

TERNATIONAL ASSOCIATION OF SEDIMENTOLOGIST



April 2008

http://www.iasnet.org

N° 215

Contents

- 3 Sedimentology in Hungary
- 9 Charlotte Schreiber Sorby Lectures, Autumn 2007
- 17 E-Alerts services for Sedimentology
- 18 IAS Postgraduate Grant Scheme
- Calendar 20

IAS Bureau and Council

President: Finn Surlyk, University of Copenhagen, Denmark

finns@geol.ku.dk

Past-President: Judith A. McKenzie, ETH-Zentrum, Zurich, Switzerland

sediment@erdw.ethz.ch

Vice-Presidents: Maria Mutti, Universität Potsdam, Germany

mmutti@)geo.uni-potsdam.de

Davor Pavelic, University of Zagreb, Croatia

davor.pavelic@rgn.hr

Eduardo Piovano, GIGES, Córdoba, Argentina

epiovano@efn.uncor.edu

General Secretary: José-Pedro Calvo, IGME, Madrid, Spain

jose.calvo@igme.es

Treasurer: Patric Jacobs, Ghent University, Belgium (e-mail:

patric.jacobs@UGent.be)

Editors: Paul A. Carling, University of Southampton, UK (e-

mail: P.A.Carling@soton.ac.uk)

Peter Swart, Rosentiel School of Marine and Atmospheric Science, Miami, USA (e-mail:

pswart@rsmas.miami.edu)

Special Publications

Secretary:

Ian Jarvis, Kingston University, UK (e-mail:

i.jarvis@kingston.ac.uk)

Council Members: A.S. Alsharhan, Al-Ain, United Arab Emirates

sharhana@emirates.net.ae

Nic Beukes, University of Johannesburg, South Africa

nib@rau.ac.za

Gilbert Camoin, CEREGE CNRS, France

gcamoin@cerege.fr

Brian Jones, University of Alberta, Edmonton, Canada

Brian.Jones@ualberta.ca

Ryo Matsumoto, University of Tokyo, Japan

ryo@eps.s.u-tokyo.ac.jp

Dilce Rossetti, INPE, Sao Paulo, Brazil

rossetti@dsr.inpe.br

REPORT

Sedimentology in Hungary

C edimentological investigations are performed in various institutions in Hungary, at different universities, the Geological Institute of Hungary, the Geological Research Group of the Hungarian Academy of Sciences, as well as at the national oil company, MOL. Sedimentologists, however, are loosely organized in a group, namely the Hungarian Sedimentological Committee which is affiliated to the Geological Committee of the Hungarian Academy of Sciences. The leaders (chairman and secretary are elected by the members for three years) of the Committee are concerned to invite colleagues working in sedimentology to participate in the work. The number of sedimentologists is rather limited in Hungary (being the country itself small), and usually there is a personal contact among them.

The aim of the Sedimentological Committee is manifold. First of all the members simply try to keep in touch and get known each others' research. The committee organizes different annual meetings for discussion of the former and forthcoming events and scientific meetings to introduce new results presented on different international conferences and organizes field-trips and short-courses. On the other hand they try to represent the subject area on the forums of the Hungarian Academy of Sciences and keep the contact with IAS, organize lecture tours or apply for guest lecturers. In the last two years our highly acknowledged guests were Maurice Tucker in 2006, Charlotte Schreiber in 2007 in the frame of an IAS Lecture Tour program, and Henry Posamentier and Mateu Esteban in an AAPG organization in 2006. There is no real financial background of the committee (as there is no official membership), the work has been driven by enthusiasm inspired by the secretary and the chairman (or chairwoman). Being a rather centralized country, and most of the meetings are held in Budapest, either in the new campus of the Eötvös Loránd University or in the beautiful art neuveau building of the



Geological Institute of Hungary.

Last year there were changes in the leadership of the Sedimentological Committee. The former chairwoman (Orsolya Sztanó) and secretary (Gyorgyi Juhasz) has just delegated responsibility to a fresh staff: Felicitasz Velledits (E-mail: fvelledits@freemail.hu) as chair and Edit Babinszki (E-mail: babinszki@mafi.hu) as secretary. The status of the national correspondent was passed to Kinga Hips (E-mail: hips@ludens.elte.hu).

