

## **THE RETROSPECTIVE CONVERSION OF THE CATALOGUES IN THE DEPARTEMENT DES CARTES ET PLANS OF THE BIBLIOTHEQUE NATIONALE**

**By Pierre-Yves Duchemin**

In the paper given during the 8th Conference of the Groupe de Cartothécaires de LIBER in Barcelona in september 1992, I talked of the many projects on the way to be created in France at that time.

The economic situation was not enhanced, elections were run, a new government was created, the situation became clearer and some projects have been left apart.

Among the projects that are still supported, we are involved in two of them: the retrospective conversion of the card catalogues of the Bibliothèque Nationale and the birth of the Catalogue Collectif de France, the French Union Catalogue. The Département des Cartes et Plans is in the heart of the question and has a heavy work to do: the whole retrospective conversion of the card catalogues in the specialized divisions in the Bibliothèque Nationale has to be over at the time when the Bibliothèque Nationale de France (conjunction of the Bibliothèque Nationale and of the Bibliothèque de France) will be quite ready to run, at the end of 1996.

The Catalogue Collectif de France will not be useful before the end of this first task: the shared retrospective conversion, of which I had talked last year, is out of time now. Cooperation seemed to be a power for the retrospective conversion in France but it will not be realized before several years. In fact, the converted catalogue of the Département des Cartes et Plans will be the heart of the Map French Union Catalogue. In this way, a reference record will be available and other institutions or map collections will add their own data (shelfmarks, etc.) and if necessary, add the description of cartographic documents they have in their collections and that are not present in the Union Catalogue.

Before leaving the "cooperation" aspect, I have to say that the Union Catalogue of cartographic documents published before 1815 and stored in the Région Centre libraries has come to an end: bibliographic descriptions have been loaded in the BN-OPALINE database, links have been created between these descriptions and the authority files (geographic names, names of persons, corporate bodies and

subjects) and indexed. At date, the BN-OPALINE database offers 17 locations in France.

The whole project is in the hands of the Département des Cartes et Plans de la Bibliothèque Nationale and the ability of the BN-OPALINE database to become the heart of the French Map Union Catalogue.

My paper will be very practical: the very political and economic context in which we are now, makes theory out of date: as money is devoted for a limited period of time, one could even say that the situation claims for urgency. I shall talk of the existing situation, of the problems to solve, of the solutions imagined and of the final products.

At first, I shall say that we have not chosen between "quality" and "quantity", between retrospective conversion and re-cataloguing, in the discussion led by the Groupe de Cartothécaires de LIBER. Because of the historical situation of the Département des Cartes et Plans de la Bibliothèque Nationale, it is not possible to support such a direct choice and we have to make concessions in one way or the other: we prefer middle quality bibliographic descriptions than no description at all, with the condition that headings and entries have a high quality standardization level.

### 1. The existing situation

The Département des Cartes et Plans keeps about 1 100 000 cartographic documents out of which about 350 000, printed, engraved or manuscript, have been published before 1815. Among them, about 50 000, i.e. 5% of the whole collections, were not catalogued. I say "were" because, from 1986 onwards, these cartographic documents are catalogued by students through the AFNOR Z44-067 and Z44-074 cataloguing rules, that is to say the French versions of ISBD (CM) and ISBD (A). This work is not a part of the retrospective conversion project; it should come to an end a few months before the end of the general project.

Therefore, one has to note that all documents, whatever the quality of their cataloguing, are at least registered and shelf-marked, i.e. all of them have a minimum bibliographic description, allowing to get and re-catalog them if needed.

Several printed catalog exist: for example, velum portolan maps. Paris maps, Cuban maps, globes and spheres, large size Ektachromes duplications, etc. The standardization level of quality of the descriptions is function of their publication date but all of them have an inner coherence and generally present very complete descriptions. Through any easy-built interface, most of them will be converted in INTERMARC (CP) with an OCR process.

Up to 1986, bibliographic descriptions of cartographic documents were printed on standardized cards classified into three files: geographic (the most important), personal names and corporate bodies (except anonyms), subjects (from 1936 onwards). From 1986, the BN-Opaaline database assumes the description of any new document, ancient or modern, entering the Département des Cartes et Plans and retrieves information through 43 boolean entries.

