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Cover: ' Flower World', by József Bodor (11 years) from Hungary. One of winners of the 1999 Barbara Petchenik Children's Global Map Competition, International Cartographic Conference, Ottawa.

Editorial

This issue of the Newsletter pays homage to one of the greatest cartographers of the 1900s, Ferdinand Ormeling. Sadly, he passed away on the 1st May 2002, leaving such a large number of achievements and contributions to the world of Cartography and Geography, that it has been difficult to find an eager colleague prepared to describe his fruitful life within the short time available before the publication of this issue. Special thanks for this to Michael Wood who accepted the challenge of summarizing Ferdinand's hyperactive life for us.

The large number of topics to report on the 20th ICC held in Beijing impeded the inclusion of the accounts of post-conference trips enjoyed by some of our colleagues in the December issue. Therefore, in this Newsletter Lorenz Hurni share with us the fantastic Xian to Tibet excursion, and Ferjan Ormeling reports on a visit to the Aerophotogrammetry and Remote Sensing Bureau of China Coal in Xian.

The Local Organising Committee of the ICC 2003 provides information on deadlines for the call for papers and themes of the Durban Conference. Colleagues are advised to regularly check the Conference's website at www.icc2003.gov.za for the latest news.

As usual, several ICA Commissions report on their activities and the organisation of workshops. Our 'Special Feature' section includes an article on the presentation of old maps on the Internet, a notice on the completion of the Basic Cartography Series, and summaries of the papers presented by the recipients of the 20th ICC Beijing Travel Awards. As you know, a limited number of ICA Travel scholarships are granted to young cartographers of developing countries for assistance and presentation of work at the International Cartographic Conferences of the ICA. So we like to share with you their research work.

I hope you enjoy the contents of this issue and look forward to receiving your contributions for the next Newsletter.

Graciela Metternicht
Editor

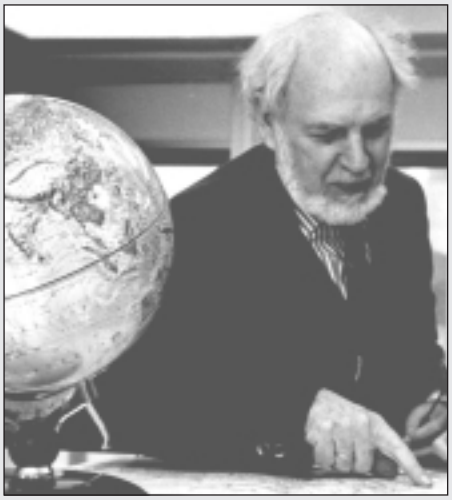
Obituary

In Memoriam Ferdinand Jan Ormeling (1912-2002)

A very special man, one of the great geographers and cartographers of our time - known to many as 'Mr ICA' - died on 1 May 2002. Not a moment of his often hyperactive life was wasted as he expanded his knowledge of the World and its people. This genuinely charismatic man shared himself constantly through teaching, organisation and leadership, influencing others and helping change things for the better. His powerful intellect and special capacity for building bridges of friendship were in evidence throughout his life.

Born on 12 April 1912, his early childhood was spent in Amsterdam and in nearby Hilversum, where he experienced some of the difficulties, if not the damage, associated with WW1. After completing elementary studies at Hilversum High School he attended the State University of Utrecht to read geography and history and went on to teach at grammar schools in Hilversum and The Hague. The Netherlands were invaded early in WW2 and this painful occupation continued until liberation in 1945. As a member of the Dutch Army, and true to his own character, Ormeling refused to succumb and joined the underground movement.

The War also affected the Netherlands' Indonesian colonies where the Pacific conflicts had profound effect. In 1945, at the end of the Japanese occupation, Ormeling was sent, as part of an expeditionary force, to restore order to that troubled land. During the ensuing war-filled years, as a geographer/cartographer he was transferred from field activities to become part of the new Geographical Institute (formed in 1947 as part of the former government mapping organisation) in the capital, Batavia (Jakarta). Here he was involved in many important cartographic and geographical projects. With independence in 1949 most of the Dutch returned to Europe, but not Ormeling. The fact that he was asked, by those who had previously been foes, to remain and continue his work (in office and field), is convincing evidence of his special



F.J.Ormeling Sen.

intellectual and personal qualities. Full recognition of this came in 1950 when he was appointed (at the young age of 37) as Head of the Institute, with almost 50 employees. The work evolved to include not only small-scale mapping and increasingly important geographical surveys of the country but also the education and training of the staff of the Indonesian Topographic Service.

During the years that followed he developed his knowledge of the country, in particular the Island of Timor (almost twice the size of the Netherlands) which became a focus of research into ethnic and socio-economic factors. His pioneering study, 'The Timor Problem, a Geographical Interpretataion of an underdeveloped island', not only gained him a Doctorate of Social Sciences from the University of Indonesia, but, on publication, it became a best-seller.

By the end of his 20-year Indonesian sojourn in 1955 he had demonstrated unequivocally his intellectual abilities in geography and mapping, his facility for organisation and leadership and his capacity for work. He had also developed a deep understanding of the people of developing countries and their problems.

His return home, at the age of only 43, was to herald a new phase in his life. Having joined J.B.Wolters of Groningen, his major work would lie within cartography, especially the modernisation of their main atlas products.

(Cont. over page)

Until 1963 he was fully employed by the company but continued thereafter as an expert consultant. He not only edited nine editions of the Grote Bosatlas and six editions of the Kleene Bosatlas but oversaw major changes in level of collaboration between users (teachers) and producers, in map style, content and design, as well as in improvements in effectiveness and economy of production. However, in parallel with these outstanding achievements he would also begin to develop (in his 'spare time'!) his facility to motivate colleagues and stimulate links within geography and mapping, at home and abroad. The first result was a new Cartographic Section in the Royal Netherlands Geographical Society (which he chaired until 1968) and he also helped consolidate the many cartographic groups within the Netherlands into The Dutch Cartographic Society in 1975. He became the first President (1967-71) of the new enlarged Royal Netherlands Geographical Society (now incorporating many small geographical associations). Between 1967 and 1984 he was a major representative of both the Netherlands and the ICA on the UN Group of Experts on Geographical Names and chaired the Working Group on Education and Training in Toponymy.

Although his atlas consultancy work continued after departure from Wolters, he was appointed in 1964 as Professor of Economic Geography at the University of Amsterdam and established a Research Institute in the subject. In 1971 he was appointed Professor at ITC following the Institute's transfer from Delft to Enschede. There he established and became Head of the new Department of Cartography. He had already noted the demise of traditional cartography with the rise of the quantitative revolution in Geography in the 1960s and ensured that the new ITC department was fully equipped with the latest computer facilities.

During his early years with Wolters, Ormeling (with Cornelius Koeman) led key discussions about the proposed establishment of the ICA, which eventually took place in Bern in 1959. He was a firm supporter of its founding principles which emerged during the first five years under Eduard Imhof's presidency, and enthusiastically accepted election to the position of Secretary/Treasurer at the London/Edinburgh Conference and General Assembly (1964). The next technical conference took place three years later in Amsterdam under his directorship and is believed to have established a new informal and friendly family atmosphere which would become commonplace at future events. His pro-active and energetic 12-year support of Presidents Thackwell, Salitchtchev and Robinson is now legendary, supported most generously by ITC. He was elected President in Moscow (1976) and proceeded through two strong terms, ably supported by Olof Hedbom as Secretary/Treasurer, ending in Perth, Australia in 1984. At his final Conference/General Assembly in Morelia he presented his personal record of ICA entitled 'ICA 1959-1984: The First Twenty-five Years of the International Cartographic Association'. His own 20-year period as a senior office-holder saw the introduction of many significant changes, relating to Commissions, Working Groups, statutes, etc. A special example was the establishment of a medal for ICA's highest distinction in recognition of the Swedish initiator of the ICA, Carl Mannerfelt. His personal experience of working for ICA was also memorable, punctuated by such as travel mishaps, a near fatal car crash in West Africa and a scary encounter (accompanied by John Bartholomew) in the bullring at the Madrid Conference of 1974!

Not surprisingly Ormeling has a long and distinguished list of publications extending from his Doctoral Thesis. It includes papers, books and atlases and echoes the many changes which have taken place during these turbulent years of cartography in the second half of the twentieth century. His retirement years were only slightly less busy than before as he continued to research, publish and accept speaking engagements.

His own lifetime of achievement has been awarded on many occasions, examples being Honorary Membership of the Dutch Cartographic Society, Membre d'Honneur de la Societé de Géographie de France, Honorary Fellowships of the Australian Institute of Cartographers, The Hungarian Academy of Sciences, The Polish Geographical Society, and the ITC itself, The British Cartographic Society Medal and, in 1987, the Carl Mannerfelt Medal. In 1978 he was appointed 'Knight of the Order of the Netherlands Lion' by the Queen of the Netherlands.

