MODERNISATION OF THE TRANSFER OF INFORMATION AT THE BIOLOGY-GEOLOGY-GEOGRAPHY SECTION OF THE "LUCIAN BLAGA" CENTRAL UNIVERSITY LIBRARY

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Modern science was given birth and developed when researchers were able to register information and put it into circulation by means of a mass-distribution medium.

The branch-libraries of the Biology-Geology-Geography section have undergone a general change in the last 25 years; they have partially abandoned old practices in favour of a constructive perspective, permanently linked to the characteristics of the field of activity and determined by the imperious need of access to information by researchers and Professors of the Faculty of Biology-Geology and Geography. In fact, I was already aware of this thirty years ago when I started to work as a librarian at the Geology Department of the Faculty of Natural Sciences of Cluj University.

In collaboration with Professor Ioan Mârza we compiled a half-mechanised mineralogical bibliography, which preempted the operations performed today by computers. [See items 7, 9 and 11 in the Bibliography.]

Beginning with 1975, the year when I became librarian of the *Physiology* of *Plants* Department, collaboration with researchers and professors was even more fruitful. We created a coordinated indexing system for periodical articles as well as monographs [7, 8]. I also worked on my doctorate thesis in Biology which I presented in 1987. Some documents from the national heritage collections and the various collection of this small but important branch library were demonstrated. [10, 12]

In 1990, as Head of the Biology-Geology-Geography section of the "Lucian Blaga" Central University Library (the headquarters of the section was at the Faculty of Zoology) we collaborated with librarian colleagues in creating databases which could then be published as informative works, extremely helpful for all six branches of the section. First we had to select the staff who possessed the qualities of a reference librarian: professionalism, special training, enthusiasm, perseverence and correctness.

We were conscious of the importance of such works and after the Zoology library was endowed with a computer, we planned to work on the ten

most important Romanian periodicals in the field of Biology. Even before 1970, there were attempts to create such databases but these were not published. We must mention the work of Viorica Ianc at the Botanics Section, dealing with the periodicals Contribuții botanice (Contributions to Botanics) and Studii și cercetări de biologie botanică (Studies and Research in Botanic Biology) and the work of Elena Coman at the Geography Section, dealing with articles from Studii și cercetări de biologie animală (Studies and Research in Animal Biology). These were updated, corrected and completed according to our plan.

Our methodology was similar to that of the forementioned works, the only difference being the use of electronic format instead of perforated catalogue cards.

Collaboration between specialists (Professors, researchers), librarians and IT specialists was almost perfect. The IT specialists created an adequate format for the librarian's work, librarians stocked information, devised a structure for the bibliography and made the indexing of the material according to this structure, whereas specialists supervised the whole work, suggested modifications and made corrections in the systematic classification. In a real feed-back process, librarians made corrections on the computer, specialists checked them again, and so on, until the elimination of all errors. The IT specialists organised the database and made the indexing, creating the alphabetic indexes attached to the bibliography. We worked with the Pro-Cite bibliographic software. Bibliographic items have ten fields: 1 - authors (the index of authors was compiled on the basis of this field); 2 - title of articles; 3 - the year of publication; 4 - volume; 5 - number; 6 number of pages and illustrations; 7 - summaries and bibliography; 8 keywords (the index of terms was compiled on the basis of this field); 9 - place names (the index of geographic terms was compiled on the basis of this field); 10 indexing - we sorted the bibliographical references in the scientific order showed by the content.

First, we dealt with articles from the periodical Contribuții botanice, in collaboration with Professor Dr Ioan Pop, who was the scientific coordinator of the first bibliographic subject index. He accepted the structure of the bibliography and checked the correctness of subject indexing. We also collaborated with Luminita Tomuţa from the Informatics Laboratory of the "Lucian Blaga" Central University Library; she was the coordinator of desktop publishing and helped us in our activity to inform the public.

Nicoleta Irimuş and Gabriela Morărescu did the desktop publishing, Viorica Ianc, Monica Roman and Stela Şuteu were collaborators, while the coordination of the bibliography was done by myself.

The first exhaustive Bibliographic Subject Index was published in 1995, containing all the original works and reviews published in *Contribuții botanice* between 1931-1994. The bibliography is preceded by an Introduction, an

Explanatory Note, the Chronology of the Periodical and followed by the chapters Scientific Life and In Memoriam. The bibliography has three indexes: author index, index of special terms and of geographical places which make the work even more valuable. The author index contains only the authors of original works or reviews, but not the authors of the books reviewed. [13]

On account of the systematic organisation of the material according to the scientific fields of the articles published in the periodical, the book format which is easily accessible, the language of the index of special terms which corresponds to the language of the periodical, the number of copies which was decided according to the needs of the reading public and also the financial resources, we consider that the first three bibliographies satisfied the criteria of a good bibliography, both by the authenticity of the material and its exhaustiveness. Bibliographical references were not annotated. We consider that the three indexes which accompany the bibliographic material make up for this and facilitate the quick reference to these volumes. We also wanted to eliminate subjectivity and limit the extension of the already exhaustive works.

