

Report on the 12th Conference of the Groupe des Cartothécaires de LIBER, 27 June – 1 July 2000, København, Denmark

by Christopher Fleet

This was another stimulating and enjoyable conference of the Groupe des Cartothécaires held in the impressive gravity-defying new extension to the Kongelige Bibliotek. The papers and issues discussed ranged from the everyday and practical to the abstract and theoretical, from historical cartography to future digital glints in the eye, and this report is inevitably a personal and simplified account of the meeting. The intention is to summarize the main issues of the various papers, highlight general trends and provide a briefer introduction to papers, to which readers are referred for more information.

CAUGHT IN THE WEB OR SPINNING IT?: THE ROLE OF MAP CURATORS IN BUILDING WWW SOURCES OF CARTOGRAPHIC INFORMATION.

The inspiring theme chosen by our Chairman addressed a central issue affecting map curators today, of what roles we should be playing in exploiting the latest technological opportunities on the Internet. A primary concern was therefore one of access, in applying the historical role of the librarian to the chaos of the Web. How can map curators provide effective access to text, images and metadata, and what finding aids should be employed? What value are conventional catalogues, indexes, and bibliographies, how can work on Internet gateway sites be co-ordinated, and what metadata standards should be employed? A second issue looked at digital mapping, including both managing newly published digital data, and the digitization of our collections, concentrating on the making of this information available electronically. What appropriate technology exists for this work, how should materials for digitization be selected, funded, and managed, the practical issues that need to be addressed in designing websites and adding information to images were central questions that were addressed here. The integration of management and policy issues with practical on-the-job advice were particularly relevant in this

area. As with previous conferences there were a number of other papers that related specifically to København and Danish projects, providing a local context to those describing work from further afield.

CONFERENCE

The conference was held in København from 27 June - 1 July 2000, and was attended by 54 correspondents from 18 countries. By moving earlier in the year to June we were particularly pleased to be able to hold our conference in parallel with the main LIBER Annual Assembly, allowing links to be fostered and facilities, such as the exhibition and reception, to be shared. During the conference 14 papers were read including three as part of a Joint Session with the main LIBER Conference, under a theme of *Mapping the virtual information landscape*. The parallel meeting with the LIBER Annual Assembly also allowed discussion on our bid for funds for a Training Programme, and the ability to present a proposal on this to the LIBER Annual General Assembly.

The combined conference took place in the new extension to the Kongelige Bibliotek, nicknamed „the Black Diamond“, an impressive construction fronting on to the Inderhavnen at Christian Brygge. Designed by the Danish architects, Schmidt, Hammer & Lassen, the building was opened in September 1999, and has already become a focus for Danish cultural life, with its large conference and concert hall, and space for exhibitions. The Danish Organizing Committee extended a very warm welcome to us in the Center for Maps, Prints and Photographs, and the meeting alternated between here and the excellent facilities in the Blixen Hall for papers.

NATIONAL PROGRESS REPORTS

Since 1988 it has been usual for National Progress Reports to be read, providing a means for describing developments within countries between the bi-annual conferences. Collectively the reports provide a good general overview of developments all over Europe. National correspondents are asked to report on relevant activities of map curators' groups, acquisitions and collection development, automation, education, conservation and restoration, conferences, and symposia, exhibitions and important publications. During this conference 11 progress reports were given, and these were sent out as *Special Newsletter*

No. 6, along with those sent to the Secretary afterwards by correspondents who were unable to attend the meeting.

PAPERS

Prior to the official opening of the Conference on 27 June, there was a brief presentation given by three East European map curators in the evening of 26 June. This covered the state of map collections and cartography in their respective countries, and was sponsored by the Danish Cartographic Society. As two of these papers were not published in the LIBER Quarterly they have been described more fully below.

