

# ICa news nouvelles de l'acı

www.icaci.org

biannual newsletter | number :: numéro 54 | june :: juin 2010

# president's report



#### **Dear Colleagues**

The international agenda for conferences and workshops is so full of wonderful activities that it is impossible to get to everything that is of interest. It is encourag-

ing to see that ICA Commissions and Working groups are active in developing concepts for international collaboration and then realizing this through the operation of meetings to further their research and professional interests. Please take advantage of the ICA website at www. icaci.org to review the range of ICA-affiliated international events that are on offer.

Continuing on the theme of conferences, I represented the ICA at the FIG international conference, held in Sydney, Australia in April 2010. The conference brought together members of the international surveying and geodesy community in the antipodes for the second FIG conference to be held in Australia

(the previous FIG Australian conference was in Melbourne). I attended a number of sessions and met with many colleagues who have been affiliated with ICA in the past. It was great to catch-up with Ron Furness at the conference. Ron, who lives in Sydney, is an Honorary Fellow of the ICA, former Chair of the ICA Commission on Marine Cartography and a long-time contributor to ICA.

At the conference a meeting of the Joint Board of Geospatial Information Societies (JBGIS) was held. The JBGIS is a coalition of leading international geospatial societies, of which the ICA is a member. The meeting discussed issues that are relevant to all sister societies that comprise the Board. It is planned to hold the next official annual meeting of the Board at the 25th International Cartographic Conference 2011 in Paris. Associated with the activities of the JBGIS, ICA immediate Past President, Prof Milan Konečný has been contributing to the activities of the JBGIS ad-hoc Committee on Risk and Disaster Management. One important activity of the

> 02

# 25th international cartograpic conference 2011 paris · france



The 25th International Cartographic Conference and the 15th General Assembly of the International Cartographic Association (ICA) will be held in Paris at the Palais des Congrès, between the 3rd and 8th July 2011.

The French Committee of Cartography (CFC) is pleased to invite delegates of the International Cartographic Association to Paris for the celebrations of 50th anniversary of the 1st General Assembly of the ICA held in 1961. This anniversary will also present an opportunity to

commemorate French cartographer Jacques Bertin, recipient of the Mannerfelt Gold Medal of ICA, who passed away in May this year. The Local Organizing Committee decided to add a special session on semiotics and Jacques Bertin's work to the conference programme and asks all interested cartographers to submit papers to this session (under the theme TO).

#### Conference Themes

The Scientific Programme is based on the research and professional interests of 28 Commissions and Working Groups of the ICA. Fundamental research as well as emerging topics across all of cartography and Geographic Information Science are welcomed. The themes are as follow:

- TO Jacques Bertin cartographic work and influences
- T1 Semiotics, map perception, cognition and knowledge
- T2 Colors, Signs and Typography on paper and digital maps
- T3 GeoVisualisation, Augmented and Virtual Reality
- T4 Maps and the Internet

# in this issue

president's report :: 01

25th international cartographic conference 2011 :: 01

from the editor :: 02

#### ica news

le monde cartographique :: 03 ica executive committee :: 04 ica news contributions :: 04 your views sought! :: 05 25 years ago... :: 05 new features of ica website :: 05

#### profiles

jürg gilgen :: 06

centro argentino de cartografía :: 06 polski przeglad kartograficzny :: 07 new zealand cartographic society :: 07

#### reports

ica commissions :: 08 ica working groups :: 12

cartographic meetings and events :: 12

calendar :: 14

ica affiliate members :: 15

children's map gallery :: 16

The New Zealand Cartographic Society's delegation to ICC 2009; (from left) Geoff Aitken (President), Antony Moore (Secretary) and Igor Drecki (Vice President) | Photograph courtesy of Geoff Aitken



## from the editor

For the past few months I have been privileged to be involved in an exciting cartographic project. It is about creating an authoritative repository of cartographic and geospatial materials and making it available to the general public through a fully searchable web portal. The true potential of this project goes far beyond a mere catalogue of maps and spatial databases: it provides an opportunity to capture and preserve unique map collections that might otherwise be lost due to aging; it unlocks 'hidden' and 'forgotten' information about the land, its environment and its people... The list goes on.

However, with recent technological advances and the drive for the "latest and greatest" in geospatial offerings, there is no surprise that a lot of investment, both human and financial, goes into keeping specialised services and geographical information as current as possible. A lot of resources are also invested into planning for the future, predicting market trends and users' needs. Although the primary concern - and a valid one - is to satisfy an ever demanding market for "here and now", it is sometimes surprising how easily some commercial companies, and even government agencies, engaged in mapping withdraw from an active appreciation of cartographic heritage and quickly forget from where they came.

How can we understand our present and plan our future without knowing our past? Our cartographic heritage is a key element of our identity as cartographers and a necessary resource for planning the future of our profession. The cartographic identity and professional ethics we all share have been shaped over the centuries and make us who we really are. The vast repository of cartographic knowledge built by our predecessors provides a wonderful resource on which we can now draw. Therefore, when we design a map we are not alone; we simply embrace and appreciate our cartographic heritage, which inspires us and makes us proud.

With ICC 2011 in Paris just a year away, the information about the conference gives us a timely snippet of what to expect. Also, our Secretary General asks to share your views on the ICA Strategic Plan.

Igor Drecki | Editor ICA News | ICA •

The **ICA news** is published by the International Cartographic Association (ICA).

President: William Cartwright | RMIT University |

Secretary General & Treasurer: **David Fairbairn** | Newcastle University | *United Kingdom* 

Editor ICA News: **Igor Drecki** | The University of Auckland | *New Zealand* 

© International Cartographic Association (ICA) 2010

# president's report

Committee is the publication of a booklet - Best Practices for Disaster Management and Emergency Response. ISPRS President, Prof Orhan Altan, has championed this publication. The ICA has contributed to the funding and production of this booklet, which is due for publication in July this year.

Immediately before the FIG conference and JBGIS meeting in Sydney I attended and presented papers at the Drawing Out conference in Melbourne, Australia. This conference covered the entire spectrum of 'drawing' and, over three days, artists, graphic artists, industrial designers, filmmakers, archivists, fashion designers and cartographers contributed to this wonderful event. One of the conference themes was cartography, conducted under the umbrella of 'drawing as a way of mapping'. The conference explored the transdisciplinary nature of 'drawing' and a number of keynote speakers were invited, to present about the transdisciplinary nature of their research and practice. ICA Vice President Georg Gartner was one of the keynote speakers and he spoke about his experience of transdisciplinary research, undertaken with other geospatial disciplines, communication engineers and artists.

I also attended the American Association of Geographers conference in Washington, DC in April 2010. The conference attracted some 8000+ attendees and ran over 5 days and nights. Also at the conference was ICA Vice President Tim Trainor. Tim organised and conducted a number of sessions related to census geography. He also presented and chaired special sessions. Also attending AAG 2010 were ICA Commission Chairs Mike Peterson and Chris Perkins. Chris had an extended stay in the USA after his flight back

home to the UK was delayed by many days due to the Icelandic volcanic eruptions. During the conference Vice President Trainor and I met with the USA committee for ICA. Lynn Usery led the meeting and we had discussions about the USA's plans to bid to host the 2015 International Cartographic Conference and General Assembly. As well, Vice President Trainor and I met with heads of Geography Departments in US universities. I was invited to make a short presentation about the ICA and its research agenda. I also presented a paper and chaired a session at the conference.

At the AAG conference a special session was held to celebrate Judy Olson's contributions to cartographic education in the USA. Professor Olson is a former Vice President of the ICA and also a former Commission Chair. Judy's former graduate students, who include Amy Lobben and Mike Peterson, both active contributors to ICA through their respective Commissions, gave presentations.

Over two days, 10-11 May 2010, I represented ICA at the Second Preparatory Meeting of the Proposed United Nations Committee of Experts on Global Geographic Information Management, in New York. This meeting was hosted by the Director of the United Nations Statistics Division, Dr Paul Cheung and the Chief of the United Nations Cartographic Section, Mr Kyoung-Soo Eom. Vice President Tim Trainor also attended the meeting as a member of the US delegation. This meeting was formally proposed at the first Preparatory Meeting on Global Geographic Information, held at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific, in Bangkok, in October 2009. At the Bangkok meeting it was resolved to address the "...global coordination of

The ICA Executive Committee at the ICC 2009 in Santiago, Chile; (from left) Zhilin Li, Timothy Trainor, Anne Ruas, Milan Konečný, Menno-Jan Kraak, William Cartwright, Georg Gartner, David Fairbairn and Derek Clarke (absent: Pablo Gran) |

Photography Igor Drecki



# president's report

cont...

geographic information management, including consideration of the possible creation of a United Nations global forum for the exchange of information between countries and other interested parties, and in particular for sharing best practices in legal and policy instruments, institutional management models, technical solutions and standards, interoperability of systems and data, and sharing mechanisms that guarantee easy and timely accessibility of geographic information and services." The focus of work that needs to be done is to develop a global strategy on the vision for global geographic information management. The New York meeting addressed the current initiatives and critical issues in Geographic Information management, with a global perspective. In order to progress this global initiative the first World Conference focusing on Global Geographic Information Management will be held in South Korea, Seoul in September 2011.

Since the last ICA newsletter, in association with other member of the ICA community I also produced a report on capacity building activities of the ICA for the GIM magazine. This was entitled Capacity Building: An ICA Perspective. This is one of three articles published in GIM. The other two articles were from ISPRS and FIG. I also wrote an article for the Indian publications Coordinates - Maps: Changing Approach and GIS Development - Some Challenges for Geospatial Associations in the Second Decade of the Millennium and a paper for Revista Cartográfica, the journal of the Instituto Panamericano de Geografía e Historia - The International Cartographic Association and Educational Outreach. It is expected that these articles will promote the activities of the ICA globally, in Latin America and in India.