Therefore, several topographic or thematic important cartographic series, from France or Europe or anywhere in the world, have been completely retroconverted by keyboarding and copying previous editions. So, the 1:25 000, 1:50 000, 1:100 000 and 1:250 000 IGN series, the 1:50 000 BRGM series, the 1:200 000 Michelin series, the 1:25 000 and 50 000 Ordnance Survey series, the 1:50 000 Spain, 1:50 000 Portugal, 1:50 000 Netherlands, 1:25 000 Switzerland, 1:50 000 Belgium, 1:25 000 and 1:50 000 Japan series, 1:50 000 Panama, the AMS 1:50 000 series from Poland, Hungaria, Romania, Czechoslovakia and Yugoslavia, that is to say about 16 000 bibliographic records may be retrieved in the database; at date, BN-OPALINE is more than 120 000 bibliographic records and more than 220 000 geographic names.

In the Reading room, the three files are 640 drawers; there are 1 200 cards in each of them; so the retrospective conversion project has to deal with about 770 000 cards. The reason why this figure is not the same as the total number of documents is that, for a long time, cartographic series were not catalogued sheet by sheet, but only registered on Kardex type large cards; for years, different editions of the same document were grouped in the same bibliographic description; at last, a small number of documents, - for instance the velum portolan charts -, are not described in the card files.

## **2. The major problems**

The first problem to consider is of course the great amount of bibliographic information to deal with. Another important problem is the very different quality of bibliographic records. During the LIBER Conference, last year, I talked of "geological stratum" ... If the recognition of each stratum is very easy, each of them need a specific solution, a different analysis, different encoding specifications and different computer programs, leading to a lot of "work packages".

- The oldest stratum goes back to the opening of the Département, in 1828, and runs to the 1870s. It is made of about 32 000 cards. These cards have been hand-written on the back of playing cards; more recently, in the 1960s, they have been reproduced by photographic means on 12.5 x 7.5 cm standard size cards.

These descriptions cannot be used in the retrospective conversion project: some of them have only a title and a shelfmark; they will be recatalogued according to the ISBD (CM) and ISBD (A) specifications and indexed in the authority files.

- The second stratum lasted about 50 years from the 1870s to the 1920s. It was also hand-written and made of 40 000 cards.

The main problem in this stratum is that the bibliographic information lacks with coherence: one may find an author, a title, a publication place, a data and no size; on another example, one may find a geographic name, a title, a date and a size. Tests have been run on this kind of material; the whole stratum cannot be directly converted. The cards have to be selected through some verifications: only the best examples will be converted by keyboarding and, if needed, by autopsy of the cartographic document. The rejected cards will be recatalogued as in the first stratum.

- in the following stratum, 65 000 typed cards show a better cataloguing level.

Although they have not been written according the modern cataloguing rules, all these cards will be converted by keyboarding and linked to the authority files. Several examples of unidentified different editions will need to go back to the maps themselves.

- the 192 000 cards belonging to the next stratum have been written before the birth of ISBD. They show nevertheless very complete descriptions, including scale, several notes, sometimes coordinates, etc. The whole group will be directly converted in format and linked to the authority files. A small proportion of documents will need to go back to the maps themselves to identify different editions.

- the next stratum is 197 000 cards thick. Written between the end of the 1950s and the beginning of the 1970s, these cards are of course not ISBD catalogued but they have a high level in cataloguing. Due to the good quality of typing, this group could be converted through OCR, then linked to the authority files.

- 220 000 cards may be found in the upper stratum. They have been written according the ISBD (CM) rules and have standardized geographic names and personal names. The good typing quality could allow the use of OCR to convert this group.

At last, although not a real "stratum", the question of cartographic series has to be solved. These documents are not catalogued by sheet but only by one card with their common elements (title, author, scale, etc.) in the main files in the Reading Room. They are described at the sheet level in another file used by staff members. Considering the cartographic series already converted in BN-OPALINE, about

357 000 sheets - out of which 90 000 deal with France - are to be converted by keyboarding, OCR and copying in the BN-OPALINE database.

This look around the files raises another problem: personal names headings are not standardized and many different names may be found on the cards. Therefore, all the cards have been classified under the standardized heading, but the cards themselves have not been corrected; the conversion of these cards may raise some problems of coherence ...

On the opposite, from the birth of the Département des Cartes et Plans, all the geographic names, even not quite standardized, have always been gathered under one entry, most of the time the French name.

