Green, Rebecca, Ed. *Knowledge Organization and Change: Proceedings of the Fourth International ISKO Conference, 15–18 July 1996*, Washington, D.C. Organized by the Office of the Director for Public Service Collections, Library of Congress, the ISKO General Secretariat, and OCLC Forest Press. Frankfurt/Main: Indeks-Verlag, 1996. 431 pp. DM88. $58.70. ISBN 3-88672-023-1.

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This volume is the fifth in the series *Advances in Knowledge Organization* (ISSN 0938-5495) published by the International Society for Knowledge Organization (known as ISKO). Most of these volumes report the proceedings of the biennial ISKO conferences. This volume documents the presentations prepared for the fourth international conference cosponsored by and held at the Library of Congress to commemorate the 120th anniversary of the Dewey Decimal Classification (DDC). Founded as an independent counterpart to the FID's classification group, ISKO conferences focus on the epistemological aspects of documentation and information sciences referred to in this community as knowledge organization (KO).

Ably edited by Rebecca Green prior to the conference, the 48 papers in this volume are organized in the order of the ISKO meeting technical program sessions. Contributing authors represent fifteen countries, with the majority from the United States, followed by the United Kingdom, Canada, and Italy. All papers are in English which is the language of the ISKO conferences. While the meeting commemorated the DDC's anniversary, the papers range broadly across various aspects of knowledge organization that can be classified for convenience into the following categories:

- Schemes: such as the Library of Congress Classification and Dewey Decimal Classification;
- Approaches: such as natural language processing, thesauri, and meta-thesauri;
- Environments: such as business, images, interdisciplinary, multilingual, and multicultural; and
- Issues: such as change, epistemology, and users.

One of the most significant issue papers in this volume is the keynote address by Roland Hjerppe (Linköping University, Sweden) "Go with the Flow, or Abide by the Side, or Watch the Waves? Challenges to Change for Knowledge Organization." Dr. Hjerppe eloquently articulates the challenges and opportunities for knowledge organization presented by the rapid diffusion of Internet technology and particularly the World Wide Web. He characterizes the Internet in terms of its very diffuseness or heterogeneity, and its changeability or flux, the result being that knowledge organization is now a "matter/necessity for everyone" (p. 16). A number of areas that require research and software support are listed including: (1) tools for knowledge organization (rather than systems); (2) tools for building tools (or meta-tools); and (3) visualization mechanisms for displaying structures and relationships. An issue paper by Michelle M. Foss (Ohio State University, Columbus), "Facilitating the Interaction of User and Public Knowledge Organization with User Profiles, User

Views and User Education Plans," proposes a classification for information systems users—by their (1) domain knowledge, (2) computer literacy, and (3) task complexity—that could be used to approximate points of view or profile information needs.

Among the papers that discuss approaches, Pat Molholt's (Columbia University Health Sciences, New York) "Standardization of Inter-Concept Links and Their Usage" reports on a research project undertaken with the *Art & Architecture Thesaurus* (1990) to regularize and develop rules for associative (related term or RT) semantic relationships. These rules for building inter-concept links allow for the definition of the: (1) type of associative link, (2) direction of the link, and (3) concepts that are joined. Javier García Marco's (University of Zragoza, Spain) paper, "Hypertext and Indexing Languages: Common Challenges and Perspectives," discusses the aspects that indexing and hypertext design share such as: (1) representation of relationships; (2) use of hierarchical and associative knowledge structures; (3) application to semantic systems; and (4) cooperative working processes. Due to these common interests, García Marco urges closer cooperation between researchers in these fields. In his paper, "Thesaurus-aided Searching in Search and Retrieval Protocols," Ron Davies (Bibliometrics Inc., Ottawa, Canada) describes ways that a thesaurus can be consulted during a search session mediated by the *Z39.50 Information Retrieval Service and Protocol* (1995). Davies argues that, while thesaurus consultation can be supported by the current protocol, development of a new profile would be needed for extended services that would support actual query expansion in a search session. Dagobert Soergel's (University of Maryland, College Park) paper, "SemWeb: Proposal for an Open, Multilingual, System for Integrated Access to Knowledge about Concepts and Terminology," elaborates a far-sighted but well thought out proposal to launch a collaborative project to build a common knowledge base integrating many kinds of knowledge about concepts and terminology—a mega-meta-thesaurus.

The environments paper by Victoria Francu (The Central University Library-Bucharest, Romania) "Building a Multilingual Thesaurus Based on UDC" describes work to build a controlled vocabulary for the UDC as an indexing and searching device. The paper includes a practical discussion of the *Guidelines for the Establishment of Multilingual Thesauri* (1986) illustrating the application of the various methodologies that the guidelines suggest. In "The Applicability of Selected Classification Systems to Image Attributes," Corinne Jörgensen (University of Buffalo, New York) discusses an ongoing investigation to develop a typology of how users actually describe images in the real world. This paper reports on a study to compare categories in the typology with existing indexing and classification systems used to describe images.

The selection of papers covered in this review is not intended to lessen the importance and interest of the other papers in this remarkable volume, they are just among those that this reviewer found most interesting.

REFERENCES

Art and architecture thesaurus. (1990). Toni Petersen, Director. New York: Oxford University Press.

Guidelines for the establishment of multilingual thesauri, 2nd ed. (1986). Geneva: ISO.

Z39.50 information retrieval service and protocol. (1995). Gaithersburg, MD: ANSI/NISO. URL: http://lcweb.loc.gov/z3950/agency.

Iyer, Hemalata. *Classificatory Structures: Concepts, Relations and Representation.* Frankfurt/Main, Germany: Indeks Verlag, 1995. 225 pp. $30.00 (paperback). ISBN 3-88672-501-4.

Reviewed by **Elin K. Jacob**, Assistant Professor, School of Library and Information Science, Indiana University, Main Library 012, 10th & Jordan, Bloomington, IN 47405-1801 <ejacob@indiana.edu>.

In the past, American librarians have too often thought of classification more as a means for ordering volumes on the shelf than as an intellectual tool for demonstrating conceptual relationships. Primary emphasis has been on classification as a tool to provide a precise location for each work; the ability of a classificatory structure to create order within a body of knowledge has been generally ignored. Thus, while it is recognized that a classification should be flexible enough to accommodate both new works and new subjects within its existing framework, collocation by subject has been viewed as a useful but nonetheless secondary byproduct supporting serendipitous browsing.

Within this traditional model, the study of classification and its role in the representation and organization of information is often classed as a subset of cataloging. Although assignment of subject headings and identification of appropriate class labels is generally known as "subject cataloging," the essential processes of cataloging and classification are antithetical: The purpose of cataloging is to describe a document as a unique physical entity, distinguishable from all other physical entities; but the goal of classification is to create groups of related documents based upon the same or similar intellectual content.

The explosion of information available on the Internet has caused information specialists to rethink the traditional, linear model. The need to create order within an essentially nonphysical and inherently nonlinear space has forced them to consider the applicability of classificatory structures in creating a conceptual framework across intellectual space. This growing awareness that organization of information must occur on the conceptual level as well as—or even prior to—representation on the physical level has precipitated the introduction of courses that address theories and practices of representation and organization as distinct from more traditional cataloging practice.

Iyer's introductory textbook, which is directed specifically to an American audience, attempts to address the nature and functionality of organizational structures on a broad scale. While its primary locus is within the traditional framework of the physical library, the approach is intended to be interdisciplinary and the volume presents, if at times only superficially, classificatory issues related to cognitive processing, the online environment, and artificial intelligence.