



# ICA News

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International Cartographic Association

Association Cartographique Internationale



# ICA Executive Committee

## ICA Executive Committee

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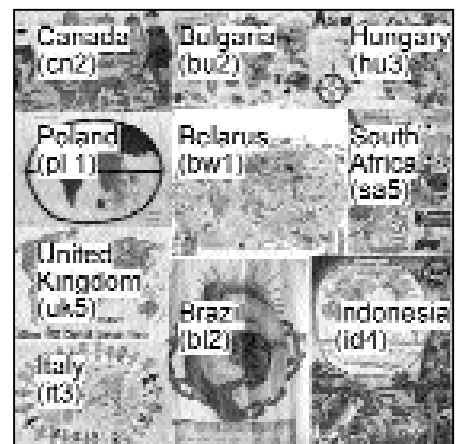
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Cover: Winners of the Children's map competition 2003. Refer to the code and descriptions on page 7.

## Editorial

The 21st ICC and 12th General Assembly are now part of the past successful events organised by the ICA. With around 810 participants and more than 256 oral speakers, the South African Local Organising Committee put in place a scientific and social programme that kept all delegates busy. The oral and poster sessions were well organised, with excellent facilities for the speakers to load and check their presentations in advance.

Most ICA commissions held meetings during or prior to the conference. Likewise, there were meetings of the National Representatives, Commission Chairs, and a special session was devoted to the 'Mapping Africa for Africa'. During the General Assembly held on the 10th and 16th August, the new ICA strategic plan for the term 2003-2011 was approved, and new Commission chairs and vice-chairs were elected. Therefore, this issue of the newsletter mostly reports on the results of the Conference, including the map exhibition, Barbara Petchnik's children map competition, travel awards, ICA honorary fellowships, the General Assembly, and the workshops that were held during the event. It has been difficult trying to fit all the information in the reduced space of this newsletter!

I would like to welcome all members of the ICA Executive Committee and Commissions' Chairs and Vice-Chairs. I hope for a very fruitful period of work with plenty of contributions for our readership. Lastly, I wish all the ICA family, the 'map lovers of the world', a happy festive season and a very successful 2004.

*Graciela Metternicht*  
Editor

## ICA Commission's Chairs and Vice Chairs:

For the commissions the following chairs had been voted:

1. Maps and the Internet: Michael Peterson (Chair), Georg Gartner (Vice-Chair)
2. Visualization and virtual environments: Alan MacEachren (Chair), Menno-Jan Kraak (Vice-Chair)
3. Maps and Graphics for Blind and partially sighted people: Jonathan Rowell (Chair)
4. Generalization and multiple representations: Anne Ruas and William Mackaness (Chairs)
5. Cartography and Children: Patrick Wiegand (Chair)
6. Ubiquitous mapping: Takashi Morita (Chair)
7. Theoretical cartography: Alexander Wolodtschenko (Chair)
8. Spatial data standards: Harold Moellering (Chair)
9. Mapping from satellite imagery: Serge LeBlanc (Chair), Graciela Metternicht (Vice-Chair)
10. Map projections: Daan Strebe (Chair), Frank Canters (Vice-Chair)
11. Management and economics of map production: Philippe Demaeyer (Chair)
12. Planetary cartography: Kira Shingareva (Chair), James Zimbelman (Vice-Chair)
13. National and regional atlases: Timothy Trainor (Chair), Peter Jordan (Vice-Chair)
14. Mountain Cartography: Lorenz Hurni (Chair), Karel Kriz (Vice-Chair)
15. Marine cartography: Ron Furness (Chair), D Green (Vice-Chair)
16. Incremental Updating and Versioning of Spatial data bases: Antony Cooper and Ammatzia Peled (Chairs)
17. Education and Training: Laszlo Zentai (Chair), Wolfgang Meissner and David Fraser (Co-Chairs)
18. Gender and Cartography: Ewa K.Blum (Chair)
19. History of Cartography: Alexei Postnikov (Chair), Elri Liebenberg (Vice-Chair)

Contact details of the Commissions' Chairs and Vice-Chairs can be found in the inside cover of this issue.

## The ICA Executive Committee 2003-2007

The General Assembly approved having seven Vice Presidents, and the following were elected by secret ballot: William Cartwright (Australia), David Fairbairn (UK), Ramón Lorenzo (Spain), Robert McMaster (USA), Haggai Nyapola (Kenya), Vladimir Tikunov (Russian Federation), and Kirsi Virrantaus (Finland). Re-elected by acclamation to a second term as Secretary General and Treasurer was Ferjan Ormeling. Milan Konecny (Czech Republic) was elected as President and thus Bengt Rystedt (Sweden) is the immediate Past-President.



*The Executive Committee at their first meeting after the closing ceremony. From left clockwise: Lorenzo Ramon, Bengt Rystedt, Ferjan Ormeling, Milan Konecny, Kirsi Virrantaus, David Faribairn, William Cartwright, Vladimir Tikunov and Haggai Nyapola. Absent: Robert McMaster.*

# 21st International Cartographic Conference

## The 21st International Cartographic Conference

It was on to Durban on the afternoon of August 7th with Executive Committee meetings on the 8th and 9th, a meeting for Commission Chairs on the 9th, and the first General Assembly meeting all day on the 10th. The conference sessions began on the 11th. The final General Assembly was held on the 16th followed by the Closing Ceremony. Nearly all Commissions held meetings or mini-conferences before the main one, either in Durban or elsewhere in South Africa, as well as business meetings during the conference. There were 810 participants, including 647 full delegates, 64 accompanying persons, 49 students, and 26 commercial exhibitors, at the conference from 48 countries. The largest contingent, not surprisingly, was from South Africa, numbering about 250 people from national, regional, and city government agencies, universities, surveying and mapping firms, map publishers, and other companies. The delegates from other countries represented a similar broad diversity. The venue was a terrific one for such a meeting. There were generally four concurrent sessions through the week, with excellent support for the technical aspects of presentations. Staff were always on hand to deal with any problems that arose and accommodated various presentation set-ups. A special speaker preparation room allowed presenters to load multimedia presentations onto computers in advance, as well as to load slide trays, and check them, too. Internet access was available in each presentation room, so that speakers could demonstrate websites on a live basis.

The exhibit area was spacious and housed the technical exhibits of nearly 30 government agencies, mapping firms, and publishers, as well as the maps sent by 33 countries that represented the best of their output over the past two years, a United Nations Special Exhibition on Geographical Names, an International Hydrographic Organization exhibit of nautical and marine charts, an exhibit of mapping of South Africa during the 20th century, and the entries from thirty-one countries for the Barbara Bartz Petchenik Children's Map Competition. There were a volume of abstracts of papers, a final program, and an exhibit catalogue issued in paper, with the proceedings being on CD-ROM that included the papers submitted, as well as images from the International Map Exhibition and the Barbara Bartz Petchenik Children's Map Competition where available. There were 825 maps and atlases on display, among them were 33 Canadian items. Among the cartographic items, there were 37 multimedia entries from 12 countries for which there was a special viewing booth. Canada had six entries in this category. The number of maps submitted by countries ranged from two from Portugal to 84 from Russia with Spain and the United Kingdom close behind with 82 each. The only other countries exhibiting more than 40 maps were Poland (46) and the United States (58). An international panel of judges choose ones that they thought were best in the categories of topographic maps, multimedia presentations, relief models, satellite images, scientific, tactile, urban, other, atlas, and parks/recreation. Winners were from Norway, Spain, USA, Switzerland, Germany, Australia, France, Slovenia, Russia, and the Czech Republic. In the Barbara Bartz Petchenik Children's Map Competition there were nearly 160 entries of which 144 were judged. The winning entries came from Belarus, Brazil, Bulgaria, Canada, Hungary, Indonesia, Italy, Poland, South Africa, and the United Kingdom. Judges did not evaluate maps from their countries of origin, as well as abstaining from votes on those continental groupings containing them, in the case of the Children's maps competition. There are separate reports on the details of each competition.

The oral presentation sessions numbered 66 with there being 256 speakers, while there were also 12 poster sessions containing about 180 posters.

## Opening ceremony

The meeting began with an opening ceremony on Monday morning and plenary sessions on Monday afternoon. The keynote was a very interesting one on the important and imaginative cartographic work that went into the preparations for the first democratic elections to take place in South Africa in 1999 and given by Justice Johann Krieger who recently retired from the Constitutional Court of Appeal and headed the independent electoral commission. There were talks by Vanessa Lawrence, director of the Ordnance Survey of Great Britain; Haggai Nyapola, surveyor general of Kenya; Yang Kai of China; Jack Dangermond, head of ESRI; and Bengt Rystedt, ICA President. This latter talk was on the strategic plan for ICA which was later adopted by the General Assembly. Topics of the concurrent sessions included: organization and policy issues in cartography, spatial data capturing, theoretical cartography, cartographic visualization, cartography and development, mapping from satellite imagery, education and training in cartography, spatial data standards, cartographic generalization, Internet cartography, spatial data infrastructure, cartography and land tenure, spatial data sharing, census cartography, cartography and children, national and regional atlases, hydrological mapping, electronic atlases, marine cartography, historical cartography, cartography for the visually impaired, mountain cartography, new cartographic systems and products, map production, planetary cartography, applied cartography and GIS, geo-spatial database development, map symbology, cartographic animation, cartographic labelling, time and space in cartography, spatial data warehousing, place names, cartography and virtual reality, thematic mapping, map projections, and mobile cartography. These offered a very diverse range of topics in the cartographic area, with the poster papers providing a similar diversity. A useful innovation was having a half hour session during each poster display when the poster presenters could give introductions to their work. While there were still a few problems with presenters not being on hand, even though registered at the conference in some cases, most sessions went off without difficulties. Some last minute shifts of a person from one session to another did occur, as well.

## The Exhibitors Cocktail Reception and social events

A focal point of the day was the official opening of the exhibition stands by the Mayor of eThekweni. Mayor Obed Mlaba expressed appreciation for the fact that this conference was held in South Africa for the first time. He indicated that this is a symbol of international confidence in South Africa and this should be viewed as a positive sign of future economic growth.

During the conference there were a number of social events which were well attended. These included an African Fun Night in a huge tent like that for a circus, with a buffet of regional dishes and barbecued beef, chicken, and lamb. Entertainment included a ballroom dancing couple with a Latin flavour and a native cultural group. This was followed by a general dance. Another event was a reception hosted by the mayor of Durban in the exhibit hall where there were also buffet lunches served on a daily basis. A gala dinner was held in the conference centre on Thursday night which included an excellent dinner, several speeches, and one medal presentation. In addition, there were sightseeing tours of varying length, including both pre- and post-conference ones to view South African flora and fauna, as well as the city of Durban.