The databases were created in Pro-Cite, while the editorial works were processed in Word Perfect 5.1. Multiplication was done in the "Lucian Blaga" Central University Library and Cluj University Press, under the auspices of Professor Dr Nicolae Edroiu.

As a result of collaboration with University Professors from the Faculty of Zoology, too, and encouragement from others, two more bibliographical subject indexes of the periodical Studii și cercetări de biologie (Studies and Research in Biology) (1948-1994) appear in 1996, the index of the Vegetal Bothanics-Biology Series coordinated by Professor Dr Vasile Cristea and the index of the Animal Zoology-Biology Series coordinated by Professor Dr Nicolae Tomescu. [14,15]

The division of the two volumes is similar and the staff responsible for the coordination of the bibliographies and desktop publishing was also the same. We used the bibliographic indexes of the two forementioned series compiled by our colleagues V. Ianc and E. Coman, which contained material published until 1970, in a simpler form. For the first series, desktop publishing was done by G. Morărescu and N. Irimuş, S. Şuteu and M. C. Roman were collaborators; for the second volume, desktop publishing was done by N. Irimuş and M.C. Roman, in collaboration with G. Morărescu and Adriana Bondor from the Animal Psysiology Library.

We have worked intensely (without collaborators) on two more indexes of Romanian periodicals, published in French language, the Revue Roumaine de Biologie, Série de Botanique-Biologie végétale (1965-1995), published in 1997 and Travaux de l'Institut de Spéologie "Émile Racovitza" (1962-1995), published this year, both under the aegis of the Romanian Academy [16,17].

Nicolae Boşcaiu and Professor Mihai Drăgan-Bularda were the scientific coordinators of the first volume published in 1997; the second volume, published in 1998, was coordinated by Dr Gheorghe Racoviță, chief researcher. Both volumes have introductory chapters and explanatory notes in two languages; their subject indexes are in French.

We have also initiated work on three bibliographic volumes in collaboration with staff from the Physiology of Plants and Zoology, which are in course of publication. These volumes deal with articles published in the Revue Roumaine de Biologie, Série de Zoologie-Biologie animale (1956-1996) - we collaborated with M.C. Roman, and Professor Dr N. Tomescu, scientific coordinator; Studia Universitatis "Babeş-Bolyai" (1957-1997) - scientific coordinator Professor Dr Ştefan Kiss; and Studii şi cercetări de Biochimie (1948-1996), edited by G. Morărescu and N. Irimuş, scientific coordinator Professor Dr Ioan Petrescu. [18,19, 20]

The first stage of the work, collecting bibliographical data from the most representative Romanian special periodicals, is completed, and only after four years of intensive indexing could we introduce the 10.000 bibliographic references representing the whole content of eight periodicals from the beginning of their publication to the present into eight databases.

The ninth database contains the Scientific Activity of Professors and Researchers from the "Babes-Bolyai" University. Biology, Geology, Geography in the period 1993-1996. This is a selective bibliography, continuing the four volumes published previously. [1-6, 21]

The second stage of every kind of documentary information presupposes methods of information retrieval. We use either the works published (some of them in the course of publication) or the forementioned databases which are continuously completed with information from newly published volumes.

We think that the nine databases created by our group should be unified by indexing their titles and be connected to the network of the "Lucian Blaga" Central University Library, in order to be used by a larger public.

Somebody wrote about two of our bibliographies in the periodical *Biblioteca* (nr.2, 1997, p.59), "these volumes are wonderful examples of fruitful collaboration between specialists (researchers) and librarians; these exhaustive bibliographies convey precise, complete and correctly registered information and they meet the needs of researchers to quickly obtain information." We hope that this is indeed so.

We would like to thank the Professors who found time to listen to our opinion, give us advice and make suggestions to the edition of our works.

These preoccupations are not unparallelled in our section. After the three other sections (The Physiology of Animals, Geology and Geography) were endowed with computers in 1997, they also started to stock information in two

databases, one for Romanian special literature and the other for foreign special literature published in periodicals which can be found in their collections. These will either be published or used in their present form, and hopefully be connected to the network.

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