Although he missed the first ICA General Assembly in Paris, 1961 through work, he attended every other Technical Conference and General Assembly between 1962 and 1987, and continued as a regular visitor at ICA after his official responsibilities came to an end. He was, sadly, unable to attend the ICC 2001 in Beijing, China, but love and respect radiated from the international audience at the opening ceremony when he sent his video greeting.

His passing has undoubtedly left a painful gulf in the lives of many, especially his dear wife, Rini (often described as the 'Queen of ICA' for her own outstanding support for him and our Association), and the children Piet, Hein, Ferjan, Ina, and Erik, Sonja and Roger. Apart from his great circle of ICA friends the other special people who will always treasure his memory are his students in the Netherlands and across the World. However our friend and colleague Fer Ormeling has left much more than a memory. This was a truly charismatic man, described by friends as 'a demanding organiser', 'a fascinating speaker and entertainer', and 'a talented linguist… with a good sense of humour'. This writer will always remember the warmth of his company, his ever-present smile and the twinkle in his eye. A fundamental law of physics states that energy cannot be destroyed, only changed in form. The energy released by Ferdinand J. Ormeling during his dynamic life of creativity, guidance and leadership, is thus still active within people and organisations throughout the world today. His was a life that truly made a difference.

M. Wood

Acknowledgements: Hedbom, O, Bohme, R, 1989, 'Ferdinand J Ormeling: a Biography', in 'Cartography, Past, Present and Future', Rhind, D W, and Taylor, D R F, Eds. Elsevier, 1989.

21st International Cartographic Conference and 12th General Assembly of the ICA in Durban, South Africa

The 21st ICC and 12th General Assembly of the ICA will take place in Durban, South Africa from 10-16 August 2003. The venue will be the world-class Durban International Convention Centre which is situated near Durban's central business district, minutes from hotels and beaches and 15 minutes from the Durban International Airport.

Conference Themes

The overall theme is Cartographic Renaissance which should be explored under the following broad sub-themes:

1. Challenges and solutions of geographical data capturing for developing countries.
2. Spatial data sharing for a developing world.
3. Spatial data standards and spatial data infrastructures.
4. Map production, including new national mapping initiatives
5. Management of spatial data – Spatial data warehousing and large databases.
6. Organizational and policy issues for sustainable development.
7. Spatial information and the Law.
8. Visualization and visual environments, animation, virtual reality and cartography.
9. National and Regional Atlases
10. Applied cartography and GIS in development programmes and projects – showing development spatially.
11. Geo-informatics and global problems, including management of disasters and risks.
12. Geo-informatics in natural and human resource applications.
13. Mapping of special environments, including marine cartography, mountain cartography, planetary cartography.
14. Geo-informatics and tourism.
15. Geo-informatics and the challenged, including maps and graphics for Blind and Visually-Impaired People.
16. Education and training, particularly needs and resources of developing communities.
17. Theoretical cartography.
18. Map generalization.
19. Handling time and space in cartography.
20. Research and development, new mapping systems and products.
21. Mapping from satellite imagery.
22. Maps and the Internet, location-based services, mobile mapping and other new technologies and navigation systems particularly for the developing world.
23. History of cartography.
24. Cartography and children.
25. Gender and cartography.
26. Census cartography.
27. Papers are also welcome on other topics of international interest to cartographers and the GI-community, such as Spatial Decision Support Systems, Photogrammetry, Remote Sensing and Image Analysis.

Call for Papers

The LOC (Local Organising Committee) invites abstracts for papers in the technical programme. Send an abstract, In English, of 300-500 words in length, indicating the theme(s) to which it is addressed, as an attached MS Word or Word Perfect file. Use A4 size paper (21 x 29.7cm) with 4cm top and bottom margins, 3 cm side margins. Centre the title in bold capital letters as the first item, followed by a vertical space and then the name(s) of the authors. Type the affiliation and address (type as it should appear on a mail envelope) immediately below each author's name. Immediately below the last line, authors are encouraged (but not required to) to include a fax number and/or e-mail address. After skipping two lines, the body of the abstract should be typed with single line spacing and no indentation of paragraphs.

Important Dates

31 October 2002: The LOC must receive all abstracts

31 January 2003: Potential participants will be notified by whether their paper for either a verbal or a poster presentation has been accepted.

30 April 2003: The full paper to be published in the conference proceedings must be received by. Only papers received by this date will be included in the conference proceedings.

Abstracts should be mailed to the following address:

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Elri Liebenberg
Vice President: ICA

ICC 2001 post-conference excursion to Xian and Tibet

From Beijing to Xian

After the 20th ICC in Beijing, 42 cartographers went on an excursion to Xian and Tibet. After a two-hour flight from Beijing, the group arrived at the old emperor's city of Xian in the province of Shaanxi. Xian with its 5 million inhabitants has an entirely preserved, historic city wall around the city centre with a total length of approximately 15 km length, dating from 1370. The highlight of every visit to Xian is the excavation site of the famous Terracotta soldiers. They were found by chance in 1975 while digging a fountain. The 6000, originally painted, life-size soldiers belonged to the grave of emperor Qin Shihuang (approx. 200 BC). However, some years later the grave was looted. All figures were destroyed and only sedimented pieces are left. Since 1975 the figures are being restored and set up again in the original configuration. The grave field measures approximately 200 x 600 m and is covered by three enormous halls.

Visit of the Shaanxi Bureau of Surveying and Mapping in Xian

This mapping agency is the largest of its kind in China. In the province of Shaanxi, the bureau is responsible for all works in the areas of geodesy/GPS, cartography, cadastre, photogrammetry. It employs about 2000 persons, with 140 senior and 400 junior engineers in 8 departments. For 20 years the office produces maps and atlases. There are several international co-operations, for instance with the USGS, and other institutions in France and Japan. 50 employees obtained a degree from a western engineering school. The enterprise disposes of very modern equipment. The GPS technology is used to a large extent. The office established a road data base in the scale of 1:50 000. It was also involved in the restitution of the height of Mt. Everest, in numerous engineering surveying projects, in geodetic reference measurements and in agricultural, forestry and cadastral applications. Presently, a province-wide GIS based on 6000 map sheets 1:10 000 is built up. Flooding areas of the yellow river are also covered, including possibilities for animated visualisation. In the geomatics department, the compilation of road data by GPS for the whole of China is currently being done. Within two years, 320 000 km of roads were compiled. In the photogrammetry department, 400 persons (90% women) are occupied with the stereo-compilation and control of photogrammetric data for later use in GIS. They work in two shifts in large, well-equipped halls. Mostly, current software packages like ArcView, Microstation and Photoshop are used. Images with a scale of 1:10000 are scanned using the Vexcel Scanner. Mosaics of 400 pictures are assembled and corrected with Photoshop. Whenever possible, fully automatic digital stereo-compilation of contour lines is used. The results are manually corrected on screen in stereo mode. Data is stored in a brand-new "Geonetwork-Centre" consisting of several SUN servers. Guests and workers must carry dust protection clothes and shoes in that area! The office is accommodated in a very modern and fully air-conditioned building. The whole campus covers about 1 km2 and comprises also an own school, a kindergarten, a restaurant, staff accommodations and a hospital.

From Xian to Lhasa

After a stopover at Xining (province of Qinghai, 2000 m above sea level) the group flew directly to Tibet, crossing the enormous Lake of Qinghai and the plateau of Qinghai and north-eastern Tibet with the numerous salt lakes. The landing at Gonggar airport was quite adventurous, one believes to land directly in the enormous flood plain of the river Tsangpo (Brahmaputra). The trip to Lhasa, the capital of Tibet, lasted approximately 1_ hours by bus. On the way, we crossed the Tsangpo river on the first bridge built in Tibet.

The first impression of Lhasa was that of a modern city. The western and northern parts of the city consist of relatively new, but rather ugly buildings, many of them have military purposes. The Potala palace majestically overlooks the city – an overwhelming view! In accordance with Tibetan custom, every group member was greeted with the obligatory ribbons of luck when arriving in the hotel. The first day was mainly dedicated to the acclimatisation, since Lhasa is situated at 3750 m above sea level. The height caused pains like headache, nausea, swindle, high pulse, etc. to almost all participants. On the second day we could visit the Potala, the former winter palace and seat of the Dalai Lama. Today, the angled and somber palace is a state museum visited by many tourists, but still supervised by monks. The tall Buddha figures, the different shrines with the bones of late Dalai Lamas and other relics, three-dimensional Mandalas and the residence of the Dalai Lamas in the upper floors are very impressive. From the roof, which is covered with golden shrines, one enjoys a phenomenal view of Lhasa with its 200 000 inhabitants as well as on the valley of the Kyichu river.

