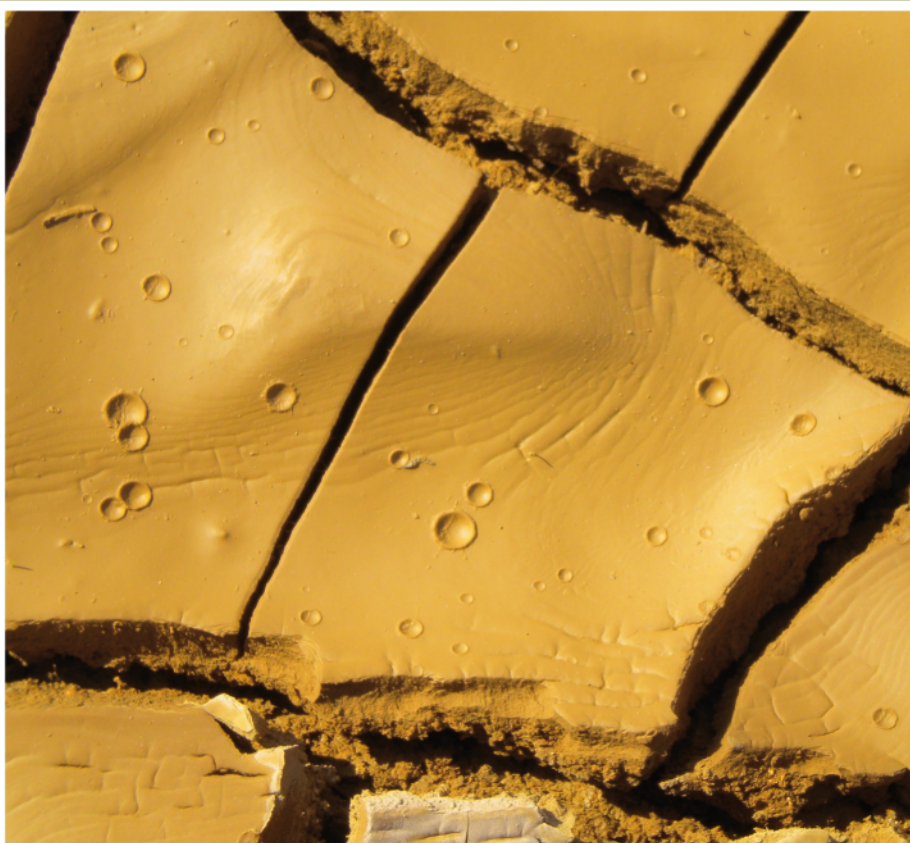


IAS

NwLtr 243

December 2012

www.sedimentologists.org



**International Association
of Sedimentologists**

IAS Bureau and Council

President: **Poppe de Boer**, Utrecht University, The Netherlands:
pdeboer@geo.uu.nl

Past-President: **Finn Surlyk**, University of Copenhagen, Denmark:
finns@geo.ku.dk

Vice-Presidents: **Daniel Ariztegui**, University of Geneva, Switzerland:
Daniel.Ariztegui@unige.ch
Hiroki Matsuda, Kumamoto University, Japan:
hmat@sci.kumamoto-u.ac.jp
Dilce Rossetti, INPE, Sao Paulo, Brazil:
rossetti@dsr.inpe.br

General Secretary: **Vincenzo Pascucci**, University of Sassari, Italy:
pascucci@uniss.it

Treasurer: **Marc De Batist**, Ghent University, Belgium:
marc.debatist@UGent.be

Deputy Treasurer: **Patric Jacobs**, Ghent University, Belgium:
patric.jacobs@UGent.be

Editors: **Peter Swart**, Rosenstiel School of Marine and
Atmospheric Science, Miami, USA:
pswart@rsmas.miami.edu
Stephen Rice, University of Loughborough, UK:
S.Rice@lboro.ac.uk

Special Publications Secretary: **Thomas Stevens**, Royal Holloway, University of
London, UK: thomas.stevens@rhul.ac.uk
Paul Carling, University of Southampton, UK:
P.A.Carling@soton.ac.uk

Council Members: **Ana María Alonso-Zarza**, University Complutense
Madrid, Spain: alonsoza@geo.ucm.es
Sergio Matheos, University de La Plata, Argentina:
smatheos@cig.museo.unlp.edu.ar
Isabel Montañez, University of California Davis,
USA: Montanez@geology.ucdavis.edu
Igor Vlahovic, University of Zagreb, Croatia:
igor.vlahovic@rgn.hr
Seung Soon Chun, Chonnam National University,
South Korea: sschun@jnu.ac.kr
Hildegard Westphal, Leibniz Center for Marine
Tropical Ecology, ZMT Bremen, Germany:
hildegard.westphal@zmt-bremen.de
Jiaxin Yan, China University of Geosciences, China:
jxyan@cug.edu.cn

Link to IAS National Correspondents:

<http://www.sedimentologists.org/network/correspondents>

CONTENTS

5	EDITORIAL
6	AWARDS Walther and Young scientist awards
13	REPORT IAS at the International Geological Conference in Brisbane
17	STUDENT CORNER Organic carbon concentration» by L. Stolze
20	ANNOUNCEMENTS 10 th International Conference on Fluvial Sedimentology
23	FRONT COVER
25	IAS INSTITUTIONAL GRANTS
27	IAS STUDENT APPLICATION GUIDELINES
30	CALENDAR

EDITORIAL

In the first part of the Newsletter 243 is addressed to Walther and Young scientists awards given respectively to Gregor Eberli (University of Miami, USA) and Stefano Andreucci (University of Sassari, Italy) during the last IAS meeting in Schladming, Austria.

In the second part the presence of IAS at the International Geological Conference in Brisbane is reported.

