

## Hierarchical Recording of Binding Structures

### ABSTRACT

The Ligatus research unit of the University of the Arts, London has undertaken the recording of the binding structures and materials of the manuscripts and early printed books from the library of the Saint Catherine Monastery in Sinai, Egypt. Conservators from many different countries have been engaged in both the examination of the books and the formation of a recording methodology for binding structures. About 4500 books have been examined one by one. The detail with which the recording was done resulted in a large amount of information about each book's individual components. Organizing this information has been a challenging task and a variety of data structuring models were assessed for storing the collected data. Our assessment showed that hierarchical data structuring is an efficient way to record binding information. In this paper, a recording methodology with XML hierarchies is presented, based on the experience from the Saint Catherine's collection.

The root of the hierarchy represents the concept of the specific book being recorded and the rest of the binding components are mapped as developing branches from the root. The hierarchy offers an "infinite" number of developing branches allowing space for every piece of information about the material or structure of the book. The hierarchy acts both as a storage system for the observations and as a consistency checking mechanism which ensures that the recorded information is complete and, to a certain extent, correct. XML is a good tool for implementing hierarchies with many additional benefits. These include the long-term preservation of the recorded data, the great potential for multilingual implementations and the good support by almost all major programming languages.

The proposed methodology has successfully been tested at the Saint Catherine's library collection, and it is proved ready to be tested on other collections.

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