The Jokhang in the old town of Lhasa is the most important sanctuary in Tibetan Buddhism. It is surrounded by the Barkhor valley. The pilgrims encircle it clockwise, the most sporting of them even measure the way with their own body length! Again, the temple contains beautiful Buddha statues and shrines. Thousands of lamps produce a special spiritual atmosphere in the building. Yak butter serves as fuel for the lamps, it is evaporated and covers all walls, the ceiling, the floors and the furniture! The old town of Lhasa has become much smaller during the last years due to extensive demolitions. However, in recent years, some historic buildings were renovated with foreign support. The same applies to some of the thousands of monasteries destroyed during the cultural revolution. They are now rebuilt with government aid. A big problem in the old town of Lhasa is the waste water disposal. Only rudimental sewerage seems to exist, with obvious hygienic effects.

Along the Tsangpo to Shigatse

The next day we travelled to Shigatse, the second largest city of Tibet, and 300 km away from Lhasa. In small buses we drove along the Tsangpo westward on bumpy road and through wild gorges. We could observe natives crossing the river in a traditional boat made of yak's skin. After the ravine, the valley widens and it is again characterised by a large flooding plain and numerous grain and rape fields. The soil erosion seems to be a big problem in Tibet. On some of the slopes, even small deserts can be seen. Like Lhasa, Shigatse is divided in a new Chinese part and in a Tibetan old town. Shigatse is dominated by Tashilunpo monastery, the seat of the Panchen Lama, the second most important Lama in Tibet. The monastery is considered a "state model monastery". However, some cheerful novices were very eager to play with our secular digital cameras! On the return trip to Lhasa, a short excursion on a adventurous mountain road up to the 4700 m high pass Kampa Lha was undertaken. We enjoyed the thousands of prayer flags on the pass and the

view on the beautiful Yamdrok lake. For some years, this natural reservoir is now used for hydroelectric power production. Some group members had also the opportunity to sit on the back of a real, stubborn yak!

Visit of the Tibetan Bureau of Surveying and Mapping in Lhasa

On the last day in Lhasa, the group was offered the opportunity to visit the "Tibetan Bureau of Surveying and Mapping". With only 50 employees (4 senior and 8 junior engineers), it is the smallest of its kind in China. Fifty percent of the staff members are Tibetans. It seemed, that most of the employees are working in geodesy and only a handful in cartography. The systematic mapping of Tibet started only after 1959. Before, there was no mapping office in Tibet. In 1975, the extensive mapping of Tibet in the scale of 1:100 000 was concluded. We sighted some of these maps, they are kept in a reduced colour scale (mainly black and blue). For some areas, also maps in the scales 1:50 000, 1:25 000 and 1:10 000 were compiled. The bureau exists only since 1976. According to director Ci Ren Tu Deng, the Chinese government has invested large amounts of money in mapping of Tibet, because geodata are important for the economic development of the country. Particularly, the office is supported within the framework of the project "development of the western regions". It is also regularly assisted by other Chinese province mapping agencies. Nevertheless, the office is too small to cover all needs of the "autonomous region" which has about the same surface as France. However, digital map production methods were introduced recently, but only two engineers are responsible for this work. The visit of the facilities was rather disappointing: The building in the "Beijing Central Road" in Lhasa is furnished rather spartanically and looks partly crumbling. The cartography department could not be visited at all. It seems that large parts of the map production are carried out either by other province mapping agencies or companies. However, staff members showed us a GPS reference station, installed by the German mapping agency in the framework of the international IGS network. All measured data are daily transferred to Germany. The office sells some of its products like town maps and small scale district maps in scales around 1:300 000. The topographic map series are not for sale, unfortunately. On behalf of the Museum of Ethnology at Zurich and ICA, Lorenz Hurni of ETH Zurich presented two copies of the historic town plans of Lhasa to the director. The maps were compiled in 1947 by Peter Aufschnaiter and Heinrich Harrer ("Seven Years in Tibet"). One of the maps even contains the names of all former property owners of the historic city center of Lhasa, written in beautiful Tibetan letters. As the director assured us overjoyedly, both copies will get a suitable place in the library of the office.

Farewell from Tibet

After the tour to the mapping office, most participants visited the Norbulingka, the summer palace of the Dalai Lama, and the monasteries Drepung and Sera near Lhasa. Some Swiss participants preferred to visit Ganden monastery, situated approximately 45 km east of Lhasa at 4300 m above sea level. Before 1959, Ganden was the largest monastery of Tibet with approx. 3000 monks. During the cultural revolution it was entirely destroyed. Rebuilding of the monastery begun only in the 80's. According to the government, approx. 15 Mil. US$ were invested in reconstruction. To cover the roofs of the shrines, 48 kg of gold were applied! \Today, approximately one third of the buildings is reconstructed. The monastery with its 300 monks lies beautifully in a saddle and it is a real oasis of peace and spirituality. The flight back to Beijing led over the Gongga Shan mountains (7556 m) in western Sichuan, an area where Eduard Imhof carried out extensive route mapping during the thirties. Unfortunately, the place was covered by monsoon clouds. Our short journey to Tibet offered unique cultural and regional impressions, and some participant will probably return to this land of dreams.

A photo gallery of the excursion can be found on the web-site of the ICA Commission on Mountain Cartography: http://www.karto.ethz.ch/ica-cmc

Lorenz Hurni
Swiss Federal Institute of Technology (ETH)
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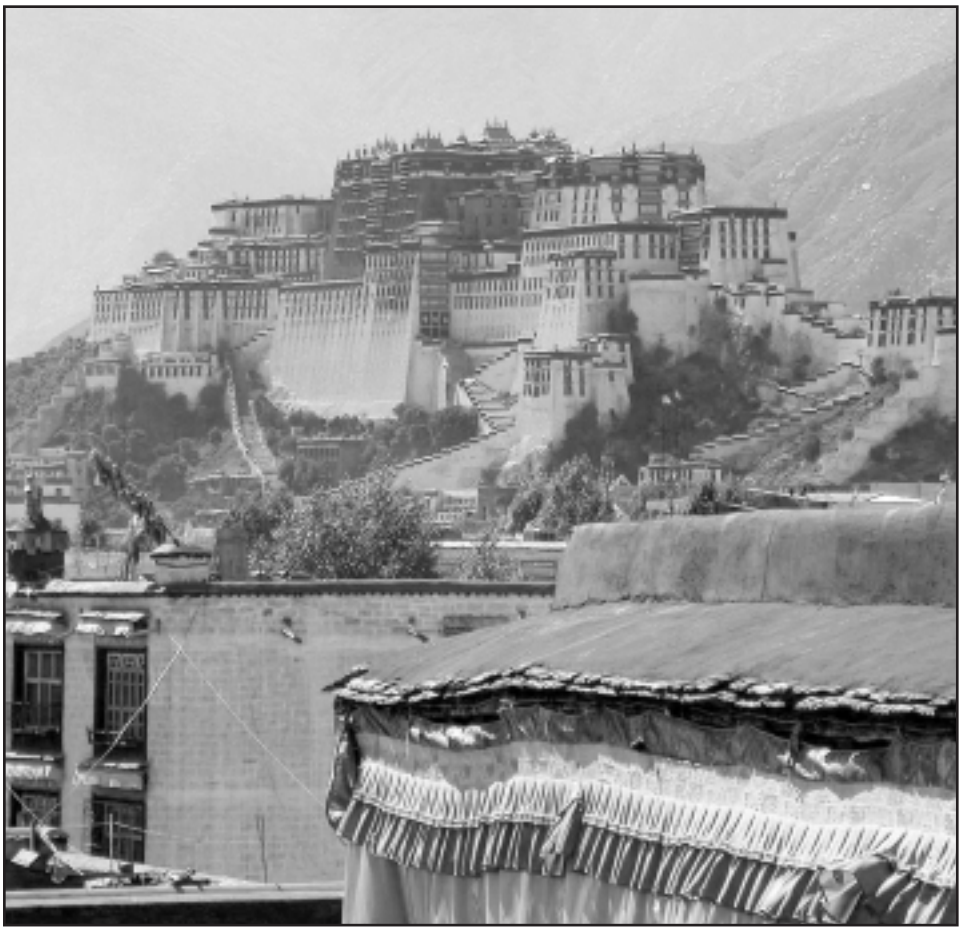

The marvellous Potala Palace in Lhasa.