The third part is occupied by «Organic carbon concentration in sediments at surface (Canadian Arctic Archipelago) and depth (Gulf of Maine)» by L. Stolze, Memorial University, St. John's, Newfoundland, Canada, who received an IAS Research Grant during 2011.

I would like to remember that the next IAS Regional Meeting will be held in 2013 in Manchester (UK) for details, please check:
<http://www.sedimentologists.org/ims-2013>.

Electronic Newsletter (ENIAS) started in November 2011 continues to bring short information to members. For info on ENIAS contact Nina Smeyers at nina.smeyers@ugent.be.

Check the new Announcements and Calendar remembering that Meetings and events in CAPITAL and/or with * are fully or partially sponsored by IAS. For all these meetings, IAS Student Members travel grants are available. Students can apply through the IAS web site remembering, however, that to receive the travel grant potential candidates have to present the abstract of the sedimentological research they will present at the attending conference. More info @ www.sedimentologists.org

Vincenzo Pascucci
(General Secretary)

AWARDS

Johannes Walther Award

Gregor Paul Eberli is a singularly appropriate recipient of the Johannes Walther Award for mid-career geologists. He has an outstanding record, of scientific publications, as a teacher, and as a mentor to young geoscientists. He is a pioneer in contributing to the development of new approaches to understand carbonate sediments and rocks: seismic sequence stratigraphy; comparative sedimentology; petrophysics of carbonates; exploration of deep-water coral buildups; and the utility of outcrop analogues in stratigraphy.

Dr. Eberli received his PhD in Switzerland in 1985. The subject of his dissertation was the structural and sedimentological development of the southern Tethys margin with an emphasis on carbonate turbidites filling the rift basins. He came to the University of Miami the first time in 1986 – 1987 as a postdoctoral research associate with Dr. Robert Ginsburg. From 1987 -1991 he was back at the ETH Zürich working with

Daniel Bernoulli as a research scientist. He came back to the University of Miami as a faculty member in 1991. Between 2000-2005 he was division Chair of Marine Geology and Geophysics.

At Miami Gregor developed new concepts for the anatomy and evolution of carbonate platforms. In a series of seminal papers Eberli established a revolutionary new model of carbonate platform development in the Bahamas. He established that originally separate platforms were welded together by progradation. He played a key role in assessing the effects of sea level fluctuations and climate change on the sedimentation and growth pattern of such carbonate platforms. The combination of drilling and seismic sequence analysis along the Bahamas Transect validated the concept of sequence stratigraphy in carbonates and provided the first calibration and chronostratigraphy of seismic reflections with cores and downhole logs.

In several projects Eberli compared modern and ancient carbonate



Figure 1. Gregor Eberli receiving the award from the IAS President Poppe de Boer.



Figure 2. Eberli giving a k-note on «New dynamics in the shallow and the deep of carbonate platforms».

systems to reveal the processes and products in carbonate sedimentology. In the Cretaceous/Tertiary Maiella Platform in Italy, he organized and led a detailed study of this well exposed carbonate platform with seismic anatomy from platform to basin, provided detailed outcrop expression and compared the results with those from the Bahamas Banks. He and his students constructed synthetic seismic models from outcrops and seismic signatures to establish criteria for identifying facies in seismic sections. He studied mixing of carbonate and siliciclastics in the modern system of Belize and the ancient ones in the Devonian of Canada, the Carboniferous in the Paradox basin and more recently in the Cretaceous of the Neuquén Basin. In several of his papers, Eberli explored and highlighted the applications and implications of the results of research on carbonate platforms to exploration and production of hydrocarbons.

Eberli also had a long interest in petrophysics. His interest in this subject grew from his early experience as physical property specialist on the first ODP Leg (101) and his later interpretations of seismic profiles from the Bahamas. As a result he and

his student and later post-doctoral associate Flavio Anselmetti established a petrophysical laboratory as part of the Comparative Sedimentology Laboratory. They focused on the relationships between depositional and diagenetic features and petrophysical properties in carbonates: velocity, porosity, permeability. An initial success was to establish how variations of acoustic velocity at any given pressure are related to differences in pore types. Subsequent experiments on the velocity changes with saturation and on the velocity evolution during cementation and dissolution addressed some fundamental problems in carbonate rock physics.

In addition to his scientific accomplishments, Gregor has been a prodigious mentor of students. He has been principal advisor of over 20 PhD and MS students as well as being associated with numerous others. In Miami he is the principal PI of the CSL – Center for Carbonate Research, an association between oil companies and the University of Miami which has been a model copied by numerous other universities. The CSL was started by Robert Ginsburg in 1970 and has now grown to include over 15 oil companies with five principal



Figure 3. Gregor with Amanda, Volker, Peter, Monica and Daniel.

investigators and 20 graduate students.

In conclusion, it is most satisfying to know that Gregor's career is not over, but just starting. The best may be yet to come.

Congratulations!

*Poppe de Boer
(IAS President)*

Gratitude Letter

Dear President Poppe de Boer,

I want to express my sincere gratitude to you and to IAS for selecting me as the first recipient of this prestigious award. I am very honored and I want to share this award with people who have helped me throughout my career.

I grew up in the rural part of Switzerland in a big family. Becoming a scientist was not an obvious career choice. Without the encouragement and support of my parents I probably would have never left the valley. When I was a boy my father, who died too early, told me: «What ever you know, nobody can take away from you.» My mother is here today and I want to thank her for what she did – as a single mother of eight– for me and all my brothers and sisters.

I studied the ETH in Zürich, where I received a great education. As a student I worked as a lab assistant in the lake research group under the guidance of Kerry Kelts and Judy McKenzie. In projects on Lake Zürich and the Great Salt Lake I learned to integrate geophysics, sedimentology and geochemistry. In addition, Judy taught me how to collect and perform data, analysis as well as to write scientific publications. These skills were fundamental and prepared me for my academic career.