Firstly, Renata Solar of the National and University Library of Slovenia gave an introduction to her library and its collections. The Library was founded in 1774, and from 1943 has been in the impressive Jože Plečnik building in Ljubljana. The Library has over 2 million items and 11,200 registered users. The Maps and Pictures Collection was founded in 1945, numbering over 232,000 items today, including maps, atlases, plans, postcards, and photographic materials. It is staffed by two full-time professionals and receives about 400 - 500 visitors per year. The map collection itself has over 25,000 items, primarily printed maps, but also atlases and globes. Two thirds of incoming maps are received by legal deposit, the remainder primarily by acquisition. The coverage is international, although concentrating on maps of Slovenia. The main highlights of the collection are 26 handwritten maps by P. Freiländer from about 1520, the *Isolario de Benedetto Bordone* (1534), some original maps of Slovenian territories, and several world atlases of the 16 - 18th centuries.

Next Ludmila Kildushevaskaya from the Russian State Library spoke about some developments in Russian cartography. There have been many changes in recent years with new mapping organizations and products, and some examples of recent topographic sheet mapping were shown. Some of the recent electronic products and digitization work were mentioned, which also formed the subject of her paper in the main conference, and are described more fully below.

Thirdly, Margit Tohver from the National Library in Estonia spoke about the recent developments in cartography and geodesy in Estonia. There has also been a great deal of change in the last decade and several new organizations in the field. Although there is no overall co-ordinating body, there have been

efforts towards standardization, in geodesy on the international WGS-84 and GRS-80 ellipsoids, and for projections on the L-Est 92 and TM Balti. The Estonian Mapping Centre is responsible for topographic mapping and is compiling Estonia's two main base maps at 1:10,000 and 1:50,000. The former is a digital database from which paper maps can be generated at 1:20,000, which has grown to cover about 40% of the country by the end of 1999. The latter has been compiled with assistance from Swedish aerial photography and cartographic institutions and includes satellite imagery. The Centre has also created an administrative map of Estonia at 1:300,000 in 1999 on paper and CD-ROM. Regio Ltd., the largest and oldest private map company in Estonia, currently publishes around 500 titles annually. These have included the well-known road atlases, wall maps, and a series of navigation maps at 1:50,000 and 1:100,000 with the Estonian Waterways Department. However, most of their turnover is now derived from producing digital data and geographic information.

The presentation was concluded with the opportunity to view some of these maps and recent publications on historical mapping from these countries.

Following the LIBER Board and Business Meetings (see minutes) and the official opening of both conferences on 27 June, along with an introductory welcome by Elmar Mittler (President of LIBER) on 28 June, the conference proper began.

Our keynote talk was given by Professor Christian Matthiessen, from the University of København on *Örestad - the new area of development*. This was an upbeat exploration of the potential economic change that could follow on from the construction of the bridge over the Öresund. In that this bridge, connecting København in Denmark with Malmö in Sweden was due to be formally opened on the 1 July, this was a highly topical subject, but the longer-term shifts in economic patterns formed the main focus of the paper. Although there are obviously many ways of defining urban centres, by amalgamating various figures including gross area product, international air traffic, research output, cultural centres and decision making, it was possible to synthesize a broad range of these together into a „gross amalgamation product“. Professor Matthiessen then looked at how current European metropolises, according to these rankings shaped themselves into the so-called „boom banana“ stretching from London, through Den Haag, Rotterdam, and Dortmund-Düsseldorf-Köln, to Frankfurt and Stuttgart. However, this could easily change as a result of the investment of money, increase in accessibility and decrease in travel times as well as change in perception that the new Öresund link will allow. The Northern European metropolises, such as Berlin,

Hamburg, København and Stockholm are currently quite isolated compared to those further south. Also, the new bridge follows on from other Danish infrastructure projects, such as the bridge between Funen and Zealand (opened in 1998) and the link from Lolland and Fehmern south across the Femerbelt is in discussion. The hope is that bridging the Öresund will form the vital impetus to new development, creating an integrated functional region with sustained growth.¹