The preferred areas and subjects of the sedimentological studies are determined by the geology of the country. Hungary lies in the central part of the Neogene Pannonian Basin filled mostly by siliciclastics. Therefore lots of geologists work on different aspects of clastic sedimentology, sequence stratigraphy and basin analysis. A mosaic of pre-Neogene terranes of various origin,

which are made up of Paleozoic, Mesozoic and Paleogene rocks, mostly carbonates form the basement of the young basins and these formations crop out in the mountain ranges of moderate altitude. Therefore carbonate sedimentology plays also an important role in Hungary.

The siliciclastic sedimentology has two main focus areas; studies on the thick sedimentary fill of the Pannonian Basin, and investigations of Quaternary sediments which need totally different approaches.

The 2000-6000 m thick Middle-to-Late Miocene - Pliocene syn- and post-rift fill of the Pannonian Basin provides tasks to numerous geologists working for different institutions. In spite of the fact that so many problems have been solved, in the course of the work the large-scale theoretical models were commonly disturbed by newly

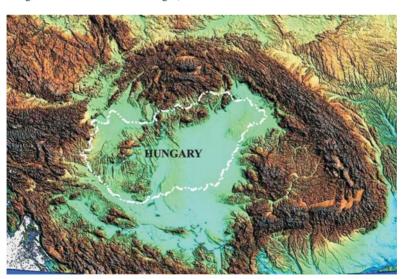


Figure 1. Location of Hungary in the Carpathian loop. (Map drawn after Timár et al. 2003 by Z. Unger 2007).

acquired data and interpretations, arising new questions and problems. New approaches, especially thorough integration of the results of different areas can develop new models and better understanding of the basin. Investigation of the tectonic and climatic controls on sedimentation and the role of sediment supply has become new focus areas recently. Provenance studies also significantly contributed to better interpretation of the sedimentary processes.

Another possibility to improve our knowledge is the thorough sedimentological reinterpretation of the outcrops of the basinal sediments which can be found in very limited areas in Hungary. High-resolution seismic acquisition carried out on lakes and rivers assisted the higher-scale interpretation and these results could be extrapolated towards the deeper parts of the basin.

Quaternary sediments may reach several 100 m thickness in the central parts of the basin which gives way to the investigation of cyclicity on different scales, and even to correlate the cycles with the marine oxygen isotope curves. The role of tectonic and climatic forcing during sedimentation is also in the focus of research.

In the latest years detailed study of prominent extinction intervals got to the focus of interest internationally.

Continuous marine Permian/
Triassic boundary sections in the Bükk Mts provided good opportunity for detailed investigations inclusively the sedimentological aspects. Peculiar microbial carbonates formed directly after the catastrophic boundary events were also subject of investigations.



Figure 2. Large-scale foresets of a Gilbert-type delta with O. Sztanó and D. Ulicny.





Figure 3. Permian-Triassic boundary section in the Bükk Mountains, North Hungary.

Carbonate sedimentological studies on Middle Triassic platform carbonates and coeval intraplatform basin deposits with special regard to the relationships between the extensional tectonics and the facies pattern significantly progressed in the area of the Transdanubian Range. The latest results were also presented on a field trip in 2007 organised by the Sedimentological Commission and the Hungarian Geological Society.

Detailed studies of Middle Triassic reefal and coeval basinal carbonates were carried out in the Aggtelek Mts, northeastern Hungary. A combined workshop and field trip with Austrian and Slovakian participants dedicated for presentation of the results of this project and for the discussion of the still open questions was organised

also by the Commission and the Society in 2006.

In the Mecsek area, South Hungary important achievements were reached in the study of high frequency cyclicity of Middle Triassic carbonate ramp deposits applying sedimentological and micropaleontological methods.

Sedimentological investigation and component analysis of a Middle Jurassic accretionary complex are under way in the Bükk-Darnó area, northeast Hungary. These studies proved that dislocated fragments of the Neotethys suture occur in this area and a significant part of the arenite to rudite-sized clasts and olistoliths originated from the toe-of-slope zone of the Adriatic Carbonate Platform.

Summarising works were published on the Early Cretaceous atolls



Figure 4. Carnian limestone of basin facies at Pécsely, Balaton Highland with participants of the field workshop in 2007.



Figure 5. Upper Triassic platform limestones and Lower Jurassic basin facies in the Geological Conservation Area at Calvary Hill, Tata, Transdanubian Range.



formed on basalt volcanoes in the Mecsek Mts and Urgon type rudist limestones in the Transdanubian Range and Villány Hills, South Hungary.