I also attended and made a keynote address at the XXIV Congresso Brasileiro de Cartografia, held in Aracaju, Brazil in May. The President of SBC, Eng Paulo Teixeira Trino and Prof Dr Paulo Leal de Menezes invited me to attend. The ICA was well represented at the Congress - ICA immediate Past President Milan Konečný gave a keynote presentation.

Between 15-20 June 2010 I attended the 3rd International Conference on Cartography & GIS, which was held in Nessabar, Bulgaria. Professor Temenoujka Bandrova, Co-Chair of the ICA Commission on Children and Cartography, organised the conference. It was pleasing to note that the conference was 'badged' as the International Cartographic Association Symposium for Central and Eastern Europe. The conference was held at the Arsena Hotel, which is in an ideal location, fronting directly onto the Black Sea.

The conference opening ceremony had one most interesting aspect, where the Bulgarian winner of the Barbara Petchenik Children's World Map Competition was presented with an official award. Immediate Past President Professor Milan Konečný, the ICA Executive Committee liaison to the ICA Children and

Cartography Commission presented the award to 15 year-old Daniela Karaivanova.

Six keynote speeches were given. The first keynote speech was given by Paul Hardy from ESRI. The topic was Scaling-up Cartography-Cloud Computing and Multi-scale Content for Tomorrow's Mapping. The next keynote was from Miklós Gross from Eurosense, with the topic The Mission of Cartography in the Modern Information Society. OGC's Athina Trakas delivered the third keynote - OGC and Interoperability from a Global Perspective. Spatial Data Infrastructures: The Subnational Dimension in the European Context by Joachim Rix followed this. The penultimate keynote was delivered by Temenoujka Bandrova on the topic Bulgarian Cartography: from Paper to Virtual Reality. I gave the last keynote, entitled Maps, Sketches and Annotations: Representations of the Geography of Conflict - Gallipoli 1915.

During the conference two ICA Commissions and a Working Group met. These were:

- ICA Commission on Planetary Cartography, chaired by Professor Kira Shingareva
- ICA Commission on Cartography for Children, chaired by Temenoujka Bandrova and José Jesús Reyes
- ICA Working Group on Cartography on Early Warning and Crises Management (WGCEWCM), meeting chaired by Immediate Past President Milan Konečný.



Kira Shingareva chairing the ICA Commission on Planetary Cartography session in Nessabar, Bulgaria | Photograph courtesy of William Cartwright

The conference incorporated a Seminar with EU cooperation on Early Warning and Disaster/Crises Management of the WGCEWCM. This seminar was facilitated by Immediate Past President and Chair of the WGCEWCM Milan Konečný.

This was a wonderful event and it truly reflects the enthusiasm and quality of Bulgarian Cartography and GI Science.

By now you should have received the call for papers for the 25th International Cartographic Conference in Paris. The ICA General Assembly will be held in conjunction with ICC 2011. The conference will be held 3-8 July 2011 at the Palais des Congrès. For more information about the conference, please visit the website at www.icc2011.fr.

The French Committee of Cartography (CFC) and the ICA Executive Committee look forward to seeing you in Paris in July 2011.

William Cartwright | President | ICA

# ica news le monde cartographique

The International Cartographic Association (ICA) activities continue to be held worldwide, and reported upon regularly in the ICA News. The international remit of ICA ensures that the global nature of cartography is reflected in the meetings, courses and conferences offered by the Association.

In the middle of our globalisation agenda, it is always a good idea to keep links with our roots, and the celebration of ICA's 50th birthday in Bern, Switzerland, in June 2009 (ICA News 50th Anniversary of ICA Special Issue. September 2009) helped the Association and its members to remember eminent cartographers of the past. Following ICA's foundation in 1959, the first General Assembly, at which all member nations of ICA were able to draft its formal statutes and operating conventions, took place in Paris in 1961. 50 years later it is highly appropriate that the next International Cartographic Conference (ICC) and General Assembly will again be in Paris. Historically significant, we also look forward, confident that the ICC 2011 will be a further example of the progressive agenda of ICA.

ICA has been delighted to accept the invitation of the French National Cartographic Committee (le Comité Français de Cartographie) to meet in the Palais de Congrès in the heart of Paris from 3-8 July 2011. This is an excellent opportunity for the cartographers and geographic information scientists of the world to gather and present their Enlightened view on Cartography and GIS - this is the maxim of the conference. On the Conference website www.icc2011.fr. Anne Ruas. President of the Conference Organizing Committee. invites the major scientific and industrial players in the fields of Cartography and GIS to participate in the Conference itself, the many associated workshops and visits, an extensive technical exhibition and the usual exhilarating exhibitions of contemporary map products and children's map drawings. The main conference programme will be characterised by thematic diversity, high-quality contributions and an up-todate content, and will appeal to researchers, engineers, students, data producers and software suppliers. In addition, a variety of social events has been planned in one of the most exciting cities in the world, including a gala dinner at the Bibliothèque National de France. Note the date for your diary and Bienvenue à Paris en 2011.

David Fairbairn | Secretary General & Treasurer | ICA ●

# ica executive committee

#### President

William Cartwright | RMIT University | Australia

#### Secretary General & Treasurer

**David Fairbairn** | Newcastle University | *UK* 

#### Vice Presidents

**Derek Clarke** | Surveys and Mapping | South Africa

**Georg Gartner** | Technische Universität Wien | *Austria* 

Pablo Gran | Instituto Geográfico Militar | Chile

Menno-Jan Kraak | ITC |

The Netherlands

**Zhilin Li** | Hong Kong Polytechnic University | *China* 

**Anne Ruas** | Institut Géographique National | *France* 

Timothy Trainor | US Census Bureau | USA

#### Past President

Milan Konečný | Masaryk University | Czech Republic

#### **Editor ICA News**

**Igor Drecki** | The University of Auckland | *New Zealand* 

# ica news contributions

Please send your contributions to

**Igor Drecki** | Editor ICA News | *i.drecki@auckland.ac.nz* 

#### Postal Address

School of Environment The University of Auckland Private Bag 92019 Auckland New Zealand

#### **Submission Deadlines**

15 May for June editions

**15 November** for **December** editions

# 25th international cartograpic conference 2011 paris · france cont...

- T5 Art, Culture and Cartography
- T6 SDI, Standards, Ontologies, Integration
- T7 Data quality
- T8 Location Based Services and Ubiquitous Cartography
- T9 Volunteered geographic information, Crowdsourcing and Critical Cartography
- T10 GeoInformation retrieval
- T11 Generalisation and Multi-scale Representation
- T12 Spatio-Temporal modelling and issues (3D, simulation)
- T13 Use and User Issues
- T14 Mapping and Spatial awareness for disabled people
- T15 Geospatial analysis
- T16 Maps, GIS & Sustainable development
- T17 Maps, GIS & Hazards and Disasters
- T18 Maps, GIS & Society
- T19 Maps, GIS & Security
- T20 Mapping from Satellite Imagery
- T21 Map and GeoDB Production Techniques
- T22 Open Source Technology and Web Services
- T23 Intellectual Property Rights and Economical issues
- T24 Marketing and publishing
- T25 Digital Technologies and Cartographic Heritage
- T26 History of Cartography and GI Science
- T27 National and Regional Atlases
- T28 Mountain Cartography
- T29 Planets and space Cartography
- T30 Marine, Military and Topographic Cartography
- T31 Census and other thematic maps
- T32 Toponyms on Maps and on GeoDB
- T33 Map Projections
- T34 Education and Training
- T35 Cartography and Children
- T36 The profession of Cartographer
- T37 Other

#### Paper Submission

The paper submission deadline for ICC 2011 is 4 October 2010. The quality of contributions will be ensured by a selection process, which will encompass both a leading-edge scientific audience and a broader public, thanks to the delivery of three types of papers:

- The full-length refereed papers will be blind reviewed by an international Scientific Committee composed of the ICA Commission chairs and selected experts in the fields of GIS and Cartography. The selected papers will be published in an international journal and a prestigious printed book. Remaining papers will either be retained as non-refereed papers or posters, or rejected.
- The non-refereed papers will be reviewed by an international Scientific Committee composed of the ICA Commission chairs and a French Scientific Committee. These papers

will be published in a digital form.

 Posters will be reviewed by an international Scientific Committee composed of the ICA Commission chairs and a French Scientific Committee. They will also be published in a digital format.

All papers should be written in English or in French, the two official languages of the ICA. Oral presentations will be given in English or in French. Simultaneous translation service from French into English will be available.

#### Registration Fees

Registration Type	Early <sup>1</sup>	Regular <sup>2</sup>
Full	€ 500	€ 550
Senior / Student	€ 300	€ 400
Attendee from Africa	€ 300	€ 400
One Day	€ 180	€ 200
Accompanying Person	€ 160	€ 180
Visitors to Exhibition	€ 40	€ 40

before 1 March 2011 <sup>2</sup> from 1 March 2011

#### **Important Dates**

- 4 October 2010: Papers submission deadline
- 1 November 2010: Registration Opens
- December 2010: Papers acceptance notification
- 15 February 2011: Final papers deadline
- 1 March 2011: Authors registration deadline

#### Conference Website

For more information, please visit the conference website at www.icc2011.fr.

Francois Lecordix | Local Organising Committee ICC 2011 | France

© Paris Tourist Office | Photography Stéphane Querbes



# ica news your views sought!

The pursuit of ICA's mission statement - to "ensure that geospatial information is employed to maximum effect for the benefit of science and society through promotion and representation of the discipline and profession of Cartography and GIScience internationally" - is directed by common goals and aspirations agreed at its governing body, the General Assembly. The mission statement is included in the Association's Strategic Plan 2003-2011, approved by the General Assembly in Durban, South Africa, in August 2003.

