

The Book Worlds of East Asia and Europe, 1450–1850

Connections and Comparisons

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1

Introduction

Joseph McDermott and Peter Burke

Of all the world's greatest inventions, that of printing is the most cosmopolitan and international. China invented paper and first experimented with block printing and movable type. Japan produced the earliest block prints that are now extant. Korea first printed with type of metal, cast from a mould. India furnished the languages and the religion of the earliest block prints. People of Turkish race were among the most important agents in carrying block printing across Asia, and the earliest extant type are in a Turkish tongue. Persia and Egypt are the two lands of the Near East where block printing is known to have been done before it began in Europe. The Arabs were the agents who prepared the way by carrying the making of paper from China to Europe. Paper making actually entered Europe through Spain, though imported paper had already come in through the Greek Empire at Constantinople. France and Italy were the first countries in Christendom to manufacture paper. As for block printing and its advent into Europe, Russia's claim to have been the channel rests on the oldest authority, though Italy's claim is equally strong. Germany, Italy and the Netherlands were the earliest centers of the block printing art. Holland and France, as well as Germany, claim first to have experimented with typography. Germany perfected the invention, and from Germany it spread to all the world.

Thomas J. Carter, *The Invention of Printing in China and Its Spread Westward*

In addressing many of the topics mentioned here by Thomas Carter, this volume stands at the crossroads of a number of recent trends in historical thought and writing. Its purpose is to make a substantive—and, we hope, a substantial—contribution not only to the history of the book but also to comparative history, the history of knowledge, and the history of the media. It is with these wider contexts that our introduction is concerned.

The Rise of Book History

The past few decades have seen increasing worldwide interest in the history of the book. Publishers have rapidly expanded their lists of books on the topic, and journals—such as the *Revue française d'histoire du livre*, *Gutenberg Jahrbuch*, *Wenxian (Documents)*, and, most recently, *East Asian Publishing and Society*—have published

a constant stream of articles on what appears to be an ever-growing field of research. Academic societies such as SHARP (Society for the History of Authorship, Reading and Publishing) have grown up around book history, and annual series of talks like the Panizzi Lectures at the British Library regularly develop and disseminate the latest findings and approaches.

These activities have attracted not just literary scholars and bibliographers but also historians, ranging from historians of printing technology to economic historians concerned with the fortunes of the book trade as well as to cultural historians interested in changing styles of reading.¹ Some studies are microscopic, focused on a single book or printer, while others investigate large problems, among them what a well-known contribution has described as “the printing press as an agent of change.” In the West, the printing press has been seen to have contributed to major intellectual movements such as the Renaissance, the Reformation, and the Scientific Revolution. In East Asia, print technology is seen to have profoundly shaped the region’s pre-modern and modern culture. Woodblock printings disseminated Confucian texts for the examination system in China and Korea as well as popular fiction and images for urban consumers in Suzhou and Osaka,² and since the mid-nineteenth century, lithographic and moveable-type machinery has enabled newspapers and journals throughout East Asia to spread nationalist appeals for the formation of more inclusive modern print cultures.³

So far, the best-known contributions to book history, in its present progress toward becoming an autonomous discipline, have been made by Anglophone and Francophone scholars, among them Don McKenzie and Roger Chartier.⁴ Appropriately enough for the compatriots of Johan Gutenberg, important contributions have also come from Germany.⁵ Most of these studies have been concerned with the book in the West, especially the printed book, often within the frontiers of particular nation-states. Indeed, national rivalry surely underlies some major

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1. Elizabeth Eisenstein, *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 1979); Robert Darnton, “First Steps Toward a History of Reading,” reprinted in his *The Kiss of Lamourette: Reflections in Cultural History* (New York: Norton, 1990): 154–87; and Frédéric Barbier, *L’Europe de Gutenberg: le livre et l’invention de la modernité occidentale* (Paris: Belin, 2006).
 2. John Chaffee, *The Thorny Gates of Learning in Sung China* (Cambridge: Cambridge University Press, 1985): 14, 74; John Lust, *Chinese Popular Prints* (Leiden: Brill, 1996); and Roger Keyes, *E-hon* (New York: New York Public Library, 2004).
 3. Christopher A. Reed, *Gutenberg in Shanghai* (Vancouver: University of British Columbia Press, 2004); and Barbara Mittler, *A Newspaper for China: Power, Identity, and Change in Shanghai’s News Media, 1872–1912* (Cambridge, MA: Harvard University Asia Center, 2004).
 4. Don McKenzie, *Bibliography and the Sociology of Texts* (London: British Museum, 1986); and Roger Chartier, *The Cultural Uses of Print in Early Modern France* (Princeton, NJ: Princeton University Press, 1987).
 5. Michael Giesecke, *Der Buchdruck in der frühen Neuzeit* (Frankfurt: Suhrkamp, 1991; rev. ed., 1998).

collective projects such as the histories of the book in France, Britain, Canada, and elsewhere.⁶

However, interest in the history of the book outside the West has also been growing. Johannes Pedersen's groundbreaking 1946 study, *Arabiske bog* (*The Arabic Book*), undoubtedly because it was published in the author's native Danish, took time to have the impact it merited. But, with its 1984 translation into English it started to find a much wider readership and lay the seeds for important recent findings about the very complex history of book production and text transmission in the Middle East, that Geoffrey Roper and Nelly Hanna, among others, have begun to disclose in fascinating detail.⁷

