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## Conference Highlights

Large international conferences such as the International Cartographic Conference held in Moscow during summer 2007 offer numerous sessions with oral and poster presentations by international scientists and researchers. It is difficult to select highlights from a programme of nearly six hundred papers but, clearly, contemporary developments in cartography were well covered and thoroughly described.

### Input to SDI

Spatial data infrastructures (SDI) rely on cartography as one of their primary components. Dietmar Grunreich presented a masterful summary of the implications of SDI developments on cartographic activity. For example, the establishment of SDI involves the conceptual design of data models along with implementation of geodatabases by digitising the relevant content of core topographic and thematic map series. The use of SDI demands output of maps for communication of geospatial findings, dynamic visualisations for analytical purposes, and attention to the quality and usability of the interface and the data. Finally, there are research and development tasks associated with SDI: a full understanding of common spatial reference systems, the effective structuring of geodatabases, refinement of data-mining techniques to ensure extraction of relevant data, digital production systems for map output, and knowledge-based systems for non-expert use. As issues, all of these require cartographic input.



Hotel Cosmos, Moscow: site of ICC, August 2007.

### Technologies

Although concentrating primarily on education, Laszlo Zentai's paper presented a useful snapshot of how cartography can embrace new technologies associated with Web 2.0. Wikis, blogs,

RSS, 'mash-up' applications, and social networking are the key features of Web 2.0, and these can be profitably used to assist in exchanging good practice. This allows users to update and enhance existing mapping and access a wide range of cartographic applications involving data integration, time-critical delivery and the creation of user-defined content based on integrated data sourcing.

### Languages

Notable theoretical thinker on the nature of cartography Alexander Berlyant attempted to render cartographic concepts contemporary. Classical cartographic theory and practice finds difficulty in addressing the vast range of novel products that may be considered to be 'maps'. Redefining this range as 'geo-images', he showed how the new technologies of production and new forms of representation, new languages of cartography, can be systematised, and three-dimensional

displays, dynamic representations and imagery-based geo-products accepted by cartographers as a valuable contribution to their portfolios.

### Complex Chain

Speaking from a map production perspective, Mary Lou von Wyl explored the nature of cartographic systems, today affected by a complex flow of data and therefore having to allow for iterative manipulation, entry and exit of data at multiple points in the process chain. The ultimate aim should be to use experienced cartographers to decide on system design. The goal is to achieve a system not requiring extensive human interaction, flexible enough to allow for engineering of iterative processes, and capable of maintaining data in the process chain to eliminate data destruction.

New Year challenges in every field for cartography! 🌐



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### The Language of Cartography

Despite the homogenising effect of the adoption of English as a common language by international scientific and technical communities, there are probably more scientific practitioners now working solely within their own native language environment than those with fluency in the 'international' discourse. It is essential, therefore, to ensure that information is conveyed to such people in alternatives to English.

For example, many governments of Spanish-speaking countries downgraded the significance of offering English-language classes at primary and secondary-level education, resulting in their academic communities, including students and professors, facing great difficulty in communicating using English. This means that research, reliant on exchange of ideas and global knowledge sharing, suffers greatly from lack of access to technological and conceptual innovation. Spanish-speaking professionals, scholars and students might be falling behind and may thus play only a very limited role in shaping the future of our discipline.

In 1999, the Mercator Group of the Universidad Politécnica de Madrid (UPM), fully aware of the lack of available Spanish-language information about events, meetings, seminars and conferences relating to surveying and cartography, formed a student association called 'CartoTranslator'. Its main objective was to disseminate among the Castellano-speaking community information contained in geospatial journals. The association, based at the UPM School of Surveying Engineering, started off by translating the *FIG Bulletin*, 'Maplines' (the bulletin of the British Cartographic

Society), and the *ICA Newsletter*, and making them available on the internet.

An early lack of administrative support, and the intrinsically transient nature of student employees, quickly resulted in a fading effort, and eventually meant the initiative being put on hold after just two issues of each of the journals had been translated. In spite of these difficulties, the Mercator Group eighteen months later re-evaluated the situation and decided it would be worthwhile continuing. At first the Group itself funded the project, but later obtained support from the Laboratory of Geographic Information Technologies (LatinGEO), funded

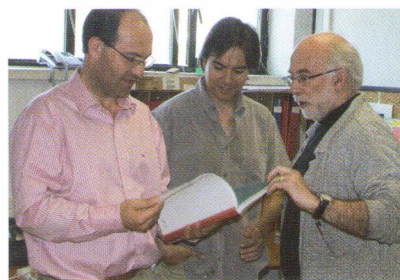
by the National Geographic Institute of Spain (IGN). Translation of the *ICA Newsletter* into Spanish was again a reality.