This Strategic Plan, which is available in the ICA website at icaci.org/strategic-plan, is a comprehensive document. It addresses a range of issues, including the early development of ICA (which has determined our current context); the challenges of contemporary cartography (which define the main 'operating environments' - science, society, education, professional practice and art - in which cartography operates); a 'SWOT' analysis exploring strengths, weaknesses, opportunities and threats for the Association; and ways of converting these ideas into actions. The Strategic Plan 2003-2011 has guided the policy and management of ICA for a significant period, and ICA has seen many benefits from adopting the focus and vision of the authors of the plan, and the input of the General Assembly delegates who discussed and approved it.

It is clearly time to start preparing a new Strategic Plan, covering 2011-2019. The Executive Committee of ICA will table such a plan at the 15th General Assembly meeting at the International Cartographic Conference in Paris in July 2011. However, the intention is to give all ICA members and interested parties the opportunity to contribute to the new Strategic

Plan, so that it can be considered in advance of the meeting. The Executive Committee is, therefore, keen to receive suggestions from anyone interested in the progress of the Association, whether tabled through the formal national delegation to the General Assembly, or individuals associated with our discipline and profession.

In addition, the General Assembly gives the opportunity to modify the ICA Statutes, and a small working party has been set up to examine whether changes are needed. The ICA Statutes (also available at the website at icaci.org/ica-statutes) dictate policy, and modification must be approved by the General Assembly. Again, the Executive Committee would like to present possible changes having received opinion from a wide range of delegations and individuals.

Finally, it is clear that the ongoing work of ICA from a practical, day-to-day perspective relies on (among other things) maintaining successful conferences, effective Commission and Working Group structures, a viable Research Agenda, a generous Travel Awards scheme funded through the ICA Foundation, authoritative cartographic competitions for children's and production cartography, and a dynamic web presence. Documents describing ICA practice in these areas are available on the website (icaci.org/Documents). It is expected that many of these documents will also be revised over the next 12 months, and suggestions and contributions for improving them are most welcome. Please make your views known to the Secretary General.

David Fairbairn | Secretary General & Treasurer | ICA | dave.fairbairn@newcastle.ac.uk ●

## ica news new features of ica website

#### www.icaci.org

#### ICA Logo

The Association section of the website offers digital versions of the ICA logo. With the conclusion of the ICA 50th anniversary year earlier this month, from now on please use only the standard ICA logo, i.e. without the 50 years banner, on your documents and websites. The ICA logo files and guidelines can be found on icaci.org/logo. We kindly ask you to use only the original ICA logo files provided.

#### Map of the Month

The new Map of the Month feature within the News section of the ICA website currently showcases the winning entries from the International Cartographic Exhibition held at the ICC 2009 in Santiago, Chile. If you haven't discovered them yet, please have a look at icaci.org/map-of-the-month. So far, five map

products have been featured:

- Feb 2010: EARTH atlas, Millennium House, Australia
- Mar 2010: The National Atlas of Spain (1986–2008), National Centre of Geographical Information, Spain
- Apr 2010: Les cartes portolanes, Institut Cartogràfic de Catalunya, Spain
- May 2010: SCAN Littoral, French National Geographic Institute, France
- Jun 2010: Panamap Manhattan, Urban Mapping Inc., USA

For questions and ideas concerning the ICA website, please contact Manuela Schmidt or Felix Ortag at *icawebsite@cartography.tuwien.ac.at*.

Manuela Schmidt | Web Developer | ICA Website | ICA | icawebsite@cartography.tuwien.ac.at ●

# ica news 25 years ago...

The items below take us back to early 1985 and report on someone's 90th birthday... and ask to differentiate between 'Jnr' and 'Snr'!

Igor Drecki | Editor ICA News | ICA •

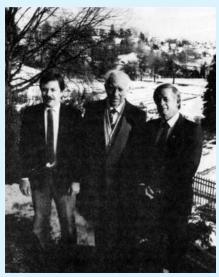
#### ICA Newsletter, No 5, May 1985

#### Miscellany

Professor Eduard Imhof was the first President of the ICA and has long been acknowledged as the 'father of modern cartography'. His expertise and skill in the production of hill shading and relief representation revolutionised Swiss mapping and provide a graphic portrayal of the mountaineous nature of the topography of his country. After the London Meeting of the ICA Executive Committee the President and Secretary-Treasurer travelled to Zürich, on January 25th, to pass on the Association's congratulations and best wishes on the occasion of his 90th birthday.

It was an historic event attended by representatives and delegates from many European cartographic societies, and by members of the Council of the City of Zürich who were present to wish him well in the future.

D.T. Pearce / February 1985



Joel Morrison [left] and Don Pearce [right] with Professor Imhof at the birthday celebration.

Γ...<sup>:</sup>

Congratulations are also due to Dr F.J.
Ormeling Jnr who has recently been appointed as Professor of Cartography at the State
University of Utrecht, Netherlands, in succession to Prof. Dr C. Koeman. Correspondents, bibliographers, documentalists, etc. are strongly recommended to distinguish between two Professor Dr F.J. Ormelings by using the description (Snr) or (Jnr) as a suffix to their names and titles.

# profiles

# jürg gilgen



Until my second last grade at school I had no idea what profession I should choose. My drawing teacher encouraged me to become a graphic artist. My grandfather, on the

other hand, urged me to learn a down-toearth job, as he used to say, such as a precision engineer (just like my eldest brother).

Shortly afterwards, I came across a recruitment advertisement in the newspaper: 'Cartography Trainees Wanted!'

These very words made me curious... Good drawing ability, precise working method, a broad general knowledge and a lot of patience are above all needed in order to become a cartographer, I learnt from that advertisement

"Well then, that sounds good to me" – I said to myself. The thought of becoming a cartographer quickly changed to an intention, especially after my visit to the Federal Office of Topography swisstopo. I passed the admission tests and started my four year apprenticeship there. The working week consisted of four days of in-house training and one day of classes at the School of Applied Arts in Bern.

What still fascinates me the most is the cartographic communication design: how to portray the manifold landscape using conventional graphic signs and symbols that are generalized and standardized.

My professional challenge nowadays is to meticulously and artfully portray high mountains in the crisp, Swiss style of rock hachures using state-of-the-art digital technology. My goal is always to give rock faces their unique character so that the map readers can easily get their bearings while in the outdoors.

Both my drawing teacher and my late grandfather would be highly pleased to see what I have become professionally.

Jürg Gilgen | Federal Office of Topography swisstopo | Switzerland | juerg.gilgen@swisstopo.ch •

A sketch of Wildstrubel massif (3243m) by Jürg Gilgen, ICA Commission on Mountain Cartography Workshop in Lenk, Switzerland, February 2008



# profiles centro argentino de cartografía

#### www.centroargentinodecartografia.org



The Centro Argentino de Cartografía (CAC) Association was founded in Buenos Aires on 23 November 1955 by professionals and cartography enthusiasts. They

considered cartography as an important part of everyday life that needs to be duly appreciated.

The aims of the Association are:

- to support investigation, knowledge building and development of cartography
- to provide recognition for its members
- to support and facilitate communication and collaboration between members and the cartographic community
- to award educational grants and academic distinctions
- to contact different scientific organizations in Argentina and abroad and develop working relationships with them
- to actively participate in cartographic meetings in Argentina and abroad CAC is run by an Executive Board in accordance with its statutes approved by the General Inspectorate of Justice. It has five Technical Commissions: Geodesy and Mathematics Cartography, Cartographic Representation, Cartography and Technology, Cartography and Education, and Public Relations.

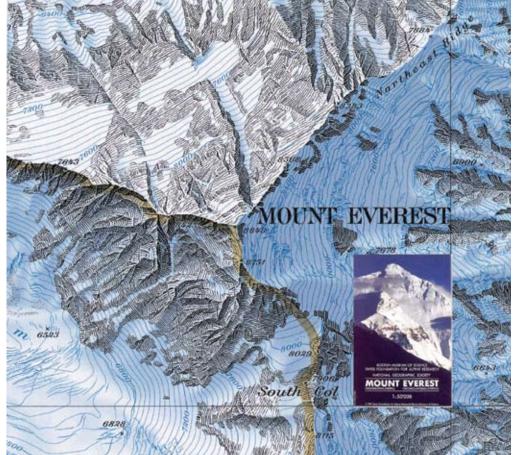
CAC is a non-political, non-religious, non-trade union, non-commercial and non-racial organisation, which is supported by the voluntary work of its members. It is well recognised country-wide and its membership fee is around 26 USD annually. The Association organizes seminars, variety of courses, conferences and provides a free advice service. It publishes a biannual journal and a digital bulletin that is distributed every forty days.

On 26 June each year the CAC celebrates the *Cartography Day* to commemorate the first Cartographic Department established in 1958. Around that time CAC also organizes a national cartographic meeting; this may be a congress or a cartographic week. This year a congress is planned which will be held in the city of Santa Fe

CAC is an affiliate member of the International Cartographic Association (ICA) and actively participates in the ICA works. The Association organizes the Barbara Petchenik National Competition since 1999. Recently, the CAC members attended working group meetings with the Hungarian colleagues to discuss cartographic education and other issues related to cartography.

Ana Maria Garra | Secretary | Centro Argentino de Cartografía Association | *Argentina* ●

An extract of the Mount Everest topographical map 1:50 000, 1991 Edition. The map was drawn by a team of swisstopo cartographers including Jürg Gilgen and published by the Boston Museum of Science together with the Swiss Foundation for Alpine Research. The map is available for purchase at: www.toposhop.admin.ch/en/shop/products/maps/leisure/everest



# profiles polski przegląd kartograficzny

#### ppk.net.pl

Polish Cartographical Review is published quarterly since 1969 in Warsaw by the Cartographic Division (until 2000: the Cartographic Commission) of the Polish Geographical Society and the Polish Cartographic Publishing House (PPWK), the leading publisher of analogue and electronic maps and atlases, and an affiliate member of the ICA. Although it is available in Polish, it contains extensive English summaries of all research articles. The journal is published in colour and frequently includes attachments, e.g. atlas plates or sample topographical maps.