After my Ph.D., I accepted a post-doc position in Miami with Bob Ginsburg, who at the time just had received the first seismic data across Great Bahama Bank. Fortunately, Wolfgang Schlager recommended to Bob that I was the ideal person to work on the seismic interpretation. The data set revealed, for the first time, the internal architecture of the bank and changed our view of the growth pattern of carbonate platforms.

The two post-doc years in Miami were memorable. The science was exciting and Bob Ginsburg, the students, post-docs and faculty made it a wonderful experience. Peter Swart and Greta his wife helped me get started in Miami. Peter gave me valuable advice in these early days, later when I applied for a faculty position, and all the years since then. He became my trusted colleague in Miami. Volker Vahrenkamp and the other students introduced me to many other opportunities

that Miami had to offer. After two happy years I returned to Zürich to work with Dan Bernoulli on an interesting project in the Maiella. But I missed Miami and four years later I returned as an associate professor.

The success of a young faculty is often tied to the caliber of the students and post-docs. I feel very lucky to have had a string of excellent students. Flavio Anselmetti assisted me in building the petrophysics laboratory and produced some of the groundbreaking results on carbonate rock physics. Gregor Baechle and Ralf Weger continued this work and lately Klaas Verwer added a new component by relating resistivity to pore structures. Jose Luis Massafiero was the first of several students working on seismic data in the Bahamas region, while Dominic Esker was the first to work in the modern environments. Over twenty of formidable students followed and currently I have 10 wonderful students working in the modern, the ancient and the petrophysics laboratory. They all have made scientific contributions, which have increased my knowledge in all these fields.

Shortly after arriving in Miami, Peter Homewood initiated a large collaborative project in mixed Paleozoic that allowed me to continue to work in ancient deposits and hire my first excellent post-docs, Mike Grammer and Mike Whalen. Ten more followed; all of which helped me pursue scientific goals and contributed to the reputation of the CSL. I also want to thank the colleagues I worked over the years, like Peter Swart and Don McNeill with whom I proposed ODP Leg 166 and the scientific party of ODP Leg 166 that made this leg such a success. Three of them, Christian Betzler, Tracy Frank, and John Reijmer are here today.

Last but not least I want to thank my wife, Mara, who has supported me all these years. Long ago she stopped counting the days when I am gone at sea, in the field or on congresses like this to pursue my scientific goals.

In short, I feel honored that IAS recognizes my scientific accomplishments but at the same time I want recognize all the people that have helped me and contributed to this award.

Thank you all.
Gregor Eberli

Young Scientist

Stefano Andreucci started his scientific carrier in Bologna where he did his master degree in one of the main Italian Sedimentological schools under the supervision of Prof. A. Amorosi. In 2003 he got his Ph.D. at the University of Sassari (Sardinia-Italy) where he set his first steps in world of late Quaternary coastal deposits, and this was under the supervision of Prof. Vincenzo Pascucci. One of the questions was the age of these deposits and their position relative to the late Quaternary Sea Level Curve. To unravel this issue Stefano started learning Optical Stimulated Luminescence (OSL) age dating. At that time in Italy there was no experience to apply this method in geology. Two labs using it were focused on Physics and Archeology.

Stefano invested much of his time in setting up his own OSL lab in Sassari. For this he spent several months, over some years, in one of the best OSL labs, the Nordic Laboratory for Luminescence Dating in Risø in Denmark, under the supervision of Dr Andrew Murray. At the same time he began applying the method in sedimentological field studies with researchers such as Lars Clemmensen (DK)

and Peter Martini (CA).

From 2007 to 2010 he was a Post-Doct at the University of Sassari and focused on the palaeoenvironmental evolution of North Sardinia during the last 200,000 years. The aim was to predict future coastal evolution in the Western Mediterranean using information from the past. During this new research, OSL age dating was always very central, and to get better results he involved various European Laboratories, in Italy, the UK, and Denmark in his research¹. Now Stefano Andreucci is the only geologist in Italy familiar with OSL dating of late Quaternary rocks using both quartz and feldspar.

In 2010 he got a young researcher grant from the local Sardinian government to continue his research on the palaeoenvironmental evolution of North Sardinia. He focused on constructing a sea-level vs temperature curve for the last Interglacial-glacial.

Since 2011 Sassari University runs, together with Milano University a lab for OSL dating. The quality of this lab will be much improved thanks to a grant that just has been assigned.

Stefano Andreucci now works as Post

¹ The CuDAM Lab at the University of Milano «Bicocca» (resp. Prof. Marco Martini), the Sheffield Centre for International Dryland Research, Department of Geography, University of Sheffield (UK) (resp. Dr. M. Bateman) and, again, the Nordic Laboratory for Luminescence Dating (Risø) Roskilde.



Figure 1. Stefano Andreucci receiving the award from Poppe de Boer.

Doc at the University of Sassari and continues his work on the late Quaternary and very recently also on Holocene coastal deposits of Sardinia.

Stefano is a very active and positive person. He has a natural skill to relate with people. He is very communicative and a very good teacher as well.

Since 2006 he published, mostly as

first author, quite some number of papers in peer reviewed and high-impact Sedimentological Journals, and he shed new light on the evolution of the central Mediterranean Sea during the last interglacial and glacial stages. In particular his recent paper in Sedimentology needs to be mentioned. In this paper he brought together



Figure 2. Stefano in the field discussing with Jose Pedro Calvo.



Figure 3. Stefano and the dog Mistral sitting on late Pleistocene (MIS5c) beach looking at the future.

researchers with different background to better understand the palaeoenvironmental implications of «Saharan dust in upper Pleistocene reworked palaeosols of North-west Sardinia, Italy».