Next Grete Jacobsen, Head of the Legal Deposit Department in the Kongelige Bibliotek, København, spoke about *Legal Deposit of Electronic Material*. This was a detailed description of how the Kongelige Bibliotek is receiving electronic publications following the Danish electronic legal deposit law which came into effect on 1 January 1998. Following a little background to Danish legal deposit legislation, which has existed in various forms from 1697, the law was amended to include electronic publications in 1997. The law covers both static and dynamic publications, requiring two copies of any static publication to be sent to the Kongelige Bibliotek, and notification of new on-line publications to be provided by their creator via an online form. The legislation does not allow for a harvesting of Internet web-pages as in Sweden, but rather for a selection of certain web-pages to be downloaded for archiving. The archiving of these publications will require a great deal of future work, as technology changes, addresses of URLs of associated information changes, standards of HTML, images, and plug-ins all alter. The goal is also to make the procedure of registering, assessing, downloading and cataloguing of electronic publications more automatic in the future.

Barbara Morris from EDINA, Edinburgh University, spoke about *EDINA Digimap: new developments in the Internet mapping and data service for the UK Higher Education community*. Following trials of Digimap from 1997 in six universities, the wider service was formally launched in January 2000, and by June was supporting 1,500 users from 43 institutions. Digimap gives access to current Ordnance Survey mapping of Great Britain at a range of scales, and the paper looked at the background to the service, the facilities it offers and future plans for incorporating other data. These include projects to incorporate geo-referenced raster images of historic Ordnance Survey maps, aerial photography of UK cities, and a z39.50 compliant geo-data browser for accessing geographic information on the Internet. The paper also examined some of the difficulties of providing an online service, the need to provide greater support both through online assistance and site representatives, and the way in which the service has marginalised map libraries in some universities.

Bjorn Dahl from the København Public Library spoke about *Copenhagen in historical maps*, concentrating particularly on 17th century military maps. Gottfried Hoffmann drafted a number of maps during the wars with Sweden in the mid-17th century, including one during the (unsuccessful) siege of København by the Swedes in 1658-60. This very detailed map has been carefully examined, as it includes a great deal of factual information about the city at the time and illustrates both printed and manuscript techniques.

Bill Stevenson from Aalborg University Map Library spoke about *Servicing Map Users at Aalborg University Library*. The Library is primarily a self-service collection acting as a hub for a wide range of institutions in North Jutland, as well as being the main library for land surveying in Denmark. It is a modern collection of about 1,500 map titles, including 600 atlases, and a book collection of 2,000 titles, including 150 journals. Bill explained how these are catalogued electronically in the Auboline online catalogue, and went on to discuss the range of electronic mapping packages and its „Interesting links“ section in the Virtual Library to various Internet URLs. The library currently has about 50 electronic mapping packages, and the workstations and printing facilities in the Library to use these were described. A Geodata Library has recently been formed in the University which hopefully will provide access to a wider range of digital topographic mapping, elevation models, aerial photographs and allied databases.

Jürg Bühler from the ETH Library in Zürich, spoke about *Map Collections and the Internet: some ideas about various online map services, based on the ETH Map Collection in Zürich*. Using his own website for the ETH Library, Jürg illustrated how the Internet can provide a very convenient way of informing map users about three main categories of information. First, general information about the map collection, including opening hours, terms and conditions, user support, and descriptions of the main holdings. Second, search tools for the map library, including access to the library OPAC (NEBIS), clickable indexes to map series based on TOPORAMA, access to CD-ROMs, and links to a huge number of Internet URLs with cartographic and geographic information. Thirdly, the Internet allows access to online products held by the Library and externally, such as scanned images of maps, online exhibitions, such as the *Virtual Eduard Imhof Library*, gazetteers, links to courses and tutorials and bibliographies. The paper illustrated the possibilities and challenges of using the Internet for map libraries.