Detailed sedimentological study of Eocene carbonates has been recently completed in the area of the northeastern part of the Transdanubian Range. The Late Lutetian—Bartonian depositional pattern was determined by tectonically active elevated ridges and depressions. Homoclinal to distally steepend subtropical carbonate ramp sedimentation characterized the ridges, whereas siliciclastic deposition prevailed in the depressions.

In the International Year of Planet Earth the Sedimentological Committee pays special attention for the education and dispatch the message of our science for everyday people.

for gyor gyi Junasz (junaszamaji.nu)
former IAS National Correspondent
for Hungary
and former secretary of the Committee
János Haas (haas@ ludens.elte.hu)
earlier chairman and founder of the
Committee
Kinga Hips (hips@ ludens.elte.hu)
new IAS National Correspondent for
Hungary
Felicitász Velledits
(fvelledits@freemail.hu)
new chairwoman of the Committee

REPORT

Charlotte Schreiber – Sorby Lectures, Autumn 2007

his autumn I had the privilege of presenting the Sorby lectures in four eastern European countries (Poland, Hungary, Croatia, and Greece), delivering eight talks, five of which were the invited, formal presentations and three others were impromtu, as an audience presented itself. When I returned to North America I had a week to wash my laundry, play with my cat, and then flew to Chicago where I spoke at four different universities in midwestern USA. One of these Sorby talks was an unexpected opportunity, when another speaker failed to arrive for a departmental seminar. Each place I visited afforded me an exciting learning experience, always getting many new ideas.

Poland

When I arrived in Warsaw, Poland, it seemed very different from the areas of western Europe that I know so well – particularly because the cadence of the language was so different to my ears. But, there was





my friend Maciej B¹bel, waiting just outside of the door from customs clearance, with a familiar, warm smile and a hearty welcome. Throughout my visit Dr Tadeusz Peryt (Director, Geolgical Survey of Poland) saw to it that I had extraordinarily fine level of hospitality. He and his department provided a spectacular ten-day geological field trip on my behalf, with a car, a driver and comfortable places to stay. Dr. Stefano Lugli, a co-worker from Italy (University of Modena), another student of evaporitic sediments, joined us as a



participant on this tour. Most of the trip was thought through, planned, and led by Dr. Maciej B1bel, one of the foremost specialists in evaporite sedimentation and diagenesis (University of Warsaw). It was his papers and manuscripts that fired my interest and caused me to want to make a visit to Poland, the land of my ancestors. Additional expertise and leadership from Drs. Czapowski and Bukowski was afforded in visiting the various salt mines, and their guidance in studying these spectacular sites was indispensable. In Warsaw, I was privileged to lecture in the lovely Muzeum Geologiczne (Pañstwowego Instytutu Geologicznego), which would have undoubtedly thrilled my parents, who had been students at the University of Warsaw (just after the first World War).

Before we began on the field tour of the Miocene (Badenian) evaporite sequence, Dr. Grzegorz Czapowski took me into the K3odawa salt mine to study the Late Permian Zechstein salts of Poland, of which I had read but never seen. This mine. ~150 km to the west of Warsaw, permitted observations of only mildly deformed salts (salt deforms very easily) plus many facies, such as the 'zuber' salt, a term which is common in the European literature but I had never properly observed. This type of deposit is largely made up of halite within a clay matrix. The formation of this mixture variously may be the product of displacive growth, tectonism, synsedimentary slumping and perhaps (in some cases) the result of solutional collapse. Also the colour of both the evaporites and the matrix may be grey, greenish,



Figure 1. Some depositional facies from the Badenian gypsum evaporite deposits of Poland. a) Skeletal gypsum, with interstices filled with clay matrix; b) Aligned sabre gypsum, oriented due to strong, well-defined currents; c) Giant gypsum crystals; d) Microbially controlled fine-grained gypsum layers (stromatolitic), alternating with layers of crystalline gypsum.

brown or red and the evaporites apparently may be anywhere from fragmental to whole, well-formed, interlocking crystals. The evening of the visit to the mine in the Zechstein, after dinner, there were so many questions offered by the vounger mine geologists that it became the occasion for the first of the impromtu talks. Using my computer screen and an amazing simultaneous translation made by Dr. Czapowski. I was able to answer many of the questions that had come up during the observations made during the mine visit. The next day I was able to view cores taken from these formations, which permitted a clearer understanding of the many facies

From Warsaw we embarked on a visit to a series of the many facies seen in the Middle Miocene gypsum deposits across Poland. The first study region was in the Nida Gypsum deposits. A series of photos, showing the details some of these facies is given in Figures 1, a-d. Additionally I had the pleasure of staying at the home of the B1bel family at the edge of the town of Ostrowiec Œwiêtokrzyski. Personal hospitality is fairly common in the United States, but is a rare privilege for foreigners in Poland and I feel honoured to have shared a bit of the normal family life of my friends.