Visit to ARSC, Xian, China

Bengt Rystedt and Ferjan Ormeling visited ARSC (Aerophotogrammetry & Remote Sensing Bureau of China Coal, one of the main sponsors of the 20TH International Cartographic Conference in Beijing, on August 16, 2001. Although traditional cartographic publishing tasks, like the intricate production of complex national atlases, have been perfected here, apart from map publishing and printing the company has heavily invested in new technology. It has impressive scanning and on-screen digitizing facilities, for the transformation of paper into digital maps (we saw map series from several European countries transformed) and is also producing national atlases and other complex atlas types on CD-ROM. On the photo, the delegation from the ICA Executive Committee is welcomed by ARSC president Prof.Hu Shui Shi and his colleagues.

Ferjan Ormeling
Secretary General ICA

From left to right: Cai Weijt, Ly YaJun, Mrs Rystedt, Bengt Rystedt, Prof Hu Shui Shi, president ARSC, Ferjan Ormeling, Mrs Ormeling, Zhang Wen Ruo and Li Jianbo

View of one of the computer halls at Shaanxi Bureau of Surveying and Mapping.

Lorenz Hurni (centre) presents the historic map of Lhasa to director Ci Ren Tu Deng of the Tibetan Bureau of Surveying and Mapping (left).

ICC 2001 post conference excursion group to Xian and Tibet.

Maps and the Internet

The ICA Commission on Maps and the Internet announces a meeting and workshop preceding the 4th annual "Web.Mapping" Symposium in Karlsruhe, Germany. The Workshop is sponsored by the Commission, and the Karlsruhe University of Applied Sciences.

The workshop will focus on a variety of issues related to the distribution of maps through the Internet. Working papers should address the terms of reference of the commission:

1) Examine methods of promoting effective Internet mapping techniques, including methods of map distribution and Internet map design.
2) Examine Internet map usage and project future areas of growth.
3) Examine web map user issues to better serve user needs.
4) Examine the use of metadata to improve user access to maps.
5) Promote instruction on Internet mapping and the diffusion of the technology.

In conjunction with the working papers the workshop will also feature live demonstrations.

About Pre-Conference Event

Prior to the meeting in Karlsruhe, a related conference on location-based information services and mobile GIS will be taking place in Bremen, Germany, from September 17 to September 19, 2002. The scheduling allows the participation in this meeting prior to the ICA meeting. If a significant interest exists, a group trip from Bremen to Karlsruhe could be organized, including a cruise on the Rhine river. Contact Georg Gartner at gartner@tuwien.ac.at for more details.

About Karlsruhe University of Applied Sciences and Web.Mapping Symposium

Situated in the heart of Karlsruhe, the University of Applied Sciences offers and established program in Cartography and Geomatics. Since 1999 the Department of Cartography & Geomatics has organized an annual symposium entitled Web.Mapping, which has rapidly become a major place for experts and interested participants to meet and get updated information on major trends on maps and the Internet. Participants and speakers come from different countries. There will be an own international, English speaking session at the beginning of the conference. The program is usually accompanied by state-of-the-art, "hands-on" workshops. The joint usage of facilities and the scheduling of the events should encourage ICA Commission participants and Web.Mapping participants to "cross-over" and visit both meetings.

For those interested in all events:

A trip for all events could be organized as such: Fly in via Frankfurt to Bremen, attend the pre-meeting conference on Location-Based Services, have a weekend off for visiting some regions of Germany. The nearby French region of Alsace (Elsass) with the city of Strassbourg, home of the European Parliament, might be also of interest. Nearby majorairports include Frankfurt, Stuttgart, Strassbourg and Basel. The cost of the train between Frankfurt and Bremen is about US $90 and takes $2^1/_2$ hours. A train trip between Frankfurt and Karlsruhe takes one hour and costs about US $30.

Cost

A small workshop participation fee will be charged by the organizers in Karlsruhe. EURO 50 for attendees, EURO 20 for presenters. (1 Euro = US $0.88). Resulting Publication Working papers will appear in a joint publication with the Web.Mapping Symposium. A well-known publisher in Germany, Herbert Wichmann Verlag, has offered to publish the combined proceedings.

Michael Paterson
Chair, ICA Commission on Maps and the Internet

Marine Cartography

Planning is well under way for the next CoastGIS'03 Symposium which will be held mid-2003 in Genoa, Italy. Dates will shortly be confirmed and will be published when available together with a first call for papers on www.coastgis.org.

The Commission was active at the ICC in Beijing. During that Conference, President Bengt Rystedt and Secretary-General/ Treasurer Ferjan Ormeling, with Commission Chair, Ron Furness, met the President of the Directing Committee of the International Hydrographic Bureau, rear Admiral Giuseppi Angrisano, with IHB Professional Assistant for Cartography, Michele Huet. At the meeting it was decided that, through this Commission, ICA would join the IHO/FIG Accreditation Board for Hydrographic Surveying. The Board is now the FIG/IHO/ICA Accreditation Board for Hydrographic Surveying and Nautical Cartography. Ron Furness, as Commission Chair, has been joined on the Board by Associate Professor Lysandros Tsoulos from Athens, Greece.

The newly constituted Board is charged additionally with introducing and accrediting an internationally recognised course for nautical cartographers. The first draft was prepared by Captain Hugo Gorziglia of Chile and comments have been received from members of the Board. The full Board meets in June at the University of New Hampshire, US where it is expected the course will be ratified and subsequently promulgated. I, with Professor Tsoulos, will attend the Board's meeting.

I wish to acknowledge here the support to ICA – IHO relations afforded by the President of the IHB Directing Committee, Rear Admiral Angrisano, who retires from that position on 1 September next.

Ron Furness
Chair, ICA Commission on Marine Cartography

Theoretical Cartography

Cartographic Workshop in Kiev

Within the framework of the annual German-Ukrainian Conference in Kiev National University of Aviation (from the 25 - 28 May 2002), a Workshop "Cartography, Education, Production" has been held. Host of the Workshop was the "Cartographiya" Scientific and Production Enterprise Kiev (Director R.I.Sossa). The cartographic meeting was initiated by A. Wolodtschenko (the Dresden University of Technology) and D.F. Baisa (the Kiev Institute of Management and Information Technologies).

The agenda of the one-day meeting on the 26th of May 2002 included 3 papers, 5 reports, and discussions. Cartography at the universities and colleges; cartosemiotics at the schools and universities; public and private cartographic education; computarized technologies in cartography; Ukrainian Cartographic Society have been discussed at the workshop among other subjects. The next Workshop is planed at the Dresden University of Technology in 2003.

Alexander Wolodtschenko
Chair, ICA Commission on Theoretical Cartography

Workshop speakers from left to right: A.Wolodtschenko, M.O.Tryuhan, V.M.Katyushchenko, R.I.Sossa, L.K.Kachurenko, D.F.Baisa, V.D.Kosianchuk, V.O.Shevchenko.

History of Cartography

Symposium and Exhibition: The History of Cartography of Africa

Monday 4 to Wednesday 6 August 2003

To be held at The National Library of South Africa, Cape Town in association with the Cape Archives Repository, Roeland Street, Cape Town. It is planned to hold four sessions of papers in NLSA, the final afternoon being a general discussion. On 6th August we plan an optional excursion to Stellenbosch and Paarl which will include a visit to a wine-producing estate and lunch. The exhibition of maps will emphasise the cartography of Southern Africa up to about 1920 and will rely on map collections from major libraries in the city. If there is sufficient demand it may be possible to arrange visits to some of these on 6 August for those who do not wish to go on the excursion.

The National Library is situated at the northern end of the Gardens of the Dutch East India Company near the Anglican Cathedral and the Houses of Parliament. There is a good hotel within easy walking distance across the Gardens where the daily price of rooms for the period in question ranges from R330 (£22) for a single room to R610 (£41) for a triple room facing Table Mountain and the City. Prices are approximate and will depend on the exchange value of the South African Rand, which has recently been rather volatile.

The symposium is open to all who are interested in the history of mapping Africa and is particularly aimed at those who wish to see something of the cultural heritage of South Africa before travelling to the main ICA conference in Durban which starts officially on 10 August 2003.

Call for papers

Abstracts of proposed Symposium papers should be submitted be e-mail to either Professor Liebenberg (ri@worldonline.co.za), or Dr Christopher Board (c.board@lse.ac.uk), or by post to 36, Wakefield Gardens, London SE19 2NR to arrive no later than 30 October 2002. Abstracts should be in English and from 300 to 500 words in length. Authors will be notified if their abstract has been accepted **by 31 December 2002**. Potential authors should also be aware that the History of Cartography is one of the Durban conference themes. It is hoped to publish the Symposium proceedings and a catalogue of the map exhibition.