In 2009 he co-organized with Vincenzo the 27th IAS Meeting of Sedimentology in Alghero, on Sardinia, and he currently supervises Ph.D. and undergraduate students. In all cases he demonstrated a good skill in organizing

and cooperating with others.

In conclusion, it is satisfying to know that Stefano's career is just starting. We expect, we are confident that you have a great career ahead.

A keynote on «A dune-sourced alluvial fan system on Sardinia» was given during the meeting.

Congratulations!

*Poppe de Boer
IAS President*

Stefano response:

Dear President,

I would like to thank you and to the all IAS Bureau for this truly unexpected award. Since my first meeting in 2006, the IAS community gave me the possibility to grow scientifically, to meet colleagues and to find very good friends.

I'm indebted and grateful with my supervisor, Prof. Vincenzo Pascucci, for the possibility he gave me working with to him. He taught me how to conduct independently a research and he always forced me to fly «high in the sky». In these 8 years we even had the possibility to know each other deeply and to become friends, really one of my best. Anytime I have to take important decision he is always close to me advertising and suggesting, but never forcing.

Finally, I have to say thank to all the colleagues that I have met in this 8 years for their help and intriguing discussion that supported my scientific growth. Above all I am grateful to: Lars Clemmensen, I. Peter Martini, Andrew Murray and Mark Bateman.

Stefano Andreucci

REPORT

The presence of IAS at the 34 IGC

(BRISBANE, AUSTRALIA; 4-10 AUGUST 2012)

General Information

The 34 International Geological Congress was held in the Brisbane Convention and Exhibition Centre (BCEC) in Brisbane (Australia), a modern and spacious building close to the Brisbane River (South Bank). All congress rooms were equipped with all modern communication tools.

In total 5924 delegates from 137 countries attended the congress. Thanks

to the careful preparation of the congress, 'no shows' were extremely limited; only the space reserved for posters was a little bit too small as there was ample space for discussion during crowded poster sessions. Most delegates were pleased with the high scientific standard of the communications during sessions and during 'general assemblies' where topics of general interest were presented as key notes. Time schedule of the

*Figure 1.
Delegates
register at
the 34 IGC
Registration
Desks on
Sunday
afternoon 5
August.*



congress also allowed for 'business meetings' outside regular congress hours.

Brisbane showed to be a great conference setting: BCEC within walking distance from all major hotels, nice city with a beautiful mixture of 'old colonial style' buildings with modern sky-scrappers, 'easy going' way of life of Australians, ... However, travel and accommodation costs were felt 'expensive' by most delegates although congress organizers did their best to provide value for money (lunch included in registration fee).

The majority of congress delegates came from Asia (mainland China, Japan, India) and Oceania (New-Zealand and of course Australia). Surprisingly also Africa was well represented.

Although the congress themes focused on 'mineral resources in the past and in the future', 3 sessions were dedicated to sedimentology s.s. and some touched the sedimentary geology and basin analysis research.

The IAS Booth

The IAS booth was permanently staffed by Ms Nina Smeyers (Office of the Treasurer), Vincenzo Pascucci (Secretary General), Marc De Batist (Treasurer) and Patric Jacobs (PR Officer).

The booth showcased pr material for *Sedimentology* and *Special Publications* obtained from Wiley-Blackwell as well as pr material of the IAS itself.

The booth profited from a lot of interest from congress delegates. Practically all IAS members attending the congress visited the IAS booth and were delighted with the presence of IAS at the 34 IGC (e.g. delegates from Belgium, Japan, Spain, Switzerland, ...). Also delegates with a sedimentary geology background took advantage of the presence of IAS to inform

themselves about the benefits of membership, mostly resulting in online subscription and registration payment or infilling of membership dues statement forms. Delegates from a.o. Turkey, Niger, Zambia, etc made use of the presence of the IAS booth to renew their membership or to register as a new member.

IAS Business Meeting

On Tuesday evening 7 August (19-21h) IAS organized a business meeting where *Sedimentology* and membership benefits were presented. After the introduction, a discussion was held with the meeting attendance about the 'restructuration and internationalization' of the IAS as outlined in a policy and strategy document approved by the Bureau. Interested delegates from Australia, Belgium, Japan, Niger, etc welcomed the idea of capacity building in less developed countries (like the 'Institutional Grants') and underlined the importance of regional structures for IAS (e.g. Oceania with Australia and New-Zealand; Japan, Korea and Taiwan; mainland China), providing (logistic and eventually also financial) support to regional activities organized under the umbrella of IAS. With the delegate of Japan, a firm commitment was made to support the organization of their regional West Pacific Sedimentological Conference in Taiwan (13-17 May 2013) with logistic and promotional aid as a first step in the creation of a regional IAS structure.

At the same time the IAS Business Meeting was held, the Geological Society of Australia organized a meeting to set up a 'sedimentology section', attended by IAS Secretary General Vincenzo Pascucci. Australian IAS National Correspondent Kathryn Amos indicated that Australia and New-



Figure 2. Former IAS Vice-President Ryo Matsumoto (Japan) visits the IAS booth at the 34 IGC in Brisbane (Australia). Ryo was the President of the Organization Committee of the ISC in Fukuoka (Japan) in 2006.

Zealand are positively inclined to establish firm links between the two societies in order to join forces in Oceania.

Contacts with other organizations

The IAS is an 'Affiliated Organization (AO)' of the IUGS. On Monday afternoon 6 August, the IUGS Executive Office organized a Business Meeting with its AOs in order to explore their wishes and expectations of 'what the IUGS could do for its AOs'¹. As could be expected, the 'ivory tower' position and its lack of contact with its AOs (-with as a notable exception the period preceding the IGC !-) was the major point of criticism. PR Officer Patric Jacobs represented the IAS and inquired about the possibilities to use the IUGS communication gateways to circulate IAS information and messages into the international forum. All AOs have the possibilities to send relevant info on their activities, etc to the IUGS Secretariat that will post the info on its web site and include it in to its newsletter, guaranteeing an audience of over 55000 readers.