While in Ostrowiec, Dr. J. Tomasz B¹bel (archaeologist) took us to visit the Krzemionki-archaeological site, which he designed and supervises. This area contains pits and mines that were quarried for chert by the early inhabitants of central Poland (3900-2900 BCE). This area provides spectacular deposits of banded chert dug in Neolithic times (at depths down to 10 m). The

cherts have formed diagenetically within shallow-water Jurassic limestones within specific beds having crab-burrowed horizons and the chert apparently fills and/or replaces these burrows (Figs. 2 a-d). This visit was so interesting that I have actually constructed a powerpoint presentation, using photos from the reconstructed mine plus several published articles. Not only was this visit interesting and unusual. but it also served the purpose of interesting two of my undergraduate American students (of Polish birth) who now want to visit the area and perhaps study it further (scientific exchange works BOTH ways). Any one who is interested in this subject can obtain this presentation by contacting me at

<geologo1@u.washington.edu>.

The three of us then travelled on to see more of the Nida gypsum (Badenian) and stayed several nights at the excellent accommodations provided by the Geological Survey at Kielce. This housing included entry



Figure 2. Krzemionki-archaeological site showing mine and chert. a) Modern tunnel (more than 2 m high) with original mine structure preserved; b) Mine wall in Jurassic limestone (white) with dark coloured chert nodules protruding; c) Mine ceiling showing interconnected crab burrows (dark chert in burrows); d) Broken surface of a large chert nodule, showing well-defined internal colour banding.



to a small museum in the same building, after hours— and we had it all to ourselves. But there was a price for this pleasure because the resident scientific staff of the Survey wanted an overview talk about their evaporites, so the topic of «Understanding Evaporites» was presented and became the subject of much discussion. Our ensuing field studies included the very large Borków quarry that contains a thick, fairly complete section of the Badenian gypsum, with welldeveloped stratigraphy and discrete facies expressions (Figs. 3 a-d).

We continued within the Nida Gypsum and onto the Miechow upland, finally visiting the spectacular old quarry at Bogucice-

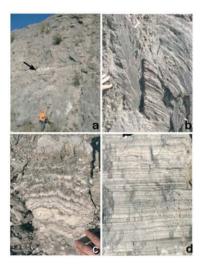


Figure 3. Borków quarry. a) General stratigraphic section in a single vertical cut face (note arrow, see photo 3c); b) Lower bed, composed of large, well-developed giant crystals; c) White layer at arrow in 3a is made up of gypsum microbialite deposits; d) More regular (laminar) microbialite, passing upward into gently curved layers.

Skalki, where the gypsum crystals are the largest and most beautifully developed in the Carpathian area. I visited this site briefly in 1978, not realizing that this crystal development is in fact so unique. The quarry itself is partially infilled and flooded but the crystals are worth the visit (Figs. 4 a&b).

In Krakow we staved at the Geological Survey of Poland at Krakow, a convenient location with rooms for all three of us plus well-supplied kitchen privileges, and halls full of lovely museumquality geological specimens. This was a wonderful base for our final visits to see the Badenian salts. During the visits to the two mines in the salt deposits (the Bochnia and Wieliczka salt mines) Drs. K. Bukowski, and G. Czapowski joined with Dr. B¹bel in presenting their ideas and observations. Much to my jov Professor A. Garlicki, famous for his work with these salts, joined us in the mine visits and discussions The salts, mined for almost 1000 years, lie in the deformed basin of the Carpathian foreland. While many sedimentary structures in these salts remain evident, such as bedding and stratigraphy, the tectonism has rendered the sequence into a series of folds and shears that telescope synsedimentary and later features into a confusing array (Figs. 5 a-d).

A final touristic visit to the spectacular exhumed karst area in the Jurassic limestones near Krakow completed my visit to Poland (Szlak Orlich Gniazd and the Castle of Pieskowa Ska³a), and I left on the night train for Budapest.

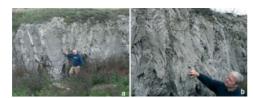


Figure 4. Nida gypsum as seen on the Miechow upland: Bogucice-Skalki quarry. a) Outcrop view; note crystal size, form, and bedding (Dr.Lugli is ~213 cm tall); b) Complex crystal arrangement, with numerous subcrystals (Dr. Babel, for scale).