Since December 2004 a professional translator has been employed to expeditiously carry out the task. The Mercator Research Group is very proud to be taking part in this effort.

The Spanish edition of *ICA News* is being disseminated by means of RedIRIS distribution lists (Mercator List, GIS List, Cartovisual List, etc.) and through other bulletins circulated in most Latin American countries. The group is not currently aware of any individual or organisation producing hard copies of the newsletter, but would not object to this.. The Spanish edition of the *ICA News* is also available online from <http://redgeomatica.rediris.es/ICA/>.

As ICA prepares for its next major conference in Santiago de Chile in November 2009, we feel that outreach to Spanish-speaking cartographers is essential for the future of cartography worldwide.

*Miguel Bernabé and Javier Moya, MERCATOR Research Group, Technical University of Madrid, Spain.*



*Miguel Manso, Javier Moya and Miguel Bernabé (MERCATOR Group), the force behind the Spanish edition of ICA News. (Photography Javier Moya)*





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### Cartography in Southern South America

ICA is committed to engaging with countries throughout the world and promoting and developing the discipline of cartography at an international level. This month we report on the fourth Argentinean Congress on Cartographic Science and the eleventh National Week of Cartography (IV Congreso de la Ciencia Cartográfica y XI Semana Nacional de Cartografía). It



*Pablo Gran addresses Argentinian cartographers, June 2008.*

was held from 23rd to 27th June 2008 at the Instituto Geográfico Militar (IGM) in Buenos Aires and sponsored by the Cartographic Association of Argentina (CAC). Assistant director Cnl. Ing. Geóg. Hugo Rubén Bertola welcomed over three hundred participants on behalf of IGM. The event marked the International Year of Planet Earth, and a range of technical, academic and government cartographers attended. Sessions covered topics such as cartog-

raphy and education, the cadastre for integrated handling of national spatial data, the cartography of natural resources, geomatics on the internet, and spatial analysis, interpolation and interpretation.

During the meeting two-day 'professional update courses' were offered by experts, including one on 'Geodatabases and SDI' presented by IGM personnel. The opening sessions were also educational and informative, with IGM members telling delegates of developments in geomatics in Argentina. Tcnl. Ing. Eduardo Lauría spoke on principles of position determination using GPS. Tcnl. Ing. Info. Juan Rickert, and Tcnl. Ing. Geóg. Jorge Crushes addressed IDERA, the Argentinian initiative for the development of a National SDI, and Agrim. Sergio Cimbaro summarised the Argentine Geodesic Reference System, SIRGAS.

CAC president Carmen Alicia King awarded distinctions during the meeting: honorary CAC membership to partner organisations the National Academy of Geography and the Military Geographic Institute. There was also the award of a new prize named after Juan Abecian, a long-serving and dedicated Argentinian cartographer who was CAC president for a continual twenty years. The objective of this prize is to stimulate cartographic research and give recognition to the diffusion of cartographic knowledge in the country. Lic. Eugenia Mariana Wright won in the young researcher's category, whilst Maria Adela Igarzábal de Nistal won the prize for her work in the category 'scientific advances and technology in cartography'.

Pablo Gran of Chile, vice-president of ICA, gave a presentation about the work of the organisation, inviting all delegates to attend the 24th International Cartographic Conference in Santiago de Chile in November 2009. This will be the largest ever gathering of cartographers in South America and promises to put Latin American cartography even more firmly on the map.





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### Surveying the High Ground

The active ICA Commission on Mountain Cartography last reported its work in these pages in April 2005. Since then there have been regular business meetings and biannual workshops. The 6th Mountain Cartography Workshop was held in the attractive village of Lenk im Simmental, Switzerland, in 2008. With sixty participants from fifteen countries, the workshop focused on mountain-related topographic and thematic aspects and their depiction in maps and map-related representations.



In the Physical Geography sessions researchers from universities in Austria, Germany, Italy and Switzerland presented scientific mapping and cartographic projects from all over the world. Other issues covered included terrain evaluation, monitoring techniques, and developments in new interactive maps and 3D-visualisations.

The DEM and Terrain Modelling session presented modern laser technologies and high-resolution satellite image data for measurement, new approaches for the visualisation of hidden geological structures, and derivation of contour lines for small-scale maps. A presentation by cartographers from Catalonia focused on requirements for database-driven relief representations for topographic maps.

The sessions on Relief Depiction were broad. First, the needs of mountain-map users concerning the accuracy and symbolisation of topographic maps were evaluated. The evolution of classical relief maps and perspective views for different cartographic purposes, and more technical projects on the development of new tourist maps with integrated shaded relief were demonstrated by North American participants. The application and effectiveness of 2D versus 3D representations in National Park maps was assessed, and user testing of new cliff drawings and screen represen-

tation was described by IGN Paris. Technical methods of relief shading, along with various physical-relief depiction techniques, including the production of models by modern computer-driven drilling machines at ETH Zurich, were also considered.