The current *Polish Cartographical Review* is a successor of another journal of the same name, considered to be the oldest journal in the world dedicated exclusively to cartography. It was

POLSKI PRZEGLĄD KARTOGRAFICZNY

W SERIO SE

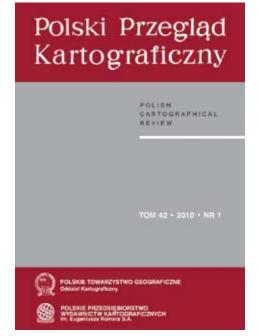
published between 1923-1934 in Lvov (currently Lviv) and edited by Prof Eugeniusz Romer.

Polish Cartographical Review covers a wide

The October 1933 issue of the pre-WWII Polish Cartographical Review journal range of cartographic and geoinformation themes: theory of cartography, visualization, generalization, spatial databases, map design (in electronic media in particular), as well as the history of cartography. Each issue contains five sections: research articles, notes, reviews, editorial news and reports on current cartographic events. The contributions come from Polish as well as international authors. The readership is diverse and includes academic and professional cartographers, geographers, GI researchers and practitioners, historians and students.

The journal is a credible source of information on current Polish cartographic publications. In the last forty years 14,779 publications were noted (their bibliography will soon be published in an electronic form). A recent initiative of the Editorial Board led to the inauguration of the Library of the Polish Cartographical Review series. The first volume is devoted to the milestone of Polish school cartography: Romer's Atlas from 1908. The second volume covers the activities and achievements of the Polish Geographical Society's Cartographic Commission between 1966-2000. A volume on Polish post-WWII topographical maps is in preparation.

The ICA activities, including participation of



Recent cover of the Polish Cartographical Review journal

Polish cartographers in conferences, commission meetings and workshops, and Polish children in the Barbara Petchenik competition, are regularly reported on. *Polish Cartographical Review* was one of the first journals to publish the ICA Research Agenda adopted at ICC 2007 in Moscow (Vol. 40, no. 1).

Jacek Pasławski | Editor | Polish Cartographical Review | Poland ●

# profiles new zealand cartographic society

#### www.cartography.org.nz

The New Zealand Cartographic Society (NZCS) was founded in 1971 and joined the ICA in 1976. The Society is an open association for those individuals and organisations with an interest, passion and excitement in the study, production and use of maps. It has a most diverse membership – both professionally and geographically. No two members work for the same organisation! Almost all members are either elected to the committee or coopted in some form. Committee meetings are held by video-conferencing over the web.

Volunteer members manage all Society activities. Services provided include organisation of the biennial National Cartographic Exhibition, coordination of the National Children's Map Competition (part of the ICA Barbara Petchenik Children's Map Award), maintenance of the Society's website, organisation of cartographic conferences, workshops, seminars and courses, support for students to attend these events, and general cartographic information and advice. To assist GIS practitioners and promote cartography at all levels of education, the NZCS has developed the *EduCart* outreach programme comprising of a modular cartography course for geospatial

professionals, and the Maps for Schools project concerned with the production of wall maps for primary schools. To maintain contact with members and interested people the Society's newsletter – the *Cartogram* – is published several times each year, and is emailed to members, and to a mail-out list which is almost as large. It is available for download from the Society's website www.cartography.org.nz.

Every two years, alternating with the ICA's cartographic conferences, the NZCS hosts a national cartographic conference in the GeoCart series. The next conference, GeoCart'2010, will be held in Auckland 1-4 September this year. This conference is also to be the first ICA Symposium on Cartography for Australasia and Oceania (www.cartography.org.nz/geocart2010/). These conferences are particularly stimulating and are the life-blood of the Society. About quarter of the attendees are from overseas reinforcing New Zealand's potential as a destination and the GeoCart series as a vehicle for promoting their specialisations and their ideas. The programmed subject schema is challenged by the diversity of papers presented.

New Zealand's national mapping organisation is a small part of Land Information New

Zealand (LINZ). LINZ recently became an Affiliate Member of ICA.

The Society is the New Zealand representative to the ICA. Over the years, it has maintained a strong relationship with ICA by attending all General Assemblies since 1976 and actively participating in the International Cartographic Conferences and ICA Commissions' meetings. New Zealand has been particularly successful at the International Cartographic Exhibitions by winning several cartographic excellence awards. A number of ICA events have been organised in New Zealand, including ICA Commission meetings, seminars and workshops, and many highly respected and notable international cartographers have been invited to these events.

In February next year the Society will host a celebration to commemorate the founding of the Society forty years ago. A **celebration of New Zealand Mapping** is expected to be attended by about two hundred people who have contributed to mapping over the years and to the Society in its formative years.

**Geoff Aitken** | President | New Zealand Cartographic Society | New Zealand ●

# reports ica commissions

#### **Education and Training**

lazarus.elte.hu/cet/

#### Commission Workshops and Resources

The ICA Commission on Education and Training plans to continue to offer cartographic workshops in the future. An invitation will be extended to selected ICA member nations each year in the hope that the workshop model can be adapted and adopted to the benefit of cartographers in nations requiring such an input. Guidelines have been produced for the workshops and are available from the CET website lazarus.elte.hu/cet/. In addition, a list of cartographic resources for those involved in cartographic education and training has been compiled and placed on the above website.

#### Workshop in Vietnam

The Viet Nam – Ho Chi Minh City Workshop has been organised for 19-30th July 2010.

- Workshop I: 19-23 July 2010 (Presenters: Prof László Zentai and Prof Vít Voženílek)
  - Cartographic Information Systems (GIS with a cartographic emphasis)
  - · Internet Mapping
  - Atlas production
  - · Prepress and Digital Printing
  - Other specialist topics to be added if deemed appropriate
- Workshop II: 26-30 July 2010 (Presenters: Prof William Cartwright and Manuela Schmidt)
  - Digital Generalization
  - 3D maps and Geovisualization
  - Multimedia products
  - Location Based Services
  - Cartographic Animation and Dynamic maps
  - Navigational Maps

Many thanks go to the presenters for giving of their time, expertise, resources and finances (air fare) to attend this workshop.

#### Workshop in Indonesia

The Indonesia – Jakarta Workshop has been organised for 26 July – 6 August 2010.

- Week 1: 26-30 July 2010 (Presenter: Prof Ferjan Ormeling)
  - Map projections
  - Map design/ Cartography design
  - Cartography theory (Map Evaluation)
  - Atlas cartography
  - Special topic Toponymy (Presenter: Dr Gang-Jun Liu)
  - Map production using GIS
  - · Prepress design and layout using GIS
  - Computer assisted cartography using ArcGIS
  - Special topic 3D GIS
- Week 2: 2-6 August 2010

(Presenter: Prof William Cartwright)

· GIS visualisation

- · Web cartography
- Web-based cartographic research
- Special topic Geographic/geospatial education using ICT

(Presenter: Manuela Schmidt)

- · GIS & Cartography on the web
- Geospatial Information Science
- WebGIS
- · Special topic TBA

Many thanks go to the presenters for giving of their time, expertise, resources and finances (air fare) to attend this workshop.

#### **Future Plans**

A workshop Looking to the Future: Maps for the education and children is being organised for July next year prior to the ICC 2011. At present, the participation of the Commission on Cartography and Children and the Commission on Education and Training has been confirmed. Jesus Reyes and László Zentai are the key organising team with Dr Elisabeth Chesneau as the French connection.

The Commission will review the cartographic education and training papers presented for consideration for the ICC 2011 conference. Commission members Dr John Kostelnick and Dr Elisabeth Chesneau have kindly offered to take on the role of reviewers.

I will be stepping down as Chair of the Commission on Education and Training at the end of my term in 2011. I am currently seeking an individual who is willing to take on this role from 2011 to 2015.

**David Fraser** | Chair | ICA Commission on Education and Training | *Australia* ●

# Geospatial Analysis and Modeling

www.fromto.itb.hig.se/~bjg/ica/

#### **Future Plans**

ICA Commission on Geospatial Analysis and Modeling is co-sponsoring two upcoming events.

- ICA Workshop Advances in Sensors and Algorithms for Topographic and Thematic Mapping, 18-19 November 2010, Orlando, Florida, USA (mailer.fsu.edu/~xyang/ ica2010/index.html)
- International Conference 2011 on Spatial Planning and Sustainable Development, 29-31 July 2011, Kanazawa City, Japan (urbaneastasia.jimdo.com/conference/ spsd2011-kanazawa/call-for-paper/)

Commission members and all interested in geospatial analysis and modeling are encouraged to attend.

**Bin Jiang** | Chair | ICA Commission on Geospatial Analysis and Modeling | Sweden

#### GeoVisualization

geoanalytics.net/ica/

#### Workshop in Guimarães, Portugal

On 10-11 May 2010 in Guimarães, Portugal, the ICA Commission on GeoVisualization organised a workshop *GeoVA(t) – Geospatial Visual Analytics : Focus on Time* (geoanalytics. net/GeoVA(t)2010). It was held in conjunction with the AGILE International Conference on Geographic Information Sciences. The workshop received 35 submissions that went through a review process undertaken by five workshop chairs. Consequently, 25 papers were accepted for presentation at the workshop and 16 of them received an invitation to the second round of reviewing for special issues of the *International Journal of GIScience* and *Journal of Location Based Services*.

Initially there was a concern about the viability of the workshop given that the day before two local airports were closed and many flights cancelled due to the volcanic ash in the atmosphere. However, 17 papers were eventually presented, which attracted a considerable interest over the next 1.5 days. In addition we were able to have a remote capstone talk by Gennady Andrienko.

