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The London auction houses have discovered the growing and lucrative market for antique scientific instruments and books dealing with them. The present book joins J.A. Bennett's The Divided Circle, also published in 1987 but by Christie's, as evidence of this. Although one English book dealer says of Turner and his publication, 'As would be expected from this author this is a highly scholarly work,' one is hard pressed to agree. Early Scientific Instruments falls far short of the standard set by the Bennett/Christie's competition and by Sotheby's own companion volume, 19th Century Scientific Instruments by G. L'E. Turner (1983).

Early Scientific Instruments follows a format and style similar to Anthony Turner's Scientific Instruments (co-authored with the London antique instrument dealer Harriet Wynter in 1975). The problem with the current book is that the period 1400-1800 is too broad to allow a 'scholarly' discussion in the space remaining after the myriad illustrations. Turner admits in the Preface that 'chemical apparatus and the prehistory of the instruments of specialized subjects such as oceanography, seismology and some aspects of meteorology which only developed fully in later periods have also, I regret, fallen casualties to space.' Thus, this work is simply an expanded version of several works of general interest, e.g. Michel's Scientific Instruments in Art and History (1966) and Hawke's Early Scientific Instruments (1981), and adds little new knowledge or understanding of the development of science and scientific instruments.

Had the time period been restricted to 1400-1700, a more in-depth work would have resulted and could have made a positive contribution to the history of scientific technology. The 1400-1600 period is somewhat better served than most and provides a useful summary of scientific instruments, their development and their makers during this period. The depth with which various later instruments are considered (five pages of written text each for telescopes and microscopes) is very far from exhaustive and the author does not sufficiently develop the relationship between the problems of scientific inquiry and evolution of instruments so fundamental to understanding why and what instruments were created. However, one of the more successful and original chapters is the comparison of the instrument collections of Charles Boyle (17th c.) and of Horace-Bénédict de Saussure (18th c.). Boyle, fourth Earl of Orrery, was a wealthy collector and amateur scientist (used in the original sense as a lover of something) while de Saussure was a professor and dedicated naturalist. Boyle's collection was derived from instruments available in London while that of de Saussure reflects his
professional interests and the instruments available on the Continent. The former collection contains fewer practical examples, many being intended for demonstration purposes; the latter is obviously the equipment of an experimenter and observer. By comparison of the illustrations, one begins to appreciate the developing complexity of 18th-century instruments over their predecessors and nicely demonstrates why the specialist trade of scientific instrument maker evolved in that century.

The illustrations and plates are well produced and the selection reasonably original. The descriptions accompanying the illustrations are more comprehensive than in similar books, reflecting Turner's experience as a museum curator, but still do not fill the void one feels upon reading the text. One flaw in common with his earlier Scientific Instruments is Turner's overfondness of sundials. Approximately 10% of the illustrations are of dials in their many forms and their inclusion caters to the demand for these instruments by collectors. The percentage of space devoted to them does not reflect their importance to science although, granted, many 17th-century scientists designed sundials as part of their informal education.

Considering the price, Early Scientific Instruments will be primarily of interest to wealthy novice instrument collectors. Knowledgeable collectors and researchers may use the book for reference to, or comparison of, its illustrations of specific types of instruments. However, they will only use the text for a quick overview or as a secondary reference. A positive aspect of the work, however, are the notes and bibliography. These are much more complete than one would expect and provide the necessary information to begin serious study. Given their completeness, one wonders whether the book developed the way the author had originally envisioned, but then had its potentially scholarly tone compromised by a publisher ultimately concerned with selling the type of wares illustrated. In the end, the impression one gets from this book is that it is a sophisticated sales catalogue for the auction house, sans prices.

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