## Executive Committee and 12th General Assembly

The results of the Executive Committee and General Assembly sessions will be reported in full in another venue, but I will mention a number of highlights. The strategic plan was approved by the General

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Assembly on August 16th after discussion at the first general assembly and presentations by Michael Wood and Bengt Rystedt. Details of the new strategic plan 2003-2011 can be found at the ICA website ([www.icaci.org](http://www.icaci.org)), under the heading of 'General Assembly'. ICA Honorary Fellowships were approved for Liao Ke (China), Harold Moellering (USA), Sjeff van der Steen (Netherlands), Ulrich Freitag (Germany), Andrzej Czolkosc (Poland), and Istvan Klinghammer (Hungary). Presentations were made at the conference to Liao Ke, Hal Moellering, and Sjeff van der Steen. Re-admitted to membership was the country of Kenya, while Lithuania, Mozambique, Cameroon, and Ecuador were admitted as new members. Some members were added to the list of countries ruled ineligible to vote due to non-payment of dues over a lengthy time period, such as Albania, Estonia, Nigeria, Qatar, Sudan, and Ukraine. Membership was withdrawn from Azerbaijan, Belarus, Cyprus, Philippines, and Uganda. New affiliate members approved were Union of Chambers of Turkish Engineers and Architects - Chamber of Survey and Cadastre Engineers (Turkey), Indian National Cartographic Association (India), ESRI (USA), Navigation Technologies (the Netherlands), RCMRD (Regional Centre for Mapping of Resources for development) in Nairobi, Kenya, and RECTAS (Regional Center for Training in Aerospace Surveys), Ile Ife, Nigeria. Withdrawing as affiliate members were the Hellenic Cartographic Society, which has become the national representative for Greece, Elsevier Science Limited (UK), Heritage Documents and Manuscripts Centre (Kuwait), Tokyo Inshokan Printing Company (Japan), and Aero Sensing (Germany). Plans are underway to adopt memoranda of agreement with three cartographic journals to publish ICA papers in special sections of the journals. The balanced budget for the period 2003-2007 was approved without an increase in member country dues. Graciela Metternicht was reappointed as the editor of the ICA News. It was voted to re-elect the current auditors, Judy Olson (USA) and Jaume Miranda (Spain), for the next term. Commission Chairs elected by secret ballot (with name of commission in parenthesis). After the General Assembly approved having seven Vice Presidents, the following were elected by secret ballot: William Cartwright (Australia), David Fairbairn (UK), Ramón Lorenzo (Spain), Robert McMaster (USA), Haggai Nyapola (Kenya), Vladimir Tikunov (Russian Federation), and Kirsi Virrantaus (Finland). Re-elected by acclamation to a second term as Secretary General and Treasurer was Ferjan Ormeling. Milan Konecny (Czech Republic) who had just finished his second term as a Vice President was elected as President, also by secret ballot. These officers will serve for the term of 2003 to 2007. A meeting of the new Executive Committee was held immediately following the closing ceremony. It was approved to hold the 13th General Assembly and the 23rd International Cartographic Conference in Moscow in early August of 2007.

## Closing ceremony

The closing ceremony was held after lunch and included presentation of the conference awards, closing remarks by the ICC 2003 Chair and the ICA President, presentation of the new Executive Committee, presentations by both Spanish and Russian delegations, and the handing over of the ICA flag to ICC 2005.

Members of the Spanish delegation gave a presentation on and invitation to attend the 22nd International Cartographic conference in La Coruña from July 9-16, 2005 with an introduction to their web site for the conference: <http://www.icc2005.org/>. The theme for the conference is "Mapping approaches into a changing world" and the logo is very imaginative! Dr. Christopher Board gave words of appreciation on behalf of all to the Durban conference organizers.

*Alberta Auringer Wood*  
Immediate Past Vice President (Canada)

## The Cartographic Renaissance. Some comments on the 21st International Cartographic Conference

The plenary presentation of J. Dangermond (USA), more than 10 oral ones (including Tikunov's report on the Atlas information system of sustainable development of Russia) and a number of poster presentations were devoted to problems of sustainable development. Several papers were connected with development, use and mapping of integrated parameters of the territories' sustainable development, and also with the creation of geoinformation models of sustainable development.

Two important presentations on infrastructure of the spatial data were done at the plenary session, namely the report by the Surveying and Cartography Service Director of Kenya - Dr Nyapola (elected by ICA vice-president) in which he characterized the importance of spatial data for decision-making in the field of sustainable development, and also the report of Yang Kai from China). Likewise, there were about 10 oral reports on this same subject, plus two reports on the development of an infrastructure of spatial data in the Russian Federation, made by Prusakov and Aleksandrov.

There also were some interesting discussions about the relationship between theory and applied questions in sessions connected with the theory of cartography. Among them it is necessary to mention the reports by Moellering (USA) about the common theory of spatial data, Schlichtmann (Canada) on the role of images in maps, Volodchenko (Germany) about the connections between cartography and cartosemiotics.

A number of reports were devoted to Atlas cartography namely the Statistical USA and the European Union atlases, the National Atlas of Spain, and the Atlas of Switzerland. The focus of reports presented by the Russian delegation was on fundamental atlases being creating now, namely to National Atlas of Russia (Sveshnikov and Zhukovskii), the Ecological Atlas and the Atlas of Sustainable Development of Russia (Tikunov), and the Complex Atlas of Kuril Islands (Komedchikov).

The great importance of aerospace methods in creation of maps and atlases was emphasized in the report read at the plenary session during the closing ceremony by cosmonaut Savinyh, Rector of the Moscow State University for Geodesy and Cartography. His presentation on 'Space for Geography and Cartography' was based on the results of long space flights at the orbital stations 'Salut' and 'Mir' that counted with his participation.

The reports in the field of history of cartography were mostly devoted to the mapping of Africa, with presentations by Demhardt (Germany) on the German contribution to mapping of Southwest and East Africa since the middle of XIX century till the first world war, Liebenberg (Republic of South Africa) on the cartographic works during the period of English and Boer wars in 1899-1902, Board (Great Britain) on the imperial map of Southern Africa (1899-1902), and Tchindjang (Cameroon) on the mapping of Western Cameroon since 1700 till 2000. The role of geoinformation technologies in researches on history of cartography was considered in reports by Heere (Netherlands) and Korobtsov (Russia).

There was an abundance of presentations on education in the field of cartography and geoinformatic, including the analysis of education systems in the different countries of Europe and Northern America. A great interest was caused by papers on the creation of the international Internet course on cartography that was developed by the ICA Commission on Education and Training.

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From National Reports and the papers presented at the Conference, it follows that today we experience a global geoinformation revolution. Based on this revolution we have the aspiration of the scientists from leading countries to investigate and develop operational computer-based methods for gathering and processing of spatial data and their exchange by means of the Internet. The Russian point of view on this theme has been summarized in a paper by Martynenko entitled 'Base of the Earth Knowledge: Methodology and Technology'.

*N.N.Komedchikov, A.I.Martynenko, V.P.Savinyh, V.S.Tikunov,  
K.B.Shingareva, T.V. Vereshchaka*

## ICA Honorary Fellowships

Prof. Dr. Andrzej Ciolkosz is an outstanding cartographer whose activities have centred on the application of air photography and satellite images in cartography. He was an organizer and head of the Polish National Remote Sensing Centre in the Institute of Geodesy and Cartography, whose mission is the use of remotely sensed data in thematic cartography. He is the author of some two hundred papers, reports, and maps. He is a member of the Polish Association of Cartographers.

Prof. Ciolkosz was a Vice-President of the International Cartographic Association from 1978 to 1984 and was Chair and Deputy Chair of the ICA Commission on Thematic Mapping with the Aid of Satellite Imagery. He contributed to *Annotated Bibliography on Application of Satellite Images to Thematic Mapping* and to the guidebook *Thematic Mapping from Satellite Imagery* published on behalf of ICA by the University of Waterloo (Canada) and Elsevier Science. He was Chair of the Local Organizing Committee for the ICA conference that was held in Warsaw in 1982.

Prof. Ciolkosz is still very active in research and teaching in remote sensing and cartography at Warsaw University and Nicholas Copernicus University in Torun. For his many contributions to ICA and to the application of remotely sensed imagery in cartography, Prof Ciolkosz is awarded an ICA Honorary Fellowship.

**Dr. Ulrich Freitag** is professor emeritus in the Institute of Geographical Science, Berlin Free University. His research interests include the theory of cartography, cartographic information processing, and the application of cartographic models. He has published more than 30 articles and books just in the last decade. An active member of the German Geographic Society, he served as its chair from 1987-1995. He enjoys great prestige in the field of cartography in Germany and worldwide, as evidenced in such appointments as Advisory Board for Exploratory Essays on the History of Cartography in the Twentieth Century, part of the multivolume History of Cartography project.

Prof. Freitag has been involved in many ICA activities over the years including active participation in the Working Group to Define the Main Theoretical Issues in Cartography, for which he wrote materials on map function. He was closely involved in bringing ICA to Germany (Cologne) in 1993, and his involvement was key to the success of that conference. At least as important as his direct involvement in ICA, he has been a promoter of ICA in the very large German cartographic community, and he has been an active "ambassador" for ICA in South Asia, especially in Thailand. For his many services to ICA and for his rich contributions to the field of cartography, Professor Ulrich Freitag is awarded an ICA Honorary Fellowship.

**Prof. Dr. Istvan Klinghammer** is director of the Eotvos Lorand University Institute of Cartography. In that position he has had a decisive influence on the modernization of cartographic education in Hungary and in the establishment of a cartographic educational network over

Europe. He has published in German, Russian, and Hungarian. He has collaborated with the ICA's Commission on Education and Training and was one of the prime contributors to the book *Basic Cartography*. He contributed to the series of successful joint commission meetings that were held in Hungary 10 years apart – 1983 and 1993 (the famous electronic atlases meeting)--and which now culminated in the joint Executive Committee and commission chairs meeting held in Budapest in Spring 2003, where through the acceptance of the strategic plan a new course was set.

Prof. Klinghammer has been influential in the decision to have Budapest as the venue for the International Cartographic Conference on the History of Cartography in 2005. Over the years he has encouraged his younger colleagues to participate as much as possible in ICA. In addition to Director of the Institute of Cartography, Prof. Klinghammer is currently rector of Eötvös Lorand University. For his many contributions to ICA and for his excellent ambassadorship for cartography in his country and beyond, Prof. Klinghammer is awarded an ICA Honorary Fellowship.

**Ken Lester** was Director of Mapping at the South African Office for Surveys and Mapping from 1972 until 1992 when he became Chief Surveyor-General of South Africa, a position he held until he retired five years ago. He chaired the National Committee for ICA for many years, was President of the then South African Society for Photogrammetry, Cartography and Geo-Information Systems and was instrumental in effecting the transition of the official topographical mapping cover of South Africa from analogue to digital.

Ken Lester's contribution to ICA has been on both the national and international levels. Since 1972 he has attended all General Assemblies with the exception of one, and at all these meetings he played an active role in both policy and technical matters. As treasurer of the Organising Committee he has played a significant role in the organisation of this Conference. He served on numerous cartographic and GIS committees, both national and international, presented many papers at the ICA and other professional meetings and published in many cartography and GIS journals. For his contribution to ICA and for his furtherance of cartography in the national and international cartographic community, Ken Lester is awarded an ICA Honorary Fellowship.

**Liao Ke** is a researcher in the Institute of Geographic Sciences and Natural Resources Research, CAS, and Director of the Cartography and GIS Committee in the Chinese Geographic Society. His interests include thematic and complex mapping, mapping with remote sensing, computer cartography, map use and cartographic theory, and the role of cartography in modern Society and in sustainable development. He is editor in chief of the "National Physical Atlas of China" and the "Atlas of Qinghai-Xizang Plateau". He is also co-editor of the "National Economic Atlas of China," "The Population Atlas of China," and the "Atlas of Ecological Environment in the Beijing-Tianjin Area." He has published more than 100 articles and 4 monographs, has edited 8 books, and has received many national and local honors. The "National Physical Atlas of China" won a prize for excellence in the international maps exhibition of the ICA.

Professor Liao Ke has attended all ICA conferences since 1980. He has been a member of the Commission on National and Regional Atlases, for which he successfully organized a seminar in China and two Chinese atlas exhibitions in Beijing. He took an active part in the work of preparing for 20th ICC in Beijing and has served on the ICA Awards Committee. For his contributions to ICA and for his many contributions to cartography, Prof. Liao Ke is awarded an ICA Honorary Fellowship.

**Dr. Harold Moellering** is professor of geography at the Ohio State University in Columbus, Ohio, where he is Director of the Numerical

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Cartography Laboratory. He has served on many national committees including the U.S. National Committee for ICA and the U.S. National Academy of Sciences/National Research Council Committee on Cartography. He has also served on editorial boards for cartography and GIS journals. His research specialties include numerical, analytical and dynamic cartography, and geographic information systems.