The first day was limited to five of the nine papers. The extra time was devoted to questions and discussions. The second day started with a keynote talk delivered by the "father of visual analytics", Jim Thomas. Jim discussed the core concepts and current state-of-the-art research opportunities in Geospatial Visual Analytics. His presentation was very well received. The rest of the second day included presentations of the remaining papers. The outcome of the workshop discussions was that space/time/temporal analytics is indeed a core science, enabling innovative visual analytics, but it has not matured yet and needs considerable research funding in the next decade.

The interaction of participants and exchange of ideas contributed to the workshop's success. At the end, over 50 people attended the workshop.

**Gennady Andrienko** | Chair | ICA Commission on GeoVisualization | *Germany* ●

### **History of Cartography**

www.icahistcarto.org/

# International Symposium in Arlington, Texas, USA

The 3rd International Symposium of the ICA Commission on the History of Cartography will take place at the University of Texas (Arlington), USA, from 11-13 October 2010. Of the eight

# reports ica commissions



Map of Mexico, California and Texas | Image courtesy of

paper sessions offered at the Symposium, two will be taken up by the ICA Commission on Maps and Society, and one by the United States Geological Survey (USGS). Given that the fields of study of these two ICA commissions in many instances overlap, the Commission on Maps and Society decided to temporarily join forces with the History commission. The USGS, which celebrated its 130th anniversary in 2009, was invited to participate. The ICA Commission on the History of Cartography felt that the coincidence that the Commission will be conducting its first meeting ever in the United States at the same time as the USGS is celebrating its 130th anniversary, should be officially recognized and given prominence.

The week of 9-13 October 2010 promises to be a veritable feast for lovers of (old) maps as the Symposium will be preceded by two other important events on the international and American cartographic calendar. The 7th Biennial Virginia Garrett Lecture Series on the History of Cartography will take place on Friday, 8 October 2010, and a day later delegates will able to attend the Fall Meeting of the Texas Map Society (TMS). Both these events will boast papers presented by internationally acclaimed speakers.

On Monday, 11 October 2010 delegates will be treated to a guided tour of a special Map Exhibition mounted by the UTA Library (Special Collections), and on Wednesday there will be a half-day technical excursion to Dallas with a guided tour to the Southern Methodist University Library. The social aspect of the Symposium will also be well catered for with a full-day excursion to Fort Worth, the "Gateway to the Wild West", on Sunday 10 October 2010, and a post-conference coach tour of approximately four days into "The Heart of Texas", which is the Hill Country with state capital Austin, and the historic city of San Antonio.

Full particulars on the programmes for the Garrett Lectures, the TMS meeting, and the ICA Symposium can be found on library.uta. edu/spco/Garrett2010/index.html whereas Information on the registration fee for the Symposium, and the technical and social

excursions, appears on the website of the ICA Commission for the History of Cartography at www.icahistcarto.org.

Elri Liebenberg | Chair | ICA Commission on the History of Cartography | South Africa

#### Management and **Economics of Map Production**

www.icamapproduction.org/

#### Workshop in Orlando, Florida, USA

The ICA Commission on Management and Economics of Map Production is organizing a Workshop on Management of Geographic Information and Map Production on 19 November 2010 in conjunction with AutoCarto 2010 in Orlando, Florida, USA. The topics covered by this workshop are:

- · Dataware, the use of open data in different applications in GI and map production, including also aspects of crowd sourcing
- · Standardization, especially for the formal description of production lines
- · Value chain of GI

The Commission is also working on a book with the working title GI and Map Production Management in which the topics mentioned above together with other issues, such as quality control and models of management in GI, will be addressed. The presentations and discussions during the workshop will form an ideal opportunity to exchange ideas about these topics and construct a basis for the book.

If you are interested in attending or preparing a presentation for the workshop and/or contributing to the book, please submit your contributions by 30 June 2010 to info@ icamapproduction.org.

Philippe De Maeyer | Chair | ICA Commission on Management and Economics of Map Production |

### Mapping from Satellite **Imagery**

mailer.fsu.edu/~xyang/ica/

#### Meeting in Santiago, Chile

The ICA Commission on Mapping from Satellite Imagery held a joint open business meeting with the ICA Commission on Geospatial Analysis and Modelling on 17 November 2009, during the 24th ICC in Santiago, Chile. The discussions focused on some forthcoming events in 2010 and 2011 that the Commission plans to organize or sponsor.

#### Paper Sessions at AAG 2010, Washington, DC, USA

The Commission co-sponsored seven special paper sessions at the 2010 Annual Meeting of the Association of American Geographers (AAG), Washington, DC, USA, 14-18 April 2010. These sessions focused on three major themes: remote sensing and GIS for urban analysis (2 sessions), remote sensing and GIS for coastal studies (1 session), and land use and watershed assessment (4 sessions). Xiaojun Yang (Commission Chair) organized these sessions, which were very well received.



A special paper session co-sponsored by the ICA Commission on Mapping from Satellite Imagery at the AAG 2010 meeting, 15 April, Washington DC, USA | Photograph courtesy of Xiaojun Yang

#### Workshop in Orlando, Florida, USA

The ICA Commission on Mapping from Satellite Imagery is organizing the ICA Workshop on Advances in Sensors and Algorithms for Topographic and Thematic Mapping. This will be a one-and-a-half day event in conjunction with the Special Joint Symposium of ISPRS Technical Commission IV and AutoCarto2010, beginning in the afternoon of 18 November 2010 at the Doubletree Hotel at the Entrance to Universal Orlando, Orlando, Florida, USA.

The workshop will offer a forum for scholars and professionals to showcase their latest research advances in remote sensors and information extraction techniques that are particularly tied with various mapping applications. The workshop topics include but are not

- Cartographic capabilities of high-resolution optical and active remote sensors
- Development of improved information extraction algorithms
- Topographical and bathymetrical mapping
- Urban feature extraction and landscape mapping
- Hvdrographic feature extraction
- Ecological and environmental mapping
- Natural hazards mapping and monitoring The deadline for position paper submissions is 30 June 2010. More information appears on the Workshop's website: mailer.fsu.

edu/~xyang/ica2010.

> 10

# reports ica commissions cont

#### Symposium in Nanjing, China

The International Symposium on LIDAR and RADAR Mapping (LIDAR & RADAR 2011) will be held in Nanjing, China, 26-29 May 2011. It is sponsored by the ICA Commission on Mapping from Satellite Imagery, together with International Society for Photogrammetry and Remote Sensing (ISPRS) and International Federation of Surveyors (FIG). The Symposium will be open to all academics and professionals in the fields of surveying and mapping, remote sensing and photogrammetry, geography and landscape planning, and natural resources and environmental management.

The Symposium welcomes paper and poster submissions concerning sensors and platforms, processing algorithms, and innovative applications. The deadline for abstract submission is 15 October 2010. More information is available from www.lidar2011.org.

#### Other Events

In addition, the Commission is sponsoring three other events:

- ICA Workshop on Theories of Map Design in Digital Era in Hong Kong, China, 23-25 September 2010 (contact ica.workshop. theory@gmail.com for more information)
- Joint Urban Remote Sensing Event JURSE 2011 in Munich, Germany, 11–13 April 2011 (www.jurse2011.tum.de)
- Earth Observation for Global Changes EOGC 2011 in Munich, Germany, 13-15 April 2011 (www.eogc2011.tum.de)

Xiaojun Yang | Chair | ICA Commission on Mapping from Satellite Imagery | USA ●

### Maps and Society

#### Symposium in Arlington, Texas, USA

The ICA Commission on Maps and Society has organised two thematic sessions focusing on *Cartographic History and Histories*, at the 3rd International Symposium on The History of Cartography, University of Texas at Arlington (UTA), to be held 10-13 October, 2010.

For further details of the programme see the conference web site at icahistcarto.org/index. php?option=com\_content&view=article&id=3 5&Itemid=37.

#### **Future Plans**

Looking further forward plans for next year's Paris ICC 2011 at this stage include a pre-conference Workshop in conjunction with the ICA Working Group on Art and Cartography, in addition to themed paper sessions in the main conference proceedings.

Chris Perkins | Chair | ICA Commission on Maps and Society |  $UK \bullet$ 

#### Maps and the Internet

maps.unomaha.edu/ica/

#### Workshop in Orlando, Florida, USA

The ICA Commission on Maps and the Internet announces a workshop in conjunction with the AutoCarto 2010 meeting. This workshop examines developments in Application Programmer Interfaces (APIs) for mapping and MapServices in general, including Google Maps API and similar services. The specific purpose of the meeting is to propose chapters for a new book to be published in 2011 by the Maps and the Internet Commission along with the ICA Working Group on Open Source Geospatial Technologies.

The Online Maps with APIs and MapServices Symposium is scheduled for November 19, at the conclusion of the AutoCarto 2010 meeting in Orlando, Florida, 15-18 November 2010. Both meetings will be at the DoubleTree Hotel at the entrance to Universal Orlando. Online registration for the event is at orlando2010. eventbrite.com.

Submission of 200-word abstract is due on 1 August and the final 5,000 word paper on 15 October 2010.

### **Mountain Cartography**

www.mountaincartography.org/

#### Workshop in Borsa, Romania

The 7th ICA Mountain Cartography Commission Workshop will be held in Borsa, Romania, from 1-5 September 2010. The Workshop registration is now open and can be accessed form geogr-ubbsighet.ro/Conf%20ICA%20 CMC/proba/.

