Book Reviews

A Diderot Pictorial Encyclopedia of Trades and Industry. Manufacturing and the technical arts in plates selected from *L'Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers* of Denis Diderot. Edited with an introduction by Charles Coulston Gillispie. Dover, New York, 1959. 2 vols. xxx pp. + 485 plates. $18.50.

Ever since scholarship has flourished, its ogre and goddess has been "the literature." The 17th century saw the birth of the scientific journal, the invention of the device of the scientific paper, and the cumulative growth of the sciences whose accretion was facilitated by this means. The 19th century saw the advent of the abstracting journals whose function it was to provide a palliative for the flood of reading matter which was even then beginning to overpower the man at the research front.

Between these periods, in the 18th century, came the era of the encyclopedia, the consolidation of the corpus of knowledge. The world had had its encyclopedists since classical times and through the Middle Ages, but during the 18th century the spread of printing and the urge toward rational systematization produced efforts of a new order of magnitude. A surprisingly large number of these early encyclopedias have survived through many editions and are still with us. Head and shoulders above all the others, especially in its treatment of science and technology, was the *Encyclopédie* of Diderot.

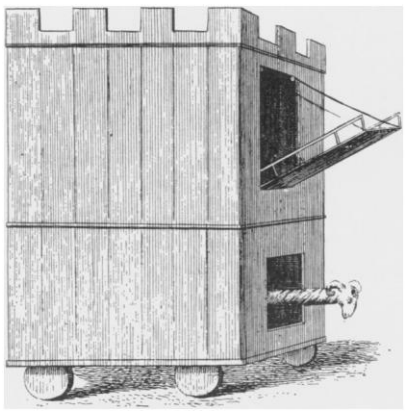

Fig. 1. An obsolete assault tower (plate 74 of the *Diderot Encyclopedia*). Notice that "battering ram" is a metaphor taken literally by the military engineers of early times.

It is well known how devastatingly effective Diderot's writings were as propaganda for his liberal ideology. His most ingenious scheme, however, was to make the Baconian examination of the trades, arts, and technologies in the *Encyclopédie* carry the ideology with it. By methodically examining and recording the tools and methods, the trades and machines, he dignified the craftsmen and emphasized the technological implications of a science that had previously been dominated by mathematics—a study which was the province of only the few, not accessible to the multitude.

Out of these circumstances, of "the literature" and the Enlightenment, came the *Encyclopédie*. Its preoccupation with science and technology was served superbly well by the art of the copperplate. In all, the *Encyclopédie* and its *Supplement* included 12 volumes containing 3129 plates. These constitute an entire "science museum" of illustrations—a museum containing panoramas of each sort of workshop and industry, with exhibits showing each device in such meticulous detail that we could reproduce it completely. By dipping into these large volumes of plates one can visit this frozen museum and recapture almost anything one seeks from the period.

This outstanding archive of illustration has long been familiar to those concerned with the history of science and technology. It provides that sort of pleasurable experience in which the hours slip by as one browses deeper into sections utterly irrelevant to one's immediate purpose. The complete set is far too rare, too costly, too large for most people to have on their own bookshelves. Even a reprinting of the volumes of plates alone would have been prohibitive in cost. The next best thing was to make a selection of the more appealing plates. That is what we have here—a choice of about one plate in six from the main work. This is the type of book which publishers say has "real estate value." One needs to own it and have it on the shelves for browsing and occasional use.

One cannot pretend that this selection will be very useful to scholars. Anyone who needs to refer to the *Encyclopédie* must have the full quota of plates and the original text. It is evident, however, that these two volumes will introduce many students and amateurs to a work that might otherwise rest unseen in the rare book room of the library. For this purpose the very well-written editorial introduction is most fitting, though the detailed notes on trades and on individual plates tend to be minimal. Probably, however, Gillispie has shown his usual good taste here; the main thing is the plates. One wishes only to know what they illustrate, not to have a lecture on each technology and trade.

The selection of plates for the anthology was based on artistic value and human interest. This seems a reasonable basis of choice, and to concentrate on the trades and industry side of the *Encyclopédie* seems reasonable too. I would, however, have liked to see science also represented in the selection through inclusion of a few pictures of scientific instruments and apparatus.

Technically the reproduction seems good (if one does not lay these volumes next to the originals), though the brilliance of the copperplates might have been better preserved by using a less yellow paper and thus increasing the contrast. The volumes are handsome, and one must give great credit to Dover Publications for instigating this lavish effort as a complement to the revolution they have been effecting in more workaday areas in the book-using habits of scientists.

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The Evolution of North America. Philip B. King. Princeton University Press, Princeton, N.J., 1959. xvii + 190 pp. Illus. $7.50.

This volume is a very notable production by Philip B. King, a principal geologist on the staff of the U.S. Geological Survey. It is the outcome of the author's long interest in the regional