A short session on the History of Mountain Mapping ranged from biographical studies to a report on laser measurements and geometric analysis performed on a historic relief model to check its accuracy. The impact of Multimedia Application and Mobile Devices was next con-

sidered: web applications for data acquisition were addressed in a Slovenian context, whilst spatial communication using Google tools and the visualisation of accessibility visualisation were also covered. An implementa-

tion of GPS technology for mountain mapping and tour planning in Spain was demonstrated. Further talks included representational principles of rock depiction, tourist mapping activities in Romania, historical development of panoramic maps, mobile trekking guide devices for Ruwenzori National Park (Uganda), smart interactive maps, multi-date habitat mapping approaches in Quebec, topographic mapping of the Tatra Mountains, and traditional hill-shading for digital maps. A lively discussion forum addressed new graphic design for the Swiss National Topographic Maps.

After this fascinating and extensive programme, the excellent weather allowed active outdoor activities, along with practical insights into the challenges of mountain mapping. The Alpine theme was continued in games of curling and eating the traditional Swiss 'Raclette dinner'!

The next ICA Mountain Cartography Workshop will take place in Borsa in the Maramures Mountains of Romania from 1st to 5th September 2010. Further details may be found on the Commission's website at [www.mountaincartography.org](http://www.mountaincartography.org).



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### National Divisions in Internet Mapping

The internet is simultaneously an ever-expanding map library and a testing ground for new forms of map delivery. The technology crosses international boundaries so easily that there is naturally a great deal of interaction and development among internet cartographers in different parts of the world. New techniques are quickly embraced and the spread of innovation is almost instantaneous. One interesting aspect of the new internet cartography is the increasingly divergent application of internet mapping between countries. Differences in the level of internet mapping is partly a function of misguided laws that prohibit either the distribution of larger-scale maps or the display of certain types of information. This, combined with differing agency and government support for internet maps, has led to wide disparity between the number and type of maps that are available in different countries, and the internet makes such variation very obvious to users.

### Wikimapia

The most noticeable difference between countries is in the data made publicly available. Some countries allow only small-scale maps to be distributed, while others not only freely provide large-scale street maps to Google and other sites but also 3D information for buildings in cities. Three-dimensional data enables users to interact with 3D maps of cities. The Wiki collaborative method is beginning to influence the availability and quality of online maps. The Wikimapia site, for example, allows users to upload their GPS acquired data. Groups of volunteers are working together to map entire cities, thereby circumventing

whatever government restrictions are in place regarding spatial data.

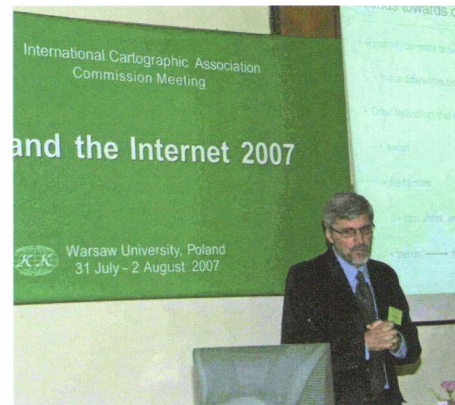
### Cadastral Info

Another difference between countries is the online cadastre. In some countries internet maps provide land ownership, along with information about taxable property. Many cities, for example, provide detailed information on every house, including its size, number of rooms, bedrooms, bathrooms, whether it has a garage or fireplace, and so on. All items that influence the amount of tax paid by the owner; a value that is also provided with the maps. Availability of this information allows citizens to compare their housing valuation to others, so that everyone can determine whether there is fairness and equity in property taxation. Such sites are seen as an important component of e-government and a cornerstone of the democratic system. In many countries, however, it is forbidden to produce online maps carrying property information.

### Maps and Internet

The ICA Maps and the Internet Commission held its annual meeting in Warsaw, Poland, in August 2007, and we are already looking forward to our next meeting with the theme "Internet Maps without Boundaries." A new book from the commission entitled *International Perspectives in Maps and the Internet* will be available from Springer Verlag in early 2008. The website for the commission is <http://maps.unomaha.edu/ica/> and we are keen to welcome more corresponding members: the commission is open to all. 🌐

Michael Peterson, University of Nebraska, Omaha, USA, email: [mpeterson@unomaha.edu](mailto:mpeterson@unomaha.edu)



Michael Peterson, chair, ICA Commission on Maps and the Internet, addresses the 2007 annual meeting in Warsaw.





