



International Association of Geomorphologists

Association Internationale des Géomorphologues

IAG/AIG Newsletter No. 29 (1 & 2/2013)

From the Editor's Desk

Dear Geomorphologists

I thank you all for your kind help and co-operation in enabling me to publish the newsletter on time. I request that you continue this co-operation in order that future issues of the newsletter continue to be published on time.

Sunil Kumar De

desunil@yahoo.com

1. Young Geomorphologists Section

a. Workshop on Dryland Geomorphology, Gobabeb, Namibia, 8-12 September 2012

The Workshop has been hosted by South African Association of Geomorphologists and supported by the Royal Geographical Society. It has been held at Gobabeb Desert Research Station, Namibia, which was celebrating 50 years of Dryland Research.

IAG-grant holders:

Christel HANSEN (Namibia)
Nandipha MABUZA (Swaziland)
Johanna NIPELE (Namibia)

Reports from the IAG/AIG Grant Holders

i. Christel Hansen (Namibia)

I would like to express my gratitude to the IAG/AIG for awarding me a travel grant to attend the SAAG (Southern African Association of Geomorphologists) conference held in Gobabeb, Namibia from the 8th-12th September 2012. It was an incredibly rewarding and educational experience, made better by the stunning setting of Gobabeb in the Namib. The conference coincided with celebrating 50 years of Namib Desert research at Gobabeb, making this a very special conference to all those that attended. Gobabeb has produced interesting research on the Namib Desert for decades and is a research station I've been wishing to go to ever since I was a child growing up in Namibia. It was, therefore, wonderful to not only be able to attend a conference covering my field but also having this conference take place at a research station I greatly respect.

The conference covered a wide variety of topics and specialisations within geomorphology and generated many thought-provoking discussions. Topics ranged from the Namib Sand Sea, to Southern African dust, Antarctic surface processes, weathering and erosional processes, rivers, catchments, land cover and African landscapes. The variety of topics showed the diversity of geomorphology as a field and provided insight into the research done by academics and professionals from all over the world. In particular, it was fascinating to see work done on Namib, for example the presentation introducing the Namib Digital Dune Atlas, given the setting of the conference in the Namib Desert. It was also a privilege to be present at the book launch of '*Southern African Geomorphology-Recent trends and new directions*' and to be able to interact with some of the authors attending the conference.

The various sessions (oral and poster) were complemented by a number of workshops and field trips. These workshops were widely beneficial to all that attended, as they exposed us to tools and techniques we might not yet have been familiar with. It was valuable to see techniques, spoken about in presentations, in the field and how these are applied. The field trip to the Kuiseb River puts erosion, weathering and depositional processes into context of the broader landscape. It showed the power of water and how the river and its channel restrict the northward movement of the dunes. The workshop on Dryland Geomorphology, comprising of dune survey techniques, was of particular interest to me. Optically Stimulated Luminescence (OSL), differential GPS and Ground Penetrating Radar (GPR) are tools that have a wide application in geomorphology and I was very keen to learn more about these techniques/tools. The workshop greatly

improved my theoretical and practical understanding of the GPR and OSL and where I may apply these in my own research. The pre-excursion information session was instructive and explained the use of the OSL, DGPS and GPR well, preparing us for the use of these instruments in the field, although maybe not quite on how to dig a hole in a dune!

Once in the dunes, the other two grant holders and myself were given the opportunity to take part in the workshop. Remote sensing techniques have long been of interest to me and I was glad to be offered the opportunity to work with the GPR, making this workshop one of the highlights of the conference for me. It was also interesting to see the result of our work in the dunes on the last day of the conference, after data post-processing had been done. A special thank-you goes out to the British Society of Geomorphology (BSG) Working Group on Sand Seas and Dune Fields, the IAG and the Royal Geographical Society (RGS) for supporting this workshop and giving me the opportunity to learn about these techniques.