Cost

There will be a registration fee entitling participants to attend the Symposium and Exhibition, its proceedings, exhibition catalogue and all refreshments and lunch on 4 and 5 August. This is expected to be between £50 ($73, R750) and £60 ($87, R900). A charge for the excursion on 6 August will be payable separately. Overnight accommodation should be arranged individually with the hotel management. To help us to organise a group booking please reply to Prof. Liebenberg or Dr Board by e-mail no later than 31 July 2002, if you wish to attend.

This first circular will be posted on the ICA and Commission web sites and will updated when further information becomes available. It will be sent to computer listings relevant to the history of cartography.

Chris Board (Chair, ICA Commission on History of Cartography) and Elri Liebenberg (ICA Vice-President)

Map Production

Compendium of Cartographic Techniques

A Compendium of Cartographic Techniques is being prepared by Jarl Rolighed Larsen and Sjef van der Steen. The commission is yet to decide whether it will be published as a book, or softcopy (Cdrom and/or Website).

Flow charting by Sjef van der Steen

Although the information has been available for some time, I really doubt whether it makes sense to go with the kind of symbology. Over the past years other concepts have been developed, and new symbology has been established in the topic of Work Flow Management (WFM). The establishment of WFM is worldwide. Therefore, a discussion on this issue is to be proposed the Commission's annual meeting.

Production management by Erkki Sakari Harju/Neil Grant/ Pablo Gran Lopez

Signs from Finland give the impression that there is good progress. Explanation will be given at the meeting.

CMP Website by Sverre Iversen and Sjef van der Steen

The Website has been active for some years. Sverre looks for information and news and implements them on request. However, not enough contributions by other members are received.

New Channels for publications by Josep Colomer/Miroslav Miksovsky/Antti Jakobsson

There was confusion on the objectives of this project. The preliminary idea was to look for other than standard means for publication of topics, belonging to the Commission's tasks. Discussions are suggested to find new ways of publication of relevant issues, and to compare quality and economics in the various publication ways dealing with technology and management in production of mapping products.

Seminars/workshops by Sjef van der Steen.

This project is running as a continuous activity. The latest was a pre-conference seminar in Cuba. In 4 days participants had to think of the set up of a Topographic Information System that eventually also has to print maps on a 1:25000 scale. A very motivated group of mainly Cuban participants succeeded to analyse, discuss, decide and to execute a preliminary pilot project to be further discussed and developed in GeoCuba, the local NMA. A new seminar will take place just before ICA Congress in Durban, South Africa, 10-16 August 2003, somewhere in South Africa.

New name for the CMP

As you might remember there was discussion on the orientation of CMP for the years to come. In order to distinct CMP from other commissions and in order to create ground for future existence a proposed move towards management was suggested.

After informal talks with Michel Peterson's Commission on Maps and the Internet I suggest to continue the way we are moving already, as seen in project 3 of CMP. We definitively have to change the name in order to avoid confusion from the outside world, but from within ICA, as well. Different names could be suggested and I propose to discuss the new titles:

Commission on:

- Mapping processes and their management
- Cartographic map production management
- The management of mapping processes
- The management of geoinformation processes
- Processes in cartography and management
- Map production management

Chairman 2003-2007

CMP has to decide on a candidate chairman for the period 2003-2007. The Commission has to nominate for the Executive Committee and the General Assembly should formally decide.

Annual meeting

The Commission's annual meeting will be held at ETH in Zurich, Switzerland, on Thursday 20 and Friday 21 June 2003. See you then!

Sjef van der Steen
Chair, ICA Commission on Map Production

Participants engaged in discussions during the seminar's breaks.

Cartography and Children

The Cartography and Children Commission held several meetings during the ICA conference in Beijing in August 2001. Recently, Peter van der Krogt, University of Utrecht, prepared web pages for the 2001 competition which may be found at http://www.icaci.org/children2001/.

The Commission is responsible for most of the organizational aspects of the Barbara Petchenik Children's Map Competition and a new theme has been chosen for the 2003 competition which is "Making a better world for children" which has also been approved by the ICA Executive. In addition, there will be up to 10 prizes at the competition of $50 each. This year the Commission is meeting in Brazil. There are two back to back events, a CCC meeting focusing on "The themes, methods and results of the lines of research of the International Commission on Cartography and Children" in Diamantina, August 4-7 (morning), which is followed by participation in an international meeting in Rio de Janeiro, August 7 (evening)-10, the First Ibero-American Symposium on Cartography and Children, where the theme is "Research and Perspective in Cartography for Students." See the Commission web page for additional information: http://artsandscience.concordia.ca/ica-ccc/index.html. The current terms of reference for this commission are:

1. To maintain and build upon the commission's existing international database of people working or with interests in mapping and children so that this inventory can be made available on the World Wide Web, in digital or paper format (product : web publication)
2. To enlarge the commission's select bibliography on topics related to mapping and children and the various technologies appropriate to generating cartographic images and solving spatial problems (product : web publication).
3. To organize regional workshops or conferences to promote the sharing of national and regional perspectives,

experiences, teaching philosopies, and technologies, all in order to enhance the abilities of children and teachers as makers and users of maps, to solve a variety of spatial problems of concern to children. Summaries of these events can be disseminated through various ICA publications and on the commission's web site (product : workshops, oral papers, printed papers).

4. To develop closer links with other international bodies concerned with children. These would include the IGU Commission on Geographic Education, UNESCO, and UNICEF (product : report).
5. To assist the Executive of the ICA in the preparation of guidelines, and the organisation of the Barbara Petchenik Children's Map Competition (product : report).

Alberta Auringer Wood
ICA Vice-President

CMP Seminar held at GeoCuba, the local National Mapping Organisation.

Presentation of old maps on the Internet

There are a lot of old maps in many Dutch archives. Often, the problem of these sources is the poor quality of the parchment or paper. Restoration of the maps is necessary to save them for the near future (Hesselink-Duursma, 1995). For example, the oldest cadastral maps of the Netherlands (1832) are manuscripts drawn on low quality paper. However, there are facsimiles of many old maps. The disadvantage of facsimiles is that they are quite expensive and therefore not accessible for everybody.

Scanning old maps

The last years more and more archive material is scanned. Scanning is very important, especially for manuscripts because these are unique sources. When a map is scanned it can be made accessible in different ways. One way is to publish them on CD-rom's. Some Dutch regional archives did that for some maps, with technical support of Tensing-SKS. A demo of the maps of the Regional Archive of Bommelerwaard is shown on the website of Tensing-SKS (URL 1). Some disadvantages of CD-rom's are the restricted accessibility and the capacity of the disc. A better way is to publicize old maps on the Internet.

Cataloguing on the Internet

With a publication on the Internet, the old maps are accessible to a wider audience. Actually, the user of the old maps will make some demands upon the scanned maps. These demands will depend on the way in which the maps will be used. Two types of users can be distinguished. The first type is the "explorer". Explorers use the Internet to get an impression of the map collection in a certain archive. In this case, the user needs a rough image and a description of the source on the Internet. The second type, the "practitioner", will use the maps on the Internet for research. The scanning resolution has to be of high quality, so that little details won't be lost. For example, it is very important that texts on maps are readable.

In the Netherlands a national scanning program is started for the cadastral maps of 1832. This program will finally lead to a publication on the Internet. Because the large amount of maps, the Internet site will rather serve the first group of users (explorers) than the second group (practitioners).

Already on the Internet

Today several Internet sites about historical cartography can be found. In the Netherlands a growing number of archives catalogue their collection (or parts of their collection) on the Internet. Another group that present map collections on the Internet are antiquarians. Since the end of 2000 historical-cartographic Internet sites are discussed in '@ la Carte', an item in the Dutch journal Caert-Thresoor (Heere & Storms, 2000-2002) (URL 2).

One of the most beautiful sites of old map collections is the site of the American Library of Congress (URL 3). It is possible to zoom in to a very detailed level without losing sharpness. The Dutch national library, the Koninklijke Bibliotheek, shows two atlases on the Internet (URL 4). Both libraries use the same technique. This is a special compression technique, based on wavelet-technology: Multi Resolution Seamless Image Database (MrSID). This software integrates different resolutions of a digital image in one file (KB, 2002). Another Dutch example is the Beeldbank Noord-Holland (URL 5). Different archives in the province of Noord-Holland are working together and present their image material (including many old hand-drawn maps) on an Internet site. In this case, only small images are shown on the site. So, from a users point of view, this site is an example of a site for explorers.

Applications with old maps

Old maps on the Internet are always static view-only maps. It is always a scan or a photo of an existing analogue map (Kraak, 2001). In a digital environment such as the Internet it is possible to take a step further with old maps. Different tools can be added to a static map to make it interactive.

A specific application for the Internet is the clickable map. A lot of information about the map like background texts, photos, drawings, other maps and URL's can be linked to the old map or a specific location on the map. This information appears on the screen by clicking at the map.

