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## Book Reviews

STEIERWALD, Ulrike: **Wissen und System. Zu Gottfried Wilhelm Leibniz' Theorie einer Universalbibliothek.** (Knowledge and system. On G.W. Leibniz' theory of a universal library). Köln: Greven Verlag, 1995. 134 S. (Kölner Arbeiten zum Bibliotheks- und Dokumentationswesen).

This review calls attention to a study dealing with the problem-complex confronting today's libraries, a problem-complex arising from the enormous growth of knowledge and the new possibilities for electronic recording and distributing information. Operating on a high level of reflection, this work advances solutions based on Leibniz's theory of a universal library.

From the start, the authoress intends to avoid the danger of remaining within the horizon of mere historical reconstruction of library history or the history of science, themes of interest only to historians and archivists. To this end, she seeks to combine the historical aspect with considerations of the theory of science. The point is not to give a detailed description of all of Leibniz's plans for his activity as a librarian, but rather „to study his philosophical texts and the tradition of his librarian projects as sources for a systematic ordering of knowledge“. She is, thereby, fully aware of the danger that traditions of librarian practice and philosophical theory cannot always be combined without contrast and contradiction. The study takes its departure from „a theoretical perspective worked out as clearly as possible on the basis of systems-theory and constructivism.“ Against this background, the study discusses the system of knowledge prevailing around 1700, showing in particular how this system is reflected in the texts of Gottfried Wilhelm Leibniz. The study proceeds in three stages corresponding to its three parts. In the first part, the basic ideas of Leibniz's philosophy are sketched. Here the authoress shows that Leibniz's draft of a classificatory ordering-scheme departs from the schemes prevailing in his day, in particular, that his ideas are oriented to a purely formal descriptive instrument constituted by a system of signs. In the second part of the work, this system of signs, what Leibniz called his „ars characteristica“, is presented in detail. In the last part, the author describes Leibniz's attempt to consolidate the economic basis of the library and to integrate it into the economic system of mercantilism prevailing in his day.

In terms of the history of science, the horizon adopted by the study is defined by the thesis that, in the course of the 17th century, the ontology of language lost its autonomous status; no longer could language and reality be considered as equivalent. Thus „the order of knowledge is no longer defined by the principle of similarity, but rather by the analytical functions of identity and division“. As a consequence, around 1700 the system of signs and the pattern of differentiation took on constructivistic character. The authoress analyzes Leibniz's concept of the world and his theory of monads in relation to

their function within his draft of a classificatory system. The chapter on Leibniz's principles of classification is introduced by the authoress's observation that secondary literature dealing with classification models in the 17th and 18th centuries is deeply marked by the perspective of the 19th century. As a consequence, the specific form of knowledge prevailing around 1700 is not properly appreciated: at that time, the dogmatic medieval world-view was in the process of giving way to an open constructivistic model of the world. The authoress shows that Leibniz marks a middle position in the history of classification. For Leibniz, it is no longer the cognitive result but rather the divergent methods of cognition that constitute the basis of classification. Correctly, the authoress points out that for Leibniz the distinction between sciences dealing with exact truths and sciences dealing with contingent truths is decisive for his classificatory structure. Here I should like to emphasize, that Leibniz is concerned with a classification of truths, not a classification of texts. As the authoress observes, for Leibniz the prevailing ordering schemes became more and more problematical, with the result that for him the search for a universal meta-language rather than systematic description came more and more to the fore.

There follows a detailed presentation of Leibniz's „ars characteristica“ and of his philosophy of language. The aim of this presentation is to show that there was for him an analogy between the order of the world and the grammatical order of the signs. Because „the finite range of meaning belonging to words is replaced by the potentially infinite horizon of mathematics“, Leibniz's universal library remains an imaginary one. His ideal for a catalog is conceived in terms of the theory of a universal calculatory language; the classical systematics of knowledge in terms of spatial tables he finds inadequate. The authoress notes that, at the beginning of the 18th century, the dominance of spatial representation came to an end, thus putting an end as well to the claims for spatially visualizing the encyclopedic ordering-schemes for knowledge. The elements of barock culture are no longer defined by the principle of similarity, instead they acquire autonomous aesthetic function. An important sign of this new approach is the rise of a new library architecture at this time, its conception corresponding to the order of the bound books the library is designed to hold.

Around 1700, the theory of economic value likewise underwent transformation. In mercantilism, theories of value arose, in which the price is no longer determined on the basis of the amount of metal contained in the coin. The authoress analyzes Leibniz's experiments with a national economic organization of knowledge in the light of such theories and describes in detail his repeated criticism of the practices of the book-sellers of his time. For Leibniz, in accord with the ideas prevailing in his time, the economics of knowledge remain an integral part of the state-oriented economic system. Leibniz's numerous projects to support the libraries for which he was responsible all aim at a new combination of political, economic and cognitive planning.

Viewed in the light of the diverse encyclopedia projects of his time, Leibniz, as the authoress shows, stood in a time of transition. No longer is the encyclopedia or the library

viewed as a „copy“ or „image“ („Abbild“) of the world; instead it is seen as a representative organ, whose function is to manifest the imperfection of natural language and to provide a formel for ordering things.