We then departed by coach to visit Kort & Matrikelstyrelsen (KMS) the Danish National Survey and Cadastre in Utterslev, København. We were given a brief introduction to KMS, describing its main four divisions of

cadastral and topographic mapping, geodesy, hydrography and marketing and informatics. The KMS aims to coordinate public sector map production, and acts primarily as the government authority responsible for mapping, charting, geodata, the cadastre, and licensing of surveyors, whilst also being a research institute. They have about 530 staff and in 1997 achieved about 50% cost-recovery through sales revenue.

We were then told about three special recent projects: *Infodatabase* by Godik Andersen, the new digital map of Denmark TOP10DK, and *Digital Historical Maps* by Peter Korsgaard. The *Infodatabase* provides a Web-based portal to 140 geo-referenced datasets, and works within MEGRIN, the European digital data standard. Currently the Website receives about 500 visitors a day, but this will certainly grow as the volume of information provided increases. The new digital map of Denmark has been based on a raster scan of the 1992-3 map and then creating vectorised layers on information to create the database. The entire country has been covered by 2000, and the aim is to have a 5-year revision cycle in future. As well as being a base dataset for many Danish organizations, it will allow a plot-on-demand service with non-standard sheet lines and scales.

The *Digital Historical Maps* Project is a cooperation between KMS, the Swedish National Land Survey and National Heritage Board, the University of Greifswald and the GIS company ESRI, part financed by the EC. It aims to examine technical issues in delivering scanned images of historical maps over the Internet, using a sample of about 10,000 maps altogether. The Danish contribution is focusing on 19th century cadastral mapping, of great interest to genealogists and local historians. The prototype was demonstrated, which uses the MrSID compression format and image server to deliver the maps. The project is due to be completed by December 2000.

The morning of Thursday 29 June was devoted to the Working Groups. As part of *the Working Group for Education*, Roelof Oddens of Utrecht University told us about *Four years of Oddens' Bookmarks: the Fascinating World of Maps and Mapping*. This was an entertaining account of recent developments behind the indispensable bookmarks, describing how the incredible growth of the site (to number over 11,000 links by mid-2000) demanded new design and software. This had been done by using Filemaker Pro database, to add and update links, and provide search facilities to the bookmarks, creating the new redesigned site in September 1999. In four years, the site has received 850,000 visitors, about 20,000 monthly, from over 150 countries, indicating its central role for a vast range of users. As well as giving an overview of the main cartographic bookmarks, Roelof discussed various

problems, such as finding information for newcomers, the increasing use of plug-ins by websites to view maps, the difficulty of updating links and keeping abreast of the exponential growth of the Internet. It can only be hoped that in future international cooperation and financing can maintain this service for the electronic cartographic community.

As part of the *Working Group for Central and Eastern Europe*, Natalia Kotelnikova of the Russian State Library spoke about the *State of electronic maps and atlases in the Russian State Library and the Russian National Library*. Although national libraries have been obliged to offer electronic mapping for users, there have been great difficulties in discovering what has been published and acquiring the packages and necessary IT to run them. A Working Group is currently investigating the problems of bibliographic control and the archiving of electronic publications. Digital cartographic data has been collected by „Roskartografia“ and „Gosgistsentr“ agencies, who have powerful enough equipment for using electronic maps. The libraries are also in the early stages of scanning early maps in their collections, including the Gabriel project (treasures of European libraries) and the „Meeting the frontiers“ project with the US Library of Congress. On the cataloguing front there has also been progress in the creation of a Gost standard for electronic mapping metadata in 1999.

In the afternoon there was a GIS workshop at the Geographical Institut at the University of København, which introduced a number of standard GIS operations using ESRI's ArcView. We were also given a demonstration of the TOPORAMA product by Joachim Lamatsch, which allows electronic clickable map indexes to be presented on the Web, and tour of the new Map library building in process at the Institut by Sonne Preben Jorgensen.