Prof. Moellering's central contribution to ICA has been as chair of what is now the Commission on Spatial Data Standards. He has chaired the Commission for several terms and has overseen numerous productive workshops and Commission meetings in a wide variety of venues. During his tenure, the Commission has produced three books, all published by Elsevier: *Spatial Database Transfer Standards: Current International Status* (1991), *Spatial Database Transfer Standards 2: Characteristics for Assessing Standards and Full Descriptions of the National and International Standards in the World* (1997), and *World Spatial Metadata Standards*, currently in press. He has also served on numerous other standards committees, both national and international, has presented many papers at ICA and other professional meetings, and has published in and edited special issues of cartography and GIS journals. For his contribution to ICA as chair of the Standards commission and for his furtherance of standards in the international digital cartographic community, Prof. Moellering is awarded an ICA Honorary Fellowship.

**Sjef van der Steen** is a "Praktijkdocent" on the instructional staff at ITC in Enschede, the Netherlands, where he has enjoyed a reputation for excellent teaching and where he will soon become the institution's Alumni Co-ordinator.

In ICA, Mr. van der Steen has been the Chair of the ICA Commission on Map Production Technology since 1995. He has been a staunch supporter of one of ICA's most important objectives: the exchange and dissemination of cartographic knowledge. As part of the international network of people interested in aspects of map production technology, he has made several presentations on his work with map production flow diagrams. As commission chair he has organized numerous seminars and workshops, some in cooperation with other ICA commissions, in venues such as Cuba, Indonesia, Chile, Thailand, and Turkey. Under his leadership, the knowledge generated by his Commission was not just disseminated in lectures and exercises at the seminars and workshops but also in proceedings and other outlets. He has led the Commission through rapid technological changes in our discipline, has provided good new direction toward geo-information production management, and has demonstrated excellent networking and team playing skills. For his special contributions to ICA through his leadership on the Commission on Map Production, and for his role in teaching and communicating in the field of cartography, Sjef van der Steen is awarded an ICA Honorary Fellowship.

## International Cartographic Exhibition, Durban 2003

The official Jury was composed by William Cartwright (Australia, Chair); Magda Roos (South Africa, Secretary); Anne Hegner (Sweden); Cindy Brewer (USA); Kira Shingareva (Russian Federation); Takashi Morita (Japan); Chris Board (UK) and Li Li (China)

Using their expertise and experience in cartography, this international panel reviewed the 825 maps and atlases, including the 37 multimedia

items such as the Atlas of Oregon, to pick what they thought were the best of the group in the various categories on the list. These are cartographic materials produced over the past two years, since the previous conference held in Beijing, China, in 2001. The number of maps submitted by countries ranged from two from Portugal to 84 from Russia with Spain and the United Kingdom close behind with 82 each. The only other countries exhibiting more than 40 maps were Poland (46) and the United States (58). The results from the Official Jury and votes by delegates are as follows:

### Results from the Jury

CATEGORY	COUNTRY	TITLE	Cat. No
Topographic	Norway	County map of Rogaland	NO11
	Spain	Map of the Autonomous region of Valencia	SP73
	Spain (Highly commended)	Guide map of Sierra Nevada – 'Las Alpujarras'	SP50
Multimedia	USA	Atlas of Oregon	US5
	Switzerland	Atlas of Switzerland – interactive 2	SZ2
Relief Model	Spain	Relief map of Iberian Peninsula, Balearics and Canarys Islands	SP35
	Germany(Highly commended)	True 3D Map of Granatspitz Massif, Salzburg Alps, Austria	GE7
Satellite image	Australia	Satellite Image of Australia – Landsat 7	AU8
Scientific	France	International Metallogenic Map of Africa	FR18
Tactile	Slovenia	Tactile map of Ljubljana city	SV8
Urban	Spain	Urban Topographic Cartography	SP81
Other	Russia	Map of Russia	RU55
Atlas	Czech Republic	Atlas of Prague – integrated city transport	CZ1
Parks & Recreation	Germany	Cycle map Usedom/Wollin	GE1

# 21st International Cartographic Conference

## Results from Delegates

CATEGORY	COUNTRY	TITLE	Cat. No
Atlas	China	Atlas of the contemporary history of China	CH1
Multimedia	Switzerland	Atlas of Switzerland – interactive 2	SZ2
Parks & Recreation	Switzerland	Alps without frontiers no. 16 "Petit St. Bernard/Mont-Blanc"	FR16
Relief Model	Spain	Relief map of Iberian Peninsula, Balearics and Canarys Islands	SP35
Satellite Image	USA	Nighttime lights of the World 1994-95	US49
Scientific	Spain	European-Mediterranean Seismic Hazard Map	SP43
Topographic		Guide map of Sierra Nevada – 'Las Alpujarras'	SP50
Urban	Poland	Berlin	PL45

Magda Roos and Alberta Auringer Wood

## Travel awardees for the Durban ICC:

A highlight of the opening ceremony was the presentation of the 8 travel awards, to young scientists in the Cartography field. The ICA committee presented awards to delegates from seven different countries. These awards covered the registration and travel costs and allowed the awardees to be present at this international event.

Recipients for this award were:

1. Mr Prem Chhetri - Student, RMIT University, Melbourne (India) – *Mapping the potential of scenic views for the Grampians National park*
2. Mr Etien Koua - Student, ITC, Enschede, Netherlands (Côte d'Ivoire) – *Using self-organised maps for information visualization*
3. Dr Giedre Beconyte, Vilnius University, Vilnius, Lithuania – *Twelve years of thematic cartography in Lithuania*
4. Dr Nnabugwu O Uluocha, University of Lagos, Nigeria – *Interfacing indigenous knowledge and GIS for suitable rural mapping and development*
5. Dr Felicia I Akinyemi, Ibadem Awolowo University, Nigeria – *Mapping selected human development indicators in sub-saharan Africa*
6. Mr Henrik Hargitai - Student, Budapest, Hungary - Planetary maps for public and educational outreach
7. Ms Tatiana Delgado Fernández, Geocuba, Cuba – *Service-centric approach to discover spatial information in GSDI*
8. Mr Rafael Cruz Iglesias, Geocuba, Cuba – *Development of a platform for storage and handling of geographical information in the Internet*



Front row (left to right) Travel Awardees; Giedre Beconyte, Felicia Akinyemi, Etien Koua, Nnabugwu Uluocha, Tatiana Delgado, Rafael Cruz and Prem Chhetre. Middle; ICA Committee members: Milan Konecny, Michael Wood (Past President), Bengt Rystedt (President), Li Li and Alberta Wood. Back: Ferjan Ormeling (Secretary General) and Elri Liebenberg. Front row (left to right) Travel Awardees; Giedre Beconyte, Felicia Akinyemi, Etien Koua, Nnabugwu Uluocha, Tatiana Delgado, Rafael Cruz and Prem Chhetre. Middle; ICA Committee members: Milan Konecny, Michael Wood (Past President), Bengt Rystedt (President), Li Li and Alberta Wood. Back: Ferjan Ormeling (Secretary General) and Elri Liebenberg.



# Barbara Bartz Petchenik Children's Map Competition 2003

## Barbara Bartz Petchenik Children's Map Competition 2003

The Judging Committee consisted of Jacqueline Anderson (Canada), Elri Liebenberg (South Africa), Chris Vlok (South Africa), Patrick Wiegand (United Kingdom), and Alberta Auringer Wood (Canada). A total of 31 countries participated, as follows.

Argentina	Croatia	Iran	Slovakia
Australia	Czech Republic	Israel	South Africa
Belarus	Finland	Italy	Sri Lanka
Brazil	Germany	Japan	Sweden
Bulgaria	Greece	Netherlands	United Kingdom
Canada	Hungary	Norway	United States
Chile	India	Poland	Yugoslavia
China	Indonesia	Russia	

While there were nearly 160 maps submitted, only 144 were judged. The maximum allowed per country was five. As Chile had submitted 18 entries, the delegate from that country selected five to be judged. All those received properly were displayed. Several countries only submitted one or two maps. Several maps were eliminated from judging because they were larger than the format allowed by the guidelines, had been submitted too late, or were submitted to the wrong place.

There were five continental categories chosen for awards. These were North America (1 award, 2 countries), South America (1 award, 3 countries), Europe and the Middle East (6 awards, 20 countries), Africa and Australia (1 award, 2 countries), and Asia (1 award, 4 countries). As well, the entrants were divided into age groups with a minimum of two awards in each group for this competition, but sometimes there has been only one in an age category. The age groups and awards in them were: under age 9 years (2 awards), between ages 9 and 12 (3 awards), and between ages 13 and 15 (5 awards). Not too surprisingly, there were more submissions in the older categories and more skilled presentations.

The winners were from Belarus, Brazil, Bulgaria, Canada, Hungary, Indonesia, Italy, Poland, South Africa, and United Kingdom. The specific maps, which illustrate the cover page of this newsletter, are as follows, giving country, the code as noted in the exhibit catalogue, the map title, the name of the child, age, and school.

### Belarus (bw1)

Title: *Economical threatens for the children's life*  
Name: Atayan Samvel, Age: 14  
School: Gorodetskaja Street 14, Minsk, Belarus

### Brazil (bl2)

Title: *It only depends on us! The world is in our hands*  
Name: Tercio Silote, Age: 14  
School: Interlagos

### Bulgaria (bu2)

Title: *The children and flowers will make a better world.*  
Name: Leny Vladimirova Mircheva, Age: 11  
School: Drawing School 'Spectar', Sofia, Bulgaria

### Canada (cn2)

Title: *United pieces*  
Name: Rachele Domingo, Michael Estalilla, Argielica Jumarang, and Catherine Ambicki, Age: 13-14  
School: St. Philip School, Mississauga, ON

### Hungary (hu3)

Title: *Preserve earth for future generations! (Pandaworld is a better world for children)*  
Name: Gabriella Fink and György Viszti, Age: 12  
School: Béry Balogh Ádám Secondary School, Tamási

### Indonesia (io4)

Title: *Keep on the world and its content, don't break up by war!*  
Name: Nayafakda Ihsania, Age: 8  
School: Muhammadiyah Sapen Elementary School, Yogyakarta

### Italy (it3)

Title: *Children united round the world for a brighter future*  
Name: Alessia Del Lungo, Age: 6  
School: Scuola Elementare 'Villa San Lorenzo', II A, Sesto Fiorentino, Firenze

### Poland (pl1)

Title: *How good with parents*  
Name: Patrycja Matuszewska, Age: 12  
School: Szkoła Podstawowa im. Stefana Batorego, Leszno

### South Africa (sa5)

Title: *Making a better world for children*  
Name: Ilse Wiehahn, Age: 15  
School: Menlo Park High School, Pretoria

### United Kingdom (uk5)

Title: *For the children, make our world a better place*  
Name: Ben Hankins, Age: 14  
School: Brandon Forest School

In addition, there was a public vote by any visitors to the exhibit. This was separate from Judging Committee, and ballots were available in the map display area. 135 ballots were received. Those receiving the greatest number of votes in each age category were as follows:

## UNDER AGE 9

### Brazil (bl5)

Title: *Human beings, signs of equality*  
Name: Jhonatan Costa Batista, Age: 4  
School: Santo Andre, SP

## AGE 9 - 12

### Russian Federation (ru2)

Title: *Cherish our nature*  
Name: Zhenya Vidyapina, Age: 12  
School: Moscow Academic Art Lyceum of Russian Art Academy, Moscow

## AGE 13 - 15

### Belarus (bw1)

Title: *Economical threatens for the children's life*  
Name: Atayan Samvel, Age: 14  
School: Gorodetskaja Street 14, Minsk, Belarus

These maps illustrate the back cover of this issue of the ICA Newsletter. Until the next competition, thanks to all entrants!!