In East Asia, the rise of book history as a separate historical concern has been favored by the region's rich tradition of publishing and bibliographical studies. Over a decade ago, many important Japanese findings on Japanese books were expertly presented in English in an authoritative account of Japanese book history by one of the authors in this volume.⁸ Even before this contribution, a younger generation of Japanese scholars had begun to pose new questions about this rich lode of traditional book knowledge. They undertook important research on communication networks, media formation, and information channels in premodern Japan. The walls that had once stoutly defended bibliography from encroachment by Japanese humanistic and literary research have largely fallen, to the benefit of all these disciplines.⁹

Yet, it is in Chinese studies that the history of the book as a distinct discipline seems in the past decade or so to have had the widest appeal and greatest impact outside of European studies. A virtual explosion of Chinese and non-Chinese research on the Chinese book has taken place, concerned principally with imprints at various times between the Tang (618–906) and the Qing dynasties (1644–1911). In addition to adroitly tapping traditional Chinese strengths in bibliography, this research has explored new questions about the production (woodblock as well as moveable type), distribution (buying, giving, lending, and even stealing), and consumption of books (reading practices, private and public libraries, and collectors). The findings have

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6. Henri-Jean Martin and Roger Chartier, eds., *Histoire de l'édition française*, 4 vols. (Paris: Promodis, 1983–86); and Richard Gameson et al., eds., *The Cambridge History of the Book in Britain*, 6 vols. (Cambridge: Cambridge University Press, 1999–2011).
 7. Johannes Pedersen, *The Arabic Book* (Princeton, NJ: Princeton University Press, 1984); translated by Geoffrey French and edited with introduction by Robert Hillenbrand; Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper, eds., *Middle Eastern Languages and the Print Revolution: A Cross-Cultural Encounter* (Westhofen: WVA-Verlag Skulima, 2002); and Nelly Hanna, *In Praise of Books: A Cultural History of Cairo's Middle Class, Sixteenth to the Eighteenth Century* (Syracuse, NY: Syracuse University Press, 2003).
 8. Peter Kornicki, *The Book in Japan: A Cultural History from the Beginnings to the Nineteenth Century* (Leiden: Brill, 1998).
 9. For example, Nagatomo Chiyoji, *Edo jidai no tosho ryūtsu* (Kyoto: Bukkyō Daigaku Tsūshin kyōikubu, 2002); and Suzuki Toshiyuki, *Edo no dokusho netsu* (Tokyo: Heibonsha, 2007).

helped to make book history and such core issues as canon formation, manuscript culture, text transmission methods, cultural integration, and access to knowledge become central to the study of China's cultural history.¹⁰ In sum, a new discipline, the history of books, has over the past two decades attracted ever-widening interest in scholarly circles in various regions of Eurasia. The way their separate histories and historiographies dovetail and interlink—or not—promises to be a key concern of international scholarship in the coming decades.

The Comparative Approach

The resulting multiplication of histories of the book in parts of the world as diverse as Britain and Japan or Cairo and Hangzhou enables scholars of book history to contemplate for the first time how they might undertake sophisticated comparative analyses. Historians of the Western book have been invited more than once to conferences on the Chinese book for this purpose.¹¹ To repeat and return the compliment, this particular book seeks to have experts on East Asian and European book history explore issues of mutual interest, to the benefit we believe of our main concerns and other issues of book history at the opposite ends of Eurasia.¹²

This effort is neither as new nor as novel as might be thought. Past scholars of Chinese book history such as Paul Pelliot, Thomas Carter, and Zhang Xiumin have drawn implicitly and explicitly on research done on European printing, just as Lucien Febvre and Henri-Jean Martin turned to the history of the Chinese book to refine their views on the history of the European book.¹³ Also, in the past half-century, leading historical journals like *Comparative Studies in Society and History* and *Past and Present* have occasionally published comparative studies of reading and even book history.¹⁴

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10. See the titles by Brokaw, Chia, Chow, and McDermott mentioned in this volume, "East Asian and European Book History: A Short Bibliographical Essay."
 11. Ann Blair, "Afterword: Rethinking Western Printing with Chinese Comparisons": 349–60, in Lucille Chia and Hilde De Weerd, eds., *Knowledge and Text Production in an Age of Print, 900–1400* (Leiden: Brill, 2011); and Roger Chartier, "Gutenberg Revisited from the East," *Late Imperial China* 17.1 (1996): 1–9.
 12. See Han Qi and Mi Gala (also known as Michela Bussotti), eds., *Zhongguo he Ouzhou* (Beijing: Shangwu, 2008), for the results of a recent French-inspired effort in China to introduce French scholars of mainly the French book to Chinese scholars of the Chinese book.
 13. Thomas J. Carter, *The Invention of Printing in China and Its Spread Westward* (New York: Columbia University Press, 1925); Lucien Febvre and Henri-Jean Martin, *The Coming of the Book: The Impact of Printing, 1450–1800* (London: Verso, 1981); Paul Pelliot, *Les débuts de l'imprimerie en Chine* (Paris: Adrien-Maisonneuve, 1953); and Zhang Xiumin, *Zhongguo yinshua shi* (Shanghai: Renmin, 1989).
 14. Jack Goody and Ian Watt, "The Consequences of Literacy," *Comparative Studies in Society and History* 5.3 (April 1963): 304–45; and Robert Darnton, "The High Enlightenment and the Low-Life of Literature in Pre-Revolutionary France," *Past and Present* 51 (May 1971): 81–115.