### **3. Problems to be solved**

The main problem to be solved is obviously the huge number of cards to be converted. Among other problems, may be quoted the limited period of time devoted to the project - 3 years - and the limited number of staff members it will be possible to affect on the project, in order to disturb as least as possible the daily life in the Département des Cartes et Plans. In fact, except at the very beginning of the project, one and a half persons will follow the retrospective conversion up to the end.

One of the conclusions of the feasibility study was obviously that all the cards could not be converted by OCR; consequently, the first step will be to select which cards will have to be recatalogued, which ones will have to be converted by keyboarding in the Département (if a look at the primary document is needed), which ones will have to be converted by keyboarding outside the Département and which ones will be converted by OCR. According to the specifications for encoding and conversion written for each category, several working packages will be tendered.

Whatever the level of care brought to the initial preparation of documents to be keyboarded and the quality of the encoding staff, tests and controls have to be run to have the best results. If outside keyboarding seems to be the cheapest solution, the costs will raise with the creation of links of the authority files in the database. Keyboarding inside the Département is already a daily practice for students who are cataloguing ancient maps. If typing is slower, the ergonomics of the database, the cataloguing controls through validity tables, the crossed controls, the automatic links to standardized headings in the authority files raise the cataloguing level to an unexpected quality.

As a whole, the retrospective conversion project of the catalogues in the Département des Cartes et Plans will be a compromise between OCR, outside keyboarding and inside keyboarding.

#### 4. Solutions

To solve these problems, two ways are being realized:

- from on way, the writing of "technical specifications" for each cataloguing stratum. These specifications consist in recommandations about encoding the data by keyboarding or OCR, transforming them in INTERMARC (CP) format, the possible enhancement of data, the computer treatments to introduce to have real MARC records linked horizontally or vertically to other bibliographic records or to the authority files. Intended to be finished in October, these specifications will result in a 250 pages booklet.
- from the other way, continuing the work on the standardization of entries (personal names, corporate bodies, geographic names, subjects). For several years, the Département des Cartes et Plans has been working on this subject:
  - from oneway, in the framework of a European project for identifying cartographers, Monique Pelletier is keyboarding very complete records in the personal names authority file in BN-OPALINE. It is a deep work of identification and standardization, including all the variations one may find on the cards.
  - from the otherway, when the EUROCARD project was a possible reality, the standardized coordinates of the 36 500 French communes have been loaded in the BN-OPALINE geographic names authority file. Then, ancient names, foreign variations have been added in the records. This work is not yet finished for the smaller cities. The same kind of work has been run for the political and administrative divisions of France, whatever modern or before the Revolution. The work is also done when retroconverting foreign series.
  - at last, subject indexing is done through RAMEAU (Répertoire d'Autorité-Matière Encyclopédique et Alphabétique Unifié), French version of LCSH (Library of Congress Subject Headings). The indexing words created from 1936 to 1986 are progressively made compatible with modern concepts.

As the retrospective conversion project will use several ways of proceeding, the work will be done by non librarians. It seems evident that standardized entries will make the work easier: they will type the name they see on the card and the system will provide the standardized form in the bibliographic records, with the addition of coordinates for geographic names.

When converting collections or cartographic series, the system will provide "modèles", kind of "abstract bibliographic records in which are all the specific fields and sub-fields necessary to the treatment of the collection and the series. Sometimes, it is possible to write common elements to the sheets belonging to the series in the modèle (for instance, shelfmark, size, etc.).

In order to prevent the European tenders that could be very long-lasting, it has been decided to divide the number of cards in "thematic" working packages, each of them divided according to the specifications of the cataloguing stratum:

- French cities maps (150 000) cards
- Paris maps (21 000 cards)
- French Regions and administrative divisions (160 000 cards)
- France, from Ptolemy to 1986 (10 000 cards)
- Former Colonies and French speaking countries (38 000 cards)
- European Community (79 000 cards)
- Rest of Europe (72 000 cards)
- Africa (70 000 cards)
- America (83 000 cards)
- Asia (55 000 cards)
- Oceania, Arctic and Antarctic (15 000 cards)
- Globes, Spheres, geographic games, relief maps, etc. (15 000 cards)

According to the working time devoted to the project and the money estimations calculated from the feasibility study, the project will need standardized authority files, proper models, specific keyboarding screens and clear encoding specifications to have presumable chances to be achieved by the end of 1996.

A tender has been published in August 1993 in order to choose the company that will be in charge to invite tenders for each piece of work, from the Specifications prepared by the Département des Cartes et Plans.