The Judging Committee and the ICA Executive Committee wish to thank all the member nations and their children who prepared submissions. Please begin planning for the competition in 2005. Remember that guidelines will be found on the Internet on the ICA web site: <http://www.icaci.org/>, as will links to reproductions of winners of past competitions.

The 2003 submissions web page is at: <http://www.icaci.org/petchenik2003/>, while the 2003 prizes thumbnails are at <http://www.icaci.org/petchenik2003/files/prizes.html>.

Alberta Auringer Wood

# Commissions' Report

## Meeting on Mapping Africa for Africa

At the recent meeting of Committee for Development Information, Geo-information sub-committee (CODI-Geo) held in Addis Ababa in May, 2003, a proposed meeting was endorsed where African Countries represented by their National Mapping Organisation or organisation responsible for spatial data infrastructure would meet to discuss and agree upon a plan of action to provide the fundamental geo-spatial information/maps for sustainable development in support of various projects under NEPAD – "Mapping Africa for Africa" initiative.

This meeting took place on 14th August, 2003 in Durban, South Africa during the International Cartographic Conference. The Meeting was held under the auspices of the International Cartographic Association and the Department of Land Affairs of the Republic of South Africa and was to discuss the role of fundamental spatial data in support of the New Partnership for Africa's Development and the World Summit on Sustainable Development Plan of implementation.

Other key issues that were for noting and discussion were as follows:

- That Africa is poorly mapped and only few African countries have maps covering their territory that can be used for national development purposes. Many environmental and other development needs extend beyond national boundaries and affect regions and therefore, this requires maps to be available that meet both national and regional needs.
- That the African Union has adopted a new approach to addressing the developmental issues of Africa, called the New Partnership for Africa's Development (NEPAD). This calls on African countries to take charge of the development of their countries and the African continent. The projects to be executed within NEPAD will require relevant up to date maps or geo-spatial information.
- That the Committee for Development Information (CODI-Geo) a structure of the UN Economic Commission for Africa, has noted the severe lack of geo-spatial information in Africa over the years and has passed resolutions to strongly encourage African Governments to recognise the national mapping as a key national asset and that national mapping programmes should be established. Despite such resolutions little progress is reported. Africa remains very poorly mapped.
- That the African Union, through NEPAD, is calling on Africans to take action. What are the National Mapping Organisations doing to contribute

to the development and well-being of their country and region? It is time to go beyond making well-intended resolutions and to overcome the difficulties facing National Mapping Organisations. This will require a co-operating and co-ordinate effort by African countries.

The Committee came out with the "Durban Statement on Mapping Africa for Africa" which Recommended and Resolved among others;

- That the United Nations Economic Commission for Africa (UNECA), under the guidance of CODI-Geo, implements activities relating to the "Mapping Africa for Africa", in collaboration with the International Cartographic association (ICA) and other institutions and organisations.
- That ICA creates a Commission or Working Group on "Mapping Africa for Africa".
- The first meeting of the new Executive Committee of ICA endorsed and established Working Group on "Mapping Africa for Africa" with Haggai Nyapola as its chair, and Prof. Bengt Rystedt as its Advisor.
- The Terms of Reference for the WG are:
- Promote International technical and scientific support and advisory services from ICA and its affiliate members for Mapping Africa for Africa project;
- Aid countries of Africa in capacity building and knowledge sharing;
- Support mapping projects for Mapping Africa for Africa, eg. through endorsements;
- Encourage African countries to participate in ICA activities through membership of ICA;
- Facilitate cartographic outreach programmes in Africa;
- Promote awareness of cartographic issues and resources in Africa to the international community.
- Those willing to be members of the WG may contact the chair at the following e-mail address. sok@gt.co.ke

*Haggai Nyapola*

ICA Vice-President, Kenya

## Generalisation and multiple representation

The ICA commission on generalisation and multiple representation wishes to foster research and practical experience in multi-representation issues and automated generalisation and to form a network and focal point for researchers and practitioners in this domain. With support from the EuroSDR Commission 5, the Commission is organising a research workshop, to be held on the 20 and 21 August 2004, in Leicester, UK, prior the Spatial Data Handling conference. One day will be devoted to the presentation and discussion of current research in the area of generalization, half a day on experiences from practitioners and half a day on benchmarking and evaluation. The workshop is sized for around 40 people. The selection will be based on paper submission including research papers and papers presenting production needs or practice. More information about this event is available at the Commission's new web page : <http://ica.ign.fr>.

*Anne Ruas*  
Commission Chair

## Commission on Gender and Cartography

Durban's meeting was interesting in regard to the future orientation of the Commission's work. The two meetings of women delegates from various cultural as well as environmental regions of the world was an excellent occasion to recognize the most important fields of delegates' interests and conditions of practical realization of some regional or global projects. As result of these meetings it noted, for instance, that it requires inter-government department collaboration in South Africa (northern Kwa Zulu-Natal) to a create women information system, whereas in Indonesia (West Kutai), maps are not viewed as a primary information, being of little importance for local communities because rather video and photos are being used. It was also noted that there are many basic differences between organization of cartographic education and the accessibility to cartographic materials.

During GaC Commission meetings three ICA Vice-Presidents: Kirsi VIRRANTAU, Elri C. Liebenberg and Li Li and delegates from nine countries determined their professional interest: teaching and history of cartography, visualization, small scale cartography, thematic maps, theoretical cartography, electronic atlases, audio-tactile maps and internet based dynamic representation. It can be observed that such profile of

interests of the commission members seems to be necessary for a successful realization of the new GaC Commission's programme, planned for the next four years.

I hope that linking the professional experience with modern technology and communication means will facilitate preparing planned guidelines for mapping related to women and other under-represented groups, to organize thematic workshops, to exchange the information and to overcome barriers in production of gender issues oriented regional atlases. Our Commission website (<http://www.geo.ar.wroc.pl/GC/>) has been actualized. It is possible to locate some interesting articles, photos, news. All new proposals please send to me: [ekblum@kgf.ar.wroc.pl](mailto:ekblum@kgf.ar.wroc.pl).

*Ewa Krzywicka-Blum*

Chair, ICA Commission on Gender and Cartography

## Marine Cartography

At the recent ICC conducted in Durban, approval was given by the General Assembly of ICA for the Commission on Marine Cartography to continue with slightly modified Terms of Reference. A business meeting was conducted during the ICC during which a presentation was made to the audience by András Dutkó from Budapest, Hungary of the work proposed to be conducted by him and Mátyás Márton within the Commission's ambit. Member nations wishing to nominate members of the Commission should now proceed to email me their proposed nominees to my email address [rfurness@ozemail.com.au](mailto:rfurness@ozemail.com.au). Please include a short c.v. and a statement of how the nominee proposes to contribute to the Commission's programme.

In conjunction with the International Geographical Union's (IGU) Commission on Coastal Systems the Commission conducted the CoastGIS 2003 symposium in Genoa, Italy between 16th – 18th October, 2003. The conference was organised locally by Emanuele Roccatagliata, Professor Adalberto Vallega and colleagues of the GISIG/ICCOPS Group – full program details are available at [www.gisig.it](http://www.gisig.it). The full program can be found at this website.

The fifth international meeting in this series, it was most successful by any measure, with around 230 full delegates. Presentations were generally of a good standard. The fifth in the series, it led to some significant outcomes. Papers are presented on CD-ROM while work goes ahead for them to be made available on the internet. I will dispense contact information as it comes to hand. Anybody needing a copy of a paper meanwhile may contact me by email.

The conference was supported by the Commune di Genova, the Ligurian Regional Government and the European Commission under a contract IST-2000-92563. Genoa is a fascinating city and has been chosen as the 2004 European Capital of Culture. Tangible support was forthcoming from the US National Oceanic and Atmospheric Administration, Environmental Systems Research Institute Inc. (ESRI), Intergraph and Azienda Mediterranea Gas e Aqua. Patronage was received from the Intergovernmental Oceanographic Commission of UNESCO, the UK Association of Geographical Information and the University of Genova. CoastGIS is a collaborative initiative of the IGU's Commission on Coastal Systems and the ICA's Commission on Marine Cartography.

Deputy Vice Chair of this ICA Commission, David Green, was present and very active throughout the meetings. David will be the convener of the next CoastGIS meeting (his second). On behalf of the full CoastGIS'03 Scientific Committee, Roger Longhorn (EC Project

Office, IDG Ltd (UK)), presented a summary which follows in slightly edited form.

On behalf of the Scientific Committee, Mr. Longhorn stated that they were very pleased to see the quality of papers submitted under the themes relating to information infrastructure. These papers highlighted many of the non-science and non-technology issues that continue to impact adversely on the success and long-term sustainability of many coastal zone projects and wider coastal zone monitoring initiatives at national and regional levels. We can expect such issues to continue to plague coastal zone managers, researchers and government agencies as more and more policy initiatives at national and regional levels draw on GIS as a mechanism for monitoring success of the initiatives, across a wide range of topics, from environmental protection to urban planning, agricultural monitoring, transport planning, etc.

Some of the key points highlighted by different members of the Scientific Committee at a meeting held on the last day of the conference included the following:

- We need political champions to help guard our interests in seeing that coastal information needs are not forgotten as larger national and regional (trans-national) spatial data infrastructure (SDI) frameworks are created.
- GIS in the coastal zone is certainly about supporting "science work", but there are also non-scientific and non-technical issues to be considered.
- Data usability is a key concern and continues to require both research and information management focus for continued development of ways to harmonise data for wider use.
- Information infrastructure developments are needed that permit easier discovery of existing data and use of data once located, in a variety of forms, from multiple data owners or custodians.
- We need to find ways to engage stakeholders (data creators, custodians and users) even more widely in the data management and access issues.

With launch of the EU Water Framework Directive in 2000, to be fully implemented by December 2003 in all EU Member States, we have seen the first institutionalised, regional (trans-national) legal requirement that GIS be used in monitoring the implementation of a major EU policy, and one of extremely high importance on a global level - i.e. maintaining good quality water resources in river basins, ground-water, coastal zones and the off-shore transitional waters leading to the coastal zone. It is believed that this is only the first such legal requirement that we will see coming from major international institutions for use of spatial information and GIS tools for planning and monitoring purposes.

Therefore, coastal GIS practitioners should consider the need to address their next efforts towards effective usability of coastal knowledge (not just coastal data) as a major contribution to regional planning and monitoring, even at a trans-national level. In regard to this perceived need, two issues arise:

- The landscape/seascape paradigm offers a comprehensive perspective of both the physical and human/cultural aspects and their interaction, defining the present state and heritage. At the European level, the European Landscape Convention (2000) may be assumed as a reference for Coastal GIS attuned for Administration in the governance, planning and design phases. Definition of relationships with non-European landscape policies should be sought.
- The operation of data, jointly with the implementation of data infrastructures, may be regarded as a chief subject for GIS optimisation.

# The 21st ICC Pictorial

21st ICC Pictorial



*Traditional African dancers entertained the guest speakers and delegates at the opening ceremony.*



*Delegates from Russia, Ukraine and Vietnam present at the ICC. Third from the right: Russian Cosmonaut Savinyh*



*ICC map exhibition area, which boasted in excess of 1,000 entries from 34 countries.*



*Deliberation of country members during the XII ICA General Assembly.*



*Above left: Mr Chris Carter of the LOC is seen presenting the mayor, his Worship, Obed Mlaba with a framed map of Durban to earmark this memorable occasion.*



*Above right: Dr Makgalemele (DDG of the South African Department of Land Affairs). Mr Nyapola and Mr Clarke enjoy refreshments at the exhibitor's cocktail party.*

# The 21st ICC Pictorial



Prof Harold Moellering and Sjef van der Steen received the ICA Honorary Fellowship from ICA Secretary General Ferjan Ormeling and Past ICA President Bengt Rystedt.