In order to establish firm contacts with regional organizations that could

help IAS to realize its internationalization and restructuration, contacts have been made with the Geological Society of Africa (GSAf). After a first reconnaissance meeting at the occasion of the above mentioned Business Meeting of the IUGS with its AOs on Monday 6 August attended by PR Officer Patric Jacobs, a more formal meeting between the President of GSAf and the IAS (Secretary General Vincenzo Pascucci, Treasurer Marc De Batist and PR Officer Patric Jacobs) took place on Thursday 9 August where the modalities of a possible cooperation between the GSAf and IAS were discussed. GSAf unifies more than 120 Geology Institutes, Universities or Centers in Africa. GSAf President Abera Mogessie felt that both societies are highly complementary and welcomed the idea of capacity building in Africa. He offered IAS to use the GSAf links to circulate IAS messages and to search for 'sedimentology' contacts in Africa. He underlined the possibility to conclude a 'Memorandum of Understanding' between the GSAf and the IAS in which the terms and conditions of cooperation between the two societies could be defined. The IAS Bureau in its

¹ During this meeting, the IAS was congratulated by the IUGS Secretariat for its capacity building activities and its 'marvelous web site that could serve as an example of clarity and ease of use' to other societies.



Figure 3. Informal networking between delegates from Australia, Belgium, Japan, Niger and Spain after the IAS Business Meeting on Tuesday evening 7 August (19-21h).

meeting of 11 September 2012 endorsed this idea of cooperation between GSAf and IAS, and decided to put it into practice.

On Friday 10 August, the same IAS delegation visited the Indian Pavilion at the BCEC to (1) congratulate the Indian delegation with the winning of the bid to organize the 36 IGC in India in 2020, and (2) foster information on firm contacts with the Indian sedimentological community. The leader of the Indian delegation took good notice of our wishes and made a firm promise to provide IAS with the necessary information on sedimentology contacts in India within short notice.

General Conclusion

Its presence at the 34 IGC in Brisbane enabled the IAS

- ♦ to raise its visibility at a large international congress, allowing IAS to present itself as the 'one and only truly

independent sedimentological association' active on the international scene, with a clearly defined mission and action tools worthy of a learned society;

- ♦ to establish promising contacts with sister organizations like the GSAf, GSAus and with other regional initiatives like the Western Pacific sedimentological communities to set up a framework for logistic (and eventually financial) support that can be formalized through a 'Memorandum of Understanding' in which the mutual responsibilities and action points for information exchange and capacity building could be described.

*Vincenzo Pascucci, Marc De Batist
and Patric Jacobs*

ANNOUNCEMENT



The organising committee of the 10th International Conference on Fluvial Sedimentology will be privileged to welcome you to Leeds from 14–19 July 2013. The 10th ICFS will debate fluvial processes and deposits across the full range of spatial and temporal scales and highlight research that uses theoretical, experimental, field and numerical techniques. Papers will inform both pure and applied problems including resource exploitation. The goal of the 10th ICFS Scientific Programme is to facilitate a collegial atmosphere where thought-provoking discussion on current fluvial sedimentological research and its application can occur. We have five leading Keynotes and seven Invited Speakers. The conference will have six broad themes each with 6–8 specific sessions. The scientific programme for

the 10th ICFS aims to encompass the full breadth of fluvial sedimentology and full details of the themes, sessions and confirmed speakers are available on our website: www.icfs10.co.uk.

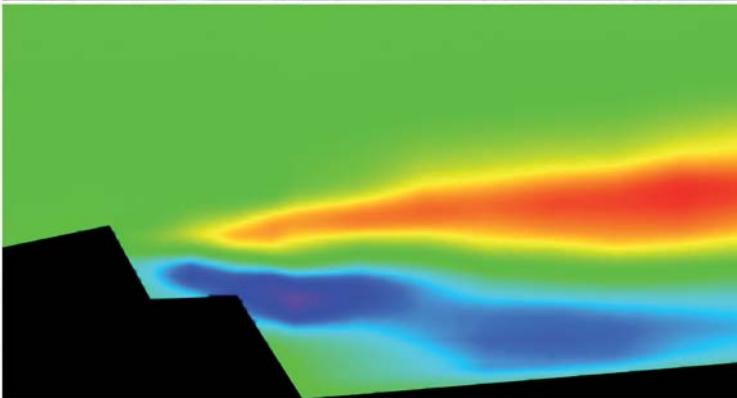
The call for abstracts will remain open until February 1st 2013. Registration and Housing opens 1st December 2012.

We look forward to facilitating a lively forum with colleagues from academia, the public sector and industry. We look forward to welcoming you to Leeds in 2013 but in the meantime any queries can be addressed to icfs10@leeds.ac.uk or visit www.icfs10.co.uk.

To more info, please contact Daniel R. Parsons, Department of Geography, Environment and Earth Sciences, University of Hull, Hull, UK (d.parsons@hull.ac.uk)



ICFS10
LEEDS JULY 2013



STUDENT CORNER

Organic carbon concentration in sediments at surface (Canadian Arctic Archipelago) and depth (Gulf of Maine)

IAS POSTGRADUATE GRANT SCHEME REPORT, 1ST SESSION 2011

The IAS grant of 1000 EUR that was awarded in 2011, was used to cover part of the costs for total organic carbon (TOC), total nitrogen (TN) and carbon and nitrogen isotope ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$) analyzes of surface sediments from the Canadian Arctic Archipelago and from shelf, slope and rise sediments of the Gulf of Maine region (Fig. 1). Analyzes were performed using an elemental

analyzer interfaced to a ThermoElectronDeltaVPlus Gas Source Isotope Ratio Mass Spectrometer at the CREAT Network Stable Isotope Laboratory Facilities at the Memorial University of Newfoundland.