In the last chapter, the authoress turns her attention to an objection which might be made to her study, that namely with her concentration on theory in the context of library science nothing is gained for the day-to-day problems of library practice. She replies, that when one views the system of the sciences as a variable historical construction, Leibniz's own efforts to bring together his practical work as a librarian and his theoretical and philosophical work in ordering knowledge turns out to be quite interesting. In conclusion, then, the authoress calls attention to the new situation for communicating knowledge created by the new possibilities of electronic storage of information. In doing so, she also calls attention to the danger inherent therein, namely that thinking would appear to depend less and less on the context. As a consequence, questions pertaining to the ordering of knowledge come less and less to the fore; in libraries, classificatory subject-cataloging is abandoned in favor of verbal indexing. Quite correctly, the authoress replies that today as in the past, new knowledge comes to expression „between the texts“. Furthermore, as she points out, the definition of knowledge must not be reduced to merely collecting and recalling facts. When the library as institution should, in the future as in the past, continue to fulfill its function of ordering the knowledge of its time, then — so the authoress concludes — it is necessary „to reflect upon the spatial aspect of knowledge as this is being transformed by the media. In the spatial organization of knowledge, new structures emerge within and between previously existing structures“. Thus to fulfill this task, much can be learned from the way organizing structures of the past have approached the problem.

Thus for the solution of contemporary problems in organizing and ordering knowledge, recourse to the proposals developed by Leibniz in the context of his theories can well prove fruitful. The authoress's combination of methods belonging to the theory of knowledge with those belonging to the history of knowledge is well suited to call attention to specific aspects of Leibniz's contribution to the organization of knowledge and of science. Not only librarians but also Leibniz-specialists should pay close attention to this study, which, by the way remarked, has dealt thoroughly with all the literature relevant to its themes.

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**Subject Indexing: Principles and Practices in the 90's. Proceedings of the IFLA Satellite Meeting held in Lisbon, Portugal, 17-18 August 1993.** Edited by Robert P. Holley, Dorothy McGarry, Donna Duncan and Elaine Svenonius. München: K.G. Saur 1995. 302p. = IFLA UBCIM Publications, New Series, Vol. 15.

In the Introduction to this proceedings volume, *Dorothy McGarry* gives a short description of decisions and actions that preceded the Meeting. At its meeting in Stockholm in

1990 the Standing Committee of IFLA's Section on Classification and Indexing decided to form a working group which would look into the feasibility of formulating a list of principles underlying subject heading languages used in various subject access systems throughout the world. The Working Group on Principles Underlying Subject Heading Languages was chaired by *Elaine Svenonius* and held several meetings. During one of these meetings, namely in New Delhi in 1992, the Standing Committee of the Section decided to sponsor a satellite meeting on „Subject Indexing: Principles and Practices in the 90's“. The goals of the meeting were to review national subject access systems worldwide and to consider current issues in the development of such systems.

The papers presented in the book are divided according to the sessions of the meeting: Session 1, Systems and Practices Today: An Overview, and Session 2, Current Issues in Subject Indexing. The reviews of subject systems of 11 countries given in alphabetical order of the countries were presented in Session 1.

**Brazil:** „Subject Access in the Brazilian Library Network, BIBLIODATA CALCO“ was presented by *E. Decourt* and *S. M. Guerreiro Pacheco*. The Fundação Getúlio Vargas (FGV), founded in 1944, provides Brazilian libraries with a set of different library services, and since 1976 with the first bibliographic database, the BIBLIODATA network. The bibliographic database, CALCO, is searchable by author, title and subject with some other operators (publication date, language etc.) to refine the search. The FGV began to develop the subject heading list in Portuguese, for which the basic source for consultation was the Library of Congress list. The list of the BIBLIODATA network includes Topical Subject Headings, Subdivisions, Geographic Names, „See“ References, „See Also“ References and LC Terms. The rules and procedures are described in the Subject Heading Manual.

**Canada:** *Alina Schweitzer* read her paper on „Subject Access to Library Materials in Canada: A Balancing Act Between Conformity and Divergence“ and *Ingrid Parent* summarized the main points made in Schweitzer's paper and added a few observations of her own. LCSH and two other subject heading systems are in use in Canada: these two systems developed in Canada are Canadian Subject Headings (CSH) in English and Répertoire de vedettes-matière (RVM) in French. LCSH are welcome because Canada acquires many foreign books. With the development of publishing in Canada the need was felt for additional subject headings for the national topics to express particularities of Canadian history, literature, multiculturalism and bilingualism of Canadian native people. The Canadian Subject Headings are largely based on LCSH in its underlying principles, but are designed as an adjunct list to be used in tandem with LCSH. The Subject Headings RVM was developed at the library of the Université Laval in Quebec and in cooperation with the Bibliothèque Nationale in Paris, which maintains its own subject heading list (RAMEAU). The two lists that serve its own international francophone clientele, are similar and compatible. DDC is also used, adapted for the use in Canada. The Sears List of Subject Headings is also adopted according to the same principles and published as *Sears List of Subject*