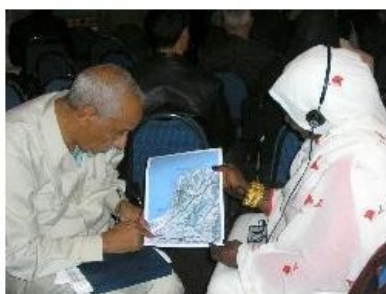


## AN ICA PERSPECTIVE

# Series on Capacity Building 3



The International Cartographic Association (ICA) is the world authoritative body for cartography, the discipline dealing with the conception, production, dissemination and study of maps. What initiatives does ICA deploy to get youngsters involved? How does it keep up to date the knowledge and skills of practitioners all around the world? What is it doing for children interested in maps

and how they are made? ICA president Prof. William Cartwright addresses these questions in this third and final article in our series on Capacity Building.



The activities of the International Cartographic Association (ICA), founded on 9th June 1959 in Bern, Switzerland, are important for promoting and advancing the theory and praxis of cartography. Throughout its fifty-year history, ICA has brought together researchers, government mapping agencies, commercial cartographic publishers, software developers, educators, earth and environmental scientists, and those with a passion for maps.

### Steadfast Mission

The Cartography and GIScience world has changed a lot since 1959, but the role and impact of ICA has remained steadfast. Our mission is to support and promote Cartography and GIScience all around the world. Transfer of knowledge is done through books, special editions of journals, and workshops, which are conducted voluntarily, generally supported by national member organisations or national mapping bodies. Commissions and Working Groups (WG) carry out general ICA operations and address the full range of scientific, technical and social research. Their activities provide ICA with its 'powerhouse'. Chairmen of commissions and WGs who contributed to this article are listed in the textbox.

### Capacity Building

The ICA Strategic Plan includes many capacity-building activities in the fields of education, professional practice and society as a whole. With respect to education, we help extend Cartography and GIScience knowledge and skills into new segments of society by, among other things, developing virtual academy courses in co-operation with industry. We also conduct human-resource development, especially in developing countries. Professional practice is served by organising workshops, high-quality technical exhibitions and expert panels during our congresses, and by facilitating exchange of experts between and within developed and developing countries. In addition, we encourage national associations and universities to translate congress and symposia outcomes into local languages, publish them on the web and link them to the ICA page. For society as a whole we provide specialised guidelines for the development of atlases, and on the use and presentation of geospatial data on the internet. We disseminate research findings and new technologies to enable the visually impaired to navigate in environments and get timely access to useful information regarding these. We participate in research and development projects aimed at personal security, public services and wellbeing. In addition, we collect funds for expert support in the developing world, and support United Nations (UN) activities. These and other issues we address through our executive and member organisations, and with partners from affiliates, sister societies and industry.

### Young Scientists

We give travel awards to young scientists; for example, seven young scientists from Ukraine, China, Poland, Chile, Brazil, Argentina and Senegal were enabled thus to present their work at the 2009 ICA conference. During events such as the first ICA Symposium on Cartography and GIScience for Central and Eastern Europe, held in Vienna, Austria in February 2009, experienced researchers provided feedback to PhD students who presented their work in dedicated sessions. An online biblio-graphy on use and user issues further supports PhD researchers, who form a very important target group for the handbook on user research methods and techniques currently in preparation. To make the communication flow bi-directional, PhD researchers also contribute to the handbook.

### Outreach

We conduct many outreach courses. For example, following a successful course run in 2008 in collaboration with the National Cartographic Centre of Iran, we conducted a second course in 2009, also held in Tehran. Thirty participants updated their knowledge and skills in cartography and GIScience. We have regularly organised workshops in Urumchi and at the Intercarto-conference, and in 2009 sponsored a workshop in Gent, Belgium. ICA cartographers participate in the toponymy courses run by the UN Group of Experts on Geographical Names (UNGEGN) held in Khartoum (2003), Bathurst (2004), Maputo (2004 and 2006), Malang (2005), Tunis (2007), Ouagadougou (2008), Vienna (2008), Timisoara (2008), and Nairobi (2009), the major aim of which is to convey awareness of the importance of geographical names as part of a nation's spatial data infrastructure (SDI), and the need to collect these correctly and

efficiently for use on maps and in gazetteers. We have developed a virtual course on Cartography and GIScience in collaboration with universities and individual academics, accessible at website 1. In collaboration with ESRI, a course was offered free to all candidates attending the 2009 ICA conference, later open to leading Chilean cartographic organisations. Nineteen attendees were trained for three days in basic cartographic design principles using ArcGIS software tools for mapping design and production.

In the aftermath of the 2009 ICA conference and in collaboration with SNIT (Sistema Nacional de Coordinación de Información Territorial), we held a seminar for students and university staff in Santiago, Chile, on 'INSPIRE', quality standards for spatial data modelling, SDI of Chile and standards for geographical information.

### Mapping Mountains

Mountain regions are exploited for recreation, transport and transit; here, in addition to economic pressures, the risk of natural hazard is ever present. The UN designated 2002 the International Year of the Mountains, underlining the urgent current need to map such regions. In response we have organised workshops on mountain cartography.

Our workshops on Cartographic Heritage also attract (map-)librarians, book and map-keepers, archivists, town planners, architects working on historical urban cadastres and history of architecture, software developers working with image-assisted databases and web attachments, and manufacturers interested in scanning old maps, globes, old and deformed maps and atlases. We attempt to promote research and use of free and open-source geospatial tools through workshops, and to make accessible the latest developments to the wider cartographic community.

### Cook Book

We are developing a 'cook book' highlighting ten steps towards a successful atlas. Easily readable and furnished with many illustrations and examples of best practice, the book will start by setting out editorial aspects (target group, atlas type, platform, structure), continue through organisation and marketing, atlas use, thematic content, data management, multimedia elements, Graphical User Interfaces (GUI) and layout, map design and visualisation, functionality (tools and interactivity), and end up with prototyping and update.

### Children

In honour of the late Dr. Barbara Bartz Petchenik, past vice-president of ICA, whose great interest lay with maps for and by children, a map design competition for children aged up to fifteen years is held every second year with our biennial international conference. This competition has been taken up by teachers around the world to involve their students in mapping. For example, staff members from the Department of Geography of the University of South Africa in Pretoria visited schools throughout the country to liaise with teachers and children and explain the competition theme: 'Living in a globalised world'.

### Acknowledgements

In addition to the ICA chairmen listed in the textbox, thanks are also due to Dr. David Fairbairn, secretary-general/treasurer, Prof. Georg Gartner, vice-president, Makram Murad-al-shaikh, ESRI, and Prof. Ferjan Ormeling, former ICA secretary-general/treasurer, UNGEGN vice-chairman and convenor of the UNGEGN Working Group for Training Courses in Toponymy.

Contributing ICA Chairmen	
<i>Chairman</i>	<i>Commission or Working Group</i>
Dr Suchith Anand	Open Source Geospatial Technologies
Dr Anthony Cooper	Geospatial Data Standards
Prof Philippe de Maeyer	Management and Economics of Map Production
Dr David Fraser	Education and Training
Dr Dan Jacobson	Maps and Graphics for Blind and Partially Sighted People
Dr Peter Jordan	Atlas
Prof Elri Liebenberg	History of Cartography and GIScience
Prof Evangelos Livieratos	Digital Technologies in cartographic Heritage
Dr Karel Kriz	Mountain Cartography
Prof Michael Peterson	Maps and the Internet
Dr Corné van Elzakker	Use and Usability