Prof. Liao Ke receiving the ICA Honorary Fellowship during the Conference dinner.



Prof Ulrich Freitag receiving the ICA Honorary Fellowship from ICA President Milan Konecny.



Derek Clarke, Chairman of the ICA, addressing the audience at the opening ceremony.



One of the many opportunities to network during the coffee breaks



Traditional Dancers at the 'Africa Fun Night'



Presentation of the video promoting the XXII ICC at A Coruña.



The International Convention Centre, Durban, venue of the 21st ICC and 12th ICA General Assembly



The ICA flag in the hands of the Spanish LOC for ICC2005, and the Russian LOC for ICC 2007.



Keynote speakers at the opening ceremony also included Dr Bengt Rystedt, Dr Rob Adam and Justice J. Kriegler.



Key note speakers at the opening ceremony: Dr Vanessa Lawrence of the Ordnance Survey, UK (left), and Mr Haggai Nyapola, Director of Surveys, Kenya (right).

# Commissions' Report

It is recommended to create a link with the running global and pan-European initiatives and/or policies by offering a contribution for Data Infrastructure Profiles suitable for coastal GIS and or promoting these achievements towards non-GIS and non-ICAM specialists, addressing the concerned stakeholders in Public Administration and industry.

The legal requirement to use GIS for monitoring the Water Framework Directive, and the implied use of GIS to monitor the EU ICZM Recommendation primarily both focus on physical data, i.e. coastal or benthic flora and fauna, geomorphology, etc. Yet for wider planning and monitoring purposes, many administrative and non-physical data sources will be needed. These must somehow be accommodated by the evolving coastal SDI.

The above points should be examined at the conceptual level, at the methodological level and at the functional level, in order to offer effective contributions to regional planning and monitoring and they apply globally, not just in Europe. The "CoastGIS panel", through the Scientific Committee, proposes to undertake initiatives to ensure that these issues continue to be addressed in further CoastGIS conferences and in the substantial work that goes on behind the scenes regarding the conference series.

The Scientific Committee also had very preliminary discussions on a more formal mechanism for carrying forward the excellent work achieved both today and in the past under the CoastGIS banner. This could take one of many different forms, but regardless of the approach finally adopted, the goal is to raise the visibility of GIS use in the coastal zone and marine research generally and to increase the lobbying power of all stakeholders in the coastal community.

The next CoastGIS conferences are to be as follows: 2005 – Aberdeen, Scotland; 2006 – Sydney and Wollongong, Australia; 2007 – Barbados, The Caribbean. One outcome of the conference, which was also attended and supported by Vice President Ramón Lorenzo will be closer cooperation between IGU and ICA. Additionally, there is a firm commitment from the International Hydrographic Bureau for its support of the next ICC in La Coruna, Spain. Support for the CoastGIS initiative from the ICA Executive is warmly welcomed and encouraged.

It has been an exciting and busy period for this Commission since the Durban meetings – the question now is to maintain the pace and levels of interest. Contact me if you want to participate and contribute.

*Ron Furness*

Chair, ICA Commission on Marine Cartography



*From right to left: Professor Adalberto Vallega (First VP of the IGU); Emanuele Roccatagliata (CoastGIS organiser) and Ramón Lorenzo (VP of ICA) while Ron Furness (far left) presents the opening paper to the CoastGIS 2003 conference.*

## Theoretical Cartography

The last meeting of the Commission on Theoretical Cartography (period 1999-2003) took place in Durban on Wednesday, August 13, 2003 during the 21st ICA Conference. 15 members of the Commission, enthusiasts and friends of theoretical cartography met at the Durban International Convention Centre. The topics of the meeting were the following:

- Chair's report related on the Commission activities for 1999-2003 (A.Wolodtschenko)
- Cartosemiotic project (H.Schlichtmann)
- Terminology project (T.Morita)
- Computer Cartography and Cartographic Knowledge (G.Andrienko)
- Preparation of the proceedings of the Vilnius seminar "Cartography and Cartosemiotics" (G.Beconyte)
- Next seminar in Kyiv 2004, Ukraine (A.Wolodtschenko)
- Terms of reference for 2003-2007 (A.Wolodtschenko)
- Miscellanea and discussion.

The atmosphere of the meeting was friendly and efficient, and reflected successful work of the Commission during the period 1999-2003. In August 2003 the Commission on Theoretical Cartography included 27 members from 18 countries and 4 continents. The Commission held three seminars (Dresden 2000; Gdansk 2002; Vilnius 2003), a workshop on 'Cartography: Education and Production' (Kyiv 2002) and two meetings (Beijing 2001; Durban 2003). Two proceedings: 'The Selected Problems of Theoretical Cartography 2000' and 'The Selected Problems of Theoretical Cartography 2002' were published; also six short reports were written for the ICA News. Mahes Visvalingam (University of Hull) has organized a special web discussion 'The semiology of silhouettes'. For dissemination of commission information is there a home page at the <http://www.tu-dresden.de/fghgik/>.

In the next four years the Commission will concentrate on the next main events:

- Seminar " The Selected Problems of Theoretical Cartography 2004" in Kyiv, Ukraine, August 2-6, 2004
- The 22nd ICA Conference in A Coruña, Spain, July, 2005, where a Commission meeting is planned.

*Alexander Wolodtschenko*

Chair, ICA Commission on Theoretical Cartography



*Photo: Some of the participants of Commission's meeting in Durban: Left to right: G.MaCleary, Y.Chen, G.Andrienko, L.Meng, H.Schlichtmann, G.Beconyte, J.Ostrowski, A.Wolodtschenko.*

## Mountain Cartography

### 3rd ICA Mountain Cartography Workshop

The latest workshop under the auspices of the ICA Commission on Mountain Cartography, brought application-oriented professional cartographers and scientists together for exchanging ideas and knowledge in an informal way. ICA mountain cartography workshops are held biannually, with previous meetings at Bielerhöhe/Silvretta and Rudolfshütte, both located in Austria. The workshop locations are carefully chosen and the organisation and style of the workshops make sure that the participants can meet within unique mountain landscape settings.

The 2002 workshop took place from May 15 to 19 at Timberline Lodge, close to Portland, Oregon, near the US west-coast. It covered a broad variety of topics related to mountain geo-data and mapping, including geo-visualisation, relief presentation, tourist mapping, avalanche mapping, glacier mapping, multimedia cartography, software applications and development, history of mountain mapping and much more.

The workshop was organised by Tom Patterson of the US National Park Service with support of Aileen Buckley of the University of Oregon at Eugene. Most of the 40 participants originated from Canada and USA. Other participants came from Switzerland, Austria, Spain and Japan.

### Sessions

The first session covered themes on 3D-modelling. The spectrum reached from data capturing for DEM generation using LIDAR to computer-assisted panorama maps and to 3D-object modelling in mountain maps. The second session focussed on the digital production of shaded reliefs. Dan van Dorn tested and compared several computer programmes for analytical shading. One of those packages – "Shadow", developed by Bernhard Jenny at ETH Zurich – was presented afterwards. An interesting contribution by Jeff Nighbert terminated the morning. He tried to explain by psychological reasons the apparent size of the moon on the horizon in relation to the size of mountains. In the third session, information about projects in glacier photogrammetry were given. A remarkable software "Photomodeller" which allows 3D modelling from terrestrial images was presented by Heinz Slupetzky and Walter Gruber from the University of Salzburg. The following session covered various visualisation software packages and the web graphics format SVG (Scalable Vector Graphics). Alex Tait of Equator Graphics presented for instance the creation of virtual volcano landscapes using the Bryce3D rendering software.

The next morning, Karel Kriz from the University of Vienna presented a map containing area-based slope indications which is sold in Austria as avalanche hazard maps for ski tourists. Together with Patrick Nairz of the Tyrolean avalanche centre he demonstrated a database-driven on-line snowheight map of Tyrol. Tom Patterson explained the generation of a high quality, photo-realistic map of Grand Teton National Park, produced within \_ day (!) using standard graphics software like Photoshop. Patrick Ken-nelly talked about visual 3D effects of contour lines and their ability to replace a shaded relief. Two pre-senters reported about mountain map history, a theme which so far has almost been neglected within the ICA Commission on Mountain Cartography. Matthew Hampton showed examples of earliest carto-graphic products covering parts of the US Northwest. Michael Fisher presented outstanding examples of Canadian mountain maps which resulted among others from the collaboration with Swiss cartographers, e.g. the map of Columbia Ice-field between Jasper and Banff. Blanca Baella and Maria Pla offered an insight into the activities of the Institut Cartogràfic de Catalunya which leads numerous large carto-graphic projects in an international context, e.g. in South America. The presentation by Dave Imus and Pat Dunlavey provoked some controversies, since they stipulated the use of paper and pencil instead of a graphic software for generalisation and homogenisation of GIS data for cartographic purposes.

### Presentation of the Web-site "Mount Hood Visualisation"

In the framework of Marc Dobler's diploma thesis at the Institute of Cartography of ETH Zurich, an Inter-net presentation covering the Mount Hood area (Oregon/USA) shows possibilities of integrating terrain, remote sensing, vector and other digital map data, mostly provided by Tom Patterson for that workshop. An ortho-photo and several thematic raster data layers (e.g. precipitation, geology) are presented in different combinations. All cartographic representations are shown on a special web-site. Allowing visitors to get a wonderful virtual overview of this attractive mountain area. <http://www.karto.ethz.ch/dobler/mthood>

### Flight around Mt. Matterhorn

In another visualisation project at the Institute of Cartography of ETH Zurich, perspective views and short flythrough-movies around Mt. Matterhorn (on the Swiss/Italian border) were created. An extract of the Swiss National Map 1:25'000, combined with an ortho-photo and geologic data, was draped over the digital elevation model DHM25 with a resolution of 25 m. The results can also be accessed on a special web-site. <http://www.karto.ethz.ch/dobler/matterhorn>

### Map exhibition

In the forefield of the workshop, the organiser Tom Patterson already called for the presentation of different, new map products; a call which was followed by numerous participants. Almost 100 commercial maps, project drafts or scientific posters were shown, among them some outstanding examples:

- Several maps by the U.S. National Park Service (Tom Patterson) depicting National Parks in Oregon and Hawaii; They are distributed in the park visitor centres as leaflet or single 2D or 3D maps.
- A large-sized cartographic panorama representation (2 x 0.6 m) depicting chronologically the events in a battle of the American civil war. It was produced by Alex Tait (Equator Graphics, Silver Spring/MD).
- Specimens of a leaflet about avalanche hazards for winter tourists in the Schneeberg area in Austria, containing map representations and perspectives, produced by Karel Kriz (University of Vienna) and Patrick Nairz (Tyrolean avalanche centre).
- Contributions by the Institute of Cartography of ETH Zurich: Two large-size drafts of geomorphologic mappings in the Swiss National Park (student work by Stefan Felix) and the poster describing the thesis of Marc Dobler about the mentioned visualisation of Mount Hood.
- The Swiss Federal Office of Topography presented the latest edition of ski tourism maps based on the National map 1:50'000 with indicated avalanche danger zones.

The warmest thanks of all participants go to Tom Patterson and his team for the excellent organisation of the workshop and the excursion in this very scenic and impressive landscape. It is intended to publish all contributions as full papers (pdf) on the web-site of the ICA Commission on Mountain Cartography <http://www.karto.ethz.ch/ica-cmc>. The next workshop will take place in Nuria (Pyrenees, Spain) in the week of October 4, 2004.