## **5. Final products**

The first aim of the project is obviously to provide the whole of the collections of the Département des Cartes et Plans in a MARC format. After 1996, the users will have a database offering 43 ways to retrieve a cartographic document. The project aims also to provide the heart of the French Map Union Catalogue. It may at last, in a European or even more international context, provide a database to share with other institutions.

That is why the project will begin with "French" documents, that is to say showing France or parts of France. At the end of this first step, bibliographic records,

including standardized entries, will be made available to other French or foreign libraries or institutions. As the project will progress, other pieces of work will be made available in the same way. When the step of foreign documents will be reached, it will be the opportunity to have a real worldwide cooperation process.

The data will be retrievable in the database BN-OPALINE itself; other products will be available - magnetic tapes or floppies, profiles, etc. - as well as on line access through the Union Catalogue network. At last, a CD-ROM is intended as a final product after 1996.

Money is credited for three years ... It is not a long period of time ... and there is a lot of work.

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AMIENS (Généralité). 1667.

- Picardie et les Pays-Bas Catholiques / Par N. Sanson d'Abbeville. R. Cordier Abbavil. sculp. - [A Paris :] 1667. - 1 flle col. 37x54,5 cm.

[Ge AF Pf 181 (2492)

Réédition d'une carte de 1648. Les couleurs indiquent les limites de la généralité d'Amiens divisée en élections.

SANSON (N.). - CORDIER (R.).

GDE 930708 n0em  
→ 008 930708sl667 fr 4 freb  
→ 009 ac2aa01 cxams  
→ 044 Sc 1667  
090 Sc BN  
Sd C. Pl.  
→ Sa Ge AF Pf 181 (2492)  
→ 100 Sa (167135) Sanson Sm Nicolas Sd 1600-1667  
→ S4 18 S4 65  
→ 245 Sa Picardie et les Pays-Bas Catholiques  
Sf par N. Sanson d'Abbeville Sg R. Cordier Abbavil.  
sculp.  
260 Sa Paris

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260 Sc N. Sanson  
Sd 1667  
280 Sa 1 carte  
Sc col. Sd 37 x 55 cm  
300 Sa Rééd. d'une carte de 1648  
Sa Les couleurs indiquent les limites de la généralité  
d'Amiens divisée en élections  
→ 700 Sa (212326) Cordier Sm Robert Sd 1...-1673 ?  
S4 35  
→ 607 Sa (169293) AMIENS So GENERALITE D' Sg France  
S7 1667  
→ 042 Sd E0011354 Se E0032716 Sf N0505909 Sg N0493949  
256 Sc E 1|13'54" - E 3|27'16" / N 50|59'9" - N 49|39'40"

CAEN. 1875.

-Plan de la ville de Caen en 1875 dressé par A. Pinchard, conducteur des Ponts et Chaussées à Caen. 1:10.000 Gravé par Delamare.-Caen, Lemonnier, 1875.1 file 535 x 430. [D. L. 122, 1875].

[Ge.D. 14107

(Plan aux armes de la ville avec, en carton, le répertoire des rues et des monuments.)

Pinchard (A.).-Delamare,  
gr.-Lemonnier.-Plan de  
ville.-Armoiries.

GDE 930710 n0em  
→ 008 930710s1875 fr freb  
→ 009 ac2aa01  
→ 036 Sa DL 122, 1875  
Sb 18750000 Sc BN Sd C.Pl.  
090 Sc BN Sd C.Pl.  
Sa Ge D 14107  
→ 042 Sa a  
→ Sa b 10000  
→ 044 Sc 1875  
→ 100 Sa (212942) Pinchard Sm Auguste  
S4 18  
→ 245 Sa Plan de la ville de Caen en 1875

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245 Sf dressé par A. Pinchard, conducteur des Ponts et Chaussées à Caen  
245 Sg gravé par Delamare  
256 Sa 1:10 000  
260 Sa Caen  
Sc Lemonnier Sd 1875  
280 Sa l carte  
Sd 54 x 43 cm  
300 Sa Plan aux armes de la ville avec, en carton, le répertoire des rues et des monuments  
→ 700 Sa (212943) Delamare Sm ? Sd 19e s.  
S4 35  
→ 606 Sa (007459) Plans de ville

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→ 607 Sa (002638) CAEN Sg Calvados  
→ 642 Sd W0002136 Se W0002136 Sf N0491104 Sg N0491104  
256 Sc W 21'36" / N 49'11'4"  
607 S7 1875

→ zones indexées