
Morris Low

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As co-organizer of the twelfth International Conference on the History of Science in East Asia held at Johns Hopkins University in Baltimore, 14-18 July 2008, it was with a sense of relief that a decision was made not to produce conference proceedings. Instead, some of the plenary lectures given at that conference will be published in the pages of *East Asian Science, Technology, and Medicine*, and others elsewhere in a variety of forms.

The Baltimore conference was subtitled ‘Tribute to a Generation’. Whereas Joseph Needham is seen as part of the pioneering first generation of historians of East Asian science, scholars such as Li Di, Xi Zezong, Nakayama Shigeru, Nathan Sivin, and Ho Peng-Yoke are regarded as the second generation. The conference paid tribute to these scholars.

This begs the question, how useful are conference proceedings? The proceedings of two earlier conferences, both of which I attended, resulted in memorable volumes that still sit on many historians’ bookshelves.\(^1\) Although I did not attend the ninth International Conference held in Singapore in August 1999, it was, from all accounts, a special conference. The book under review consists of the proceedings of that conference. Revised versions of approximately half of the papers presented at the conference are included in this compact book.

What is particularly significant about the publication is that it provides readers with an overview of research in the field. For example, Kim Yung Sik deals with historiographical issues such as the difficulties associated with evaluating East Asian scientific achievements from the view-

point of Western science. He chooses the examples of the idea of fossils, the ‘organic’ world view, the motion of the earth, and the roundness of the earth to illustrate this dilemma. He advocates careful contextual studies of what are claimed as forerunners of Western scientific ideas.

Gregory Clancey acknowledges how the label of ‘East Asian science’ now means not only science in East Asia, but can also be used to refer to science between sites in East Asia and science outside of the region but with links to East Asia or which somehow signify East Asia. One example of this is the history of colonial science in East Asia. Sometimes ‘colonial science in East Asia’ refers to the introduction of Western science in territories in East Asia dominated by Western powers, but it can also be usefully referred to Japanese science within Japanese colonies and territories within its sphere of influence. In this book, Tsukahara Togo provides a useful, schematic overview of the historiography of science from the viewpoint of colonial science in non-Western cultures.

In a way, this volume seeks to overcome the linguistic imperialism of English by including the work of Chinese scholars who seldom publish in English. A paper by the late Li Di on ‘The Late Qing Government’s Policy Towards Science and Technology: The Case of Jiangnan Manufactory’ is but one example of this. The Baltimore conference paid tribute to Li Di, one of the most prolific scholars in the history of Chinese science. And it noted the achievements of Xi Zezong.

Xi Zezong’s paper ‘On the Mistakes of Emperor Kangxi’s Scientific Policy’ is also included in the volume. As the title suggests, he criticizes Emperor Kangxi for not having done more in terms of promoting science. There was a form of scientific exchange through French Jesuit missionaries, but it was instigated more by them than Kangxi. In this way, Western audiences can gain valuable insight into Chinese scholarship in the history of science.

To me, one of the most valuable parts of the book is the Foreword by Ho Peng Yoke who was Director of the Needham Research Institute at the time. The Foreword is closer to being reminiscences and reflections on his own career and ties with Singapore. It makes for fascinating reading. It shows how our field has evolved, and how necessary it is to ensure that we write the history of our own profession.

Nakayama Shigeru, another scholar we paid tribute to in Baltimore, is included in the book with a paper entitled ‘The Digital Revolution and East Asian Science’. Nakayama thinks back to the Society’s first conference held in 1982 in Leuven. He recounts how a young Chinese scholar made the bold claim that if we extrapolate back from the computer age, the Chinese algebraic tradition rather than the Western geometrical tradition may constitute the mainstream of the history of mathematics. After a discussion of the Chinese numerical tradition and mention of the work of
the Yuan dynasty astronomer and mathematician Kuo Shou-ching’s Shou-shi system of 1279, he jumps to 1950 when Japan was under Allied Occupation. He relates how he was working on his dissertation in mathematical astronomy and learnt about the advent of a punch card system (a forerunner of computers) through an issue of an American journal. After an interval of almost 700 years, numericism was reborn! Nakayama then reminisces about how he and Nathan Sivin used the MIT mainframe computer back in 1972 to help them in their translation of Season Granting Astronomical Treatise of the Yuan dynasty (Shou-shi li). While it makes for rather an eclectic paper, the paper is invaluable in terms of the insights it provides into a collaborative relationship between two senior scholars in the field. Although a paper by Nathan Sivin is not included in the book, he features in both Ho Peng Yoke’s Foreword and Nakayama’s essay.

