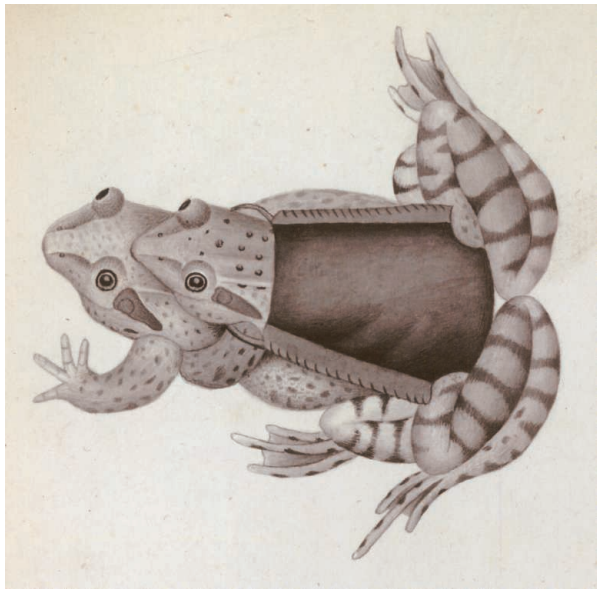
increasingly less a low-cost producer than a country of middle-class consumers. How will China continue to grow when it is an aging middle-class country? Here Acemoglu and Robinson argue that unless it becomes a more inclusive political system, China will soon become mired in the "middle income trap." They don't say inclusive political change is inevitable—quite the opposite, given their faith in the path dependency of vested interests. But they do make the big call that absent real political reform, China's economic miracle will end.

Acemoglu and Robinson may well be proved right about China, and perhaps that will convince skeptics of the power of their politics-matters-most thesis. Regardless, their fascinating and thought-provoking book should be read, discussed, and debated far beyond the ranks of social scientists.

10.1126/science.1222452



Mating frog with taffeta trousers. Hélène Dumoustier de Marsilly's drawing, documenting experiments carried out in the 1730s by the French naturalist René-Antoine Ferchault de Réaumur. These tested whether the male's gripping thumbs were the means of fertilization.

HISTORY OF SCIENCE

Looking to Learn

Carla Nappi

"Frog pants." When I tell people about *Histories of Scientific Observation*, which is usually in the context of telling them that they need to read it, this is what I lead with. If a physical copy is at hand, I turn open the pages to the image of a male frog wearing waxed taffeta pants (with shoulder straps) as he embraces his mating partner while the two of them look serenely into the distance. This, alone, is worth the price of the book. As it happens, however, there is much else to recommend a careful reading of the volume.

Histories of Scientific Observation

Lorraine Daston and Elizabeth Lunbeck, Eds.

University of Chicago Press, Chicago, 2011. 472 pp. $75, £48.50. ISBN 9780226136776. Paper, $27.50, £18. ISBN 9780226136783.

The editors' introductory overview explains the rationale for and organization of the book. The first three chapters introduce the basic contours of the history of scientific observation from 500 to 1800, with the authors focusing on the origins (Katharine Park), emergence (Gianna Pomata), and consolidation (Lorraine Daston) of observation practices in medieval and early modern sciences. The remaining 14 chapters are arranged in four sections, each cohering around a central component of the practice of observation in history: evidence, new techniques, new objects, and communities. Daston and Elizabeth Lunbeck carefully preface each set of essays with a short overview that explains the grouping and summarizes each of the essays within the section, making it easy for readers to understand how the essays fit into the larger narrative of the volume.

The majority of edited volumes published in the social sciences and humanities, certainly most that I have come across in several years of reading them, are chimeras. A lion's head here, a serpent's tail there: a Frankensteinian patchwork bandaged together by the memory of a conference and a dutifully composed editorial introduction. The pressure on conference organizers to promise funders a published volume as a material outcome of a scholarly gathering has left the academic world overrun by collections of essays that often would be better suited to publication in journals than bound in hardback. Blissfully, this is not one of those.

Despite the breadth of its contents, the volume is remarkably cohesive, with many of the chapters explicitly cross-referencing others and making one feel as if the authors are inviting us into an ongoing conversation. Indeed, *Histories of Scientific Observation* is the result of a sustained engagement among the editors and contributors that extended across several meetings over several years. The essays represent an extraordinary range of materials, topics, and case studies within the history of the sciences. They explore contexts from the Middle Ages through the late 20th century and chart the ways that the practices and language of observation evolved along with the emergence and transformation of scientific fields of inquiry. These components make sense as parts of a structure that was carefully planned from its inception: they were born together, grew together, and inform one another. This is a model of what an edited collection can be.

There is no way that a single volume, even one as multifaceted as this, could give a comprehensive history of observation in the sciences, and the editors wisely make no such promises. In choosing such varied case studies, however, they have achieved something that is an important contribution to the history of science: the essays stand as exemplars of many, many different approaches to understanding the same problem. These approaches include a careful study of archival documents on 18th-century French natural history (Mary Terrall and the frog pants); a spirited and often humorous account of scientific attempts to understand blushes on 19th-century faces and erections in 19th-century trousers (Otniel Dror); and a fascinating exploration of empathy in 20th-century psychoanalysis (Lunbeck). Most of the authors wisely choose a very limited case (perhaps the work of one or two major figures) to probe much larger epistemological issues, but aside from this commonality the sources and historiographical approaches of the contributions are exceptionally diverse.

Visual studies constitutes an enormous field. There are countless works available on varied aspects of the history, theory, creation, and interpretation of images and an entire subfield devoted to the study of images and visuality in the sciences. All of this makes the contribution of *Histories of Scientific Observation* even more remarkable. There is nothing else like the volume currently available, and it should be required reading for both historians of science and scientists interested in the history of their craft.

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