



## Publishing Scientific Books

**A**BOUT three-fourths of the books published by university presses receive one or another form of direct subsidy. This is a shocking figure. But even sadder is the fact that university presses must now sell from 2000 to 3000 copies of a book to break even.

There is little difficulty in publishing a book that will sell 5000 or more copies. But the average demand for highly specialized works, in science as in other disciplines, may be closer to 500 than to 5000 copies. The market for the serious book has never been large and is relatively inflexible. This has given rise to a large amount of literature on the publication problems of scholarly books. By and large, the bulk of this literature deals with the cost of manufacture. Although these costs are one important factor, they represent a relatively small portion of the retail price.

If we are to solve the problems of dissemination of specialized, scientific and technical information in book form, we shall have to devote more attention to factors other than manufacturing costs. The alternatives that have been tried, with varying success under varying conditions, include the following.

1) To increase the price—the usual German practice. We commonly pay as much as 7 to 9 cents a page for German scientific and technical works or \$15 to \$20 for a 200- to 300-page book. When this is done it is possible to reach a break-even point below 500 copies.

2) To increase sales. However, attempts in this direction indicate that the market for specialized works is quite inflexible, and these efforts have generally resulted in higher selling costs without a comparable increase in sales.

3) To lower manufacturing costs by use of other than conventional typesetting and printing processes. This includes the production of books by offset from typewritten copy and production by reduced facsimile (including microcard, microprint, microfilm, auxiliary publication in film form with an abstract printed in conventional form, and similar devices). This group of alternatives may be and has been helpful in some instances. Nevertheless, these efforts do not reduce marketing or overhead costs;

and reduced facsimile, in particular, may increase these costs by restricting the potential market even below the normal one for specialized books.

4) To recognize that overhead and selling costs consume from two-thirds to three-fourths of the retail price of the book. Savings here may contribute more to the solution of the problem of publishing small editions than could the most sophisticated advances in typesetting or typesetting substitutes. In fact, if marketing were made automatic, and as few as 500 people wanted a book and were willing to pay for it in advance, the book (even including a reasonable number of illustrations and equations) could be set in type or in typewriter composition, printed on good book paper, bound in cloth, and delivered to readers at a cost of about 2 cents a page. If fewer than 500 wished copies, then the price would have to be increased somewhat; for printings of under 100 copies, reduced facsimile would be necessary.

It is not impossible to publish books that are needed. Proper design of the publishing operation is all that is required; but, in doing this, we must bear in mind that publishing is much more than printing.

If the market for a scientific book is 5000 or more copies, we have a remarkably efficient scientific book trade to handle the book. If the market is between 2000 to 5000 copies, the university presses can produce the book. If the market is below 2000, we have the choice of (i) a university press through subsidy; (ii) the commercial level, by increasing the price per page above that to which we have been accustomed from the American book trade; (iii) publication by specialized publishers who will give adequate thought to developing production and marketing methods to reduce overhead and selling costs. Finally, if an edition of fewer than 50 or 100 copies is needed, near-print or reduced facsimile methods coupled with automatic distribution can be utilized.

There is no necessity for us to be without scientific and technical books that make substantial contributions. The only problem is that of selecting or designing and applying the *most suitable* publishing procedure.

RALPH R. SHAW

*Graduate School of Library Service,  
Rutgers University, New Brunswick, New Jersey*

SCIENCE, founded in 1880, is published each Friday by the American Association for the Advancement of Science at Business Press, Lancaster, Pa. SCIENCE is indexed in the *Reader's Guide to Periodical Literature*. All correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D. C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors.

**Change of address:** The notification should reach us four weeks in advance. If possible, please furnish an address stencil label from a recent issue. Be sure to give both old and new addresses, including postal zone numbers, if any.

**Annual subscriptions:** \$7.50; foreign postage, outside the Pan-American Union, \$1.00; Canadian postage, 50¢. Single copies 25¢. Special rates to members of the AAAS.

**Cable address:** Advancesci Washington.

The AAAS also publishes THE SCIENTIFIC MONTHLY.