Figure 5. Characteristic features seen in the Badenian salt mines of Wieliczka and Bochnia. a) Fold, with simple deformation (plus thickening and thinning) on sides and apex of fold; b) Halite crystals in an anhydrite/carbonate matrix, containing zoned fluid inclusions; c) Tight fold with some stretching. Note fine-grained fluid inclusions in the halite between the separated segments (milky colour); d) Compressed fold in a layer of argillaceous anhydrite in halite.

went to the graplogical gardens.

Hungary

Dr. Felicitáz Velledits was a most gracious host, and arranged every detail both for my talks at the Eötvös Loránd University and my ensuing field trips. As has been the case in most places, after I gave my planned presentation more questions came up and an unplanned continuation took place, covering the new work we are doing concerning the evaporites on Mars. I was also able to meet several very interesting people in the department whose papers I have read, and was able to ask my own questions about their work. Then, over the next days, Drs. Géza Császár and János Haas (both of Eötvös Loránd University) took me out on field trips to see the Mesozoic carbonates of Hungary. This included the spectacular Urgon formations a shallow-water Cretaceous facies containing numerous megalodonts and copious shallow-water benthic foraminifera (Császár, 2002). Then I went to the «geological gardens» with Dr. Haas. This well-appointed geological preserve in Tata (on Kálvária Hill) contains a nearly continuous, highly fossiliferous, sedimentary succession extending from Late Triassic to the Early Cretaceous (Fig. 6a &b; see Haas, 2007). The Triassic/Jurassic boundary is very well exposed and there are beautiful pink neptunian dikes and fossil infill (Jurassic sediments) crosscutting and filling fossil moulds in the white limestones of the Late Triassic.

Finally, on my last afternoon in Hungary, I was able to play tourist and see Budapest from a riverboat on the Danube, through the kindness of Dr. Velledits, an unexpected finale to my visit.

Croatia

I made a presentation at the University of Zagreb where Drs. Davor Pavelic and Igor Vlahoviè were my hosts. Then, after my talk I





Figure 6. Mesozoic carbonates of Hungary in continuous section seen at Tata Geological Gardens, Transdanubian Range, Hungary. a) Conformable Late Triassic (white limestone) through Jurassic beds (pink limestone) seen at outcrop. Arrow (at left) indicates boundary; b) Moulds of fossils in the Late Triassic beds infilled by Jurassic micrite (dark pink colour).

went for a day to give a lecture and look at some evaporite cores, hosted by the INA-Naftaplin Company (the Croatian national oil company). The next morning we went on field trip to the evaporites of the central Dinarides. The leaders were Professors Ivan Dragièeviè, Josip Tšljar and Davor Pavelic who took us to see the deformed Permian evaporites of Croatia. In particular, Dr. Dragièeviè gave an extraordinarily clear overview of the stratigraphy - so clear, that while the presentation was in Croatian, I was able to follow the ideas. Originally the stratigraphy of this sequence, in the central Dinarides of southern Croatia and western Bosnia, was grouped as «Permo-Triassic», but their Permian origins have been clearly demonstrated at the area of Kukor-Knin by Tšljar (1992) and then later in detail by Aljinoviæ et al. (2003). The stratigraphy strongly resembles that of the Permian evaporites (Bellerophon Fm.) of the Italian Dolomites with their overlying Triassic sequences. The most spectacular quarry of this deposit was present where the evaporitic deposit is exposed in a diapiric structure in the quarries at Sinj (Figs. 7 a-d). This site really

deserves considerable future study as it demonstrates the results of deformation, recrystallization at elevated temperatures, thermochemical sulphate reduction that produced sulphur within coarse secondary anhydrite as well as the ubiquitous karst development of the area.



Figure 7. Deformed Permian evaporites in the diapir quarried near the town of Sinj, Croatia. a) Overview of deformed evaporite beds, karstified near the upper surface. b) Tight fold formed as the result of plastic deformation in a mixture of dolomite (black) and anhydrite (white to grey); c) Large clasts of dolomite affected by brittle fracture, preserved at the centres of folds. d) Augen-structure formed by brittle clasts of dolomite retained in the midst of plastically deformed anhydrite/dolomite mixture. Pressure shadows and fracture fills (white) are gypsum.

