

Xiong Weimin 熊卫民, *Dui yu lishi, kexuejia you hua shuo: 20 shiji Zhongguo kexuejie de ren yu shi* 对于历史,科学家有话说:20世纪中国科学界的人与事 [*Scientists Have Something to Say about History: The People and Issues of Twentieth-Century China's Scientific World*]

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People in our profession frequently need to explain why we think historians have something to say about science. In this rich collection of oral histories, historian Xiong Weimin seeks to demonstrate the converse: that scientists have important things to say about history. Every scholar interested in Mao-era science will want a copy of this book; it would also be very suitable in the (Sinophone) classroom and has already received a very positive reception among more general audiences in the People's Republic of China (PRC).

The bulk of the book comprises interviews with sixteen people, including research scientists spanning the physical, biological, and engineering sciences; a prominent philosopher and historian of science; administrators in the Chinese Academy of Sciences (CAS); and editors of major scientific publications. In addition, Xiong provides an introduction to the collection titled “Between Science and Politics,” and he closes with his essay “How to Improve the Reliability of Oral History.” Most of the material in the volume has been previously published, but it is brought together here for the first time and gains much depth through the resulting juxtaposition—and of course in book form the material has become accessible to audiences beyond those who usually read scholarly journals.

Xiong's work supports important trends in both popular culture and academia. The book is one of three so far in a Dongfang Press series called Private Histories (私历史), reflecting an expanding popular interest in history as it has been experienced by regular people (including family history, local history, public history, etc.). Its content also strongly resonates with the traveling *Exhibition of Modern Chinese Scientists* (中国现代科学家主题展), curated by historian of science Zhang Li and others, which has attracted large audiences across China (Zhang and Zhang 2014). Xiong's focus on

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oral history as source material also coincides with a growing interest among scholars of PRC history in sources beyond the archives—a trend arising not only from discouragement about the state of archival access but also from a desire to move past the state’s frameworks to capture the experiences of people at the “grassroots.”

When I first saw the book’s title, I assumed the author intended to argue that scientists qua scientists—that is, as cosmopolitan intellectuals dedicated to the pursuit of objective truth—have special insights to offer about history. This may be an underlying expectation for Xiong and his readers, but if so it is not explicitly emphasized in the book. Rather, Xiong begins from the more concrete and easier-to-defend premise that the sheer number of Chinese scientists (representing the majority of China’s intellectuals) and their underrepresentation in historical testimony to date requires an effort on the part of historians to collect and propagate their stories. Moreover, as Xiong repeatedly highlights, science and politics were closely intertwined during the Mao era, and so scientists participated directly in political campaigns and were present at events of national significance. It is thus less their insights into the meaning of history, and more their witnessing of specific historical episodes, that constitute what scientists “have to say about history” in this book.

Physicist Zheng Zhemin, metallurgist Fu Junzhao, and cellular biologist Shi Lüji all discuss their experiences studying in the United States and then returning to China: these testimonies, along with much other material—including physicist Li Yuchang’s discussion of the experiences of several colleagues who returned to China from overseas and polymer chemist Hu Yadong’s recollections of scientific delegations to Western Europe, the United States, and Taiwan between 1977 and 1982—provide very valuable evidence for studying the transnational history of Chinese science. As just one example of the precious anecdotes to be found in these pages: Xue Pangao relates that among the many foreign representatives of communist parties present at the 1964 Beijing Science Symposium (which was international and multidisciplinary, and which focused not just on science but also on anti-imperialist struggles), one Indonesian delegate sought to speak out against the development of nuclear weapons. This caused great consternation among the Chinese hosts (after all, China was far along in its own nuclear weapons research and would soon detonate its first atomic bomb), who prevailed upon her to rethink her absolutist position (271).

Many of the interviewees testify to their experiences in political campaigns. Here we do sometimes find the interviewees seeking to interpret history and not just provide facts. For example, Shen Shanjiang is sympathetic to the original rationale behind the thought-reform movement but argues that it expanded to include too much (67). For his part, theoretical physicist He Zuoxiu frankly contends that the real reason for the many political movements in the early PRC was the need to stabilize the party’s weak power base (146). Two extended narratives by Xue Pangao can both be read as appeals for greater freedom for scientists and scientific disciplines to grow without excessive political interference.

Still, in terms of the book’s overall contribution, the analytical insights the interviewees share are less pronounced than the specific details they are able to add to the historical record. Of particular and repeated importance in the narratives are the cases of certain figures—for example, biologist Zhu Xi, historian of science Xu Liangying, and psychologist Ding Zan—who were targeted in political campaigns. Also of great historical interest are the eye-witness accounts of landmark meetings, including Xue

Pangao's report on Vice Premier Chen Yi's talks at the 1962 Guangzhou Conference; CAS administrator Song Zhenneng's on-the-ground experiences at the 1972 National Science and Technology Work Meeting and the Hua Guofeng-era "Hundred Schools of Thought Contend" Symposia; and the recollections shared by Shanghai-based CAS cadres Ba Yannian and Gui Shimao on how the "Meetings of the Immortals" (scientists' forums) in the wake of the Great Leap Forward were conducted.

Some of the interviews further offer very valuable details on the practice of scientific research itself. Biochemist Zou Chenglu, one of the main characters in the synthesis of insulin (the subject of a separate monograph by Xiong Weimin and Wang Kedi [2005]), has much to say on both the challenges and the successes of science during the Mao era: here we see further evidence of the familiar irony that Mao-era politics made it easier for some scientists to achieve theoretical advances alone in their rooms than to conduct collectively organized experimental research (92). Also worth highlighting is Fu Junzhao's discussion of the efforts to make steel using "local methods" (土法). The "backyard furnaces" of the Great Leap Forward are without doubt one of the most notorious and commonly cited examples of so-called leftist errors in Mao-era science and technology policy. In the space of a few pages, Fu offers details on the involvement of numerous historical actors, including top political figures Zhou Enlai, Kang Sheng, and Peng Zhen; scientist Yang Yongyi; and veteran Yan'an-era cadre Gao Yunsheng.