Karel Kriz | Chair | ICA Commission on Mountain Cartography | *Austria* 

# National and Regional Atlases

www.univie.ac.at/cnra/

#### Workshop in Yogyakarta, Indonesia

In co-operation with the Faculty of Geography, University of Gadjah Mada, Yogyakarta, Indonesia, and other Indonesian institutions the ICA Commission on National and Regional Atlases organizes a workshop in Yogyakarta, Indonesia, between 20-23 October 2010. The workshop will be devoted to two main topics: (1) Recent directions in national atlas cartography; (2) National, regional, city and school

atlases as expressions and carriers of spacerelated identity. In addition, Part II of the National Atlas of Indonesia will be presented.

The choice of the second topic comes from the assumption that national and regional atlases as well as city and school atlases are not only means of communication and instruction, but have also the function of representing and carrying space-related identities, i.e. self-images of nations, regions or cities. Space-related image-building with atlases is provided by the selection and sequence of themes, by highlighting special aspects, which are very important for a country, region or city. But also the layout of an atlas, its furnishing with national and regional symbols, even the use of languages in titles, legends and texts as well as of place names is frequently very indicative in this respect.

This part of the workshop is therefore to investigate the historical and more recent national, regional, city and school atlases and whether they deviate from the usual thematic scope of regional geography and present maps and themes specific for a certain country, region or city, stressing what a nation, region or city considers as being typical and in accordance with its identity.

Potential subtopics include:

- Editorial concept of a certain atlas related to space-related identity building – view from within (by the editor or a member of the editorial board)
- Editorial concept of a certain atlas related to space-related identity building view from the outside
- Restrictions and demands of licensing authorities and financiers as regards space-related identity building
- Comparative survey over an atlas category (e.g. national atlases) as regards spacerelated identity building in a certain part of the world.
- Cartographic means of space-related identity building by atlases
- Other editorial means of space-related identity building by atlases
- Historical examples of nation-building by national atlases
- The role of atlases in space-related imagebuilding and branding
- The recovery of regional identities (at least in Europe) as reflected by regional atlases
- Central and decentralized state concepts as reflected by national, regional and city atlases.

On Thursday, 21 October, a social dinner, and on Saturday, 23 October, a bus excursion to Yogyakarta Palace, Merapi volcano museum and Borobudur will be offered as social events. The 1200 year old Borobudur temple is the largest Buddhist monument in the world and one of Java's most important sights.

A call for papers including a registration form has already been disseminated to several ICA

# reports ica commissions cont.



Participants of the ICA Commission on Theoretical Cartography seminar in Sankt Petersburg, Russia | Photograph courtesy of Alexander Wolodtschenko

members. Should you not have received it and be interested, please, approach me by email <code>peter.jordan@oeaw.ac.at</code>. Everybody interested is welcome. Deadline for registration is 31 July 2010, deadline for the submission of abstracts 30 September 2010. No registration fees are requested; dinner and excursion (including snack box and lunch) costs are 100 USD. Travel arrangements and accommodation fall into the responsibility of every participant.

**Peter Jordan** | Chair | ICA Commission on National and Regional Atlases | *Austria* ●

### Theoretical Cartography

 $rcswww.urz.tu\text{-}dresden.de/{\sim}wolodt/tc\text{-}com/$ 

#### Seminar in Sankt Petersburg, Russia

The first seminar of the ICA Commission on Theoretical Cartography in 2010 under the title Maps, Atlases, Geoportals: which languages do we need? was held on 22 March at the Institute of Cartography and Geoinformatics in Sankt Petersburg. The main sponsor of the seminar was Faculty of Geography and Geoecology at the Sankt Petersburg University. The organising committee included Olga Lazebnik (Sankt Petersburg), Alexander Koshkarev (Moscow) and Alexander Wolodtschenko (Dresden).

Cartographers and geographers, surveyors and semioticists as well as computer scientists from Germany, Israel, Ukraine and Russia have presented and discussed a variety of cartographic, semiotic, geoscience and information technology papers in two oral sessions. It was a very productive seminar offering a chance to exchange ideas, opinions and positions from the traditional and geoinformation cartography perspective.

The results of the seminar will be published as a collection of abstracts in the *meta-carto-semiotics* e-journal (Vol 3, 2010, **meta-carto-semiotics.org**).

#### Seminar in Odesa, Ukraine

On 17-18 May, the Commission held another seminar in Odesa, Ukraine. The seminar entitled *Mapping, Analyses and Presentation of Medico-Geographical Information* was organised jointly by the Faculty of Geography and Geology, and the Laboratory of Thematic Cartography and Epidemical Processes, both from the Mechnikov University in Kyiv. The local organising committee included Dmitry Nikolaenko and Olga Boyko from Kyiv, and Alexander Wolodtschenko from Dresden.

#### Workshop in Kyiv, Ukraine

On 19 May 2010, the Commission organized a workshop entitled *Mini-display atlases and ubiquitous atlas cartography* in Kyiv, Ukraine at the National Aviation University. The local facilitators were Alexander Zaporozhetc, Michael Vasiuchin, Vadim Gulevec (Kyiv), Alexander Wolodtschenko (Dresden) and International Experimental Laboratory *Applied Cartosemiotics*.

**Alexander Wolodtschenko** | Chair | ICA Commission on Theoretical Cartography | *Germany* 

#### Use and User Issues

www.univie.ac.at/icacomuse/

#### Workshops in London, UK

The highlight of the ICA Commission on Use and User Issues activities since the ICA conference in Santiago de Chile was a workshop on *Methods and Techniques of Use, User and Usability Research in Geo-information Processing and Dissemination* which was held on 13 April 2010 at University College London. The workshop was attended by some 35 participants and the slides of the presentations are accessible through the Commission website. The full papers are now under review for inclusion as sections in the handbook on

user research methods and techniques the Commission is currently working on.

The Commission also supported another workshop on the *Usability of Geographic Information*. This workshop was also held in London on 23 March 2010 and organized by University College London and Great Britain's Ordnance Survey. The presentation slides of this workshop are also accessible through the Commission website. Some members of the Commission will draft a proposal for a follow-up event and/or Commission Project Group with the involvement of and outreach to the (non-GI) HCI / usability community.

#### **Future Plans**

As far as upcoming events are concerned, the Commission is sponsoring a workshop, organized in conjunction with GIScience on 14 September 2010 in Zürich, Switzerland. The Commission will also be represented at AutoCarto 2010 in Orlando, Florida in November 2010, but the planned Commission workshop has been cancelled.

In 2011, the Commission will organize a pre-ICC 2010 workshop on *Use and User Issues in Public Transport Geoinformation* in Paris between 1-2 July.

Everyone interested in use and user issues in the geographic and cartographic domain is invited to visit our website or contact the Chair to be put on the Commission's mailing list.

**Corné van Elzakker** | Chair | ICA Commission on Use and User Issues | *The Netherlands* ●

The London workshop of the Commission on Use and User Issues held in conjunction with GISRUK 2010 (GIS Research UK) | *Photography Richard Johnston* 



# reports ica working groups

# Cartography on Early Warning and Crisis Management

#### Workshop in Novosibirsk, Russia

The International Workshop on Early Warning and Crisis, Disaster and Emergency Management was held at the 6th International Exhibition and Scientific Congress Geo-Siberia 2010, between 27-29 April 2010 in Novosibirsk, Russian Federation. ICA traditionally endorses Geo-Siberia, the event which has importance and influence on science, education, public and private activities related to spatial information is growing from year to year. Popularity of the event is expressed by a large number of participants and exhibiting firms taking part in the congress. This year, 191 organisations from 16 countries, 750 papers and more than 2000 participants attended Geo-Siberia.

The Workshop was organized by the ICA Working Group on Cartography on Early Warning and Crisis Management (WGCEWCM), the International Society for Digital Earth (ISDE), the Regional Center of Ministry of

Workshop Chairs: Milan Konečný (left) and Dimitrij Lisickij | Photograph courtesy of Milan Konečný





Svetlana Dysljuk (*right*) and Dimitrij Lisickij chairing the International Workshop on *Early Warning and Crisis*, *Disaster and Emergency Management*, Novosibirsk, Russia | *Photograph courtesy of Milan Konečný* 

Emergency Situations and the Siberian State Academy for Geodesy (SSGA).

The Workshop's Organising Committee included Prof Dimitrij Lisickij (SSGA) and Prof Milan Konečný (Chair of WGCEWCM) as chairs, Prof Ammatzia Peled (University of Haifa, Israel), Prof W Reinhardt (University of Bundeswehr, Munich, Germany) and Prof G Konecny (Leibniz University, Hannover, Germany) as co-chairs, and Mrs A Novitskaya, S Dyshlyuk, E Komissarova and Mr Y Shcherbakov, all from SSGA. The program included 34 papers and around 10 posters. The Workshop attracted over 100 participants representing 31 organizations from 8 countries.

Prof Konečný delivered an introductory speech on *Early Warning and Crises Management Agenda: Regional Aspects*.

Other speakers included Prof Peled ISPRS
Test on User-defined Mapping Products for
Disaster Management; Prof S Murai (Japan)
Can We Predict Earthquakes with GPS Data?;
Prof G Konecny Some Observations on the Use
of Remote Sensing and GIS in Catastrophic
Events; Prof W Reinhardt Early Warning for
Land Slides - Approaches and Status.

A number of papers by the Russian experts

also featured prominently in the program: Prof A Karpik and NI Stefanenko The Assessment of Sayano-Shushenskaya HPP Arch-Gravity Dam After the Accident on August 17, 2009; D Lisickij, S Katsko, A Kolesnikov and P Bugakov Geoinformation in Crises Management; VA Seredovich and AV Seredovich The Creation of Hazardous Facilities 3D Safety Data Sheet; V Lazarev Development of Geoecological Monitoring System for Early Warning on Soil Slip Processes Activation Aimed to Provide Geoecological Safety for Urbanized Areas; I Rotanova Geoinformation Technologies and Mapping for Prevention and Assessment of Natural and Ecological Risks (Altai Krai as a Case Study); Y Shcherbakov Use of Geoinformational Mapping for Emergency Management; and many others.