The morning of Friday 30 June was devoted firstly to our joint session with the main LIBER Conference: *Mapping the virtual information landscape*. This consisted of three papers, the first by Tony Campbell of the British Library entitled *Where are map libraries heading? some route maps for the digital future*. Through a series of paired quotes, this aimed to raise questions and discuss opposing views of several important future developments affecting map libraries. The issues were grouped into three broad areas, looking at existing holdings, future acquisitions, and the Web. For existing holdings the financial and practical difficulties of digitizing maps were explored, along with the question of selecting what should be digitized. In terms of future acquisitions, the issue of the degree to which digital maps will replace papers ones was discussed, along with the commercialization of digital spatial data, and the potential role we may have as archivists of digital data. Thirdly, the new

opportunities for map librarians to provide access to information on the Web was stressed, mentioning both Oddens' Bookmarks and the Map History gateways. Many of these future pressures will lead to a greater divergence between map libraries, but some shared new work could provide opportunities for greater collaboration.

Secondly, Theo Bauer of the Bayerische Staatsbibliothek delivered a paper entitled *Map „Webucation“ - the World Wide Web: platform for the continuing education of Map Librarians*. This described the work of the LIBER Working Group for Education, who over the last two years have created three main information resources on their website. The first is a platform for general reference works relating to the history of cartography, map librarianship, and GIS. Second, they have established a *Who is who in map curatoship*, to act as a means of communication on specialist subjects between European map curators. And third they have created a set of over 120 links to online resources, across a range of subjects for education and extending knowledge in particular subjects. Theo discussed the problems of the Internet for this purpose, such as those who still lack access to it, the problems posed by the volume of information to keep abreast of, and the time required simply to maintain, assimilate and update information. However, through cooperation the Web platform can continue to develop, and there are plans to include minimum standards for post-educational courses in future.

Thirdly, Jan Smits of the Koninklijke Bibliotheek, delivered a paper entitled *Can a map be a geographic information tool?* This was a broad-ranging and far-sighted view of future possibilities for a pan-European project to provide access to geo-referenced resources. Within this project digital maps would not only function as geographic resources and educational tools, but also as an interface to other databases with descriptions of maps and other geographical information. The project grows out of the collaboration and cooperation channels that currently exist within the Groupe des Cartothécaires, but extend these by applying electronic communications protocols and data-delivery models being developed elsewhere. These include the Netherlands Clearing House for Geographic Information and the Scientific Atlas of The Netherlands (AvN), as well as the Alexandria Digital Library prototype in the US. Many existing databases, as well as library bibliographic databases provide a vast quantity of records that could today form the basis for geographic querying through these front-ends, and there are vast quantities of new information that could also be integrated, given appropriate metadata. This grand project can only be realized through a bottom-up strategy of individual local and national effort towards a supra-national end, and map curators should seize these opportunities.

Following the Joint Session, Chris Fleet of the National Library of Scotland then spoke about *Distributing images and information over the Web - a case study of the Pont manuscript maps*. Technological changes in the last few years have allowed the capture of digital images of maps to be steadily more affordable, at the same time as the rapid growth in numbers of Internet users wishing to access information remotely. Within this context, the project to scan the Pont manuscript maps of Scotland was described, along with the compression formats and techniques used to make the maps available over the Internet. Due to the nature of the Pont maps and difficulties interpreting them, the aim has been to make textual interpretative information available along with images of the maps, and the initial stages of constructing a website were demonstrated. The reasons for digitization and Web delivery were discussed, along with the many difficulties and costs associated with the process. It was suggested that the degree to which these relate to other cartographic materials could form a basis for selecting other items for digitization and Web delivery.