Greece

My first host Dr. Fotini Pomoni-Papaioannou greeted me at the Athens airport together with her husband, and together they drove me into the centre of Athens to my hotel - a very courageous endeavour in view of the aggressive snarl of traffic. The next day, at the university, besides giving my talk, I was able to study the thin-sections of the Triassic evaporites that Dr. Pomoni-Papaioannou has studied and reported (Pomoni-Papaioannou et

al., 2004). This review of thin sections was a great pleasure for me because her interpretations are exactly correct, but commonly such rocks are misinterpreted. Sadly I could not see the hand samples or the outcrops, which might have been even more revealing. Such deformed evaporites are truly gneissic in appearance, the product of both tectonism and somewhat elevated temperatures.

I went on to visit Thessaloniki, where Dr. Ananias Tsiirambides was my host at the Aristotle University of Thessaloniki. I was able to deliver my talk in an exceptional lecture pavilion, built in the style of an old Greek temple, but with modern electronic amenities. The next day Dr. Tsiirambides took me to the archaeological sites at Vergina (the heart of Macedonia) where we visited the famed tomb of Phillip II, which has been reconstructed in an underground museum, much as the original burial site had been situated.

Chicago Area

The most recent Sorby speaking engagements in United States took place at three Illinois Universities in November of 2007. First, I spoke at University of Illinois, Chicago. While I was there Professors Fabien Kenig and Carol Stein, who were my hosts, indulged my passion for discussion concerning evaporites and how they fit into the sedimentary record, on any planet that you may please (Earth and Mars for example) and again a short unplanned presentation was made concerning work on the evaporites of Mars. The next day the talks were at two different universities in the same area, first the University of Chicago

in the morning where my host Dr. Susan Kidwell was particularly concerned that I have discussions with a number of young graduate students who are looking to dedicated careers in geology. These conversations were interesting because they brought me into an awareness of the many problems young students have to face and I was able to share my own experiences as a geologist with them. Then I was whisked across the Illinois countryside to Dekalb. Illinois where, in the late afternoon, I spoke at Northern Illinois University. This visit was arranged by my dear friend, Joseph Filomena, who is a graduate student there. My host, Professor Eugene Perry, was very pleased that the students and faculty could learn more about these unusual sediments. In particular Dr. Perry had many questions, because the nearby Michigan basin is filled with a great thickness of salts, but is not well understood.

Additionally I visited Kalamazoo. Michigan for the second time on the Sorby tour, to satisfy my own lithological interests (Western Michigan University). There I was able to work on the Ordovician and Silurian evaporites of the Michigan Basin, long a subject of great interest to me. As is so often the case, a visiting researcher is pressed into service as a replacement for a missing (scheduled) speaker. So while there I gave an unscheduled but satisfying talk about the structural behaviour of some evaporites I have studied on Mars. My host, who occasioned that impromptu Sorby lecture, was the tectonicist Dr. Michele Kominz

With this series of talks I have completed the year 2007 as a Sorby



lecturer, really pleased that I could learn so much that is new!

References

- Aljinoviæ, D., Sremac, J. and Ibrahimpašiæ, H. (2003) Permian and Lower Triassic Facies of Velebit Mt. and the Gorski Kotar Region (NW part of External Dinarides). In: Vlahoviæ, I. &Tšljar, J. Evolution of Depositional Elements from the Paleozoic to the Quaternary in the Karst Dinarides and the Pannonian Basin. 22nd IAS Meeting of Sedimentology Opatija 2003. Field Trip Guidebook. Field Trip P 7, 185–206.
- B¹bel, M. (2005) Selenite-gypsum microbialite facies and sedimentary evolution of the Badenian evaporite basin of the northern Carpathian Foredeep. *Acta Geologica Polonica*, 55(2), 187–210.
- B'bel, M. and Becker, A. (2006) Cyclonic brine-flow pattern recorded by oriented gypsum crystals in the Badenian evaporite basin of the northern Carpathian Foredeep. *Journal of Sedimentary Research*. 76. 996-1011.

- Császár, G. (2002) Urgon formations in Hungary. Geologica Hungarica, Series geologica, 25, 3-209.
- Haas, J. (2007) Geological Garden in Tata, Transdanubian Range, Hungary. Nova Acta Leopoldina, 94 (349), 237–251.
- Pomoni-Papaioannou, F., Karakitsios, V., Kamberis, E. and Marnelis, F. (2004) Chevron-type halite and nodular anhydrite in the Triassic subsurface evaporites of the Ionian zone (Western Greece). Bulletin of the Geological Society of Greece, XXXVI, 578-586.
- Tšljar, J. (1992) Origin and depositional environments of the Evaporite and Carbonate Complex (Upper Permian) from the central part of the Dinarides (Southern Croatia and Western Bosnia). *Geologica Croatia*, 45, 115–126.

