Optimum Storage of Library Material.

This study is one in a series in development at Purdue University where the library and some of its problems are being examined by tyro industrial engineers. This particular problem, compact storage, has been investigated and reported in the form of a doctoral dissertation. It is important that this be kept in mind, for this may explain and perhaps justify the presentation and limitations of the content.

The abstract (p. xiii) which precedes the formal report, states, “the primary purpose of this research is to develop, discuss, and demonstrate compact storage models.” The “models” in the language of the engineer here are arithmetic, statistical, or mathematical models, and not a group of actual mockups, which are occasionally used in library building planning. The author used the libraries of Purdue University and Auburn University in Alabama as physical models for on-site investigation.

The study touches on a wide range of elements which contribute to creation of the problem area. Most of these elements are recorded and briefly defined, mainly with questions of costs in view. All of the factors alleged are valid and require attention, but the treatment is cursory and in no place is consumer reaction considered. The author moves too quickly into the clearly favored and more familiar ground of purely physical considerations. He does point out that other studies at Purdue and elsewhere will treat these skimmed areas separately.

His research on shelf storage of books presumes continuous and full loading in linear, in height, and in depth variants. In addition he considers vertical spacing of shelves in single sections, length of ranges, and over-all height of ranges. He develops tables for optimum use in terms of cubic space and compares this with standard or unsized shelving. For each pertinent factor one finds full tables of variations, together with a multitude of mathematical formulas designed, it seems, to clarify the graphic presentation. In merely two hundred pages, beginning with chapter two, this research paper proves beyond any question (a) that you can shelve more books if they are grouped by size, (b) that you can shelve even more books if you use shelves to their full depth, and (c) that you can divide most books into three to five average heights. There is extensive discussion of the “constraints” which influence the methods of shelving books, elements such as varying thickness, height or width of the book, the thickness of the shelf itself and over-all height of shelf units, as well as flexibility of shelf handling. Each of these is faithfully analyzed, tabulated, and curved and now constitutes a reliable record of all the various ways shelving can be used for the storage of long series of oblong or similar objects of varied sizes.

The author honestly states in the final paragraph of his work “This research, at best, has made a contribution to only one aspect of one library function.” This is a fact. It is also a fact that the contribution is purely academic, and as such, it will join thousands of other unread (except by reviewers) and unused doctoral dissertations. As an exercise in method, from the viewpoint of the industrial engineer, this is undoubtedly a classic example of good practice. From the point of view of the practicing librarian, this is a classic example of reductio ad absurdum.—Jerrold Orne, University of North Carolina.


This survey was initiated when a Royal Commission on Health Services was appointed by the Canadian Government in 1961 to “inquire into and report upon the