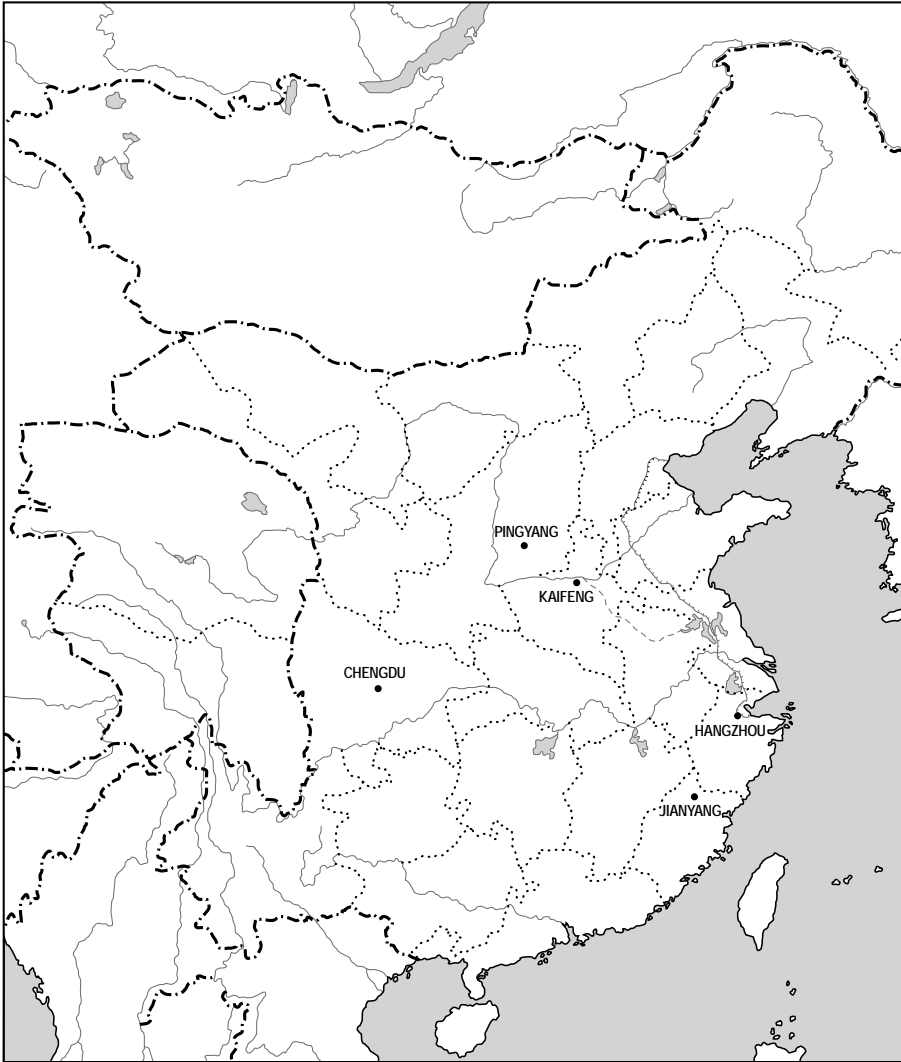
These books and articles show, among other things, our need to clarify loose categories like East and West, since scholars in different national communities have tended consciously or otherwise to favor different regional units for comparison. Here we will concentrate on the book cultures of the two regions of Eurasia, East Asia and Western Europe, which in premodern times made the most of publishing books.¹⁵ Just as the most influential Western scholars of the European book have relished researching how the book has shaped the history of European countries other than just their own, so do we now wish to analyze the development of book production, distribution, and consumption of these regions from a consciously comparative perspective. Our hope is that our chapters will cast new light on the history of books and book culture within each of these regions.

The stretch of time treated here, 1450–1850, includes the first four centuries of the period that Europeans have traditionally entitled “The Age of European Expansion” and four centuries of considerable expansion of printing in East Asia, after the spread of printing in China during the Song period (960–1279) (see Map 1.1, Map 1.2, and Map 1.3). As the greater interaction of European and East Asian cultures involved everything from religion and silver to armies and commodities, it is only to be expected that their book worlds also had some contacts, perhaps meaningful ones. This introduction explores how much of this Eurasian imprint and printing relationship can be revealed through what recent French studies have called *histoire croisée*, “entangled” or “connected” history.¹⁶ This increasingly popular kind of history writing focuses on the parallel, at times unconsciously shared, history that wide-ranging research discovers for different cultures and societies. It is seen as a basic feature of global history, itself stimulated by the accelerating globalization of our time.