The conference showcased the high academic standard required to be successful in this field. Nevertheless, it was held in an informal setting, making it a very relaxing, pleasant yet academically stimulating experience. It allowed for an unparalleled opportunity to network with specialists, academics, professionals and fellow students active within geomorphological research. It broadened my knowledge base on research areas, current themes/topics of interest and applications of geomorphology. To me personally, it was a valuable and constructive learning experience and I believe that I learned much that I can apply to my field of work and research.

ii. Nandipha Mabuza (Swaziland)

General Comments

The Southern African Association of Geomorphologists (SAAG) biennial conference hosted by Gobabeb research and training centre, in Namibia, saw the gathering of students, researchers and consultants, all with a passion for geomorphology asking simple questions about different aspects of catchment systems. The topics varied from "Catchments and land cover", Antarctic Surface processes" to "African landscapes". What stood out was how processes occur at the range of temporal and spatial scales and the various techniques used to understand and monitor these processes.

Techniques used to study catchment systems and for the monitoring of large scale landforms range from remote sensing e.g. used to map dust movement in a short time scale and identify the major source of emissions; GPR for large scale features to Quantitative Evaluation of Minerals of scanning (QEMSCAN) that produces a comprehensive dataset for mineral association in the finest sediments.

The journey to Gobabeb was a learning experience on its own. Travelling through Namibia by road and exploring the major differences between the upper and lower Kuiseb, supplemented the knowledge I had on this river. The organizers of the conference held field excursions; this allowed us to explore the landscape around the research centre. I was pleased to see the Homeb "silts", having read literature on their controversial origin before the conference.

Practical Experience

British Society of Geomorphology (BSG) Working Group presented a workshop on the Differential GPS, Optically Stimulated Luminescence (OSL) and Ground Penetrating Radar (GPR). What was of interest to me were the OSL and the GPR. The BSG taught us how to operate a GPR to observe subsurface strata during the dune excursion. I now know that this device uses a long wave and shortwave and there comes a trade off with the depth covered and the resolution. The reflections produced on screen are caused by the changes in moisture as the conductivity of sand is affected by water. The technique has been used in the Namib dunes to view the strata beneath the surface. This has also been used to understand the formation of sand ramps such as those in Mojave Desert in California. The grant recipients were given an opportunity to gain practical experience with the various techniques and results were presented on the final day of the conference. Although a component of the OSL equipment was not working, the basic theoretical knowledge needed to understand it was taught during the workshop.

The Gobabeb staff was friendly and welcoming. They provided a guided tour of the weather station and the library, one of the interesting apparatus was the fog screen. Our guide claimed that a net or fog screen of about 1m² could collect on average 1 litre of fog water in a day. Fog harvesting has been popularized in this desert area as the fog in some years accounts for the majority of the precipitation in this area. Talks with the staff, gave me insight on the area's water supply, previous floods and the working environment at the research centre. Overall I think it was a successful conference, beautiful location and pleasant group of people, it has certainly made my first international conference memorable.

I would like to thank the International Association of Geomorphologist (IAG) for the grant to attend the conference and the members of the SAAG committee who organized the event.

iii. Johanna Ngula Niipele, Namibia

My first experience of SAAG: Geomorphology or Geology?

My understanding on Geomorphology was somehow limited to landscape forming factors until I attended the SAAG workshop on “Dryland Geomorphology held in Gobabeb, Namibia”.

The workshop provided me with a platform on the basic understanding of the real concept which in my naïve understanding was rather an invasion of geology.

More specifically the workshop on the use of the GPR techniques for Dune surveying stimulated an interest and a new horizon of research area. The experience I gained from the different presentations by the experts in the field will feed into my prospect for a PhD in the field of Environmental Modelling, with an emphasis on the study of the Geomorphology of the Oniipa River in the Oshikoto Region, North-Central Namibia.

From the little information that I have on the use of the GPR, I understand that the technique is able to map the subsurface areas in real time. In this regard, offering a unique opportunity in my envisioned plan to effectively map out the drainage system of the Oniipa River System which is believed to have been buried due to settlement patterns that have evolved over the years.

I can now confidently say that I have broadened my conceptual understanding of the term geomorphology and the term geology has now become a science on its own level.

b. IAG Grants for the 8th International Conference on Geomorphology, Paris, France, 27-31 August 2013

A remarkable number of applications for IAG grants for the Paris Conference were received. Out of 97 applications received, 70 were eligible for grant awarding.