The aim of my Ph.D. study was to quantify organic carbon concentration and provenance of surface sediments of collected sediment cores (box- and

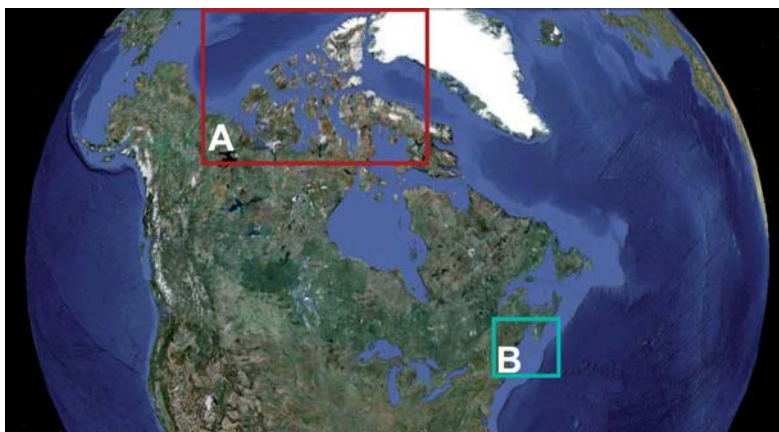


Figure 1. Location of the studied areas. A Canadian northern archipelago; B Maine gulf

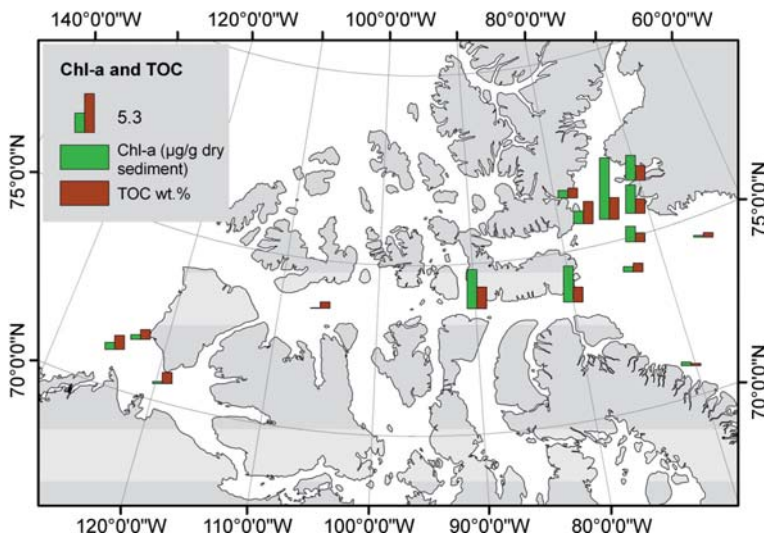


Figure 2. Total organic carbon (TOC) and chlorophyll-a (Chl-a) concentrations of Canadian Arctic Archipelago surface sediments collected on two ArcticNet/CHONE cruises in 2008 and 2009.

multicores) and to identify potential correlations with bioturbation rates and sediment mixing depth obtained from radioisotope and chlorophyll-a depth distributions.

In marine ecosystems, the macrofauna, a species-rich group of invertebrates, constantly and significantly influences and alter this important ecosystem by various activities such as locomotion, digging, tube irrigation, feeding, and fecal pellet egestion. These processes, collectively known as bioturbation, not only affect the benthic environment, but also provide nutrients that fuel primary production in the water column via benthic remineralization processes and pore-water release. Further, benthic organisms are thought to be good quality indicators of environmental conditions, as many species are sedentary and are not able to avoid environmental stressors. In this context,

organic matter represents an important food source for benthic organisms. Often, the biological processes in marine ecosystems underlie a distinct seasonality and the enhanced organic matter export from the water column to the benthos causes an increase in benthic activity and presumably intensified bioturbation. Consequently, changes to marine ecosystems in terms of organic matter supply to the benthos due to anthropogenic or natural influences may significantly affect the whole ecosystem and it is crucial to describe and quantify these relationships in order to predict theoretical consequences.

With the aid of the ISA grant, organic matter provenance, quantity and quality of all sampling sites in the Canadian Arctic Archipelago and of several basin sediments collected in the Gulf of Maine region could be identified. Preliminary results show



potential correlations among organic matter features and other environmental variables such as water depth, sediment texture and sedimentation. Further, it seems that especially the organic matter supply to the benthos plays an important role in fueling bioturbation activities in these regions. Preliminary results obtained from the study of sediments from the Canadian Arctic Archipelago were presented at the International Polar Year Conference (IPY) 2012 in Montréal, Canada. As an example of the results that were obtained with the IAS grant,

figure 2 shows total organic carbon and chlorophyll-a concentrations of surface sediments throughout the Canadian Arctic Archipelago. TOC concentrations were measured using the IAS grant that was obtained in 2011.

*Lina M. Stolze
Department of Earth Sciences
Memorial University of
Newfoundland
St. John's, NL, CA
lmstolze@mun.ca*

FRONT COVER PICTURE

Front cover picture images mud cracks (Fig. 1) from Chott el Jerid (Tozeur, Tunisia). Chott el Jerid (Arabic: شط الجريد *Šaṭṭ al-Jarīd*), also spelt Djerid or Shabḥ al Jarīd, Sciott Gerid, and Shott el Jerid, is a large endorheic salt lake in southern Tunisia (Fig. 2). Its bottom lies between 10 and 25 meters above sea level. Chott has a roughly

shape of a tadpole, with a width of 20 km at its narrowest point, and 250 km in overall length.