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### Subversive Cartography

The ICA General Assembly has approved the establishment of a new Commission on Maps and Society. The aim is to facilitate and encourage the use of social-scientific and critical approaches to mapping, and to encourage more active engagement between cartographers and other social groups engaged in mapping activities. It thus has a twofold remit, to examine the nature of mapping activity from a theoretical-critical point of view, and to assess the state of such mapping activities as undertaken by non-traditional and non-expert groups.



#### Shift

The next formal meeting of the commission will take place at the annual conference of the Association of American Geographers in Boston, USA, in mid-April, where the topic "Subversive Cartographies" will be examined. These offer representations alternatives to established social and political norms. Maps are no longer cast as mirrors of reality; instead they are increasingly conceived as diverse ways of thinking, perceiving and representing space and place, expressing values, worldviews and emotions. Maps are no longer part of an elite discourse; they can empower, mystify, and enchant. This shift has been strongly facilitated by the increasing popularity of new media, burgeoning technological change, and newly developing mapping spaces (e.g. OpenStreetMap, WorldMapper and EmotionMap). Such mapping can be enacted outside existing cartographic conventions: it has escaped from the grasp of cartographers and nowadays everybody is mapping.

#### Situation

The first session will examine the role of the aesthetic in the construction of alternative and artistic mapping. Common themes are the relations between

artistic practice and mapping, narrative and (e)motional cartography, and the politics of design. Papers will address intentionally manipulative cartography, the design and presentation of activist maps for raising awareness of social justice issues, and the nature of mapping by explorers and the influence of indigenous mapping of place on explorers. A fourth paper will examine the two-centre development in the 1950s (Paris and Boston) of "psycho-geography" emanating from two very different disciplines, "situationism" and urban planning.

#### Technology

The second session will focus on the

role of technologies and methodologies important in community engagement. Common themes include changing roles of the web, the emancipating potential of GIS and ways of evaluating the aesthetic. Also considered will be the perceived need to critically subvert traditional mapping of world history, the role of the web as a publishing medium for independent groups, mapping by physically disabled youngsters, the role of GPS in capturing a sense of place and the nature of grassroots GIS initiatives.

#### Subversion

The final, more abstract, session will examine aspects of subversion. Common themes cover the ambiguities of the subversive, different ways of theorising the medium, and the practical, political and affective potential of "oppositional" mapping. First considerations will be the nature of maps, alluring and evocative, yet distant, antisocial, detached, even alien, and pose the question, "are maps autistic?" Further presentations will examine the development of map "hoaxes" on the internet, the use of counter-mapping to engage with a campus space, and the way in which we can use emotion to affect geovisualisations.



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### Representing Small-scale Data

The role of cartographic generalisation is fundamental to mapping and becomes more important the smaller the scale of representation. All geospatial data is subject to generalisation, from moment of capture to graphical representation and subsequent analysis. The ICA has addressed this issue for many years through its active Commission on Generalisation and Multiple Representation.

#### New Commission

Chaired until August 2007 by Anne Ruas (IGN-France) and William Mackaness (Edinburgh University), the latter now shares leadership of the Commission with Sébastien Mustière (IGN-France). Its purposes are:

- ◆ To foster research and practical experience in multi-scale issues and automated map generalisation and to form a network and focal point for researchers and practitioners in this domain.
- ◆ To foster and maintain liaison with related commissions and working groups within the ICA and in related national and international organisations such as ISPRS, IGU, and EuroSDR.
- ◆ To maintain a World Wide Web site for electronic dissemination of research on multi-scale issues and map generalisation.
- ◆ To organise sessions and meetings for exploring the above issues
- ◆ To produce publications for dissemination of above efforts, including one special issue of a peer-reviewed scientific journal or a book every two years.

#### Recent Activities

Important Commission efforts over recent years led to the appearance in April 2007 of a book entitled *Generalisation of Geographic Information: Cartographic Modelling and Applications*, edited by William Mackaness, Anne Ruas and Tiina Sarjakoski. Published by Elsevier on behalf of the ICA, the book consists of seventeen chapters written by about thirty

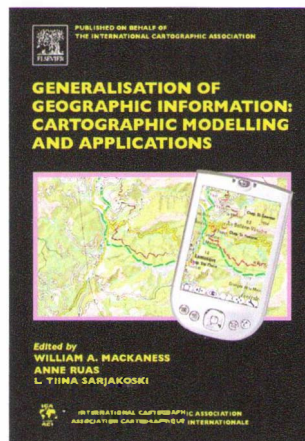
domain specialists. It presents theoretical advancements in the field to show how developments have advanced solutions to the point that they are being incorporated into existing commercial solutions.

It also provides an overview of future research challenges. The reader gains a clear picture of the breadth of cognate disciplines contributing to this field, as well as a thorough understanding of how these various methodologies are being applied to the real world. In addition, the tenth workshop of the Commission was held in Moscow in August 2007, just before the ICC.

