The History of Science

THE history of science is a young member of the academic family. The first course in any aspect of the history of science was introduced in America only in the 1890s, and even at present less than half a dozen American universities offer doctorates in this field. Yet, in recent years, interest in the history of science has grown rapidly, and colleges and technical schools throughout the country have introduced this subject into the curriculum.

Up to now, most of the work done in this comprehensive field has been the product of heroic amateurs, many of whom eventually produced work of professional competence. These investigators have come from many fields—including sociology and philosophy, the historical disciplines, and science itself—and they had to uncover for themselves that part of the history of science that was relevant to their interests. Systematic advancement of knowledge in this specialized subject must, however, depend on professionally trained historians of science, with backgrounds in both history and science, to take the lead, to set the standards, and to guide the many devoted amateurs so that their work will be more fruitful.

Compared to other historical fields, the state of knowledge in the history of science is still very primitive. We have, for example, no adequate modern edition of any of Newton's works; nor is there a satisfactory textbook for introductory courses, although a collection of readings for such courses has been prepared by Henry Guerlac. Furthermore, even in those fields in which the specialized monographs have produced an adequate coverage of the subject, we are badly in need of summaries and syntheses on which we can depend for accuracy of fact and reasonableness of interpretation; and such work requires a professionally trained hand.

The study of a scientific book of more than a century ago, or of the development of science in a given period or region, or the growth of a particular branch of science, or even of the significance of the lifework of a scientist of the past, will always require a deeper knowledge of science than that of most historians, and a deeper appreciation of the aims, methods, tools, and techniques of historical investigation than the average scientist will care to acquire. Furthermore, such research demands a knowledge of the history of science as such. A just evaluation of the sources and originality, the reception and ultimate effect, of any older scientific work requires that the student know well the state of science antecedent to the work in question, the contemporaneous scientific scene, and the later scientific developments.

What are the prospects for the production of such professionally trained historians of science? At the present time, there are three American universities with major graduate programs in the history of science in general: Cornell (under Henry Guerlac), Harvard (under George Sarton and I. B. Cohen), Wisconsin (under Robert C. Stauffer and Marshall Clagett). Brown is an important center for work on ancient astronomy and mathematics (under the direction of O. Neugebauer), and graduate study in the history of medicine is offered at Johns Hopkins (under Richard H. Shryock and Owsei Temkin) and at Wisconsin (under Erwin H. Ackerknecht and, in the history of pharmacy, George Urdang). As such graduate programs continue to flourish and multiply, we may confidently look forward to the day when books in the history of science will actually provide a mature understanding of the nature of science, as well as its growth, its place in our society, and its role in the development of our culture.

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