Jan Smits from the Koninklijke Bibliotheek, Den Haag, gave a talk about Metadata and standards: confusion or convergence. Metadata has become steadily more important for map curators, with the transition from cartographic materials to spatial data, and from manual to automated finding methods. After defining terms, Jan then described a typology of four classes of metadata, depending on purpose, content and user community. Band I corresponded to simple records, created and used primarily by Internet search engines. Band II relates to more structured records for selection, exemplified particularly by the Dublin Core. Band III takes this further to much more detailed records such as the ISBD and MARC formats describing bibliographic records. Band IV relate to digital and cartographic databases, such as the American FGDC standard, or the British NTF. These standards are all changing, and Jan concluded by looking at some new elements that are being incorporated, and the future potential of metadata.²

Francis Herbert of the Royal Geographic Society (with the Institute of British Geographers) delivered a paper entitled *A current Internet bibliography of the history of cartography on the WWW: of whom, by whom, and for whom*. This examined seven factors that need to be addressed in putting such a bibliography on the Web, using the printed *Imago Mundi* bibliography as a case study. The seven factors were currency, what countries to include, the frequency of contributions, content, compilation methods, bibliographic control, and computer compatibility. The history of the *Imago Mundi* bibliography from 1935 to the present day was illustrated, showing how form, content, access methods, and level of detail have all altered. Francis has been compiler

of the *Imago Mundi* bibliography from 1976 and floated the idea that the Internet could provide a means for sharing the work of compiling the bibliography in future, improving coverage, currency, and accessibility. However, there are a number of logistical and practical problems that need to be addressed before this can work effectively.

WORKING GROUP FOR EDUCATION

The Working Group for Education met on 27 June 2000, and a fuller report on their meeting is enclosed with *Newsletter No. 6*. The Group has been very active since the Krakow meeting building a website of information, including contact addresses, literature lists in different languages, links to other relevant websites, and mounting *the Who is Who in map curatorship*.³ All these resources need to be maintained and updated, and the Group made some plans for doing this, particularly through wider information exchange both within and beyond the Group. Further progress has still to be made in defining minimum standards for post-educational courses in map librarianship. Jürg Bühler stood down as Chair and was thanked for his very productive and useful work over the last two years. He will fortunately continue as web-master, whilst Nick Millea took over as Chair of the Group.

WORKING GROUP FOR CENTRAL AND EASTERN EUROPE

The Working Group for Central and Eastern Europe met on the morning of 27 June, and Steffi Mittenzwei (Chair) presented a report on the Group's activities on 29 June. Their major project has been the funding application for the proposed training programme to support visits of 1 - 3 months to libraries in Western and Northern Europe. Through a questionnaire survey, a list of map librarians requiring training was collated, along with their particular subject interests, and host recipient libraries who could offer training were identified. Although the GdC Board assisted in presenting a formal bid with this information to the LIBER Executive Board in June 1999, and the Board itself made various attempts to obtain funding, no money has been obtained. As the need for training is even greater than two years ago, Steffi discussed various options for the future, including the proposal for a wider LIBER Task Force on Training (which was approved the next day), and the possibility of smaller bilateral training visits if more limited funding was obtained by particular libraries.

VISITS AND EXCURSIONS

During the afternoon of 30 June we were treated to a canal boat sightseeing tour around the harbour area, and then a visit to the Royal Palace at Amalienborg, where we were shown a small exhibition of maps and views from the Royal Library. The conference ended with a full day excursion to Frederiksborg Castle at Hillerød, then on to Helsingør, where we saw Kronborg Castle and the map collection in the Maritime Museum, returning along the coast to København.

REFERENCES

- 1 A version of this paper has been recently published as Matthiessen, C.: Bridging the Öresund: potential regional dynamics, integration of Copenhagen (Denmark) and Malmö-Lund (Sweden). A cross-border project on the European metropolitan level. In: *Journal of Transport Geography* 8(3), (2000), pp. 171-180.
- 2 This paper has already been published as Jan Smits: Metadata: an introduction. In: *Cataloging & Classification Quarterly* 27 (1999), pp.303-319 and in: *Maps and related cartographic materials: cataloging, classification and bibliographic control*. Edited by Paige G. Andrew and Mary Lynette Larsgaard, New York; London; Oxford: Haworth, 1999, pp. 321-342.
- 2 see Theo Bauer's paper for more information.