A second application (more GIS based) is the geo-coding of a digital old map. Eventually with rubber sheeting techniques, the old map can be linked to a modern map. After that accuracy analyses, like the circle method (Mekenkamp & Koop, 1986), can be made.

A third application is to make overlays. After the geo-coding process different maps of the same region can be compared. In a GIS environment each map can be added in a different layer. By making a transparent layer of a modern topographic map a comparison between different maps is possible.

Conclusion

Old maps are very fragile in many cases. Because the material is often unique and the information value is high, it is very important to save these sources for the future. This can be done with the release of facsimiles. The last years, however, there is a trend to scan the old maps. To reach as most people as possible, the digital files can be catalogued the best on the Internet. Another possibility is to put the maps on cd-rom's. Various archives and libraries have put, parts of, their map collections on the Internet already. One of the most beautiful examples in this case is the site of the Library of Congress, the national library of the United States. They use MrSID software, which seems to be the most advanced technology for this purpose. Scanning of old maps gives the possibility for (Internet) applications with old maps. A possible application is to link background information at locations on the old map, by making it a clickable map. Geo-coding of old maps can also be done, which gives also the possibility to make accuracy analyses. Geo-coding gives also good facilities to make overlays between the old map and other maps. These applications give new challenges to the discipline of historical cartography[1].

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URL's

URL 1: Tensing-SKS <http://www.tensingsks.nl/Archief/index.htm>

URL 2: Caert-Thresoor / @ la Carte <http://www.maphist.nl/ct>

URL 3: Library of Congress <http://memory.loc.gov/ammem/gmdhtml/gmdhome.html>

URL 4: Koninklijke Bibliotheek <http://www.kb.nl/kb/galerie/indexatlas.html>

URL 5: Beeldbank Noord-Holland <http://www.beeldbank-nh.nl>

Martijn Storms (Junior Docent-Researcher of Geographical Sciences Utrecht University)

Editors' note: This is a summary of an article in the Dutch cartographic journal 'Kartografisch Tijdschrift' (2002, vol. XXVIII, no. 3). [1]One interesting application of GIS to historical cartography can be seen at www.davidrumsey.com. Map and history enthusiasts can access maps from the 18th, 19th, and 20th centuries and combine them with digital remote sensing images (aerial photographs, satellite images). The Web site represents a cross section of the David Rumsey Historical Map Collection, featuring more than 6,500 high resolution digital images from one of the largest private map collections in the United States.

Travel Awards of the 20th ICC, Beijing

A limited number of travel scholarships to the International Cartographic Conferences of the ICA are made to young cartographers who are nationals from developing countries. The Travel award recipients for the ICC Beijing 2001 were: Cecilia Maria Oka (Brazil), Richard Olomo (Nigeria), Felicia Olunfaunmilayo Akinyemi (Nigeria) and Sun Xuejuan (Canada) were the recipients of the ICA Travel awards for the past International Cartographic Conference. A summary of their papers is presented hereafter.

The production and use of tactile maps in Sao Paulo,Brazil

An overview and perspectives

By Cecilia Maria Oka

The paper discusses the current production, use and distribution of the tactile maps in the state of São Paulo, Brazil. Production methods, their implications, and the importance of the work to prepare students and teachers to use these materials are discussed as well. The current method of production started with the research of Professor Regina Araujo de Almeida (Vasconcellos) of University of São Paulo, in 1989. Before that, maps were only prepared by teachers and institutions that supported visually impaired students. The authors participated on this research making and testing the materials, giving workshops etc.

Since then, the work developed at LEMADI and the materials produced can be considered like reference in the area of the tactile mapping in all country. At present, there is a pile of tactile graphics that can be consulted at LEMADI. Since 1994, CAP has been producing the tactile maps and distributing them to the 62 public schools where there are blind students in the state of São Paulo.

Basically, the tactile maps have been produced using two main methods, and copied in the Thermo-form machine. In the first method maps are made with several materials to stand for point and line symbols and areal patterns such as different kinds of papers, sands, clothes, threads, buttons and others. The second method displays maps in aluminium foils, with several tools to label and emboss

the symbols. Afterwards, copies are made in a Brazilian plastic or in other materials that have been tested to make them more lasting. From 1994 to June 2000, the Pedagogic Support Centre for visually impaired people (CAP) made more than 5,735 copies of tactile graphics.

In 1999, the authors started to produce audio tactile maps with a new software developed by Professor Don Parkes (University of Newcastle, Australia) for the Atlas of Americas. The software is pioneer for allowing sighted as well visually impaired people to make audio-tactile graphics. Besides that, it represents a great advantage because it adds resonant information to the tactile graphics.

The authors have realized in their work with blind students the necessity to get them ready to read and interpret tactile maps and this work may be done at the initial grades of the school. In addition to that, to prepare the teachers of Geography and specialized teachers to work with this kind of material is essential. Many of these teachers think that the tactile graphics aren't useful for the blind students and this fact obstructs the access to this material by these students.

For that reason in the past, LEMADI offered courses and workshops about tactile graphics and since 1994, CAP has been offering workshops to specialized teachers of all the São Paulo State. Finally, the purpose for the future is to make plans for using Mobility, something unheard-of in Brazil, and to offer workshops to students and teachers in the area. The authors are studying and discussing these uses in an international research group sponsored by PAIGH (the Panamerican Institute of Geography and History).

Editors' note: *Modified from the abstract. The full version is included in the Proceedings of the 20th ICC, Bejing, China,volume 5, pp. 2924-2931*

Carla Cristina Reinaldo de SENA is the paper's co-author. Cecilia works at CAP – Pedagogical Support Center for Visually Impaired People, State Department of Education of São Paulo, Brazil (e-mail: cap.sp.see@ig.com.br). Carla is at LEMADI – Laboratory of Geography Education and Teaching Material USP – University of São Paulo, Brazil (lemadidg@edu.usp.br).

The impact of human factors on the retrieval of information presented with cultural symbols on Nigerian Topographical maps

By Richard Olomo

The study examines the effect of human factors on the retrieval of information presented with cultural symbols on Nigerian topographical maps. The more that can be learnt about the requirements of map users and how they detect, recognize and interpret the symbols in maps, the greater will be the opportunity for improving the efficiency of the communication process, to the mutual benefits of both participants. Wood (1972) observed that several human factors influence the amount of information received in a cartographic communicating system, these are natural ability, skill, experience, age, education, interests, motivation etc. Balogun (1978) identified experience in map interpretation age and education, cultural background, imagination, interest, temperament as human factors that affect retrieved cartographic information.

Experience in map interpretation and education in map reading also affects the amount and quality of information retrieved from the map (Wood, 1972; Olson, 1975; Balogun, 1982; and Clarke, 1989). There is a strong correlation between experience and frequency of map use on the retrieval of information as the research findings indicated. Thus, the more frequent the map user (recipient) makes use of the map, the more accurate the recipient will be in obtaining information from the map, including map reading/interpretation tasks. According to Wood (1972), there is little doubt that those who have been trained specifically to use maps, perform considerably better than even the general user of above average intelligence and experience. Olson (1975) also supported this view by stating that both reader training and improved map design can be used to increase the communicative effectiveness of maps.

The result of the research findings also supported the view of Wood (1972) and Olson (1975), that education in map reading has positive impact on the reader's performance in map reading and interpretation tasks. From the study, the influence of the map user level of education, experience, age, interest, etc, is seen to be one of the stumbling blocks (obstacles) to effective communication. As a result of the variation among people in the above factors considered, the information obtained from a map also varies. Thus a consideration of these factors by the cartographer is essential when maps are designed.

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Editor's note: *Extract from the full version included in the Proceedings of the 20th ICC, Beijing, China,volume 1, pp. 151-163*

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Balancing Tourism and Conservation in the Tianmu Shan Biosphere Reserve, China

Xuejuan Sun

This paper explores the use of a GIS-based land allocation model, combined with Multiple Criteria Analysis, as a tool to assist with the effective management of land resources in the Tianmu Shan Biosphere Reserve in Zhejiang Province, China. UNESCO granted Tianmu Shan its Biosphere Reserve designation in 1996, largely in recognition of its unique and rare plant and animal species, especially the ancient stands of Ginkgo biloba and Chinese cedar. In addition, the temples of Tianmu Shan reflect its long cultural and religious heritage. The same beautiful and fragile landscape that merits such protected status also attracts an ever increasing tourist population, especially during the summer months. Thus, like most reserves, Tianmu Shan is faced with the challenge of carefully managing and monitoring land use activities to ensure a balance between on-going economic uses, based on the development of tourism resources, and conservation of the natural environment.