How might such *histoire croisée* enrich the history of the book? We suggest that it can do so through the study of technology transfer, knowledge transfer, and the history of “news.” These three subjects, commonly taken up in studies of historical connectivity, will form a set of interlinked reflections on the matters described by Thomas Carter at the head of this introduction. Much of the general story related by Carter a century ago still holds true: printing began in East Asia, and European printers did make use of some Asian innovations, like paper, to print books. Yet, many of the details in Carter’s account need reexamination and revision. More importantly,

15. For example, the Flemish Jesuit Ferdinand Verbiest writing at the close of the seventeenth century: “One must notice that in the entire world there is not one nation, even not in Europe [speaking of this ‘nation’ in its entirety, in general terms], where the use of writing and books is more familiar and even more necessary than in the Chinese nation,” as in Noël Golvers, *Libraries of Western Learning for China: Circulation of Western Books between Europe and China in the Jesuit Mission (ca. 1650–ca. 1750)*, vol. 1, *Logistics of Book Acquisition and Circulation* (Leuven: Ferdinand Verbiest Institute, 2012): 16n6.

16. Michael Werner and Bénédicte Zimmermann, eds., *De la comparaison à l’histoire croisée* (Paris: Seuil, 2004).



Map 1.1

Preliminary map of major sites of commercial publishing, Song-Jin-Yuan dynasties

Notes:

1. Map 1.1 conservatively lists only major sites for commercial publishing in the Song, Jin, and Yuan dynasties. For a comprehensive map of all kinds of publishing, including literati or elite-family publishing, see Su Bai, *Tang Song shiqi de diaoban yinshua* (Beijing: Wenwu, 1999): facing 84.
2. The major commercial publishing sites are identified here by the use of capital letters for their entire name.



Map 1.2

Preliminary map of major and minor Ming commercial publishing sites (late sixteenth century)

Notes:

1. Map 1.2 tentatively lists major and minor sites for commercial publishing and the major book markets as identified by Hu Yinglin (1551–1602), *Jingjihuitong*, 4, *Shaoxing shan-fang* (Shanghai: Zhonghua, 1958), v. 1: 65ff. Provincial capitals were usually sites of official publishing, while throughout the empire and especially the lower Yangzi delta many prefectural and county seats, market towns, and even rural districts were active in literati or elite-family printing.
2. The major commercial publishing sites are distinguished from the minor by the use of capital letters for their entire name.



Map 1.3

Preliminary map of major and minor Qing commercial publishing sites (nineteenth century)

Notes:

1. Map 1.3 tentatively lists major and minor sites for commercial publishing in the nineteenth century primarily on the basis of Zhang Xiumin, *Zhongguo yinshua shi* (Shanghai: Renmin, 1989): 547–59. As in the Ming dynasty, Qing provincial capitals were often sites of official publishing, while throughout the empire and especially the lower Yangzi delta many prefectural and county seats, market towns, and even rural districts were active in literati or elite-family printing.
2. The major commercial publishing sites are distinguished from the minor by the use of capital letters for their entire name.

where Carter and his successors, like the historian of science Joseph Needham, saw an easy passage of this printing technology, book knowledge, and information across Eurasia, we have repeatedly found obstacles to this mutual sharing and communication between 1450 and 1850. The sharing of technical knowledge related by Carter and the establishment of a common Eurasian system of scientific knowledge that Needham imagined simply did not take place in this period, and for sure not in the often disembodied manner these scholars described. In this introduction we reexamine this transmission of book technology and knowledge and consider the reasons for the difficulties it often encountered. We hope thereby to clear the ground for the discussion of a comparative and, in places, global book history in this volume's other chapters on the East Asian and European book worlds of East Asia and Europe. "Book world" is a concept adopted here to indicate explicitly the network or system of people and institutions in an East Asian or a European country that supported and sometimes restricted the production, diffusion, and consumption of books: scriptoria, printer's workshops, book peddlers, bookshops, libraries public or private, large or small, etc.¹⁷

This introduction begins our consideration of these book worlds by analyzing the transfer of their printing technology, arguably the simplest and most basic of book-related transfers. First, we review the likelihood of the transmission of woodblock or moveable-type printing technology from East Asia westward and then survey the subsequent passage of Western printing-press technology eastward as far as Japan. Having found that before the mid-nineteenth century these particular technology transfers had limited success in either direction, we next study these regions' "book connectivity," as seen in their transfer of scientific and religious learning through printed books initially in the late sixteenth and seventeenth centuries. Admittedly, these early exchanges bore only temporary and partial fruit and led to minimal institutionalization of the exchange of knowledge between these two distant parts of Eurasia (as in the regular sharing of scientific learning). But, this scientific knowledge and religious thought from the West did help, we suggest, to introduce new ideas to East Asia that arguably helped to prompt Chinese scholars to pay greater attention to textual scholarship in the eighteenth and nineteenth centuries. Meanwhile, some eighteenth-century French ministers and thinkers, anxious to learn from China, sought a secular type of "book connectivity" that aimed at more than the mere transfer of knowledge. These members of the French political and cultural elite called instead for the regular exchange of scientific and practical information that would involve long-term collaborative Sino-French research on both contemporary

17. This understanding of "book world" is shaped by the term "art world" as coined by the philosopher Arthur Danto and defined by the sociologist Howard Becker as "the network of people whose cooperative activity organized via their joint knowledge of conventional means of doing things produces the kinds of art works that the art world is noted for" (Howard S. Becker, *Artworlds* [Berkeley, CA: University of California Press, 1982]).

and historical matters.¹⁸ Such Enlightenment ideals may have soon become mired in the mud of domestic disputes and power politics in China and Europe, winning little support from Chinese within China and never being matched by onsite Chinese collaborative surveys about the West. But they lived on to inspire later generations of Western investigators to undertake research surveys in China and to involve Chinese deeply in such work, even at the risk of harsh criticism.