Prof. B. Charlotte Schreiber Sorby Medal 2006 E-mail: geologo@comcast.net

ANNOUNCEMENT

Flexible alerting services for Sedimentology

Blackwell Synergy provides a range of article alerting services, so you can choose how to receive the information you need.

- ◆ Table of Contents alerts (E-Alerts): Stay in touch with the latest research in Sedimentology; receive E-Alerts direct to your inbox.
- New! Online Early Alerts: receive alerts when articles appear online ahead of an issue
- Citation tracking: be

- alerted as soon as an article is cited by a new article on Blackwell Synergy, or in other journals through CrossRef.
- Research alerts: receive an update whenever a new article is published matching your saved search criteria.

Find all three services at www.blackwell-synergy.com/loi/sed to sign-up for Email Table of Contents alerts (E-Alerts) completely free.



IAS Postgraduate Grant Scheme

has established a grant scheme designed to help PhD students with their studies. We are offering to support postgraduates in their fieldwork, data acquisition and analysis, visits to other institutes to use specialised facilities, or participation in field excursions directly related to the PhD research subject.

Up to 10 grants, each of about € 1000 are awarded twice a year.

These grants are available for IAS members only, and only for PhD students. Students enrolled in MSc programs are NOT eligible for grants. Research grants are NOT given for travel to attend a scientific conference, NOR for acquisition of equipment. Student travel grants for conferences can be usually obtained directly from organizers of the meeting.

The **Grant Scheme Guidelines** provide a summary of required information needed for successful a Grant Application. Applications are evaluated on the basis of the scientific merits of the problems, the capability of the researcher, and reasonableness of the budget.

Supervisor's Letter Guidelines list the information needed

IAS Grant Scheme Guidelines

The application should be concise and informative and contains the following information (limit your application to 4 pages): Research proposal - 2 pages maximum Bibliography - ½ page Budget - ½ page Curriculum Vitae - 1 page

Recommendation letter (or e-mail) from the supervisor supporting the applicant is mandatory and the research proposal must be sent directly to the Treasurer of IAS by the application deadline.

Guidelines for letter from supervisor

The letter from the supervisor should provide an evaluation of the capability of the student to carry out the proposed research, the significance and necessity of the research, and reasonableness of the budget request. The letter must be sent directly to the Treasurer of IAS by post or e-mail by the application deadline (Patric Jacobs. Department of Geology and Soil Science, Ghent University, Krijgslaan 281/S8, B-9000 Gent, BELGIUM. E-mail: patric.jacobs@ugent.be). An application form is on our website (http://www.iasnet.org).

Grant application

Research Proposal -

- Title
- Introduction: Introduce the topic and provide

relevant background information; summarise previous work by you or others. Provide the context for your proposed study in terms of geography, geology, and /or scientific discipline.

- ♦ Motivation: It should have a clearly written hypothesis or a well-explained research problem of geologic significance. It should explain why it is important. Simply collecting data without an objective is not considered wise use of resources.
- Methods: Outline the research strategy (methods) that you plan to use to solve the problem in the field and/ or in the laboratory. Please include information on data collection, data analyses, and data interpretation.
- Facilities: Briefly list research and study facilities available to you,

- such as field and laboratory equipment, computers, library.
- ◆ Bibliography:
 provide a list of key (510) publications that
 are relevant to your
 proposed research. The
 list should show that
 you have done adequate
 background research on
 your project and are
 assured that your
 methodology is solid
 and that the project has
 not been done already.
- Budget: Provide a brief summary of the total cost of the research. Clearly indicate the amount (in euros) being requested. State specifically what the IAS grant funds will be used for.
- Curriculum Vitae:

 Name, postal address, email address, university
 education (degrees &
 dates), work
 experience, awards and
 scholarships,
 independent research
 projects, your abstracts
 and publications.