The Selection Committee appointed by the IAG Executive Committee assessed the applications and finally 20 Young Geomorphologists under 35 years old will be supported. They come from 12 countries with a Purchasing Power Parity below 16,000 international dollars, according to the criteria reported in the Call for Grants (for details see the World Development Indicators database, World Bank, revised 27 September 2012 - <http://databank.worldbank.org/databank/download/GNIPC.pdf>).

The process of grant acceptance has been completed and the final list of the *IAG-grant holders* is reported below as well as the *waiting list* which will be used in case any of the grant-holders is unable to participate.

IAG-GRANT HOLDERS (alphabetical order)

1. ALEXSANDR Orkhonselenge (Mongolia)
2. ANGHEL Titu (Romania)
3. BANDYOPADHYAY Shreya (India)
4. DIAS NERY Tullius (Brazil)
5. GREEN Andrew (South Africa)
6. HADMOKO Danang Sri (Indonesia)
7. IOANA-TOROIMAC Gabriela (Romania)
8. IOSIF Daniel (Romania)
9. JOUBERT Rebecca (South Africa)
10. LISTO Fabrizio (Brazil)
11. LU Hongua (China)
12. NEHME Carole (Lebanon)
13. RAZAK Khamarrul (Malaysia)
14. REN Xiaozong (China)
15. SEPEHR Adel (Iran)
16. TEMOVSKI Marjan (Macedonia)
17. TRIPATHI Manisha (India)
18. ZANGMO Tefogoum Ghislain (Cameroon)
19. ZHANG Deguo (China)
20. ZHOU Gongdan (China)

Waiting list

1. VASCONCELOS DE SOUZA Vinicius (Brazil)
2. SCHARF Taryn (South Africa)
3. VILLACA GOMES M. Carolina (Brazil)
4. BAWA Nupur (India)
5. VASILE Mirela (Romania)

Among the IAG-grant holders, the **Tricart Scholar** will be nominated in occasion of the 1st General Assembly and a prize will be offered by the French Group of Geomorphology (GFG).

This prize will be offered in recognition of the outstanding research carried out by the French geomorphologist Jean Tricart (1920-2003) in Latin America, Africa and Asia. Therefore the designated grant holder will be from one of these continents.

Mauro Soldati, IAG/AIG Training Officer

c. **AIGeo Grants for Italian Young Geomorphologists**

The Associazione Italiana di Geografia fisica e Geomorfologia (AIGeo) is glad to announce that, within its policy of support to young scientists, 8 grants have been awarded to Italian young researchers to favour their participation in the 8th International Conference on Geomorphology (Paris, France 27-31 August 2013). The AIGeo grant holders are Irene Bollati, Chiara Cappadonia, Laura Coco, Dario Gioia, Luigi Lombardo, Chiara Tonelli, Francesca Vergari and Andrea Zerboni.

Gilberto Pambianchi, AIGeo President

Paola Fredi, AIGeo Past-President

d. **IAG/AIG International Workshop on “Objective Geomorphological Representation Models: Breaking Through a New Geomorphological Mapping Frontier”, Salerno, Italy, October 15 – 19, 2012**

The Workshop was organized by the University of Salerno and the National Park of Cilento & Vallo di Diano in collaboration with the International Association of Geomorphologists. According to the Call for Grants, one IAG grant was offered to a Young Geomorphologist from a Mediterranean country, two grants were offered by the University of Salerno to Greek Young Geomorphologists and one grant was offered by the National Park of Cilento & Vallo di Diano to a Young Geomorphologist who had worked in European Geopark areas.

Reports from the Grant Holders

We would like to use the first paragraph of our report to thank the institutions that granted us for attending the IAG/AIG International Workshop: “Objective Geomorphological Representation Models: Breaking Through a New Geomorphological Mapping Frontier”, that was held in Salerno (Italy), October 15 – 19, 2012. These institutions are the International Association of Geomorphology (IAG/AIG), the University of Salerno and the National Park of Cilento & Vallo di Diano. In addition, the workshop provided another key element: the opportunity to attend an Intensive Course on GIS-based Geomorphological Mapping, which was held also in October from 12 to 15.