In fact, if we are looking for early steps to institutionalize the transfer of knowledge between East Asia and Western Europe, it would be wise to look beyond scientific expeditions, royal patronage, missionary publications, and imported books. The French court's failure to set up a regular exchange of scientific and economic knowledge between Paris and Beijing took place after another type of knowledge exchange had for a century and a half been attracting the attention of practical men: the regular gathering, channeling, and delivery of "news," that is, discrete pieces of often ephemeral information about current political and commercial conditions around the world. The annual provision of such information to the ruling elite of Tokugawa period (1600–1868) Japan was a duty that from 1641 the Dutch merchants assumed in return for their trading privileges in Japan.

This growth of "news" transmission from Europe to Japan would seem to have had a parallel in formal and informal processes of relaying information among officials and degree holders within the Chinese empire. But the Tokugawa government's practice was different. Not only did it rely on foreigners for this information, but also it collected foreign books on science and events in the distant West. As a result, the political elite of this island kingdom, otherwise sealed off from the European world and hitherto accustomed to an East Asian political order whose members largely kept their neighbors at bay and remained ignorant of their real plans and problems, was for two centuries able to keep abreast of major world and European developments. Somewhat surprisingly, it was better informed than the courts of Qing China and Korea about international events (other than about Central Asia) and thus in the mid-nineteenth century better prepared than these governments to use this international (or European) order of information for a relatively smooth reentry into the global political and economic system. Also, through their study of Dutch books, eighteenth and early nineteenth-century Japanese would gradually learn of Western advances in medicine and the natural sciences and thus begin to introduce some of the modern learning that few contemporary Chinese officials had shown little active interest in acquiring and using. Only after 1850 did Chinese in increasing numbers recognize how crucial the transfer of once-distant European technology, knowledge, and news had become to their civilization's survival.

18. This subject is presently being researched by McDermott for a book entitled *On the Eve*.

Technology Transfer

Between 1450 and 1850, the principal ways of printing books in East Asia and Europe were, respectively, woodblock printing and moveable-type printing. These printing technologies differed radically, as did their organization, labor conditions, most of their required skills, and their costs.¹⁹ Consider first the East Asian production process of woodblock printing, in particular the simplicity of its tools and flexibility of each of its six stages.



Fig. 1.1

Woodblock-printing tools (twentieth-century tools, photographed in Japan). East Asian publishers and authors traditionally showed minimal interest in providing images of production tools and accounts of the woodblock printing process.

19. For this information on printing technology, see Michael Twyman, *The British Library Guide to Printing: History and Techniques* (London: British Library, 1998); Blaise Agüera y Arcas, “Temporary Matrices and Elemental Punches in Gutenberg’s DK Type,” in Kristian Jensen, ed., *Incunabula and Their Readers: Printing, Selling and Using Books in the Fifteenth Century* (London: British Library, 2003): 1–12; Philip Gaskell, *A New Introduction to Bibliography* (Oxford: Clarendon Press, 1972); and Joseph P. McDermott, *A Social History of the Chinese Book* (Hong Kong: Hong Kong University Press, 2006): 16–19. Agüera y Arcas has made the provocative claim that Gutenberg’s punches were not for whole letters but for the different parts of a letter’s shape, and thus these punches were made from a relatively easily carved material such as wood.

First, thin slabs of wood were planed down and prepared for the cutting-in of a text (see Plate 1.1). Second, this text was transcribed with ink onto sheets of paper, each of which was placed onto the face of a separate woodblock to be rubbed so as to leave an inverted version of its text's characters. Third, these characters were then cut in relief into the woodblocks. Three further stages, all aimed at multiplying copies of the text, ensued: the laying of ink onto the cut face of these blocks; the placement, rubbing, and removal of paper sheets onto and from the blocks; and then the folding of each of these printed sheets and their sequential stitching with thin string to form separate bound volumes.

Although one party could do all of these jobs, from no later than the Song period the labor was often divided and assigned to four kinds of specialists: the scribe who wrote the text, the block-cutter who handled the woodblocks and did the cutting, the printer who handled the ink and the sheets, and the binder who finished the job by stringing the printed sheets together.²⁰

By contrast, moveable-type printing was a mechanical operation, involving initially at least two distinct stages: text preparation (the making of moveable type) and text multiplication (the use of this type to print) (see Plate 1.2). Type preparation, the stage most commonly identified as Gutenberg's innovation,²¹ required the carving of a master letterform (also known as punch) for each letter or character in the text awaiting reproduction. The punch was pressed into a matrix (usually made of a softer metal like copper), which then was reused to produce a large supply of reusable type from an adjustable mold, "a device that accommodated one matrix at a time and allowed molten metal, consisting primarily of lead, to be poured into a rectangular cavity." The resulting piece of type was a shaft of lead, graced at one end with a letterform that replicated the punch stand in relief. In the second stage of moveable-type printing—and eventually the only work done regularly in European moveable-type printing shops and houses—separate pieces of this type were arranged by compositors to spell rows of words, which were locked into a metal frame to be inked and then pressed by pressmen with a flat sheet of paper for each printing of the frame's text (also known as forme). This final pressing work in the second stage involved three distinct steps: a frisket and tympan were folded over the locked frame, the first to keep margins clean and the second to hold the paper in place. The bed of the press was rolled under the platen, which then was pulled onto the press to print the sheet for a final reading by proofreaders. And to complete the book production process,

20. In Song times, the binder often pasted margins of printed sheets together to form accordion-like volumes; but over the course of the dynasty this practice gave way to the relatively convenient and durable bound volume.