Application deadlines: 1st session: March 31

2nd session: September 30

Recipient notification: 1st session: before June 30

2nd session: before December 31



CALENDAR

XII ARGENTINE MEETING OF SEDIMENTOLOGY*

3-6 June, 2008 Buenos Aires, Argentina Dr. Roberto Scasso Departamento de Geología Universidad de Buenos Aires E-mail: xiiras@gl.fcen.uba.ar Website: www.sedimentologia.org.ar/xiiras

CHEMOSTRATIGRAPHY: APPLICATIONS, LIMITATIONS AND IMPLICATIONS FOR GLOBAL ENVIRONMENTAL CHANGE

(Short course, with accompanying field excursion, to be taught by Prof. Hugh Jenkyns-Oxford)

7-10 July, 2008 University of Trieste, Italv

Froj. Daniele Masetti E-mail: masetti@unis.it Website: http://www.unts.it/disgam/jenkyns

CENTRAL ATLANTIC CONJUGATE MARGINS CONFERENCE/ HALIFAX 2008

13-15 August, 2008 Halifax, Nova Scotia

Trudy Lewis
E-mail: Trudy.Lewis@Lewisconferences.com
Website: www.conjugatemargins.com

6[™] International Conference on Asian Marine Geology (ICAMG-6)

29 August-1 September, 2008 Kochi, Japan Yoshi Saito E-mail: yoshiki.saito@aist.go.jp Website: http://ofgs.ori.u-tokyo.ac.jp/ICAMG6/



26[™] MEETING OF SEDIMENTOLOGY*

1-3 September, 2008 Bochum Germany Dr. Adrian Immenhauser
Ruhr-University Bochum
Faculty of Earth Sciences
Institute for Geology, Mineralogy and Geophysics
Universitätsstrasse 150
D-44801 Bochum/Germany
E-mail: adrian.immenhauser@rub.de
Website: http://www.ruhr-uni-bochum.de/sediment/

THE SECOND INTERNATIONAL CONGRESS ON ICHNOLOGY ICHNIA 2008

1-5 September, 2008 Cracow, Poland Prof. Alfred Uchman
Institute Nauk Geologicznych
Jagiellonian University
Cracow, Poland
Tel.: +48 126 336 377
E-mail: alfred.uchman@uj.edu.pl
Website: http://www.uj.edu.pl/ING/ichnia08/index.html

POKOS'3 - POLISH SEDIMENTOLOGICAL CONFERENCE REGIONAL CONTEXT OF SEDIMENTARY ENVIRONMENTS AND PROCESSES

17-19 September, 2008 Kudowa Zdrój, Sudetes, Poland Dr. Jurand Wojewoda Institute of Geological Sciences, University of Wroclaw E-mail: %20pokos3@ing.uni.wroc.pl Website: http://www.pokos.img.uni.wroc.pl/

XIII LATINAMERICAN CONGRESS OF GEOLOGY & XIV PERUVIAN CONGRESS OF GEOLOGY*

29 September -3 October, 2008 Lima, Perú Contact: José Arce (President of the Organizing
Committee)
E-mail: josearce@geofisicos.com.pe
José Daudt (Sedimentology/Stratigraphy/
Hydrocarbon Geology)
E-mail: jose.daudt@petrobras.com
Website: (under construction): http://
www.congresosgp.com/
Website Sociedad Geológica del Perú: http://sgp.org.pe



FROM RIVER TO ROCK RECORD

THE PRESERVATION OF FLUVIAL SEDIMENTS AND THEIR SUBSEQUENT INTERPRETATION

12-14 January, 2009 Aberdeen, Scotland, UK Stephanie Davidson E-mail: s.k.davidson@abdn.ac.uk Sophie Lelou E-mail: sophie.lelou@abdn.ac.uk Website: http://www.abdn.ac.uk/geology/



18[™] INTERNATIONAL SEDIMENTOLOGICAL CONGRESS*

26 September, 1 October, 2010 Mendoza, Argentina Eduardo Piovano GIGES Dpto. Química, Facultad de Ciencias Avda. Velez Sarsfield 1611 X501GCA, Córdoba, Argentina E-mail: epiovano@efn.uncor.edu

* THESE EVENTS HAVE FULL OR PARTIAL IAS SPONSORSHIP





IAS-Homepage: http://www.iasnet.org

This Newsletter has been printed by Data Print Ltd. 11a West Way Botley Oxford OX2 0JB, UK Designed by Proedex s.l. Francisco Silvela 27 28028 Madrid editorial@proedex.com Contributions to be sent to:

José Pedro Calvo
IAS General Secretary
Instituto Geológico y Minero de España
c/ Ríos Rosas, 23.
28005, Madrid, Spain
Tel.: +34 913 495 692
Fax: +34 913 495 817