Around thirty participants from the academic field, National Mapping Agencies and GIS suppliers took part in discussions and presentation of sixteen papers over two days. All papers and presentations are now available on the Commission website. During the workshop several participants felt the need for a more specialised meeting on web-generalisation services, which was duly held at Ordnance Survey (UK) in November 2007, attracting eleven attendees. The Commission website (<http://ica.ign.fr>) has been totally renewed thanks to Julien Gaffuri from the COGIT Lab (IGN-France). There is now a single entry point to more than a decade of Commission work.

#### Future Plans

A new Commission workshop is planned for 20th to 21st June 2008, to be held jointly by the International Cartographic Association, EuroSDR and the Dutch RGI programme. This will precede the International Symposium on Spatial Data Handling (SDH) in Montpellier, France. As usual, in order to keep this event a very active and rich one, people wishing to attend the workshop are invited to submit a paper reviewed by an international programme committee. In contrast to usual conference practice, the workshop is intended to be small and intimate, consisting of short paper presentations and discussions. 🌟





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## On the Naming of Parts

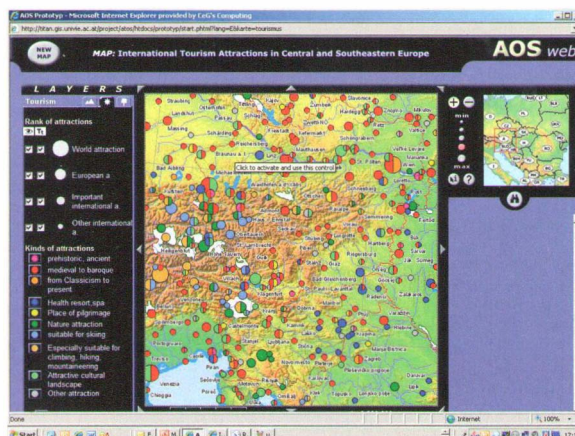
The ICA Commission on National and Regional Atlases has been in existence since 1985, reflecting the importance of such products in compiling, integrating, synthesising and presenting spatial information on major political entities. The new chair of the Commission elected in August 2007, Peter Jordan of the Austrian Academy of Sciences in Vienna, has already acknowledged its history and drawn up plans for its future.

In connection with the former, there was recognition of the Commission in November 2007 during festivities marking the retirement of Professor Ferjan Ormeling from his illustrious career as Professor of Cartography at Utrecht University. Ferjan had been a longstanding member of the commission, in addition to being secretary-general and treasurer of ICA from 1999-2007, and a symposium "De Nationale Atlas als toegangspoort tot de geodata infrastructuur" (The National Atlas as access portal to the geodata infrastructure) was held in his honour. Present too were previous chairs of the commission, including eminent cartographers Bengt Rystedt (Sweden) and Tim Trainor (USA).

At this gathering the Commission developed further plans for 2008, including steps towards the production of its 'Cookbook for Atlas Editors', intended as an international guide to the preparation and production of national and regional atlases. An editorial board has already been established and met in Vienna in January 2008. Authors have been invited to contribute, and the project will be firmed up at the next meeting of the Commission in Timisoara, Romania, in September 2008.

The main focus of the meeting in Romania will be the nature of geographical

names in national and regional atlases. The rendering of geographical names with specific characteristics – scientific/popular, conventional/digital, international/national – will be considered. This is particularly appropriate as taking place immediately prior to the meeting



Extract from the prototype online Atlas of Eastern and Southeastern Europe, developed by the Austrian Institute of East and Southeast European Studies, now part of the Austrian Academy of Sciences, and the Department of Geography and Regional Research (Cartography and Geoinformation), University of Vienna.

will be a linked gathering of the United Nations Group of Experts on Geographic Names (UNGEGN). Specifically, the UNGEGN Working Group on Exonyms will be developing further guidelines for the use of exonyms. These are names of locations commonly given them by those who do not live there (e.g. the names Florence, Londres, Kopenhagen), and they are of significant interest to cartographers worldwide. ICA already has strong links with the UN Group; the aforementioned Ferjan Ormeling is currently a vice-chair of UNGEGN, and the important work of this group has a clear impact on those engaged in the development of national and regional atlases, along with many other cartographers. Similarly, the daily work of cartographers feeds into UN deliberations in this area. All interested geomatics professionals are invited to 'The UN/ICA Week on Geographical Names', to take place in Timisoara from 9th to 13th September 2008. Further information may be obtained from the commission chair, peter.jordan@oeaw.ac.at.