The Workshop confirmed growing interest in Early Warning and Emergency/Crisis Management topics, stressed the importance of cooperation between international organizations in the area of geoinformation and cartography, as well as in the Digital Earth at a professional and academic level, and demonstrated practical applications and potential of maps, GIS, Web mapping and visualizations.

The close cooperation of ICA and ISDE with SSGA, the main facilitator of the Workshop, shows the potential of applying theoretical, methodological and practical examples to facilitate innovative lectures, seminars and labs for SSGA students of cartography and geoinformatics.

#### **Future Plans**

The next two activities of WGCEWCM in 2010 are planned for Nessebar, Bulgaria (June) and Orlando, USA (November).

Milan Konečný | Chair | ICA Working Group on Cartography on Early Warning and Crisis Management | Czech Republic ●

# reports cartographic meetings and events

### Milan Konečný Awarded Honorary Professor of SSGA

Immediate Past President of the International Cartographic Association (ICA) and Vice President of the International Society for Digital Earth (ISDE) Professor Milan Konečný has been awarded an Honorary Professorship by the Siberian State Academy for Geodesy (SSGA). The presentation took place at the Opening Ceremony of the Trade Fair and Conference Geo-Siberia 2010 on 27 April this year.

The Scientific Committee of SSGA citation for Prof Konečný recognises his long scientific and educational cooperation with SSGA and his help in promoting new developments in Geo-Siberia, SSGA and all Russia, such as Early Warning and Emergency Management initiatives, recognising the role of cartography, geoinformatics, geodesy, photogrammetry and other disciplines in the process.

Dimitrij Lisickij | Siberian State Academy for Geodesy | Russia ●

Professor Milan Konečný with conference organizer Katja Gorochova after receiving the Honorary Professor award from SSGA | *Photograph courtesy of Dimitrij Lisickij* 



# reports cartographic meetings and events

### **Drawing Out Conference**

An interesting conference took place between 7-9 April 2010 in Melbourne, Australia as a result of a creative collaboration between the RMIT University and the University of the Arts London

The Drawing Out Conference aimed at exploring drawing as an activity that crosses boundaries between disciplines, thus highlighting drawing as a way of thinking, communicating and designing. Clearly cartography is at the forefront when it comes to understanding the role, power and potential of drawing for the above mentioned functions. Although the conference aimed at investigating the role of drawing in its widest sense, such as physical and virtual drawing, digital schemas, architectural and engineering designs, media and communication concepts, architectural and mathematical modelling, business and financial mapping, and legal, educational and political visualizations, cartographers have been invited especially to address drawing as a way of mapping. It was anticipated that cartography can give ideas on how drawing can inspire other practices and what opportunities exist for new technologies as a way of mapping our world.



Festival & Conference of Drawing

Contributions by ICA President Prof William Cartwright (RMIT Melbourne) and ICA Vice President Georg Gartner (TU Vienna) on the context of modern cartography and the role of drawing, art and aesthetics in the age of modern technologies lead to interesting discussions and cross-disciplinary perspectives. Since the main convenors were Professor Elizabeth Grierson, Head of the School of Art of RMIT University, and Professor Stephen Farthing, Director of the Centre for Drawing of the University of the Arts London, the interdisciplinary approach of this conference was primarily directed at Art, accompanied by several drawing exhibitions.

The conference can be seen as another example of the growing interest of artists and cartographers to work together, something the ICA has addressed by establishing the Working Group on Art and Cartography and by endorsing such conferences such as the Art and Cartography Conference 2008 in Vienna and the planned meeting in September 2010 in Montreal (artcarto.wordpress.com).

Georg Gartner | Technische Universität Wien | Austria



Participants of the United Nations' Expert Working Group on Geographic Information Management at the UN in New York,

USA | Photograph courtesy of William Cartwright

# UN Geographic Information Management Meeting

Dr Paul Cheung convened two meetings of an expert working group to discuss and coordinate critical issues in the field of geographic information management through the United Nations Statistics Division (UNSD) of the Department for Economic and Social Affairs (DESA) in cooperation with the Cartographic Section of the Department of Field Services (DFS). The first meeting was held in Bangkok in October 2009 followed by a meeting at the UN in New York on 10-11 May 2010. There were experts from 16 countries present at the second meeting with 15 regional and international organizations that included the International Cartographic Association (ICA). ICA President Bill Cartwright and Vice President Tim Trainor actively participated in the two-day session.

Participants reviewed current initiatives in geographic information management (GIM) on a global scale and reviewed the challenges for the future of GIM. From the UN perspective, the need and relevance of a global geospatial resource is important in order to respond effectively to various needs on global issues, humanitarian crises, and general support for sustainable development and place-based development strategies.

Coordination and sharing geographic data is one of the greatest challenges international organizations and governments face. Governments at various levels are developing, producing, and maintaining various elements of geographic information. Establishing a more formal framework would enable UN Member States to develop strategies for building and strengthening capacity for management of geographic information, especially in developing countries.

According to the final report of the May meeting, "... It was recognized that in the field of geographical information, professional organizations, such as... ICA... would have to

play an important supportive role and would in turn see their specialized initiatives facilitated under the wider UN umbrella."

In response to the need to advance proposals from the two meetings of experts, participants agreed to convene a Global Forum on Geographic Information Management in the Republic of Korea in September 2011.

The web link to the second preparatory meeting of the proposed United Nations Committee on Global Geographic Information Management is at unstats.un.org/unsd/geoinfo/meetings/10-11 may2010/.

Tim Trainor | United States Census Bureau | USA •

# 58th German Cartographic Conference

The traditional *Deutscher Kartographentag* took place between 8-10 June 2010 in Berlin in the historical landmark of the city hall of Berlin Schöneberg. The Conference was organized superbly and attracted surprisingly large number of registrants, especially young cartographers.

This time the local organizers have opened the former German-only conference to international contributions, which has proven to be a good strategy. In general terms the conference demonstrated that cartography is again seen as a very attractive discipline that stimulates and attracts experts from other fields to participate. The meeting also highlighted the development of cartography at the highest level by the German cartographic community.

Apart from interesting sessions on nearly all aspects of modern cartography, there were some discussions regarding the upcoming International Cartographic Conference 2013 in Dresden, which promises to be an excellent event too.

Georg Gartner | Technische Universität Wien | Austria

# reports

### cartographic meetings and events cont.

#### AutoCarto 2010



Sponsored by the Cartography and Geographic Information Society (CaGIS), AutoCarto 2010 will take place November 15-19, 2010 in

Orlando, Florida. The 18th in the series, this international research symposium on computer-based cartography and GIScience will be held in conjunction with the American Society for Photogrammetry and Remote Sensing (ASPRS). Eight International Cartographic Association commissions and the International Society for Photogrammetry and Remote Sensing (ISPRS) Technical Commission IV: Geodatabases and Digital Mapping will hold meetings at AutoCarto 2010.

The focus of this joint meeting is *Geospatial Data and Geovisualization: Environment,*Security, and Society. Selected papers from the symposium will be published in the April 2011 special issue of the Cartography and Geographic Information Science Journal. Come join cartographers, geographers, geospatial analysts, GIScientists, and others conducting research on the cutting edge of the geospatial sciences from around the globe. The conference will be at the Doubletree Hotel located in the heart of Orlando, Florida, just steps from the entrance to the Universal Orlando Resort. Further information can be found at www.asprs.org/orlando2010/index.html.

Paul Young | United States Geological Survey | USA •

### Robert W Marx Tribute



At the Association of American Geographers (AAG) 2010 Annual Conference, 14-18 April, the US Census Bureau organized a special session to remember and memorialize the life and work of Robert W Marx,

former Chair of the ICA Ad Hoc Commission on Population Cartography in the 1980s. As Chief of the Geography Division at the Census Bureau from 1983 to 2003, Bob Marx was the architect of the Census Bureau's TIGER System which began in the early 1980s as a collaborative effort with the US Geological Survey. Bob was a visionary who sought ways to advance the importance of census geography and

cartography through new technological developments that were made practical through useful applications. By making spatial data for the nation available, the TIGER effort opened the way for GIS development and created an entire new industry which continues to grow.

During the tribute, speakers recounted his many contributions to the profession throughout his career. John Adams, a fellow graduate and former Chair of the Geography Department at the University of Minnesota, offered details of Bob's student days under John Borchert. Steven Guptill recounted the success of the collaborative work Bob led between the Census Bureau and the US Geological Survey. Tim Trainor, current Chief of the Census Bureau's Geography Division, spoke of Bob's contributions and his leadership in the development of TIGER and his role in the growth of GIS. Ron Abler, President of the International Geographical Union, spoke of Bob's contributions to the science of geographic information, ICA President Bill Cartwright, recognized the importance of contributions by leaders like Bob to the success of the ICA and other professional organizations. Doug Richardson, executive director for the AAG told stories of personal experiences of the benefits and accomplishments fostered by Bob to the GIS industry worldwide

The session was a fine tribute to a man who greatly influenced the spatial framework of the United States.

Timothy Trainor | US Census Bureau | USA •

### **Jaques Bertin Tribute**

Jacques Bertin, the famous French Semiologue, died on 3 May 2010 at the age of 93 years. He was a Mannerfelt Gold Medal holder and a pre-eminent influence on cartography worldwide. The French Committee of Cartography (CFC) have recently received many emails from French cartographers about Bertin's influence on the French and global community of cartographers and information scientists over the last 40 years.

The CFC will commemorate Jacques Bertin's life and work at the ICC 2011 Conference in Paris. A talk by a French cartographer and a special session on graphic semiotics is planned. A commemorative event is also planned for Thursday evening, 8 July 2010 in Paris during the ICA Executive Committee meeting with the French ICC 2011 Organizing Committee. Jacques Bertin's obituary will be published in the next issue of ICA News No 55, December 2010.