The aim of the land allocation model is to identify the optimum use for each parcel of land in the reserve, based on its suitability to meet the primary land use activities, and to ensure adequate land area is set aside to meet the demands of each use. Three kinds of land uses will be studied in the reserve: land for conservation, land for tourism development and land for agriculture activities. The factors contributing to the suitability of land for each purpose were identified based on The Management Plan of the Tianmu Shan Biosphere Reserve, and field study in summer 2000. For example, areas highly ranked for conservation may have a dense presence of rare species, steep slopes where human disturbance would inevitably create erosional problems, and be situated near to the core zone. Similarly, factors contributing to the other two land uses are identified.

Digital maps were then prepared for each factor using the IDRISI GIS program. The factor maps were standardized to a common scale of measurement, and combined to produce suitability maps for each land use. With these suitability maps as input, IDRISI's multi-objective land allocation (MOLA) model was used to create the final map depicting the optimal land uses throughout the reserve. Such a model provides a flexible tool for land managers since variables in the model can easily be adjusted to accommodate changing priorities or to compare different scenarios.

Editor's note: *extract from the 20th ICC Proceedings, volume 1, pp. 451-457.*

Janet E. Mersey is the paper's co-author. Both authors are affiliated to the University of Guelph, Canada.

Geographic Targeting for poverty alleviation in Nigeria:

A Geographic Information System (GIS) approach

By Felicia Olufunmilayo Akinyemi

The scourge of poverty and its resultant negative impact on Nigeria's economic development has been notably great. The economic recession experienced since the 1980s did wipe out the economic gains of the post-colonial oil boom era of the early 1970s. The government has had to contend with low or negative economic growth, tight fiscal constraints, and external debt burden. This situation has led to the increased use of targeting mechanisms in transferring benefits to the poor. While the importance of geographic targeting (GT) in tackling poverty is well known in literature, the employment of GIS as a tool for effective and efficient GT is relatively unknown. Thus its great potential in relating non-spatial data to its corresponding location on ground and its superb analytical mapping prowess remains widely unutilised. In this pilot study, digital cadastral maps form the spatial database and socio-economic, demographic data of the populace in the selected region form the attribute (non-spatial) database in the Geographic information system for geographic targeting (GTGIS). The focus of the GTGIS project is two dimensional in nature. It is concerned with utilizing GIS for poverty assessment on the one hand and utilizing GIS for geographic targeting on the other hand. This paper is more concerned with the latter, that is, attempting to demonstrate the utilization of GIS in simulating geographically targeted poverty alleviation programmes at household and neighbourhood levels within the city of Ibadan (a World Bank/UNDP, UNCHS (Habitat) "Sustainable Urban Management Programme" case study). The GTGIS project is aimed at making the use of GIS standard for geographic targeting.

Geographic targeting analysis and mapping using GIS enabled the vulnerability of each household and neighborhood to poverty to be related to their actual locations in space. It not only targeted the poor, but in a situation where a planner's budget can only run a poverty alleviation programme in few households or neighbourhoods, transfers to the poor can be according to their ranking under a given poverty measure. Moreover, mapping helped us to discover several causal relationships between socio-economic variables, which tend to engender poverty in households. Had the results been left only in tabular, spreadsheet form or aggregated as charts or graphs, such relationships may be hidden. Mapping helps to identify the patterning of poverty as it occurs in each sample area. This reveals that there is a spatial dimension to poverty and its alleviation.

Editor's note: *Extract from the full paper version included in the Proceedings of the 20th ICC, Beijing, China, volume 2, pp. 1259-1270.*

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Forthcoming Conferences and Workshops

Renewal Basic Cartography series completed

With the publication by Butterworth-Heinemann, in December 2001, of Basic Cartography volume 2, 2nd edition, the renewal of this fundamental ICA manual series on the cartographic discipline now has been completed. The project was initiated by Cor Koeman, then professor of Cartography in Utrecht University, in 1968, and the first edition of the series was edited by Koeman (vol 1, 1984) and by Anson (vol 2, 1988). Koeman chaired the ICA Commission on Education from 1968-1980.

In view of the rapid changes in the field the Commission on Education and Training, chaired 1987-1999 by Ferjan Ormeling, decided to produce a new edition of the series, which was edited by Roger Anson and Ferjan Ormeling; in 1991 an exercise companion to the first series came out: Basic Cartography: Exercise Manual (Elsevier Applied Science Publishers). In 1993 a second edition of volume 1 was published by the same publisher. It then transferred the series to another Elsevier-Reed subsidiary, Butterworth-Heinemann. In 1996 Basic Cartography volume 3 came out and now, ten years after the first start of the new editions, volume 2 has been renewed. This completes the updating work and the series now describes the state of the art in Cartography.

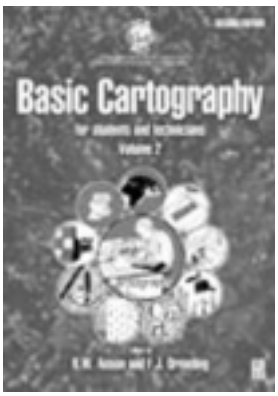
Over the years a number of well-known specialists and experts have contributed: Roger Anson, Hartmut Asche, M.J.Balodis, Olayinka Balogun, Rolf Böhme, Kurt Brassel, Christian Herrmann, Andreas Illert, John R.Jensen, Naftali Kadmon, Kei Kanazawa, Jon Kimerling, Cor Koeman, Olev Koop, Edgar Lehmann, Derek Maling, Gerald McGrath, Karl-Heiz Meine (Koeman's successor as chair of the Commission), Rudi Ogrissek, Ferjan Ormeling, Christer Palm, Bernard Rouleau, Ernst Spiess, Sjef van der Steen, Hans van der Waal, Robert Weibel, and Paul M.Young. Sometimes these authors were assisted by whole teams of colleagues, such was the case with Kei Kanazawa in Japan and Bernard Rouleau in France.

A much wider circle participated in the production of the Exercise Manual: *educational establishments* like the cartographic departments of Eötvös Lorand Institute in Budapest, Hungary, the ITC in Enschede, Netherlands, ETH in Switzerland, Utrecht University in the Netherlands, University of Victoria, Canada, *cartographic firms* like Freytag-Berndt und Artaria in Vienna, the Survey of Israel,the Nationaal Geografisch Instituut in Belgium, IGN in France, the Bundesamt für Eich- und Vermessungswesen in Austria, the Bundesamt für Kartographie und Geodäsie in Germany, and *cartographic societies* like the Japan Cartographers Association, the Comité Français de Cartographie, Deutsche Gesellschaft für Kartographie and the Swedish Cartographic Society.

A multi-author endeavour such as this one inevitably suffers from delays, especially so when more than ten different authors sometimes were contributing to a volume. It happened for instance that Naftali Kadmon had to rewrite his chapter on automation five times, as because of publication delays the contents did no longer reflect the actual situation. Another disaster that impeded rapid progress were the fire at the computer centre of Karlsruhe Technical University, through which all the drawings by Asche and Herrmann were lost, and consequently had to be produced again.

We are happy that at the dawn of this new millennium the ICA has this series of manuals to base its further educational endeavours on, such as the webcourse the Commission on Education and training is planning for 2003.

Roger Anson and Ferjan Ormeling



Third International Workshop on Incremental Updating and Versioning of Spatial Data Bases

14-15 October, 2002, Frankfurt A.M., Germany.

The event will be hosted by EuroGeographic R&D Forum; ICA WG on Incremental Updating and Versioning of Spatial Data Bases, and ISPRS IC WG II/IV.

Further details:

Ammatzia Peled (peled@rjb-3d.com or peled@geo.haifa.ac.il)

The 39th Annual Symposium and Map Curator's Workshop

Thursday 12 September to Saturday 14 September 2002 at the University of Portsmouth, Portsmouth, England.

BCS members will receive a brochure and booking form in the post in May. For any specific queries please contact:

David Fairbairn, BCS Programme Committee Chairman,
Dept. of Geomatics,
University of Newcastle upon Tyne,
Newcastle upon Tyne NE1 7RU, UK.
Tel +44 (0)191 222 6353
Fax +44 (0)191 222 8691
e-mail Dave.Fairbairn@ncl.ac.uk

British Cartographic Society web site is at http://www.cartography.org.uk/

Latest symposium news on http://www.cartography.org.uk/Pages/Latest/Sympos.html

June

10-12. Geospatial World 2002; Atlanta; Intergraph; Arlen Reimnitz on +1- 256-730-2510; fax: +1-256-730-2080; www.intergraph.com/geospatialworld

24-28. IGARSS International Geoscience and Remote Sensing Symposium Conference; Toronto, Canada; Jeannie Boyes, www.igarss02.ca/index.html

July

1-5. Addis Ababa, Ethiopia. United Nations Regional Workshop on the Use of Space Technology for Disaster Management for Africa. Contact: David Stevens, Program Committee Co-Chair, e-mail: david.stevens@unvienna.org, Web: http://www.oosa.unvienna.org/SAP/stdm

5-7. San Diego. Second Annual ESRI Education User Conference (EdUC). Contact: ESRI Inc., 380 New York St., Redlands, CA 92373-8100 [909-793-2853, fax: 909-793-5953, e-mail: educ2002@esri.com, Web: http://www.esri.com/educ]

8-12. 26th National Surveying Conference of the Institute of Engineering and Mining Surveyors Australia; Darwin; IEMS (Aust) SA and NT; Narelle Perriman on +61-3- 6248-7979.