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## Art and Cartography

Contemporary methods of depicting the earth and its attributes use graphic and non-graphic formats, maps and map-related artefacts to visualise geography and for building virtual landscapes and environments. In designing and creating these products cartography has traditionally applied art (design), science and technology. The latter two have been embraced by cartography as a means of ensuring scientific correctness; products are considered to 'work' if they are scientifically 'elegant', technologically 'capable of being built' and 'deliverable' by modern communication. Incorporating art into the design and production process makes available to it a wider methodology 'palette' for better visualising geography.

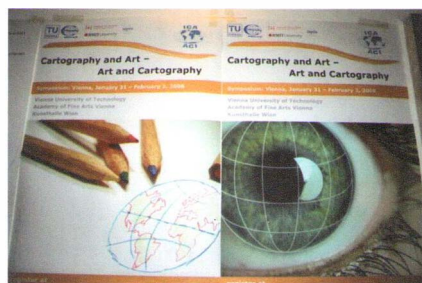
Art can provide the 'public face' of cartography, and science & technology complements this. Science & technology need not always be dominant, although technology is needed to ensure that a design can be produced and delivered, while science is necessary to ensure a 'correct' and rigorous product. To illustrate this, take the simple process of recording spatial information with a pencil and a piece of paper. The harder the pencil, the more precise the product. One feature must be precisely defined in relation to another, and this must be precisely determined and depicted; accuracy reigns over artistic input. The resultant map, whilst showing exact positions and clear demarcation between different classes of information, cannot depict the vagaries and overlaps characteristic of real-world geography. Such a representation can show only clearly defined edges of phenomena. The map user is left to interpret what is depicted by lines, points and polygons, but is not helped to 'read between the lines', to find what may lie

in the zones between discrete classes. Had a very soft pencil been used, the result would have been a more flowing and interpretative map, a more artistic approach to data recording. The draughtsman, unrestrained by the accuracy and precision demanded by a hard lead and finely pointed pencil, is able to render a different portrayal of the real world. Areas of vagueness can be illustrated, interpretations made and impressionistic drawings produced in place of planimetric map-type drawings; the result is a different portrayal of the same information. Users may show a preference for one portrayal of information over another, and some might want to use both maps in different ways

to gain better understanding of the real world.

Cartography is different from other contemporary disciplines insofar as it can design, develop and deliver products with an 'art', 'technology' or a 'science flavour'. There is a need to address how to make art-biased cartography as relevant as science or technology-biased. To facilitate research and development in this area the ICA has formed a Working Group on Art and Cartography, approved at the ICA general assembly held in Moscow in August 2007. Its first formal activity was a symposium held in Vienna at the venues of TU Wien and the University of Fine Art on 1<sup>st</sup> and 2<sup>nd</sup> February 2008 and organised by William Cartwright, Georg Gartner (TU Wien) and Antje Lehn (University of Fine Art, Wien). Some seventy papers were given, presentations and installations made. See for more information the Working Group website, accessed via [www.icaci.org](http://www.icaci.org) or directly at <http://artcarto.wordpress.com>.

*Professor Dr William Cartwright, president, International Cartographic Association, [william.cartwright@rmit.edu.au](mailto:william.cartwright@rmit.edu.au)*





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## Satellite Imagery for Mapping

The ICA Commission on Mapping from Satellite Imagery is responsible for educating and informing the geospatial-data handling community about the link between the raw data captured from satellite imagery and the extraction, presentation and application of information derived from such data. See previous report on this page, GIM March 2007.



Automatically delineated areas of debris-covered glaciers, based on ASTER imagery, Khumbu Himal, Nepal. (Courtesy: Buchroithner and Bolch, 2007.)

## ToR

The Terms of Reference of the 2007-2011 commission, approved at the Moscow ICC, August 2007, include fundamental work: "[...] analysis of existing and forthcoming satellite imagery in view of their potential inputs for producing and updating topographic and thematic maps and databases; and assessment of the cartographic capabilities of different remote sensing systems". A further role is in developing links between ICA and the many other international agencies and organisations having interest in this area, such as UNOOSA, UNEP, PAIGH, and ISPRS. Knowledge transfer is also important, through special issues of scholarly journals and books, as is the promotion of ICA via posters and seminars at international meetings. A particular interest is contributing to policy and practice in the application of mapping and imagery to early-warning,

disaster-mitigation, urban environmental management and natural-system monitoring. Clearly such activity also involves other ICA Commissions and Working Groups.