Anne Ruas | Comité Français de Cartographie | France

## calendar

#### june 2010

02-04: ISPRS Commission VI Mid-Term Symposium | Cross-Border Education for Global Geo-information | Enschede | The Netherlands | www.itc.nl/isprscom6/symposium2010/

15-20: 3rd International Conference on Cartography and GIS / ICA Symposium on Cartography for Eastern and Central

**Europe** | Nessebar | *Bulgaria* | www.cartographygis.com/

1-22: 2nd Open Source GIS UK

Conference – OSGIS 2010 | Nottingham | UK | www.opensourcegis.org.uk/

#### july

03-08: InterCarto-InterGIS 16 | Rostov-on-Don / Salzburg | *Russia / Austria* | www. intercartogis.org/

26-06 August: ICA Commission on Education and Training Cartographic Workshop | Jakarta | *Indonesia* | Iazarus.elte.hu/cet/workshop/overview.pdf

#### september

01-04: GeoCart'2010 / ICA Symposium on Cartography for Australasia and Oceania | Cartographies for Tomorrow:

Mapping in a mashed-up world | Auckland | New Zealand | www.cartography.org.nz/geocart 2010/index.htm

01-05: 7th ICA Mountain Cartography Workshop | Mountain Mapping and Geospatial Information Retrieval | Borsa | Romania | www.mountaincartography.org/activities/ workshops/

12-13: Workshop of the Commission on Generalisation and Multiple Representations | Zurich | Switzerland | aci.ign.fr/2010\_zurich/workshop.php/

14: Workshop on Emerging Methods for Studying Use of Spatial Technologies | Zurich | Switzerland | www.griffingeographics.com/giscienceworkshop.html

23-25: ICA Workshop on Theories of Map Design in Digital Era | Hong Kong | China

#### october

10-13: 3rd International Symposium of the ICA Commission on the History of Cartography | Charting the Cartography of Chartered Companies | Arlington, Texas | USA | www.icahistcarto.org/

20-23: Workshop of the ICA Commission on National and Regional Atlases | Yogyakarta | Indonesia

#### november 2010

15-18: 18th AutoCarto 2010 | Geospatial Data and Geovisualization: Environment, Security, and Society | Orlando, Florida | USA | www.asprs.org/orlando2010/index.html

18-19: ICA Workshop Advances in Sensors and Algorithms for Topographic and Thematic Mapping | Orlando, Florida | USA | mailer.fsu.edu/~xyang/ica2010/

19: Joint workshop of ICA Commission on Maps & the Internet and ICA Working Group on Opensource Geospatial

# calendar cont...

Technologies | Online Maps with APIs and Mapservices | Orlando, Florida | USA | orlando2010.eventbrite.com/

Meeting of the ICA Working Group on Census Cartography | Orlando, Florida | USA | icaci.org/workinggroups/census/upcoming\_events.

#### april 2011

11-13: JURSE 2011 – Joint Urban Remote Sensing Event | Munich | Germany | www.pf.bv.tum.de/jurse2011/jurse2011\_spo.htm 5: EOGC 2011 - Earth Observation for Global Changes | Munich | Germany | www.eogc2011.tum.de/

#### may

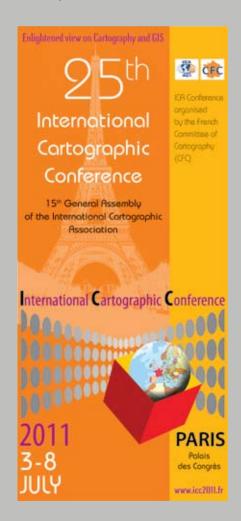
LIDAR and Radar Mapping: Technologies and Applications | Nanjing | China | www.lidar2011.org/

#### june

30-02 July: Workshop and Tutorial Sessions of the Commission on Generalisation and Multiple Representations | Paris | France

#### july 2011

03-08: 25th International Cartographic Conference | Enlightened view on Cartography and GIS | Paris | France | www.



# ica affiliate members

Organisations, institutions or companies wishing to support the mission and activities of the International Cartographic Association can become affiliate members. The following organisations support the ICA:

Bundesamt für Kartographie und Geodäsie | Germany | www.bkg.bund.de Attn: Prof Dr D Grünreich, Director | dietmar. gruenreich@bkg.bund.de

Centro Argentino de Cartografía | Argentina | www.centroargentinodecartografia.org

Attn: Prof Carmen Alicia Rey, President | cac@ centroargentinodecartografia.org

Dubai Municipality | United Arab Emirates | www.dm.gov.ae

East View Cartographic | United States of America | www.cartographic.com Attn: Matthew Tanaka | matthew.tanaka@cartographic. com

Eko-Graf Cartographic Publishing House Poland | www.ekograf.pl

ESRI | United States of America | www.esri.

Attn: Mark Cygan | mcygan@esri.com

Geospatial Information Authority of Japan | Japan | www.gsi.go.jp

Attn: Miho Takagi, Chief of Environmental Geoinformation Section | miho@gsi.go.jp

**Indian National Cartographic Association** (INCA) | India | www.incaindia.org

Attn: Shri KC Rout, Secretary General | routkc@yahoo.

Institut Cartografic de Catalunya | Spain | www.icc.es

Attn: Jaume Miranda i Canals, Director | miranda@icc.es

Institut Géographique National | France | www.ign.fr

Attn: Mr Jean-Philippe Lagrange, Director | jeanphilippe.lagrange@ign.fr

Instituto Geográfico Nacional España |

Spain | www.ign.es

Attn: Sebastian Mas Mayoral | smas@mfom.es

Intergraph | United States of America | www.intergraph.com

Attn: Vince Smith | vince.smith@intergraph.com

International Institute for Geo-Information Science and Earth Observation (ITC)

The Netherlands | www.itc.nl Attn: Corné van Elzakker | elzakker@itc.nl

Land Information New Zealand | New Zealand | www.linz.govt.nz Attn: Geoff Howard | ghoward@linz.govt.nz

Moscow State University of Geodesy and Cartography | Russia | www.miigaik.ru Attn: Professor Vasiliy A Malinnikov, Rector | Igm@ miigaik.ru

National Hydrographic Office | India | www.hydrobharat.nic.in

Attn: BR Rao, Chief Hydrographer | inho@dataone.in

National Land Survey of Finland | Finland www.nls.fi

Attn: Heli Ursin | heli.ursin@nls.fi

Navionics Hydrographer | Italy | www. navionics.com

Attn: Francesco Pezzana, Managing Director | pezzana@ navionics it

Navteq | The Netherlands | www.navteq.com Attn: Dr Kees Wevers | kees.wevers@navteq.com

Ordnance Survey | United Kingdom | www. ordnancesurvey.co.uk

Attn: Bob Lilley | blilley@ordnancesurvey.co.uk

Polskie Przedsiebiorstwo Wydawnictw Kartograficznych (PPWK) | Poland | www. ppwk.pl

Attn: Dr Beata Konopska | b.konopska@ppwk.pl

Rectas | Nigeria | www.rectas.org Attn: Dr Olajide Kufoniyi, Executive Director | rectas@ oauife.edu.ng or kufoniyi@skannet.com.ng

Regional Centre for Mapping of Resources for Development (RCMRD) | Kenya | www.rcmrd.org

Attn: Dr Hussein O Farah, Director General | rcmrd@ rcmrd.org

Star Informatic Publishing Solutions |

Belgium | www.star.be Attn: Paul Duré, Head | paul.dure@star.be

Union of Chambers of Turkish Engineers and Architects, Chamber of Surveying and Cadastre Engineers (UCTEA-CSCE)

Turkey | www.hkmo.org.tr

Attn: Prof Dr Necla Ulugtekin, Head of the Comission on Cartography and Geospatial Informatics | hkmo@hkmo.

United States Geological Survey | United States of America | cegis.usgs.gov Attn: Lynn Usery | usery@usgs.gov

University of Architecture, Civil Engineering and Geodesy, Faculty of Geodesy

Bulgaria | www.uacg.bg

Attn: Dr Temenoujka Bandrova | bandrova fgs@uacg.bg

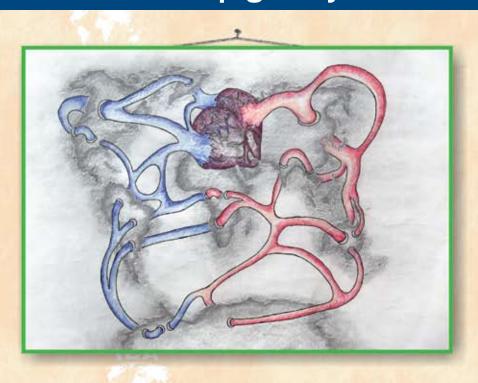
University of Balamand | Lebanon | www. balamand.edu.lb/english/GIS.asp

Attn: Prof Oussama Jadayel, GIS Center Academic Director | info@balamand.edu.lb

ICA welcomes new affiliate members; for more information, please contact:

David Fairbairn | Secretary General & Treasurer | ICA | dave.fairbairn@newcastle.ac.uk •

# children's map gallery 2009 winners



Benas Turskis | 15 | Entire System | Rietavas Laurynas Ivinskis | Fundação Bradesc

Dora Sakuntala | 7 | Let's Unite in Peaceful Heart | SD Tarakanita Citra Raya: Banten | Indonesia

Gymnasium: Rietavas | Lithuania

Vanessa Giroto Muniz | 12 | Internet Brings Knowledge to the World And Makes It Globalized | Fundação Bradesco: São Paulo | Brazil

> Landon Parish and Joy Jackson | 8 | The Web of Global Connections | - | USA

Beatriz Borroso Gstrein | 12 | Globalized World | Colegio San José: Estepona | Spain