Participants of the 3rd ICA Mountain Cartography workshop

# Commissions' Report

## 4th ICA Mountain Cartography Workshop

Vall de Núria, Catalonia, Spain  
30th September – 2nd October 2004

The International Cartographic Association Commission on Mountain Cartography will be holding its 4th Mountain Cartography Workshop, from 30th September 2004 until 2nd October, in the region of Vall de Núria in the Catalan Pyrenees. The workshop is held biannually and covers all topics related to mountain mapping, including avalanche and glacier mapping, relief presentation, tourist mapping, data capture, photogrammetry, remote sensing, geo-visualization, multimedia, etc.

Vall de Núria is located in the North of Catalonia, Spain, at 2,000 meters altitude and it is surrounded by mountains that reach near 3,000 meters. The valley can only be reached by a silent cog railway. Núria has a wealth of history and tradition, documented since 1087, and the Sanctuary of the Virgin plays a very important role in the religious life and traditions of Catalonia.

The workshop will be focussed on the research or production activities in the following topics:

- Topographic mountain cartography: relief representation, hillshading, cliff drawing
- Cartography of glacial phenomena
- Risk and natural hazard mapping, including snow avalanches
- Geomorphological mapping
- Alpine cartography, cave mapping, mountain tourist mapping
- Remote sensing applications
- Data models, data integration, workflows and examples of mountain cartography
- Digital Elevation Models: data capture, classification, representation
- Cartography and GIS tools applied to mountain data
- Visualization, rendering, animation
- Applications: multimedia, Internet, LBS services

### Abstracts

Abstracts should be submitted in PDF format to [ica-cmc-nuria@icc.es](mailto:ica-cmc-nuria@icc.es) by March 1, 2004, and the notification of acceptance will be by April 15, 2004.

Related activities during the workshop will be the exposition of mountain maps from the Map Library of Catalonia, in Núria, and the visit to the Institut Cartogràfic de Catalunya, in Barcelona.

### More information and related links

For more information access the web page [www.icc.es/workshop/english.html](http://www.icc.es/workshop/english.html), contact the workshop organizer (Maria Pla, Institut Cartogràfic de Catalunya, at [ica-cmc-nuria@icc.es](mailto:ica-cmc-nuria@icc.es)) or the ICA Commission members (chair Dr. Lorenz Hurni, ETH, at [hurni@karto.baug.ethz.ch](mailto:hurni@karto.baug.ethz.ch) and co-chair Dr. Karel Kriz, Universität Wien at [kriz@atlas.gis.univie.ac.at](mailto:kriz@atlas.gis.univie.ac.at)).

Related links with the workshop are [www.karto.ethz.ch/ica-cmc](http://www.karto.ethz.ch/ica-cmc) and [www.valldenuria.com](http://www.valldenuria.com).

*Maria Pla*

Institut Cartogràfic de Catalunya

### Education and Training

The ICA commission on Education and Training had a meeting on June 25, 2003 in the Novorossiysk campus of Kuban University in the Caucasus region of the Russian Federation. Attended by 50 people, the meeting concentrated on (virtual) training possibilities in cartography. It had contributions from Moscow State University, Novorossiysk, Saratow, Majkop, Sankt-Peterburg and Utrecht. This meeting was a pre-conference to Intercarto 9, held June 27-29 in

Sevastopol, in the Crimea in present-day Ukraine, so the Novorossiysk participants spent a day in a bus to move there, via the Kerch ferryboat, Feodosia and Sudak.

The Intercarto conference had plenary parts on June 27 and 29, and on June 28 was subdivided into a number of sessions. In the first plenary session there were contributions on new GIS education programs, on the national atlas of Ukraine, the trend of planetary cartography to become extraterrestrial geography, on Geoinformation systems as knowledge tools as well as on the work of CODATA and on the ICA Strategic plan.

The second plenary session on Sunday June 29 had theoretical contributions and was followed by reports provided by the chairs of the parallel sessions run the previous day. The conference was closed with a conference dinner, followed by a one-day excursion along the southern Crimea coast.

The importance of these Intercarto conferences, initiated and organised by Prof. Tikunov (chairman of the ICA Commission on Education and Training 1999-2003) for ICA is that they are a vehicle for ICA commissions to further their work in otherwise difficultly accessible areas of the former Soviet bloc. They combine educational, theoretical and practical aspects, and over the years the interaction between these groups has become more important. Intercarto X might be held in Vladivostok in 2004.

*Ferjan Ormeling*

ICA Secretary General

### Maps and the Internet

The book on 'Maps and the Internet' edited by Michael Paterson, and published by Elsevier on behalf of the International Cartographic Association is now available. This book examines a new trend affecting cartography and geographic information science. Presenting the work of over 30 authors from 16 different countries, the book provides an overview of current research in the new area of Internet Cartography. Chapters deal with the growth of this form of map distribution, uses in education, privacy issues, and technical aspects from the point of view of the map provider - including Internet protocols such as XML and SVG.

Many see the Internet as a revolution for cartography. Previously tied to the medium of paper and expensive large-format color print technology, maps had a limited distribution and use. The Internet made it possible to not only distribute maps to a much larger audience but also to incorporate interaction and animation in the display. Maps have also become timelier with some maps of traffic and weather being updated every few minutes. In addition, it is now possible to access maps from servers throughout the world. Finally, the Internet has made historic maps available for viewing to the public that were previously only available in map libraries with limited access. The book is comprised of four main parts as follows:

#### Part 1: Introduction and contemporary issues

1. Maps and the internet: An introduction (M. Peterson).
2. Geographic information literacy and the world wide web (J. Krygier, D. Peoples).
3. Maps on the web (W. Cartwright).
4. Dissemination of census and other statistical data through web maps (C.P.J.M. van Elzakker, F. Ormeling et al.).
5. Internet cartography and official tourism destination web sites (E.R. Richmond, C.P. Keller).
6. The internet, cartographic surveillance, and locational privacy (M. Monmonier).

#### Part 2: Technical development



7. Developing cartographic applets for the internet (A. Herzog).
8. GIS for everyone: The common GIS project and beyond (G. Andrienko, N. Andrienko, H. Voss).
9. Beyond serving maps: Serving GIS functionality over the internet (Bin Jiang).
10. Peer-to-peer sharing of cartographic data and software (Bin Li).
11. Online cartography with XML (I. Zaslavsky).
12. Webmapping with scalable vector graphics (SVG): Delivering the promise of high quality and interactive web maps (A. Neumann, A.M. Winter).
13. A standards-based architecture for multi-purpose publishing of geodata on the web (L. Lehto).
14. An intelligent software agent architecture for distributed cartographic knowledge bases and internet mapping services (Ming-Hsiang Tsou).
15. Three-dimensional visualisation on the internet (P. Ottoson).
16. Supporting wayfinding in desktop geovirtual environments (S. Fuhrmann).

### Part 3: Applications and user issues

17. Mapping and internet based public transportation journey planning and information systems (P. Mooney, A.C. Winstanley).
18. From maps to student interaction: creating a web-based student atlas of Russia (J.S. Torguson, M.M. Blinnikov).
19. Historical geoinformation on the web: lessons learned from the chapter 91 pilot project (A. Giordano).
20. Web-based multimedia GIS: exploring interactive maps and associated multimedia information on the internet (S. Hu).
21. Internet, maps and public participation: contemporary limits and possibilities (S. Caquard).
22. Cartography, virtual reality, and the internet: integrating abstract models of the environment via the internet (R.G. Cammack).
23. QuickTime virtual reality maps for the web (W. Schwertley).
24. Telecartography: maps, multimedia and the mobile internet (G. Gartner).
25. Geodata communication on personal digital assistants (PDA) (T. Wintges).

### Part 4: Theoretical development

26. The concept of cybercartography (D.R. Fraser Taylor).
27. Modelling the visualization of internet maps (L. Brodersen).
28. Foundations of research in internet cartography (M. Peterson).

*Michael Peterson*

Chair, ICA Commission on Maps and the Internet

## Incremental Updating and Versioning

The 4th Joint Workshop on the Incremental Updating and Versioning of Spatial Data Bases was held at the Durban Manor, Durban, South Africa, on Friday 8 and Saturday 9 August 2003. This workshop was sponsored by the ICA's Working Group on Incremental Updating and Versioning, the International Society for Photogrammetry and Remote Sensing's (ISPRS) Inter-Commission Working Group (IC WG II/IV) on Systems for Automated Geo-spatial Data Production and Updating from Imagery, and the Eurogeographics Research and Development Forum. Twenty-two delegates from six countries participated, with a strong participation by South Africans.

The workshop consisted of presentations on the theory of incremental updating and versioning, together with presentations on practical experiences and problems, focusing especially on data structures and models, and mechanisms for transferring updates. In the second part of the workshop, we addressed the concepts of, and issues related to, incremental updating and versioning, which had been identified in our previous workshops in Beijing (2001) and Frankfurt (2002). In breakout sessions we developed further a few selected key concepts, including:

- Legacy data sets;
- Language and standards for incremental updating and versioning; and
- Standardised data models.

During the lively discussions, several new issues were identified, such as:

- Copyright and other intellectual property ownership issues;
- The provenance of the provider of the update; and
- Real time updates, such as used in advanced navigation systems.

The work on Incremental Updating and Versioning was also presented during a special reporting session on Tuesday 12 August 2003, as part of the 21st International Cartographic Conference held at the International Convention Centre, Durban, South Africa. This meeting attracted 16 participants from 11 countries, including several interested in continuing to participate in the research and development activities related to incremental updating and versioning.

Two further Joint Workshops on the Incremental Updating and Versioning of Spatial Data Bases have already been scheduled: 12-14 July 2004 in Istanbul, Turkey, prior to the XX ISPRS Congress and General Assembly, and 8-10 July 2005 in A Coruña, Spain, prior to the 22nd ICA Congress.

Our first book, proposed during the 20th ICC in Beijing, is currently in preparation and aims to reflect the current status of the practice and theory of incremental updating and versioning. We intend publishing a second book on the concepts of incremental updating and versioning and best practices.

At the 12th General Assembly of the ICA in Durban, the Working Group was upgraded to a full ICA Commission, with Ammatzia Peled (University of Haifa, Israel) and Antony Cooper (CSIR, South Africa) as the co-chairs. Details of the ICA Commission on Incremental Updating and Versioning, the workshops and our progress may be found on our Web site at: <http://geo.haifa.ac.il/~icaupdt>

*Antony Cooper and Ammatzia Peled*  
Commission Chairs



*Participants of the 4th Joint Workshop on the Incremental Updating and Versioning of Spatial Data Bases.*

# Conference Reports

## ISO/TC 211 activities

ISO/TC 211 is the International Organization for Standardization's Technical Committee developing standards for Geographic Information/Geomatics. The following is a brief report of the ISO/TC 211 activities since they were last reported on in the ICA News.

A book has just been published about ISO/TC 211 and the standards it has been developing: "ISO Standards for Geographic Information" by Wolfgang Kresse and Kian Fadaie, published by Springer-Verlag, ISBN: 3540201300.

ISO/TC 211 held its 17th Plenary in Berlin, Germany, on 30 and 31 October 2003, and this was preceded by a number of Working Group, Project Team and Editing Committee meetings. ISO/TC 211 has recently published the following International Standards:

- ISO 19112, Geographic information - Spatial referencing by geographic identifiers; and
- ISO 19114, Geographic information - Quality evaluation procedures.

ISO/TC 211 is also taking on more work, with the following new work item proposal being accepted at the 17th Plenary:

- ISO 19136, Geographic information - Reference model - Part 2: Imagery.