21. This manufacture work, metal or otherwise, soon developed into a specialty that most printing shops and houses purchased or borrowed rather than made for themselves. In other words, the work actually done in most cases was just that of the second stage and as such was done by compositors, pressmen, and proofreaders.

the printed sheets were folded and arranged to await binding, which was usually done after purchase to suit the customer's taste and pocketbook.

These technical differences had extensive consequences for the working conditions, management methods, and capital invested in each of their production methods. Work for the East Asian variety of woodblock printing depended primarily on the manual skills of the block-cutters, printers and binders, while European moveable-type printing relied more on metal machinery, the workers' skill at manipulating it, and the managers' ability to coordinate all the workers' labor. The long training period required of each worker in moveable-type printing (apprenticeships could last up to seven years) strengthened the corporate and yet hierarchical nature of the labor force, as did the use of a fixed press site for at least the multiplication stage of the production process. In fact, the need to readjust much of the same type for each of the separate type formes encouraged close coordination among the different types of worker in a press room. Woodblock printing, by contrast, allowed each worker and type of worker to do his or her job independently and not necessarily in proximity or sequence. Admittedly, when in later centuries a woodblock cutter was at times assigned to cut only a particular kind of brushstroke in the characters of a woodblock text (or to carve all examples of one kind of stroke before proceeding to do the same with other kinds of stroke), these carvers would have had to synchronize their work schedules. But such coordination was not required of them with the other kinds of woodblock workers or of these other kinds of woodblock workers among themselves. The scribe had no need (and probably no wish) to work at a production site, and the printers of a copy sheet might do their job decades after the blocks had been cut, perhaps for another publishing house at another site.

When a font of type had to be purchased or rented, moveable-type printing would have overall become more expensive than woodblock printing. Working with figures across countries, centuries, and currencies is a highly risky exercise that historians often dabble in to their embarrassment. But the cheapness of late sixteenth-century printing—"the exceedingly large numbers of [printed] books in circulation here and the ridiculously low prices at which they are sold"—was noted by the pioneering Jesuit missionary Matteo Ricci,²² and the relatively low cost of woodblock printing in Qing-dynasty China was, at least for nonelite books, confirmed by later European missionaries in the nineteenth century. Paper cost less in China (where woodblock printing allowed for the use of far thinner sheets), and low labor costs there were often further reduced by the adoption of a simpler method of block-cutting and the resort to family labor.²³ Production sites in China, often located at the back of residences or

22. Matteo Ricci, *China in the Sixteenth Century: The Journals of Matthew Ricci, 1583–1610*, translated by Louis J. Gallagher, SJ (New York: Random House, 1953): 21.

23. McDermott, *Social History*: 40–41; Cynthia Brokaw, "Empire of Texts: Book Production, Book Distribution, and Book Culture in Late Imperial China," in this volume; and Chow Kai-wing, *Publishing, Culture, and Power in Early Modern China* (Stanford, CA: Stanford University Press, 2004): 28–29.

in temple grounds, would often have been cheaper to rent or purchase than print-shops with all their machinery in European cities; from no later than the eleventh century²⁴ and increasingly from the seventeenth century,²⁵ some important publishing sites were located in small commercial towns and even rural settlements rather than in large cities. Thanks to its cheapness and simplicity, woodblock printing in China also benefited from flexible financing by companies, commercial partnerships, and numerous private individuals—as in Europe—and from direct publication—far more than in Europe—by private individuals, families, religious institutions, and government institutions. Indeed, long after the state and private noncommercial parties in China ceded claim to dominating the quantity of imprint production, they continued as publishers to set standards of quality in paper, calligraphy, and editing, which commercial publishers—unlike in Europe—seldom matched.

Also, the social background of those involved in the financing and marketing of books in China was highly varied. Despite some modern generalizations to the contrary, some Chinese full-time commercial publishers and many part-time private publishers won social respect, because they printed fine editions of books that scholars needed or desired, or they distributed free copies of rare and famous titles in their own collections.²⁶ Whereas in the mid-eleventh century all of China's book merchants were said with some exaggeration to have been scholars (*shi*), later on in the eighteenth and nineteenth centuries, local school teachers and degree-holding scholars even worked as commercial publishers in some smaller provincial towns.²⁷ In short, not only was printing by woodblock often cheaper than by moveable type, but also these two kinds of printing used two different sets of technology, formed two different modes of production, and helped to shape two different book worlds.