Chott el Jerid is the largest salt pan of the Sahara with a surface area variable from 7,000 to 5,000 km². Due to the extreme climate with annual rainfall of only 100 mm and temperatures reaching 50 C, water

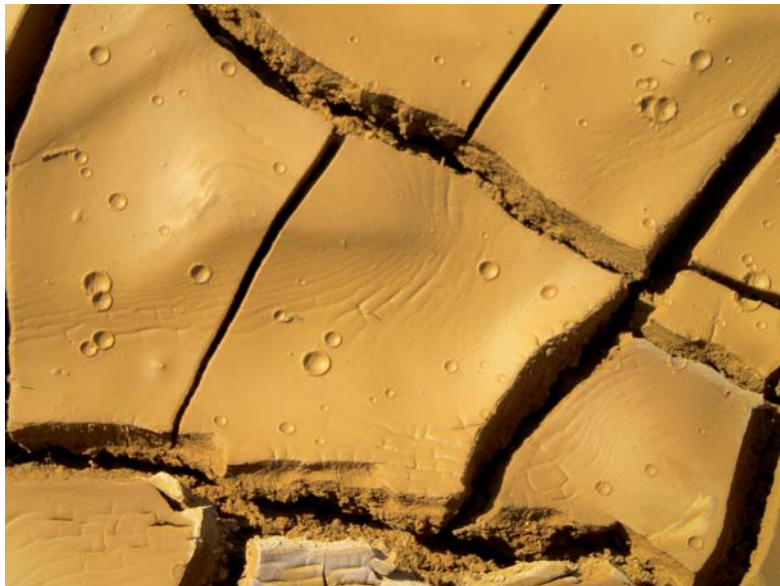


Figure 1. Mud cracks from Chott el Jerid (photo by V. Pascucci)



Figure 2. Tunisia (from Google Earth)

Figure 3. Chott el Jerid area. The lake is close to Tozeur oasis (from Google Earth).



evaporates from the lake. In summer Chott el Djerid is almost entirely dried up, and numerous fata morganas (mirages) occur. During winter, a small tributary of water can be seen discharging into the lake (Fig. 3).

During IAS 2009 meeting (Alghero, Italy) a field trip was dedicated to Mars analogues, and Chott el Jerid was chosen as one of these. To receive the PDF of the field trip, please contact Vincenzo Pascucci (pascucci@uniss.it) or visit the web site of the Ibn Battuta Research Centre (<http://www.ibnbattutacentre.org>). The centre is directed by Prof. Gian Gabriele Ori (ggori@irsps.unich.it) and its aim is to

support the exploration of Mars and others planets, and to provide opportunities for scientists and the public for experiencing the exploration on Earth and in the Solar System. The Centre is named after the famous Moroccan explorer Ibn Battuta (born in Tangier on 24th February 1304 – 703 Hijra) who explored a large part of Northern Africa and Asia. During his travels Ibn Battuta visited almost the entire Muslim world and travelled more than 120,000 kilometres.

*Vincenzo Pascucci
IAS General Secretary*

Special IAS Grants or 'Institutional IAS Grants'

Special IAS Grants or Institutional IAS Grants are meant for capacity building in 3rd world countries. There exists a list of 'Least Developed Countries' (LDC) by the UN. This list categorizes countries according to income per capita and is yearly updated.

Grants are allocated to allow Geology Departments in LDC to acquire durable sedimentological equipment for teaching and research (like sieves, calcimeters, auger drilling tools, etc.) or tools that can be used by all geology students (like general geology/sedimentology textbooks, IAS Special Publications (SP), memory sticks with back issues of Sedimentology or SP, etc). Therefore the grant application should clearly demonstrate to increase the recipient's capacity to teach sedimentology at the undergraduate level (Bachelor) in a durable way. It should also indicate in what way it would enable to support sedimentological research at the graduate level (Master).

Applicants should have a permanent position at their University and should

be IAS members. Applications should provide the following information (not exhaustive list):

- ♦ the mission statement of the University/Geology Department
- ♦ the approval of the University Authorities to accept the grant
- ♦ a list of permanent teaching and technical staff members of the Geology Department (with indication of their area of research)
- ♦ the structure of the geology undergraduate and graduate courses (Bachelor/Master programme with indication of courses and theoretical and practical lecture hours)
- ♦ the number of geology students
- ♦ the actual facilities for geology/sedimentology students
- ♦ a motivation of application
- ♦ a budget with justification
- ♦ the CV of the applicant, including a sedimentology research plan

The institutional grant scheme consists each year of 2 sessions of 1



grant of 10.000 Euro. Applications run in parallel with the PhD research grant scheme (same deadline for application and recipient notification). The IAS Grant Committee will seek recommendations from relevant National Correspondents and Council Members (eventually including visitation) before advising the IAS

Bureau for final decision. Additional funds made available by the recipient's University are considered as a plus.

Items listed in the application will be bought through the Office of the IAS Treasurer and shipped to the successful applicant. By no means will money be transferred to the grant recipient.

IAS STUDENT GRANT APPLICATION GUIDELINES

Application

The application should be concise and informative, and contains the following information (limit your application to 1250 words max.):

- ♦ Research proposal (including Introduction, Proposal, Motivation and Methods, Facilities) – max. 750 words
- ♦ Bibliography – max. 125 words
- ♦ Budget – max. 125 words
- ♦ Curriculum Vitae – max. 250 words

Your research proposal must be submitted via the Postgraduate Grant Scheme application form on the IAS website before the application deadline. The form contains additional assistance details for completing the request. Please read carefully all instructions before completing and submitting your application. Prepare your application in 'Word' and use 'Word count' before pasting your application in the appropriate fields.

Recommendation letter (by e-mail) from the PhD supervisor supporting the applicant is mandatory, as well as recommendation letter (by e-mail also) from the Head of Department/Laboratory of guest institution in case of laboratory visit.

Please make sure to adequately answer all questions.