Other resolutions from this Plenary of interest to the ICA include:

- ISO/TC 211 has appointed Timothy Trainor as a liaison representative from ISO/TC 211 to the ICA. The other representative from ISO/TC 211 to the ICA is Antony Cooper, and the representatives from the ICA to ISO/TC 211 are Harold Moellering and Takashi Morita;
- The terms of reference for the Joint Advisory Group (JAG) between the Open GIS Consortium, Inc (OGC) and ISO/TC 211 have been finalised and approved by ISO/TC 211;
- To take further the work initiated by the Technical Report ISO/TR 19122, Geographic information - Qualifications and certification of personnel, ISO/TC 211 has appointed the co-chair of its Advisory Group on Outreach, Professor Hans Knoop, to serve as the point of contact for enquiries regarding ISO/TR 19122; and
- ISO/TC 211 has asked its Class A Liaisons (which includes the ICA) to promote the work of ISO/TC 211 by establishing hyperlinks from their web sites to the ISO/TC 211 web site, which is at: <http://www.isotc211.org/>. ISO/TC 211 has been maintaining the reciprocal link to the ICA's website for a number of years.

On the Wednesday before the Plenary, two interesting outreach events were held:

- A Class A Liaison Seminar, with presentations by the International Federation of Surveyors (FIG), the Food and Agricultural Organization (FAO) and the International Civil Aviation Organization (ICAO); and
- A workshop on standards in action, at which presentations were made on implementing the ISO 19100 family of standards in Germany, the United States of America and Canada, and in the Europe-wide project, INSPIRE. All the presentations are available from the ISO/TC 211 Web site, as are all other ISO/TC 211 documents, though access to the actual draft standards is restricted: <http://www.isotc211.org/>

The 18th Plenary of ISO/TC 211 will take place in Kuala Lumpur, Malaysia, on 27 and 28 May 2004, preceded by Working Group, Project Team and other meetings. The 19th Plenary will be in Baveno, Italy, on 7 and 8 October 2004.

*Antony Cooper, ISO/TC 211 liaison to the ICA*

## INTERCARTO 9: The Meeting of Two Worlds: Traditional Science and Internet

Under the motto "GIS for Sustainable Development of Territories" the 9th INTERCARTO Conference took place in Sevastopol (Crimea, Ukraine) in the newly found Faculty of the Lomonosov Moscow State University (MGU), during the 27-29 June 2003. The main topic of the conference was the use of GIS. There were 5 sessions:

1. GIS: Theory and Methodology (18 oral presentations)
2. GIS-technology for Sustainable Development (23 oral presentations)
3. Sustainable Development and Innovation Projects (13 oral presentations)
4. Ecology GIS-Projects: some Experience (16 oral presentations)
5. GIS for Seas and Oceans Study (18 oral presentations)

A session on Planetary Cartography was held during the event as well. Planetary science itself is very old and young at the same time, because in its modern form is about 40-50 years old, while Planetary cartography in this sense is even younger. During the last decades we have been in the process of mapping other worlds based on the results of space exploration. The whole topography of Mars, Venus and the Moon was mapped in detail only in the 1990s, while from other planetary bodies we only have scattered or no topographic information at all. We have geologic and shade relief maps of almost all the larger planetary bodies - those that were photographed by spacecrafts during the last two decades. However, almost all maps available are photo (or pixel) -based, and only a fraction is available as vector cartographic products. At present, planetary maps are mainly available for the scientific community, but not for the public. With the help of new software and the Internet, a completely new approach in the world of cartography began to emerge: the Geographic Information Systems (GIS) which combine previously only separately existed databases, pixel based and vector information into one, easy-to-use, standardized and web-accessible system. For the countries of the Earth this approach is now reality, while for planetary maps, only separated and incomplete GIS's exist. The main idea, and output of Intercarto 9, is that it is time to start building a Planetary GIS, in which we combine the planetary data and knowledge of both the former western and eastern block countries (mainly the USA and Russia) into one system that would be available via the Internet in various languages. The Planetary Data System (PDS) in the US can be regarded as a first approach of such database, but it needs to add the data of the former Soviet block countries, and add more scientific and especially cartographic information. Such project is realizing in MIIGAiK (Moscow) under the supervision of Kira Shingareva.

The beginning of MIIGAiK project was reported by Kurpichev (MIIGAiK, Moscow) in his paper entitled 'Preparation of the Data for put to the Database on images of Solar System bodies'. Leonenko (MIIGAiK, Moscow) analyzed the PDS structure in regards to demands of Planetary Cartography. A new, bilingual map of Venus was presented by Lazarev, Rodionova and Suetova (MGU, Moscow), who used Magellan data for such mapping task. H.Hargitai (Eotvos University, Budapest) presented the new maps in the multilingual planetary map series initiated by MIIGAiK under the support of ICA. Visualization and appropriate and clear - multilingual - nomenclature are the two problematic points in the making of these new planetary maps. Some papers on the Cartographic Aspects of Venus Nomenclature, Asteroids, etc. are included in the Proceedings of the Conference.

Since Planetary Science is a rapidly changing discipline, there are very few works that summarize our knowledge of other planets and even less that include our own planet in the data, therefore the work of most

planetary sciences is different from the works and approach of geographers. Planetary scientists and cartographers can only do their job effectively if they discuss their problems with those who are involved in most advanced GIS research of Earth territories and for this reason such conferences are the best places to discuss these issues.

*Kira B. Shingareva, Henrik I. Hargitai*



*Some participants of the Intercarto IX conference.*

## XXIII INCA International Cartographic Congress

INCA – the Indian National Cartographic Association – held its annual congress in Dehra Dun, a seven hours drive from the airport of New Delhi, from the 2-5 December 2003. The theme of the congress was ‘Cartography for Sustainable Development from Village level Upwards’. Some 250 Indian cartographers and three international guests attended the congress, among them past president Bengt Rystedt as official ICA representative.

The first three days were devoted to seven technical sessions and one Panel Discussion. There was also an exhibition with a vendor session and poster presentations with a prize to the best poster. During the last day different excursions were offered, however, I had to go back to New Delhi and took the opportunity to go via Agra and Taj Mahal.

The technical sessions were:

- GIS/LIS Integration at Different Hierarchical Levels, 8 papers
- Specification, Methodology and Infrastructure for LIS for Adoption by the States, 5 papers
- Case Studies for Emerging Technologies in Surveying and Mapping. 9 papers
- Geospatial Data Standards and Product Development, 8 papers
- Map Culture at State Level for Community/Regional Development, 9 papers
- Developments in the Field of Atlases, Resources Mapping, Hydrographic Mapping and Aviation Cartography, 10 papers
- Restrictions on Supply of Spatial Information on Maps, 2 papers

The presentations reflected the great variety of cartographic activities being currently developed in India. The production of maps and geospatial information is the main priority in many organisations. The strength in remote sensing has to be mentioned as well as the many applications, where information and cartographic techniques are used. When it comes to discussion on geospatial infrastructure and availability of geospatial information it was realised that the user community and producers of geospatial data outside the surveying and mapping organisations were missing. They were invited to the event, and it was stated that more efforts are needed to get participants from these types of organisations in the future. In that sense India shares the same problem as many other countries.

The congress was closed by Major General Dr. B.C. Roy, President of INCA and Assistant Surveyor General of India and Mr H.B. Maghwal, organising secretary of the congress. After that, INCA had its annual member meeting and elected a new board. The new President is Mr G.N. Saha, Director of NATMO – the National Atlas and Thematic Mapping Organisation. He will host the XXIV INCA Congress in Kolkata, probably in September, 2004.

*Bengt Rystedt*

*Past President ICA*



*Dr B C Roy (outgoing) and Mr Saha (incoming) Presidents of INCA.*

## Session Teaching the History of Cartography VI

The ICA Commissions on the History of Cartography and on Education and Training had a joint session on Teaching the History of Cartography at Harvard University’s Memorial Hall on June 14, 2003. Thanks to the local organizers of the international Conference on the History of Cartography, David Cobb and Matthew Edney, this prestigious venue had been secured. With about 50 participants the session had the following contributions:

- Peter van der Krogt (Utrecht University) – The making of the new *Atlantes Neerlandici*: guidelines for making an atlas bibliography
- Robert Moser (University of Georgia, Atlanta) – The contribution of Jaime Cortesao to teaching the history of cartography in Brazil and Beyond
- Patricia Alkhoven (Royal Library, the Hague) – Searching for images of cartography: a short overview of portals and types of image databases, based on Dutch examples
- James Akerman (Herman Dunlop Smith Centre, Newberry Library, Chicago) – Historic maps in K12 classrooms, a resource for teaching the geographical dimensions of American history.

The common denominator of these contributions was their educational aspect: Peter van der Krogt also used volunteers for collecting the required bibliographical data and these volunteers needed to be trained first. Jaime Cortesao was the first to provide formal courses on the history of cartography in Latin America. Patricia Alkhoven, whose paper was read by Paul van den Brink (Utrecht University) presented the Dutch websites selected as an educational resource, and this was also the central theme of James Akerman. The educational programme developed by the Herman Dunlop Smith Centre for the History of Cartography at the Newberry Library in Chicago really got the audience excited, and its impact would not only boost interest in the history of cartography in high schools but in cartography at large as well.

The website can be reached through the site of the Newberry library ([www.newberry.org](http://www.newberry.org)). Tony Campbell, retired curator of the Map Room

# Conference Reports

at the British Library, had developed a website for teachers in the history of cartography (<http://ihr.sas.ac.uk/maps/courses.html>) and he shortly discussed its objectives during the session.

The session chair, Ferjan Ormeling, indicated that in 2005, probably on July 1, a similar session on Teaching the History of Cartography would be organized in Budapest, Hungary, at the Eötvös Lorand University.

*Ferjan Ormeling*

## The Bulgarian Symposium on Modern Technologies, Education and Professional Practice in the Globalizing World

*Sofia, Bulgaria, November 6-7, 2003*

The 2003 symposium was the number 13 in the series of annual international symposia organised by the Union of Surveyors and Land Managers in Bulgaria (USLMB) under the auspices of FIG, ICA and ISPRS. As usual Professor Georgi Milev chaired the organising and programme committees.

A total of 74 papers were presented in plenary and parallel sessions during the two day symposium, which attracted some 250 participants from 15 countries. The oral sessions had a timely delivery of the papers scheduled for presentation, and a proceeding with all the presentations was nicely printed and made available at registration. Late papers will be published in the Journal of Geodesy, Cartography and Land Surveying. At the closing session the participants adopted resolutions on the importance to continue the work to develop our disciplines in a scientific, educational and technological manner for the benefit of professional practice and the emerging range of applications at national, regional and international levels. The next symposium will be held in Sofia November 5-6, 2004. Further information about the event can be found at <http://acstre-ma.tu-sofia.bg/sofia2003>

Since Professor Milev reached the age of 70 years in September this year one session was devoted to his contributions to the science of geomatics. Bengt Rystedt gave a presentation, where he emphasised the correlation between the theme of the symposia and the ICA strategic plan. He also conveyed congratulations from the ICA and decorated Professor Milev with a commemorative ICA pin.

Finally, the participants expressed their gratitude to the organisers for the successful and fruitful organisation and management of the symposium, warm hospitality and the creation of a friendly atmosphere in all formal and informal meetings.

*Bengt Rystedt*

*ICA Immediate Past President*



*Past ICA President Bengt Rystedt and Professor Milev.*

## Meeting of the IPGH and CPIDEA

The annual meeting of the Pan-American Institute of Geography and History (IPGH) and the Permanent Committee of Spatial Data Infrastructure for the Americas (CPIDEA) was held in San Jose de Costa Rica, on June 26th and 27th, 2003. The Committee of Spatial Data Infrastructure for the Americas intends to maximise the economic, social and environmental benefits of accessing geographic information in agreement with the Agenda 21, through the creation of a forum for the American nations to reach four basic objectives:

- Cooperating with the development of a regional infrastructure of geographic information;
- Contributing to the development of a global infrastructure of geographic information;
- Sharing experience and consulting materials that are of common interest for the member nations;
- Participating in other activities such as education, training and technology transfer.