Conferences provide a snapshot in time of scholarship and some of the major players. The concise papers mean that we can only get a taste of people’s work but the advantage is that the editors have managed to squeeze some 53 papers (22 of which are by scholars working in the People’s Republic of China) into an accessible, compact, albeit thick volume that provides a pot-pourri of work in the history of East Asian science, technology and medicine. The emphasis is, not surprisingly, on China (40 papers), but also with papers on Japan, Korea, Vietnam, Taiwan and the Philippines.

The editors have divided the volume into eight sections and have succeeded in giving it a semblance of order. There are sections on: philosophy and the cultural study of science and technology; science and technology policy; medicine and the life sciences; and Western scientific influence. In addition, there are individual sections devoted to mathematics, astronomy, technology and techniques, and finally scientific literature. It is not possible to mention all the papers in the volume but I would like to devote the remainder of this review to mentioning some of the highlights for me.

It was a treat to read two papers on the Philippines in this volume, thanks to the conference being held in Singapore. In her paper on ‘Traditional Medicine and Pharmacopoeia in the Philippines, 16th and 17th Centuries’, Mercedes G. Planta points to how Muslims were responsible for the transmission of humoral pathology to Spain during the period from the 8th to 11 centuries, and then later to Southeast Asia. She draws our attention to how herbs, baths and massage formed part of the medical repertoire of Filipinos during the period covered by her paper. The

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use of herbs was helped by the abundance of medicinal drugs and herbs (such as the betel nut and leaves) in the country. She argues that by the 17th century, Filipinos had a recognizable medical tradition.

The second paper dealing with the Philippines is by José Antonio Cervara. Despite all the attention given to Jesuit missionaries in China, he points out that they, of course, were not the only missionaries to help spread Western scientific knowledge in East Asia. He focuses on the Spanish Augustinian friars and cosmographers Andrés de Urdaneta (1508-1568) and Martín de Rada (1533-1578). We can apparently attribute the identification of Marco Polo’s Cathay with China to Rada.

The traffic in ideas between East Asia and Europe was not all one way. There is a fascinating paper by Mau Chuan-Hui that attempts to use French patents from 1791 to 1860 to examine the appropriation of Chinese silk techniques by the French silk industry.

A further highlight for me were the papers that dealt with the history of twentieth century Chinese science and medicine. Zhang Li provides a useful history of advanced chemistry education in China before 1937. This builds on James Reardon-Anderson’s book *The Study of Change: Chemistry in China, 1840-1949* (1991). Chen Shiwei contributes a substantial paper on the largely untold story of the 1948 Sino-American scientific expedition to Mount Amne Machin in northwest China. A feature of the story is the role of Academia Sinica and international scientific cooperation at this critical turning point in Chinese history. Kim Taylor looks at the years that follow, specifically the role of traditional medicine in newly Communist China. She argues that the years 1949-1953 marked a shift to a general policy of wholesale support of Chinese medicine. She notes the pivotal role of He Cheng who was a physician trained in Western medicine who originally hailed from Sichuan province. Taylor’s study complements Ye Xiaqing’s paper on the health policies of the nationalist government. Ye draws our attention to how the government issued 44 regulations on medical administration over the period 1929-1940. She argues that these regulations reflect how health policies were seen as a vital part of nation building, reflecting not only the aspirations of the government but also an indication of what was done.

There is much to like about this volume. Readers will delve into it, picking and choosing what meets their interests. It is, in many ways, a compendium, a resource that provides a window to a world of scholarship that is sometimes difficult to access. We should be grateful to the editors for making this available.