## Knowledge Transfer

The 2005-2008 chair, Prof Graciela Metternicht, has stepped down. She has left her academic post in Australia and started with the United Nations in Panama. The new chair, Dr Xiaojun Yang, Florida State University (FSU),

USA, is responsible for the Commission's active website (<http://mailer.fsu.edu/~xyang/ica>) which presents news and archival material relating to satellite imagery for mapping. The vice-chair is Prof. Jonathan Li from the University of Waterloo, Canada. The Commission is supporting two conferences in 2008. The first took place from 28<sup>th</sup> to 30<sup>th</sup> March 2008 in Tallahassee, USA, and was a student-oriented meeting organised by the FSU Department of Geography, and the Society for Geospatial Sciences, (the FSU Student Chapter of the American Society for Photogrammetry and Remote Sensing-ASPRS). Several dozen graduates and world-class scholars attended

the meeting. Dr Yang served as scientific advisor, and the keynote speaker was Dr Marguerite Madden, president of ASPRS. This conference attracted early-career researchers, mainly from the US, to their first involvement with ICA activities.

## Gi4DM

The second event is the 4<sup>th</sup> International Symposium on Geoinformation for Disaster Management (Gi4DM), which will be held jointly with ISCRAM-CHINA in Harbin Engineering University, Harbin, China, from 4<sup>th</sup> to 6<sup>th</sup> August. Professor Li is serving as co-chair of the Scientific Committee and the goal of Gi4DM is to promote dialogue on disaster management problems in their entirety by considering the areas both of geospatial technologies and particular user requirements for spatial data and standards.



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### Cartography and Children

- Jesus Reyes Nunez, Eötvös Loránd Tudományegyetem, Hungary
- Temenoujka Bandrova, University of Architecture, Civil Engineering and Geodesy, Bulgaria

### Digital Technologies and Cartographic Heritage

- Evangelos Livieratos, Aristotle University of Thessaloniki, Greece

### Education and Training

- David Fraser, RMIT University, Australia

### Generalisation and Multiple Representation

- William Mackaness, University of Edinburgh, UK
- Sebastien Mustière, Institut Géographique National, France

### Geospatial Analysis and Modelling

- Bin Jiang, Högskolan i Gävle, Sweden

### Geospatial Data Standards

- Anthony Cooper, Council for Scientific and Industrial Research, South Africa

### Geovisualization

- Gennady Andrienko, Fraunhofer IAIS, Germany

### History of Cartography

- Elri Liebenberg, Pretoria, South Africa

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- Philippe de Maeyer, Universiteit Gent, Belgium
- Erkki-Sakari Harju, Karttakeskus, Finland

### Map Projections

- Daan Strebe, Mapthematics, USA

### Mapping from Satellite Imagery

- Graciela Metternicht, University of South Australia, Australia

### Maps and Graphics for Blind and Partially Sighted People

- Dan Jacobson, University of Calgary, Canada

### Maps and Society

- Chris Perkins, University of Manchester, UK

### Maps and the Internet

- Michael Peterson, University of Nebraska (Omaha), USA

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- Patricio Carrasco, Servicio Hidrográfico y Oceanográfico de la Armada de Chile

### Mountain Cartography

- Karel Kriz, Universität Wien, Austria

### National and Regional Atlases

- Peter Jordan, Ost- und Südsteuropa-Institut, Austria

### Planetary Cartography

- Kira Shingareva, Moscow State University for Geodesy and Cartography, Russia

### theoretical Cartography

- Alexander Wolodtschenko, Technische Universität Dresden, Germany

### Ubiquitous Mapping

- Takashi Morita, Hosei University, Japan

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- Wiesława Zyszkowska, Uniwersytet Wrocławski, Poland

### Use and User Issues

- Corné van Elzakker, ITC, Netherlands

### WG Art and Cartography

- William Cartwright, RMIT University, Australia

### WG Early Warning and Crisis Management

- Milan Konecny, Masarykova Univerzita, Czech Republic

### WG Mapping Africa for Africa

- Derek Clarke, Surveys and Mapping, South Africa

## GeoVisualisation

The ICA Commission on GeoVisualisation chaired by Gennady Andrienko (Fraunhofer Institute, Germany) has been active in promoting, monitoring and developing contemporary methods of visualisation and visual analysis using geospatial data and cartographic principles. An interesting and stimulating workshop entitled 'GeoVisualisation of Dynamics, Movement and Change' was held at the AGILE conference in Girona, Spain, in May 2008.

More than forty people participated. Twenty presentations were given during four sessions. The first covered analytical methods for movement, the second, movement patterns, the third, events and time series, and the fourth other types of spatio-temporal data. All papers are available at the workshop website <http://geoanalytics.net/GeoVis08/>. A special issue of Information Visualization published in August 2008 will present the highlights.

## Utah

How to portray movement was the focus of one of the papers presented in Girona, 'Taking a Systematic Look at Movement' by Somayeh Dodge, Robert Weibel and Anna-Katharina Lautenschütz from the University of Zurich. To develop their ideas further they have also launched a new Wiki (a collaborative website acting as a forum for discussion) to assist in developing taxonomy of movement patterns: (<http://movementpatterns.pbwiki.com>). A further meeting under the auspices of the ICA Commission is the workshop on Geospatial Visual Analytics to be held in Utah, USA, in September (<http://geoanalytics.net/GeoVisualAnalytics08>).