8-12. 22nd Annual ESRI International User Conference; San Diego; ESRI Inc; enquiries uc2002@esri.com ph: +1-909-793-2853, ext. 1-1363; www.esri.com/event/uc

9-12. Shaping Grounds - Institute of Australian Geographers Conference; Canberra; IAG; Chris Tabart iag2002@anu.edu.au

10-12. Accuracy 2002 - 5th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences; Melbourne; Conference Organiser on +61-3-9380-1429; fax: +61-3-9380-2722.

14-17. Australian Map Circle 2002 Conference - Mapping New Frontiers; Cairns Qld; Geography School, James Cook University; Dr Peter Griggs on +61-7-4042-1540; fax: +61-7-4042-1284; www.australianmapcircle.org.au

August

7-9. Map Asia 2002; Bangkok; Map Asia 2002 Secretariat on +91-120-450-2180/81; +91-120-450-0060 or email Nihar@GISdev.net or nitinkt@ait.ac.th.

19-21. Melbourne, Australia. Geospatial Information & Technology Association (GITA) Australia/New Zealand Seventh Annual Conference and Exhibition. Contact: GITA Australia/New Zealand; e-mail: info@gita.org.au, Web: http://www.gita.org.au

September

2-6. 11ARSPC - Remote Sensing and Photogrammetry Conference; Brisbane; ACTS; enquiries 11ARSPC@ausconservices.com.au ph: +61-2-6257-3299; fax: +61-2-6257-3256; www.geosp.uq.edu.au/11arspc/

3-6. 13th Conference of European Mapcurator's Group
Helsinki University Library, Finland
Contact: Jan Smits, Koninklijke Bibliotheek, National Library of The Netherlands
Email: jan.smits@kb.nl

2-5. 7th UN Conference on Standardization of Geographic Names
Berlin, Germany
Contact: Dr. Laaribi, ph: +1-212-963-4996

2-11. World Summit on Sustainable Development
Johannesburg, South Africa, Email: 2002participation@un.org
Website: www.johannesburgsummit.org

16-19. GSDI 6 Conference; Budapest; Global Spatial Data Infrastructure Secretariat; enquiries ph: +1-703-648-4119;
fax: +1-703-648-5755.

17-19. GIS 2002 and AGI Conference London, UK. Contact: jilonkvist@cmp-europe.com

October

14-18. Abuja, Nigeria. Fourth International African Association of Remote Sensing of the Environment (AARSE) Conference. Contact: Tsehaie Woldai, Secretary General, AARSE (e-mail: secretariat@aarse.org, Web: http://www.aarse.org)

16-18. Frankfurt, Germany. INTERGEO 2002. Contact: D. Morlock, Customer Consultant, HINTE GmbH, Griesbachstr. 10, D-76185 Karlsruhe, e-mail: dmorlock @hinte-messe.de, Web: http://www.intergeo.de

21-25. VII International Congress on Earth Sciences
Santiago, Chile.
Contact: Col.J.E.G.Palacios, patias@topo.auth.gr, Web: http://www.igm.cl

26-30. Chicago. Urban and Regional Information Systems Association (URISA) 40th Annual Conference and Exposition. Contact: URISA, 1460 Renaissance Drive, Suite 305, Park Ridge, IL 60068, e-mail: info@urisa.org, Web: http://www.urisa.org

30. XXII INCA (Indian National Cartographic Association) International Congress
Convergence of Information, Imagery and Maps
Ahmedabad, India. Contact: Dr. P.K. Srivastava, Chairman, Local Organising Committee, Website: www.geocities.com/incacongress2002

November

8-15. Denver. The 15th Pecora Memorial Remote Sensing Symposium. Contact: Temperance Battee, e-mail: tbattee@asprs.org, Web: http://www.asprs.org /Pecora-ISPRS-2002

25-30. e-future: into the mainstream; AURISA/ISA Joint 2002 Conference (bringing together AURISA 2002 and 3rd Trans Tasman Surveyors Conferences); Adelaide; Hartley Management; Louise Carnell at Hartley Management ph: +61-8-8363-4399; fax: +61- 8-8363-4577.

25-29. Asian Conference on Remote Sensing (ACRS), Nepal.

Email: shmurai@nifty.com; Website: www.acrskathmandu.gov.np

December

3-6. Hyderabad, India. International Society for Photogrammetry and Remote Sensing Technical Commission VII International Symposium on Resource & Environmental Monitoring. Contact: R. Nagaraja, Organizing Secretary, ISPRS TC-VII Symposium, e-mail: nagaraja_r@nrsa.gov.in, Web: http://www.commission7.isprs.org

LIBER and IFLA

The LIBER (Ligue des Bibliothèques Europeènnes de Recherche) Groupe des Cartothécaires has a web site of http://www.kb.nl/infolev/liber/intro.htm. Jan Smits (jan.smits@kb.nl), Royal Library, The Netherlands is the President of the group. The 13th LIBER conference will be held September 3-7, 2002, in Helsinki, Finland (Chairman Finnish Organizing Committee: Pirkko Korttinen, pirkko.korttinen@helsinki.fi). The theme is: "Strategies for Survival: collections, data, institutions." Registration or paper presentation requests to be sent before 1 April 2002 to: Mr. Chris Fleet, Map Library, National Library of Scotland, 33 Salisbury Place, Edinburgh EH9 1SL, United Kingdom; E-mail: c.fleet@nls.uk. A form and additional information is available on the web page, http://www.kb.nl/infolev/liber/13th.htm.

The IFLA (International Federation of Library Associations) Section of Geography and Map Libraries is chaired by David C. McQuillan, davidmcq@sc.edu, University of South Carolina, Columbia, SC. Their 68th conference and council meetings will be August 18th - 24th, 2002 in Glasgow, Scotland, with the theme of "Libraries for Life: Democracy, Diversity, Delivery." There isn't a detailed program on their web page yet, but eventually it may be found at http://www.ifla.org/VII/s6/sgml.htm for the Section and at http://www.ifla.org/IV/ifla68/prog02.htm for the main IFLA information. Proposals for papers should go to the section chair. Melissa Lamont and Alice Hudson have been working on the program with Melissa serving as Secretary of the Section. There will be a number of paper sessions, field trips to Glasgow and Edinburgh libraries, and "legendary" IFLA Receptions. Contact Melissa at mlamont@whoi.edu for additional information. The 2003 IFLA meeting will be in Berlin.

Alberta Auringer Wood
ICA Vice-President

New Fellow of the Royal Society 2002

On the 13th May 2002 the Royal Society announced the election of 42 new Fellows and 6 Foreign Members from the fields of science, engineering and technology.

Professor David William Rhind CBE, Vice-Chancellor, City University London was amongst the Society's New Fellows. Professor Rhind's distinction as the leading UK scholar and a pioneer in the computer handling and analysis of cartographic and geographic information was recognised by his appointment as the Director General of the Ordnance Survey (OS). At OS he oversaw the completion of digital coverage of Great Britain, the first country to be so covered, promoted its application in many fields and strengthened OS's role in research and development. Accordingly and in view of the wide impact on science and technology, Rhind was elected a General Candidate.

ICA Commission on Mapping from Satellite Imagery

Serge Le Blanc, Chair of the ICA Commission on Mapping from Satellite Imagery was appointed member of the advisory committee of the Indian National Cartographic Association (INCA) annual conference on 'Convergence of Imagery, Information and Maps' to be held in Ahmedabad, India, from the 30th October to 1st November 2002.

CONTENTS

Contributions

Please send contributions to:

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The International Cartographic Association welcomes new affiliate members.
For further information contact: The ICA Secretary General: Ferjan Ormeling, Faculty of Geographical Sciences, Utrecht University, P.O.Box 80115, 3508 TC Utrecht, The Netherlands. Email: f.ormeling@geog.uu.nl

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The following organizations support the International Cartographic Association:

Intergraph:www.intergraph.com

Barco Graphics:www.barco.com

Aero-Sensing RadarsystemsGmbh:www.aerosensing.de

Tokyo Inshokan Printing Co:www.inshokan.co.jp