Deadlines and notifications

Application deadlines:

1st session: March, 31

2nd session: September, 30

Recipient notification:

Before June, 30

Before December, 31

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 the IAS by e-mail before the application deadline.

Application Form

Research Proposal (max. 750 words)

Title:

Introduction (max. 250 words):

Introduce briefly the subject of your PhD and provide relevant background information; summarise previous work by you or others (provide max. 5 relevant references, to be detailed in the 'Bibliography' field). Provide the context for your PhD study in terms of geography, geology, and/or scientific discipline.

Proposal (max. 250 words): ...

Describe clearly your research

proposal and indicate in what way your proposal will contribute to the successful achievement of your PhD. Your application 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 (max. 125 words):

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. Justify why you need to undertake this research.

Facilities (max. 125 words):

Briefly list research and study facilities available to you, such as field and laboratory equipment, computers, library.

Bibliography (max. 125 words)

Provide a list of 5 key publications that are relevant to your proposed research, listed in your 'Introduction'. The list should show that you have done adequate background research on your project and are assured that your methodology is solid and the project has not been done already. Limit your bibliography to the essential references. Each publication should be preceded by a '*' -character (e.g. *Surlyk et al., *Sedimentology* 42, 323-354, 1995).

Budget (max. 125 words)

Provide a brief summary of the total cost of the research. Clearly indicate the amount (in Euro) being requested. State specifically what the IAS grant funds will be used for. Please list only expenses to be covered by the IAS grant.

The IAS will support field activities (to collect data and samples, etc.) and

laboratory activities/analyses.

Laboratory activities/analyses that consist of training by performing the activities/analyses yourself will be considered a plus for your application as they will contribute to your formation and to the capacity building of your home institution. In this case, the agreement of the Head of your Guest Department/Laboratory will be solicited by automated e-mail.

Curriculum Vitae (max. 250 words)

Name, postal address, e-mail address, university education (degrees & dates), work experience, awards and scholarships (max. 5, considered to be representative), independent research projects, citations of your abstracts and publications (max. 5, considered to be representative).

Advise of Supervisor and Head of Guest Department/Laboratory

When you apply for a grant, your PhD supervisor will receive an automated e-mail with a request to send the IAS a letter of recommendation by e-mail. You should, however, check with your supervisor everything is carried out the way it should be. It will be considered as a plus for your application if your PhD supervisor is also a member of IAS.

Supervisor's name:

Supervisor's e-mail:

If you apply for laboratory analyses/activities, please carefully check analysis prices and compare charges of various academic and private laboratories as prices per unit might differ considerably. Please first check whether analyses can be performed within your own University. If your University is not in a position to provide you with the adequate analysis tools, visiting another lab to conduct the analyses yourself strengthens your application considerably as it

contributes to your formation and to capacity building of your home University. Please check with the Head of Department/Laboratory of your guest lab to assure its assistance during your visit. You should fill in his/her name and e-mail address to solicit his/her advise about your visit.

Name of Head of guest Department/Laboratory:

E-mail address of Head of Guest Department/Laboratory:

Finally, before submitting your

application, you will be asked to answer a few informative questions by ticking the appropriate boxes.

- ♦ is your supervisor a member of IAS
- ♦ was this application your own initiative
- ♦ did you discuss your application with your Supervisor
- ♦ did you already had contact in the past with the Head of the Guest Department/Laboratory (if appropriate)

CALENDAR

ALLUVIAL FANS*

*1st-6th December
2012
Ras Al-Khaimah
United Arab Emirates*

Info
<http://alluvialfans.co.uk/>

VI LATINAMERICAN CONGRESS OF SEDIMENTOLOGY*

*9th-12th December
2012
São Paulo
Brazi*

Claudio Riccomini
riccomin@usp.br
<http://www.6lacs.com>

The Second Symposium on the Geological Resources in the Tethys Realm*

*5th-8th January
2013
Aswan
Egypt*

El Sayed Abd El Aziz Aly Youssef
elsayedyousssef2005@yahoo.com
tethyssociety@yahoo.com

The 2nd International Conference on Environmental Studies and Research, «Natural Resources and Future Challenges»

25th–27th February
2013

Sadat Branch,
Egypt

Rifai I. Rifai
Environmental Studies and Research Institute
Minufiya University - Sadat Branch
conference@env.menofia.edu.eg
<http://esrisadat.menofia.edu.eg>
www.facebook.com/nrfcconference

The 6th International Symposium on Lithographic Limestone and Plattenkalk

4th–8th March
2013

Museo del Desierto
Saltillo
Mexico

Christina Ifrim
Arturo Gonzalez Gonzalez
Wolfgang Stinnesbeck
ISLLP2013@geow.uni-heidelberg.de

EGU - GENERAL ASSEMBLY*

7th–12th April
2013
Vienna
Austria

<http://www.egu2013.eu/home.html>

1st International Congress on Stratigraphy - STRATI2013

1st–7th July
2013
Lisbon
Portugal

<http://www.strati2013.org>

The 10th International Conference on Fluvial Sedimentology (ICF)*

14th – 19th July
2013
Leeds
United Kingdom

Dan Parson
d.parsons@hull.ac.uk
<http://www.icfs10.co.uk/>



30th IAS MEETING OF SEDIMENTOLOGY*

2nd-5th September
2013
Manchester,
United Kingdom

Merren Jones
merren.jones@manchester.ac.uk
www.ias2013.com

* THESE EVENTS HAVE FULL OR
PARTIAL IAS SPONSORSHIP



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, Spain editorial@proedex.com

Contributions to be sent to:
Vincenzo Pascucci
IAS General Secretary
Dpto. Scienze Botaniche,
Ecologiche e Geologiche
Università di Sassari
Via Piandanna, 4
07100 Sassari, Italy
Tel.: +39 079228685
pascucci@uniss.it