Is it odd, then, that some scholars have sought to identify links of technological transfer across medieval Eurasia? No, if only because each of these book worlds for some time practiced both woodblock and moveable-type book printing before going their largely separate ways. That is, the Chinese were successfully using woodblock printing by ca. 700 and moveable-type printing with ceramic type by the 1040s, with wooden type by 1298, and with bronze type by no later than ca. 1490;²⁸ yet, at no time

24. Lucille Chia, *Printing for Profit: The Commercial Publishers of Jianyang, Fukien* (Cambridge, MA: Harvard University Asia Center, 2003): 18–23.

25. Cynthia Brokaw, *Commerce and Culture: The Sibao Book Trade in the Qing and Republican Periods* (Cambridge, MA: Harvard University Asia Center, 2007).

26. McDermott, *Social History*: 108; and Joseph P. McDermott, “Rare Book Collections in Qing Dynasty Suzhou: Owners, Dealers, and Uses”: 199–249, in Lu Miaw-fen, ed., *Learning and Culture in Late Imperial China* (Taipei: Academia Sinica, 2013).

27. As discussed by Brokaw in her chapter in this volume.

28. Tsien Tsuen-hsuin, *Paper and Printing*, in Joseph Needham, *Science and Civilisation in China, Volume 5: Chemistry and Chemical Technology, Part 1* (Cambridge: Cambridge University Press, 1985): 201–20. Note, however, that earlier efforts (dating from ca. 1300) to use tin type failed due to poor control of the ink (*ibid.*: 217).

did moveable-type printing of any sort predominate there but in a few book genres in a few places (e.g., genealogies in the southern Anhui prefecture of Huizhou or in a late eighteenth-century imperial printing project; see Fig. 1.2).²⁹ Printing methods of various kinds also appeared in the West, but all began centuries later than in East Asia: the first woodblock printing of sheets (of only images) has been tentatively dated to no earlier than the second half of the fourteenth century for Italy and to the very end of that century for Germany. Woodblock printing of texts with images



Fig. 1.2
A Chinese moveable-type room, in Jin Jian, *Qinding Wuying dian Juzhen ban chengshi* (Siku quanshu zhenben ed.), 16a (courtesy of Cambridge University Library). The absence of machinery in Chinese moveable-type book production becomes obvious once this image is placed alongside Plate 1.2.

29. Michela Bussotti, *Gravures de Hui* (Paris: École française d'Extrême-Orient, 2001): 283; and Xu Xiaoman, "Preserving the Bonds of Kin,' Genealogy Masters and Genealogy Production in the Jiangsu Zhejiang Area in the Qing and Republican Periods": 337–39, in Cynthia J. Brokaw and Kai-wing Chow, eds., *Printing and Book Culture in Late Imperial China* (Berkeley, CA: University of California Press, 2005).

appeared in Germany in the early fifteenth century but of books (that is, like those in China) only from ca. 1440, the very time that we know Gutenberg was making his breakthrough with metal moveable type and a printing press.³⁰ Thus, before European publishers and craftsmen in the next half century went their separate way in establishing a distinct technology set, it is just conceivable that the process and practice of woodblock printing of books had somehow been introduced from East Asia and briefly adopted in Europe. If the technology for making paper, silk, and many other objects had already made the long passage from China to Europe (as would firearms and glass lenses later on in the opposite direction),³¹ why can we not expect the same for printing practices, woodblock or moveable-type? Might information about either of these East Asian printing methods have reached Europe and eventually helped to trigger or instruct what has been called, rightly or wrongly, “Gutenberg’s invention”?

For many generations, Western scholars speculated along such lines; but only in 1925 with the publication of Carter’s landmark study, *The Invention of Printing in China and Its Spread Westward* did they have strong empirical support for this argument. Making use of extensive Chinese, Central Asian, Middle Eastern, and European records, Carter pressed the view that “The influence of Chinese [wood]block printing on European printing rests on such strong circumstantial evidence as to be accepted with a reasonable degree of certainty.”³² Quickly translated into Chinese, his book inspired readers in China (and later Korea) to take his views as rock-solid facts and, in accord with some of Carter’s European predecessors, to extend his claims of trans-Eurasian Chinese and Korean influence on woodblock printing to the moveable-type printing of Gutenberg as well.³³ These modern East Asian writers have seemed to think, If Westerners were as smart as we think they are or half as smart as *they* think they are,³⁴ their medieval visitors to East Asia would surely have learned about these

30. Richard S. Field, “Early Woodblocks: The Known and the Unknown”: 19–36, in Peter Parshall and Rainer Schoch, eds., *Origins of European Printmaking: Fifteenth-Century Woodcuts and Their Public* (New Haven, CT: Yale University Press, 2005).

31. Jonathan M. Bloom, *Paper Before Print: The History and Impact of Paper in the Islamic World* (New Haven, CT: Yale University Press, 2001); Dieter Kuhn, *Textile Technology: Spinning and Reeling*, in Joseph Needham, *Science and Civilisation in China, Volume 5: Chemistry and Chemical Technology* (Cambridge: Cambridge University Press, 1988): 418–21; and Nicola Di Cosmo, “Did Guns Matter? Firearms and the Qing Formation,” in Lynn A. Struve, ed., *The Qing Formation in World-Historical Time* (Cambridge, MA: Harvard University Asia Center, 2004): 122–66.