During the aforementioned intensive course, we visited the Licosa Cape study area accompanied by Prof. Domenico Guida and Alessio Valente. They explained us the whole conceptual geomorphological evolution model for that area and tried to make us think about the cartographical translation of the model, from the classical system to a completely new mapping system. It was a real challenge for us, because we had to change our classical knowledge and concepts on geomorphological mapping, integrating-translating traditional symbols and landforms to full-coverage cartography. During the geomorphological mapping lab day we did a hard work to complete different steps: 1) integration of geological-geomorphological map, 2) from symbol-based to full-covered map, 3) from full-covered to grid-based maps and 4) from grid-based to object-based map. The final resulting map was later presented as a poster as well as orally during the Workshop. Therefore, we would also like to thank the organizing committee that supported and helped us, mainly Vincenzo Siervo, Vincenzo Palmieri, Eva Pescatore, Giandomenico Fubelli, Antonello Cestari and Albina Cuomo.

Throughout the workshop we had the opportunity to enjoy high quality talks and presentations; we mainly remember some of the keynote speakers: Tagashi Oguchi talked about classic and modern geomorphological mapping, Mike Smith presented a talk about the quantification of landforms, Lothar Schrott introduced the new challenges in field based studies, Lucian Dragut talked about segmentation of landforms and last but not least Paolo Paron raised some crucial questions concerning modern methods of geomorphological mapping. We also appreciated the relaxed environment and the discussions that took place during the Workshop. Furthermore, we think that one of the best personal experiences was to share those days amongst us, the granted young geomorphologists. In fact, we keep in touch weekly and although our research lines or interests are quite different (tectonics, geomorphological mapping, geomorphosites or soil erosion) we expect to work together in the near future. Certainly, there are always some other things to highlight if you visit Italy: landscapes, monuments, people and of course the excellent Italian cuisine. In all these former aspects our experience was great. Finally, we would like to encourage IAG and other Scientific or Public Institutions to provide support for young geomorphologists all over the world, especially in these difficult moments, when funds and budgets for research are getting lower and lower. Therefore, we would like to express our sincere gratitude for the grants we have been awarded for the workshop. We were thrilled to learn of our selection for this honor and we are deeply appreciative of your generous support.

Álvaro Gómez-Gutiérrez, IAG Grant Holder, PhD

George Deligiannakis, University of Salerno Grant Holder, PhD candidate

Alessia Pica, National Park of Cilento & Vallo di Diano Grant Holder, PhD candidate

Konstantinos Tsanakas, University of Salerno Grant Holder, PhD candidate

2. Recognition

Belgian geomorphologist Prof. Dr. Jean Poesen *doctor honoris causa* of the Alexandru Ioan Cuza University of Iasi, Romania



Prof. Dr. Jean Poesen, President of the Belgian Association of Geomorphologists, received on the 9th of May 2013 the title of *doctor honoris causa* from the **Alexandru Ioan Cuza University of Iasi**, the oldest university of Romania. Prof. Poesen received this honourable award for his outstanding research on geomorphological processes, soil erosion and soil- and water conservation, research contributing to sustainable land use.

3. 8th International Conference on Geomorphology (8th ICG)

The 8th IAG/AIG International Conference on Geomorphology will be held in Paris (France) during August 27-31, 2013. The detailed Scientific Programme is available on the conference website: <http://www.geomorphology-iag-paris2013.com/en/scientific-programme>. The first and second circulars are also available on IAG/AIG website: www.geomorph.org