Spatial data infrastructure is the set of fundamental spatial data, standards for enabling its integration, mechanisms to facilitate data access and its use, and policies and principles to ensure data compatibility amongst institutions of a country, countries from a region, as well as worldwide.

Representatives from Argentina, Brazil, Colombia, Chile, Costa Rica, Cuba, Ecuador, El Salvador, USA, Guatemala, Mexico, Panama, Peru and Venezuela were present at the meeting. A delegate from Spain was present as an observer.

The Permanent Committee of Spatial Data Infrastructure for the Americas (CPIDEA) also liaises with other regional and international societies like IPGH, SIRGAS (Geodesic Network for South America), IUGG (International Union of Geodesy and Geophysics), FIG, ICA, UNGIWI, PCGIAP (Permanent Committee for spatial data infrastructure in Asia and the Pacific), EUROGI, GSDI, DIGSA (Directors of Geographic Institutes of South America, Portugal and Spain), PROCIG (Central America Project of Geographic Information), FGDDC, USGS. These institutions were present at the meeting.

*Dr. Miguel-Angel Bernabé*

Head, Department of Topographic Engineering and Cartography  
Universidad Politécnica de Madrid (Spain)

## INTERNATIONAL CARTOGRAPHIC CONFERENCE: A CORUÑA 2005

### About A Coruña

The town hall of A Coruña will be the venue of the XXII ICC, to be held from the 9 to 16 July 2005. The coastal town of A Coruña, with over 250,000 inhabitants, located in the northwest of Spain, is part of the autonomous region of Galicia. Important prehistoric remains such as the Elviña "castro" or fortress mound are to be found in A Coruña, which was also a Roman camp called Brigantium where Julius Cesar himself stayed. The tower of Hercules, now the symbol of the town, is surrounded by legends and still in use as a lighthouse. In 1588, the Spanish Armada returned from its ill-fated venture and just a year later Drake attacked A Coruña, but its inhabitants, among them the heroine María Pita, fought off the invader.

During the French invasion, A Coruña was a town that put up resistance, a great example of which was the Battle of Elviña in 1809, when General Sir John Moore met his death and was subsequently buried in A Coruña's San Carlos Romantic Gardens. Another notable event during the never ending wars of the XIXth century was the French siege of A Coruña by the "One Hundred Thousand Sons of Saint Louis". After the civil war A Coruña grew greatly and in the last century managed to renew itself without losing its charm, making it a landmark among maritime towns.

The town and surrounding area contains many examples of the Roman, Gothic, "Plateresco" and Baroque styles, its greatest monument being undoubtedly the Romanesque Cathedral of Santiago de Compostela. A Coruña is also a very important fishing port and well known for its fresh fish and seafood. Its museums such as the House of Science, the House of Mankind, the House of Fish etc. are seen every year by thousands of visitors.

Beyond the interest the town itself attracts, the neighbouring green landscapes, estuaries, cliffs and many beaches must not be ignored: "A Costa da Morte" (the Coast of Death), Finisterre, etc. are unforgettable areas to visit, with myths and traditions that date back to the Celts. A Coruña is a town with history that lives in the present, surrounded by culture and universities, open to the sea and welcoming the people who come to it, a place where people spend a lot of their time in the streets enjoying its lovely climate, its coastal promenade, sailing, shopping centres and varied restaurants. For more information about Coruña, please go to the following web site: [www.aytocoruna.es](http://www.aytocoruna.es).

## Programme for children

The activities arranged by the XXII ICC 2005 Local Organizing Committee include a programme for CHILDREN. As part of the programme there will be a "Science camp" that will take place in the scientific museums of A Coruña: the House of Science - Planetarium (Casa de las Ciencias), the House of Mankind – Domus (Casa del Hombre) and the House of Fish – Aquarium Finisterrae (Casa de los Peces). All of them are interactive museums where the public is given an active role and knowledge is presented in modules specially designed to arouse great interest among the public.

Participants will be organised in two groups by age: children between 5 and 8: day camp; children between 9 and 12: urban camp. Children under 9 will sleep at the hotel where their parents are staying during the Conference. A shuttle service will be provided to transfer all the children from their hotels to the museums and their play activities. They will only have lunch at the camp site (breakfast and dinner are to be served in their hotels). Children will have their own supervisors as well as special activities supervisors.

The group of children aged 9 to 12 will spend their nights in the Aquarium and will have breakfast, lunch, tea and dinner in museum restaurant. Visits will be scheduled to allow parents to spend some time with their children every day. As the activities offered are still being defined, we consider that not all will be in museums, to allow the children to visit other places of interest in A Coruña.

The activities offered will be supervised by the "Asociación de Amigos de los Museos Científicos" ("Association of Friends of Scientific Museums" of A Coruña), who have a great experience in organising such events, and by the Town Council of A Coruña. All this information will soon be available on the ICC 2005 web site [www.icc2005.org](http://www.icc2005.org), with pictures from similar previous camps, and will be updated as the project takes shape.

*Isabel Suárez de Centi*  
*A Coruña Local Organizing Committee*

## Various

### New ICA member

The International Cartographic Association accepted Ecuador as one of its members. The organisation representing Ecuador is:  
Instituto Oceanográfico de la Armada  
Av 25 de Julio, Via Pto. Marítimo,  
Base Naval Sur, PO Box 5940  
Guayaquil  
Ecuador  
E-mail: [hidrografia@inocar.mil.ec](mailto:hidrografia@inocar.mil.ec)  
Web page: [www.inocar.mil.ec](http://www.inocar.mil.ec)

## Forthcoming Events

### January

**Symposium on Location Based Services and TeleCartography**  
28 - 29 January 2004

University of Technology Vienna / Austria  
Enquires: Prof. Dr. Georg GARTNER  
Department of Cartography and Geomedia Techniques  
Vienna University of Technology  
Email: [ikgeom@mail.ikgeom.tuwien.ac.at](mailto:ikgeom@mail.ikgeom.tuwien.ac.at)  
<http://www.ikgeom.tuwien.ac.at>

### February

**7th Conference Global Spatial Data Infrastructure**

Bangalore, India  
From 02-06 February  
Enquires to GSD 7 Congress  
Secretariat, ISRO Headquarters  
Antarksh Bhavan New BEL Road  
Bangalore – 560 094  
Email: [mukundr@blr.vsnl.net.in](mailto:mukundr@blr.vsnl.net.in)  
Web: [www.gsdi7.org.in](http://www.gsdi7.org.in)

### March

**6th Middle East Geosciences Conference and Exhibition**

Manama, Bahrain  
From 08-10 March  
Enquiries to: Arabian Exhibition Management  
PO Box 20200  
Manama, Bahrain  
Email: [fawzi@aeminfo.com.bh](mailto:fawzi@aeminfo.com.bh)  
Web: [www.aeminfo.com.bh](http://www.aeminfo.com.bh)

**The 4th International Symposium on Mobile Mapping Technology MMT**

Kunming, China  
From 29-31 March  
Enquiries to: PhD Vincent Tao  
York University, 4700 Keele Street  
Toronto ON M3J 1P3, Canada  
Email: [tao@yorku.ca](mailto:tao@yorku.ca)  
Web: [www.geoict.net/mmt2003/index.htm](http://www.geoict.net/mmt2003/index.htm)

### AAG Centennial

**Cartography Specialty Group of the American Association of Geographers (AAG) and the Maps and the Internet Commission**

14-19 March, 2004  
Philadelphia, USA  
Enquires: Rex Cammack at [rexcammack@smsu.edu](mailto:rexcammack@smsu.edu)  
Web: [www.aag.org/annualmeetings](http://www.aag.org/annualmeetings)

**Trade Fair and Conference for Land management, Geoinformation, Building Industry and Environment INTERGEO EAST**

March 3-5, 2004  
Belgrade Fair domes, in Belgrade, Serbia and Montenegro  
Enquires: Oleg Odalovi  
Republic Geodetic Authority  
Tel/Fax: +381 11 2650-445  
E-mail: [odalovic@rgz.co.yu](mailto:odalovic@rgz.co.yu)  
[www.rgz.co.yu](http://www.rgz.co.yu)

# Forthcoming Events

## April

### 7th AGILE Conference on Geographic Information Science

Herakleion, Crete, Greece,  
From 29 April – 01 May  
Enquiries to: Mr Toppen  
AGILE/University of Utrecht, The Netherlands  
Email: f.toppen@geog.uu.nl  
Web site:  
<http://agile.isegiunl.pt/conference/greece2004/index.html>

## May

### IV Congreso Internacional de Geomatica

La Habana, Cuba, from 10-15 May.  
Enquiries to: Tatiana Delgado Fernandez,  
Secretaria Ejecutive de  
Geomatica 204, Calle 6 No 301  
Esq. 3ra, Miramar, la Habana, 11300, Cuba,  
Email [geomatica2004@geocuba.co.au](mailto:geomatica2004@geocuba.co.au)  
Web-site: [www.infomaticahabana.com](http://www.infomaticahabana.com)

## June

### 12th International Conference on Geoinformatics 2004

7-9 June 2004  
Gävle, Sweden,  
email [geoinformatics@hig.se](mailto:geoinformatics@hig.se)  
<http://www.hig.se/geoinformatics/>

## July

### XXth ISPRS Congress

Istanbul, Turkey,  
from 12-23 July.  
Enquiries to: Prof Dr M Orhan Altan,  
Director ISPRS 2004 Congress,  
Istanbul Technical University, Faculty of  
Civil Engineering,  
34469 Ayazaga, Istanbul, Turkey  
Email: [oaltan@itu.edu.tr](mailto:oaltan@itu.edu.tr)  
Web: [www.isprs2004-istanbul.com](http://www.isprs2004-istanbul.com)

## September

### RSPSoc 2004

Aberdeen, united Kingdom  
From 07-10 September  
Enquires to:  
Email: [rspsoc@nottingham.ac.uk](mailto:rspsoc@nottingham.ac.uk)  
Web: [www.rspsoc.org](http://www.rspsoc.org)

## IGARSS 2004

Anchorage, AK, USA  
From 20-24 September  
Enquiries to:  
Web: [www.igarss.org](http://www.igarss.org)

## October

### FIG Regional Conference for Asia and the Pacific

Jakarta, Indonesia  
From 03-07 October  
Enquiries to:  
Email: [fig@fig.net](mailto:fig@fig.net)  
Web: [www.fig.net](http://www.fig.net)

## 5th AARSE Conference

Nairobi, Kenya  
From 18-21 October  
Enquiries: Dr W K Ottichilo, RCMRD,  
PO box 18118, 0500  
Nairobi, Kenya  
Fax: 254 (2) 802 767/861 673  
Email: [rcmrd@rcmrd.org](mailto:rcmrd@rcmrd.org);  
[ottichilo@rcmrd.org](mailto:ottichilo@rcmrd.org)

## VIII International Earth Sciences

### Congress

18 – 22 October 2004  
Santiago, Chile  
Enquires: Instituto Geografico Militar  
Email: [cct2004@igm.cl](mailto:cct2004@igm.cl)  
Web: [www.igm.cl/Cct2004/english/index.htm](http://www.igm.cl/Cct2004/english/index.htm)

## November

Asian Conference on Remote Sensing 2004  
Chang, Mai, Thailand,  
From 0-7 November  
Enquires to  
Web: [www.aars-acrs.org](http://www.aars-acrs.org)

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Brazil (bl5): Human beings, signs of equality (refer page 7)



Russian Federation (ru2): Cherish our nature (refer page 7)