ESSAY REVIEW
A RIVERBANK OF SCIENCE

by

CASPER ANDERSEN*

Department of Culture and Society, University of Aarhus, Nobelparken, Jens Chr. Skous Vej 7, Building 1467, 224, 8000 Aarhus C, Denmark


Assembling a one-volume companion to the history of science across ages, scientific disciplines and global space is a particularly daunting task. The editor has approached this challenge in a somewhat unconventional way, as the companion is not organized chronologically or according to disciplines but in four overarching thematic sections devoted to roles, spaces, communication and tools in the history of science.

The first thematic section explores social roles in the world of science from antiquity to the present. Drawing on the notion of the persona, the contributions in this section analyse a wide range of roles and social identities involved in the study of the natural world, including, for example, the alchemist, the instrument maker and the human experimental subject. This approach provides the reader with a strong sense of the shifting intellectual hierarchies among those who have studied nature through history. Moreover, the section also brings out illuminating contrasts, for example between the natural historian and the natural philosopher, and it historicizes the contested relations between amateurs and professionals.

The second thematic section analyses the spaces and places that have been central in the study of the natural world and includes public and domestic as well as professional domains. A main idea running through these contributions is that spaces are constitutive of scientific practices. In many cases the contributions focus on specific sites and institutions in ways that prioritize the local over national and regional units of analysis.

The third section is devoted to communication practices and explores scientific knowledge in transit and the means by which scientific ideas have travelled. The contributions focus on written forms of communication (manuscripts, periodicals and textbooks, among others) in addition to the spoken word (lectures and radio) and visual means of communication (film and TV). Web-based science communication falls beyond the scope of the volume.

The fourth and final section deals with a range of tools of science, including timing devices, diagrams and telescopes, among others. This section is slightly more technical

*ideca@cas.au.dk
than the other three and contains some of the best essays in the volume, which comprises 40 contributions in total.

This thematic approach is a successful and innovative way of providing an overview of the key literature and current debates in the history of science. Inevitably, any reader is likely to identify specific parts of the history that have been left out or neglected. This reviewer was surprised that internationalism and international organizations active in the field of science were not treated at all in a volume published in a series of companions to world history. Yet, with such a huge field to cover, lacunas are inexorable. Indeed, an encyclopaedic ambition would be impossible to pursue unless a narrow, anachronistic view of what has constituted science was taken as a starting point. Moreover, organizing the volume according to disciplines or chronology would almost certainly have resulted in a volume far less interesting than this. In fact, the contributions are in most cases very readable. Clearly, authors have been given a fairly free hand to pursue a storyline and this makes the volume stimulating as well as informative. With a length of 10–15 pages, the individual contributions are well suited for inclusion in undergraduate courses.

The volume is very ambitious in terms of geographical scope. This is an aspect that sets apart the companion from other available introductions to the history of science. As Lynn K. Nyhart explains in her short, introductory historiographical essay, the history of science was once presented as a tree of scientific ideas with Western trunk and roots. According to this view, the historian’s task was to trace the growth of this tree. Today, she notes, historians tend to regard the historical world of science as a densely tangled bank teeming with cultural life. In this view, the task of the historian is to understand how certain activities in different parts of the world came to be understood as ‘doing science’. The riverbank metaphor captures well the geographical ambition of the volume. Admirably, it includes science and ways of studying nature in many different parts of the world through history. This does not mean that the volume is geographically neutral. Indeed, it must be noted that the riverbank we encounter in the volume is to a large extent teeming with the life of Anglophone scientists and their intermediaries. Contributions may begin their story in China, but there is a general tendency that the cases and narratives get thicker the closer we get to London. We hear more about the Royal Society of London than the other societies and academies put together, much more about Thomas Henry Huxley than about, say, Justus von Liebig, even though the latter, arguably, was at least as influential in shaping the identity of men in the world of ‘modern’ science. The volume makes a worthy attempt to move beyond a purely Western story, but in a course on science in world history it would be necessary to supplement the volume using more examples from the non-Anglophone world.

As a whole, the companion presents a highly commendable state-of-the-art view on the history of science. It is thus less preoccupied with theories, ideas and novel breakthroughs. For example, one does not find in this volume information and discussions of the differences between Darwinian and Lamarckian principles of evolution. Instead, the volume is more concerned with providing thick descriptions of the people and places involved in doing and communicating science and the instruments that have been used for practising science. This shift from big ideas to local practices has, of course, been notable in the history of science during the last three or four decades. As noted in the editor’s introduction, this may be seen as testament to the fact that historians of science have gained their independence from the natural sciences as their discipline has firmly established its own research agendas and questions. It is handy to have a volume that
takes stock of this development and presents the richness of a thriving academic field—not because the debate about the purpose and possible futures of the history of science is settled, but rather as an inspiration for continued discussion. We may, for example, ask if, by prioritizing the local over national and regional dimensions, we run the risk of losing sight of the macro-perspectives pertaining to financing and state interests or of the relative size and importance of different disciplines within and across time periods. This and many other debates will continue, and in this respect this volume serves as a useful focal point. Indeed, as an introduction to the history of science informed by cultural history and cultural theory, a better introduction is difficult to come by.