4. Upcoming Seminars/Conferences/Workshops/Training Programmes

i. Switzerland

Intensive Course on Mountain Geomorphosites, Lausanne - Val d'Hérens (Switzerland). 22 to 25 August, 2013. Emmanuel Reynard (Tel +41 21 692 30 65, Mobile +41 79 331 72 44; Website: www.unil.ch/igcd, E-mail: emmanuel.reynard@unil.ch)

ii. Nepal

The 11th International Symposium on Mitigation of Geo-disasters in Asia (MGDA-11), Kathmandu, Nepal. 22-27 October 2013. For more information please visit: <http://www.hils.org.np/hils/mgda/2ndCircular.pdf> or contact Prof. Hari Krishna Shrestha, Chairperson (Email: hari@nec.edu.np; Phone: +977-98510-06010)

iii. USA

The Geological Society of America (GSA) 125th Annual Meeting & Exposition, Denver, Colorado, USA; 27 - 30 October, 2013. For details please visit: <http://www.geosociety.org/meetings/2013/>

iv. Korea

The 10th East Eurasia International Workshop on *Present Earth Surface Processes and Long-term Environmental Changes in East Eurasia*, Kwangju, Korea, October 7-12, 2013. For details please visit the IAG/AIG website: www.geomorph.org

v. India

26th Annual Conference of the Indian Institute of Geomorphologists (IGI) on Dynamics of Earth Surface Processes, Department of Geography, M.S. University of Baroda, Baroda, Gujarat, India, November 20-22, 2013. For more information please contact Prof. Rolee Kanchan, Convener (E-mail: roleekanchan@gmail.com)

vi. Portugal

EUCOP4. 4th European Conference on Permafrost, Evora, Portugal. June 18-21, 2014. For 2nd Circular and Conference details please visit the Conference website: <http://www.eucop4.org>.

vii. Belgium

17th Joint Geomorphological Meeting *The geomorphology of natural hazards: mapping, analysis and prevention* Liege, Belgium, June 30- July 3, 2014. For details please visit the IAG/AIG website: www.geomorph.org

Editor's Note

The success of the IAG/AIG Newsletter depends upon the contributions that we receive. On behalf of IAG/AIG, I would request you to assist us by supplying information related to the forthcoming activities and innovations in geomorphology in your respective countries (commentaries, reviews of regional or national meetings and field trips, summaries of issues pertinent to geomorphology and announcements of future meetings and workshops. Your contributions should be forwarded to the IAG/AIG Publications Officer.

Published by

Sunil Kumar De, IAG/AIG Publications Officer

Professor, Department of Geography, North Eastern Hill University, NEHU Campus, Shillong - 793022, Meghalaya, India. Ph. +91 364 2723216 (off.); +91-98620 09202 (mob); Fax: +91-364 2550076, E-mail: desunil@yahoo.com

INTERNATIONAL ASSOCIATION OF GEOMORPHOLOGISTS (IAG/AIG)

PRESIDENT

Michael CROZIER

Victoria University of Wellington, Institute of Geography, Wellington, New Zealand. Ph: +64 (0)4 463 5279, Michael.Crozier@vuw.ac.nz

VICE-PRESIDENTS

Eric FOUACHE

Géographie Physique, Géoarchéologie, Département de Géographie, Université de Paris Sorbonne (Paris 4), 191, rue Saint Jacques, 75005 Paris. Mobile : +33 7 86 14 78 22. eric.g.fouache@wanadoo.fr

David DUNKERLEY

School of Geography and Environmental Science, Building 11, Clayton Campus, Monash University, Victoria 3800 Australia. office 61 3 9905 2914, FAX 61 3 9905 2948, mobile 0428 300 391 david.dunkerley@arts.monash.edu.au

Piotr MIGON

Department of Geography and Regional Development, University of Wrocław, Pl. Uniwersytecki 1, 50-137 Wrocław, Poland. Tel.: +48-71 3752295, Fax: +48-71 3435184; migon@geogr.uni.wroc.pl

SECRETARY GENERAL

Morgan DE DAPPER

Ghent University, Department of Geography, Research Unit 'Regional Geomorphology and Geo-archaeology, Krijgslaan, 281 (S8), B-9000 - GENT, Belgium. Ph. +32 9 264 4690, FAX: +32 9 264 4982 morgan.dedapper@UGent.be

IAG/AIG Account Number : **IBAN ES79 0128 0409 7101 0000 1961**
SWIFT code: **BKBKESMM**

Visit the IAG/AIG Website at : <http://www.geomorph.org>