Certain figures loom large in these stories, and none larger than rocket scientist and "father" of China's space program Qian Xuesen. Separate interviews with physicists Zheng Zhemin, Tan Qingming, and Li Yuchang provide information on Qian Xuesen, including new evidence that Qian had been a member of the Communist Party in the United States (229). Qian also appears in the chronicle of engineer Cai Decheng, whose political outspokenness had led him to be labeled a counter-revolutionary during the Cultural Revolution; after his rehabilitation, Cai became associate editor at the journal *Science and Technology Review* (科技导报) of the Chinese Association for Science and Technology. Under Cai's leadership, the journal published a famous scientific debate on the Three Gorges Dam; this was one of Qian Xuesen's pet projects, and so Cai endured repeated criticism and censure by Qian.

While many readers will no doubt be greatly attracted to the stories of Qian Xuesen and some of the other famous and colorful characters featured in the book, I expect STS scholars will be even more interested in the light these interviews shed on the institutional workings of science in the PRC. Philosopher and historian of science Fan Dainian discusses his role as deputy director of the journal *Science Bulletin* (科学通报) and of the Research Office for Natural Dialectics of the CAS. The interview with theoretical physicist He Zuoxiu, titled "Between Science and Propaganda," includes helpful information on the Science Department of the Propaganda Bureau. (On this subject, readers will also want to consult Zhang Li and Zhao Tao's excellent article, "The Science Department and New China's Early Scientific Leadership Work" [2015].) A joint interview with two administrators in the Shanghai division of the CAS, Ba Yannian and Gui Shimao, and a separate interview with the leader of the CAS Experimental Biology Laboratory, Luo Deng, help illuminate the (limited) agency of those Xiong calls "moderate" (平和) cadres who found themselves at the center of political movements.

The closing essay offers a defense of oral history as a research strategy and specific guidelines on how to conduct oral history research to improve the reliability of the testimony gathered. There is much to praise in Xiong's approach. His questions have clearly been informed by careful background research; when possible, he cross-checks with other interviewees; and in many places he provides documentary evidence to enhance the oral testimony. Perhaps most important, he preserves in his transcripts the interviewer's questions in addition to the interviewee's responses: this not only creates an engaging dialogue format but also an admirable transparency that allows readers to understand the context in which the subjects are making their statements and permits us to decide for ourselves whether other questions might have elicited other answers.

In emphasizing the need to take concrete steps to improve reliability in interview testimonies, Xiong is adopting a highly empirical approach to the study of history. He goes so far as to say that "if newspapers, magazines, memoirs, etc. were 100% truly reliable, there would be no real need for professional historians" (378). He does recognize the existence of what he calls the "diversity of historical truths" (历史真相的多元性, 382), but he still frames the problem in terms of reliability—specifically, such diversity appears as one of five factors that reduce reliability in oral history accounts. This is by no means the only approach that historians can or do adopt in considering the value of oral history interviews.

For some oral historians, especially those who study marginalized communities, providing opportunities for people to give voice to their own experience is the primary goal. (For example, numerous scholars within and outside the PRC are currently dedicating themselves to recording the voices of peasants who lived through the Mao era.) And I would note that, based on responses to Xiong's book on blog posts and other web media, hearing these scientists' voices seems to be a main draw for his readers. After all, while by no means subaltern, Mao-era intellectuals can and do lay claim to substantial persecution and thus the right to have their experiences heard. One might argue, at least in this case, that the author's commitment to the accurate recording of history and his readers' interest in the bold and frank testimonies of people whose suffering and bravery have earned their admiration are in some sense two faces of a shared interest in courageous truth telling. This shared interest is clearly rooted in the specific historical conditions of twenty-first-century China. Indeed, in a widely circulated comment on Xiong's work, Beijing University professor Rao Yi wrote, "This book is rare and precious because it speaks the truth" (2017). It hardly needs to be said that the concern for truth telling will also resonate for many people in other parts of the world struggling with our own dilemmas around science, politics, and justice.

Still other historians who use oral history are interested in exploring the relationship between memory and history, and between personal and collective understandings of the past. Accepting oral history accounts as subjective, they worry less about reliability and focus more on questions of how historical actors experienced the past, what meanings they found in it, how those meanings have changed over time, and the significance of the discourse and narrative forms that structure the stories they tell. Xiong does not ask such questions. However, his book provides rich raw material that other scholars may analyze in this manner.

I have just two criticisms to offer. First, especially for a book this rich in detail, an index would greatly aid researchers in locating information on specific people and events. Perhaps an expanded digital version of Xiong's oral history interviews might

provide an even better option for searching through the materials. Second, and more important, I wish that there had been at least a few women among the interviewees. There is a touching account in the interview with Fan Dainian of a woman named Li Chonggui who was active in the Communist underground during the revolutionary era and had shown great promise, but her background as the adopted daughter of a Guomindang leader presented a “historical problem” that prevented her from rising in CAS as she should have (122). Reading her story heightened my awareness of the relative absence of women in these conversations, and as I continued reading I turned over in the back of my mind the various historical and historiographical “problems” that prevent Xiong’s readers from hearing the voices of women.

These caveats aside, this is a very welcome addition to the history of science in the PRC. It represents many years of diligent scholarship on the part of historian Xiong Weimin and much thoughtful, courageous testimony on the part of the people he interviewed. I am certain it will be consulted by scholars and enjoyed by the public for many years to come.

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