This workshop is run in conjunction with the GIScience2008 conference, and a special issue of the journal Cartography and GIS (CAGIS) will be published in 2009, based on the material presented.

## VisMaster

Several commission members are involved in a recently approved EU-funded project called 'VisMaster: Visual



Commission members at the May 2008 workshop in Girona, Spain.

Analytics – Mastering the Information Age'. The major goal of this co-ordination action (CA) is to promote visual analytics at European level and prepare a basis for EU-funded R&D projects related to this field.

A Working Group on Spatial and Temporal Aspects is being co-ordinated by the commission chair, with the participation of the University of Rostock (H. Schumann), the University of Pisa (D. Pedresci), City University (J. Dykes), the University of Zürich (S. Fabrikant and R. Weibel), and ITC (M-J. Kraak). The main activity of the working group will be an expert workshop (to be organised in 2009) followed by collecting and summarising its results for the Visual Analytics research roadmap. It is expected that a significant proportion of the future work of the commission will be invested in this work package.



## Executive Members

### President

- William Cartwright, RMIT University, Australia

### Secretary General & Treasurer

- David Fairbairn, Newcastle University, UK

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## Younger Generation

The 2nd Conference on Cartography and GIS in Borovets, Bulgaria, in January 2008 gave the ICA Commission on Cartography and Children the opportunity to meet and exchange opinions about plans for the period 2008-2009. Temenoujka Bandrova, Commission co-chair and president of the Local Organising Committee, arranged the meeting.

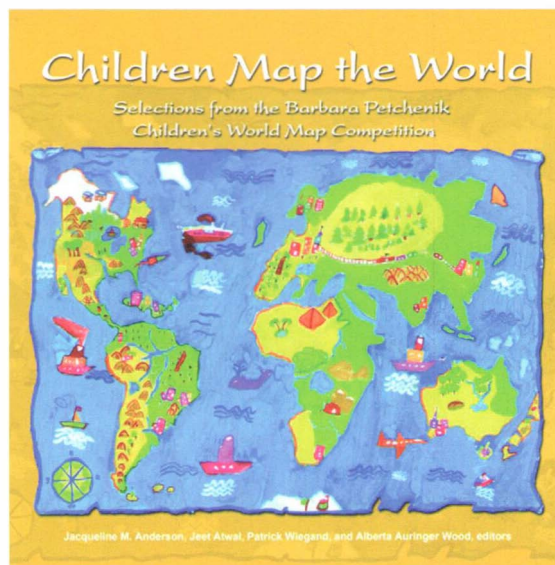
### Children Map the World

Co-chair Jesus Reyes summed up activities planned for the next two years, with two topics as the main subjects of debate. The first addressed possible changes to the Barbara Petchenik Children's Map Awards. ICA created this competition in 1993 as a memorial to

ESRI Press (ISBN: 9781589481251). This book shows an extraordinary range of children's interpretations of their world and their place within it. The Borovets meeting also saw some discussion of detailed ideas concerning updating the technical requirements for entries, the organisation of the competition, and the judging. Both the Commission and the ICA Executive Committee are committed to ensuring that the Barbara Petchenik Award retains its eminence and its attractiveness to children around the world.

### Educational Award

The second topic for the conference was also related to the competition and to improvement of the representation and dissemination of geographical knowledge to the younger generation. The educational sector is an important part of worldwide cartographic activity and enterprise, and the meeting heard more of the proposal for an educational cartography award to be introduced by the ICA. This will be interpreted broadly to include, for example, conventional and digital materials, maps, globes and GIS. The intention is to recognise the active work of those who produce cartographic materials for educating the children of the world.



*Children Map the World: an ICA production, published by ESRI Press.*

Barbara Petchenik, a past vice-president of the ICA and a cartographer with a life-long interest in maps for children. The award, aimed at promoting children's creative representation of the world, is presented every two years during an ICA Conference or General Assembly. Many of the winning entries have been gathered together in a book, *Children Map the World*, edited by Jacqueline Anderson, Jeet Atwal, Patrick Wiegand and Alberta Wood, and published by

### Further Activities

Further information about the work of this active commission can be found at <http://lazarus.elte.hu/ccs/ccs.htm>, under the 'Meetings' tab.

Listed here is the schedule for meetings around the world (Buenos Aires, Istanbul, Tunis and Liverpool) this summer, at which the Commission will be presenting its work. Also news on the production of the newsletter and a special publication, participation in the 2008 International GIS Day (November 19), and other activities designed to meet the Commission's Terms of Reference.