two localities visited within the crystalline basement provided a condensed but valuable insight into the granites and mafic dykes of the Karkonosze Massif, which are possible deeper-level counterparts of some of the volcanic rocks. These localities, and in particular the variable structures and lithologies observed there (e.g. the contact zones, problematic volcanogenic deposits, flow-related and depositional structures) initiated lively



Participants of the workshop in an old rhyolite quarry at Mniszek hill near Wałbrzych

discussions, with evaluations of the various possible interpretations, as well as mini-lectures using a portable drawing board.

The workshop was also an opportunity to examine and compare geological maps, publications, rock samples and thin sections of volcanic rocks from various areas of Bohemia, Lusatia and Lower Silesia. These additional and helpful materials were brought by many participants personally involved in the study of late Palaeozoic igneous rocks. Last, but not least, evening social events (including barbeques and FIFA World Cup 2006 matches) enabled further exchange of ideas between the participants in a less formal atmosphere.

The discussions during the workshop, including a brain storming on the last day, continuing via the internet over the following days, clearly showed that great progress can be made in studies of the regional geology of the late Palaeozoic volcanic rocks in the area, with a significant output in some more general fields of volcanology, thanks to an international cooperation in the Sudetes and adjacent areas, at the junction of three Central European countries: Germany, Poland and the Czech Republic. As a result, the VENTS project was defined (Volcanic Systems within the Central European Permo-Carboniferous Intermontane Basins and their Basement, Fig. 1). The project is focused on the physical volcanology and petrology of the Carboniferous and Permian volcanic rocks and related plutonic rock complexes in the area of northern Bohemia, Lusatia and Lower Silesia. Currently, in its early stage, this interdisciplinary and international project involves ca. 15 geologists and several PhD and MSc students from Freiberg, Prague, Wrocław, Warszawa and Poznań. The VENTS project will last 6 years and will involve several research topics which will hopefully be funded by national and international grants. Annual field workshops are planned, with the next one in the Czech Republic in 2007. The newly established VENTS homepage provides insights into the current state of the project (www.geo.tufreiberg.de/dynamo/VENTS.htm).

> Marek Awdankiewicz (Wrocław University), Christoph Breitkreuz (TU Bergakademie Freiberg)

The 13th Meeting of the Petrology Group of the Mineralogical Society of Poland, Leśna, October 19-22, 2006

Since the first meeting of the Petrology Group of the Polish Mineralogical Society, which took place in October, 1994, it has stood as an annual opportunity for Polish petrologists to share recent research results and ideas. The 13th meeting of the Petrology Group took place in Leśna, near Lubań in the south-west of Poland, from the 19th to 22nd October, 2006. The conference was organized by the Mineralogical Society of Poland and the Institute of Geological Sciences of the University of Wrocław, in partnership with the Institute of Geological Sciences of the Jagiellonian University. The meeting was organized thanks to financial support of the Ministry of Science and Higher Education, and the sponsorship of Łużyckie Kopalnie Bazaltu "Ksieginki" S.A. Quite a few foreign guests from Austria, Belgium, Hungary, Romania and the United Kingdom were present, as well as the numerous attendees from Poland. As a special guest, Professor M. O. Jedrysek, Secretary of State of the Ministry of the Environment, and Chief National Geologist. The main theme of the conference was the petrology of the upper mantle and the related Tertiary Central European Volcanic Province.

During the four days of the conference, 20 talks were given, grouped within seven sessions. Two poster sessions also took place, scheduled for the second and third evenings of the conference. A total of 32 posters were presented, covering the main topic of the conference, as well as other petrological and mineralogical activities of participants.

The training center Złoty Sen, where the meeting was held, is a beautiful conference venue, located in the woods on the shore the Leśniańsko-Złotnickie artificial lake. Beauty, and the charm of the area was fully appreciated by the attendees, and was conducive to the fruitful scientific discussions. An important reason for locating the conference there was the numerous outcrops of Tertiary basalts within this region of Lower Silesia.

The first three sessions were dominated by lectures concerned with the upper mantle petrology. Jacek Puziewicz and Marek Michalik opened the meeting. The first lecture, entitled "The last metasomatic event in the upper mantle beneath SW Poland", was given by J. Puziewicz (University of Wrocław). It was followed by two presenta-

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tions given by H. Downes (University of London, UK), "Application of Lu-Hf isotopes and trace elements to problems of mantle petrogenesis: an example from the French Massif Central" and "Metasomatism of the east Serbian shallow mantle: constraints from the study of mantle xenoliths and host alkaline rocks". Other lectures devoted to the upper mantle were presented by S. Harangi (Eötvös University, Hungary), A. Ladenberger (Jagiellonian University), P. Gunia (University of Wrocław), M. Matusiak (University of Wrocław) and M. Napieralska (A. Mickiewicz University, Poznań). The remaining sessions were devoted to petrology in its broadest sense. Full versions of the extended abstracts submitted by the attendees, accepted and reviewed by the Scientific Committee of the conference, have been published in 29th volume of "Mineralogia Polonica - Special Papers".

A field trip was organized for the third and fourth days of the meeting. The conference participants had the opportunity to get familiar with the ultramafic enclaves and their host rocks, the Tertiary Lower-Silesian basalts. They visited an active quarry in Krzeniów, close to Złotoryja, during the first trip. The program of the trip also involved a visit to the quarries at Księginki near Lubań and Winna Góra near Jawor, which took place during the last day of conference. The former is known as the richest in peridotitic enclaves in Central Europe.

The conference was organized very well in the opinion of its participants. It provided a review of current petrological research in Poland. The presented findings proved,



The participants of the 13th Meeting of the Petrology Group during the field trip in the active quarry at Winna Góra, near Jawor (photo W. Bartz)

among other things, that there has been a great advance in the understanding of geological issues concerning the petrology of the upper mantle. It is worth emphasizing that the conference was an opportunity to meet other specialists, exchange opinions, and plan joint research and publications.

> Wojciech Bartz (Wrocław University)