32. Carter, *Invention of Printing*: 184.

33. Tsien, *Paper and Printing*: 313–19.

34. In medieval times, Chinese reportedly had an adage acknowledging the intelligence of “people in the far west—Europe, perhaps including the Byzantine area: they were thought to have one eye, as opposed to the two-eyed Chinese and the totally blind others who tried to trade with China” (Peter Jackson, *The Mongols and the West, 1221–1410* [Harlow: Pearson Longman, 2005]: 294). This trope, which may have originated as Arabic self-denigration, was used by late sixteenth century Chinese to refer to all non-Chinese, according to the Italian merchant Francesco Carletti in his *My Voyage Around the World* [(London: Methuen, 1965): 152]. But the original form, with the Europeans honored as one-eyed due to their contact with Chinese civilization, survives in reports by João de Barros in 1563 and

East Asian printing inventions and have made the most of them on their return home.³⁵ Either way, these two East Asian countries and their cultures had for sure participated in the invention of book printing and thus in the making of the modern world on their own soil.

Over the past century, newly discovered information has helped to turn these scholars' beliefs into common Chinese and Korean convictions. Some scholars have dated a Buddhist sutra imprint in the Tangut language, unearthed in northwest China in 1987, to the mid-twelfth century and thus accorded it the honor of being the oldest extant example of moveable-type printing in the world (a telltale mark of such printing is the presence in a text of at least one upside-down character). Other specialists, however, prefer this distinction to fall on an earlier Tangut translation of a Tibetan tantric text printed in Tangut with wooden type and dating from the early twelfth century.³⁶ Either way, the earliest extant book printed with moveable type appears to be a Tangut imprint published with Chinese technology in the Tangut language. Moreover, the moveable type used to print these Tangut books was undoubtedly used to print other Tangut texts as well (about 12 Tangut titles printed in moveable type survive, largely thanks to excavations in the Chinese provinces of Gansu, Ningxia, and Inner Mongolia), and travelers heading toward Europe along the Silk Road would surely, it is argued, have encountered these or similar examples of moveable-type printing, if not in the Tangut, then in the Uighur or Chinese script.³⁷ Such encounters "with printed books, woodblocks, or metal types," according to Tsien Tsuen-hsuei in his authoritative volume in the Needham series on Chinese science and technology, argue for "the presence of a Chinese connection in the origins of European printing" and, he implies, typography as well as xylography.³⁸

In recent years, Timothy H. Barrett has made important contributions to this line of thinking about a Eurasian transfer of printing technology. In weaving various threads of evidence into a rich historical tapestry, his book *The Woman Who Discovered Printing* describes how East Asian and Central Asian printing practices, woodblock as well as moveable type, might have reached Europe and eventually attracted the attention of Gutenberg. For instance, during the fourteenth century many slaves came to the cultural heart of Europe from as far away as China and present-day Mongolia (they even appear in Renaissance paintings), and he speculates that they might have

Andre Pereira, SJ, in Beijing in 1737 (C. R. Boxer, *João de Barros, Portuguese Humanist and Historian of Asia* [New Delhi: Concept Publishing Company, 1981]: 107, 126n24).

35. Thomas T. Allsen, *Culture and Conquest in Mongol Eurasia* (Cambridge: Cambridge University Press, 2001): 178–79; Jackson: 301, dates the peak of European merchant visits to Mongol China to just ca. 1320–ca. 1345.

36. Zhang Xiumin, *The History of Chinese Printing*, revised by Han Qi (Paramus, NJ: Homa and Sekey Books, 2009): 311–15; Imre Galambos, *Chinese Texts in Tangut Manuscripts and Printed Books from Khara-khoto* (Berlin: de Gruyter, 2015): 104. We wish to thank Dr. Galambos for this information.

37. Tsien, *Paper and Printing*: 304.

38. *Ibid.*: 317–19.

passed on their knowledge of printing and printing practices to Europeans.³⁹ Yet, as in the work of Carter, clear textual, material, or visual proof of the transfer of this technical information to anywhere in Europe is never provided, and we the readers are left with a large body of fascinating “circumstantial evidence” and intriguing conclusions. The scholarship dazzles, even if in the end it fails to convince.

Nonetheless, Barrett’s conclusions are supported by similar claims by eminent Chinese scholars like Zhang Xiumin and by the findings of Thomas Allsen on the great variety of the occupations of those Chinese who served or traveled westward into Islamic and Christian lands during the Yuan dynasty.⁴⁰ As such, they call for reconsideration of possible indications of East Asian influence on European and especially Gutenberg’s printing methods. For this study, our original question—Did East Asian printing methods reach Europe and eventually help to trigger or inform Europe’s “printing revolution”?—can profitably be refined into three interlinked questions: When did Europeans first learn of any kind of East Asian printing and of printed books? When did they first learn of the priority of East Asian book printing? And, when did they first learn how to print sheets or books, or even textiles? The last two of these questions, when asked of either woodblock or moveable-type printing, will provide answers that generally indicate the independent origin and development of East Asian and European book-printing technologies.

The answer to the first of our questions is straightforward, if not entirely satisfactory: the earliest Western reports of any type of printing in China are found in the travel records of eight European travelers, including Marco Polo, who visited China between 1254 and 1344. These men all mention the Chinese and Mongol practice of printing paper money.⁴¹ Unfortunately, since these Europeans were interested primarily in how such a unique form of currency retained its value and profits, the closest they get to describing the production process is a brief passage in the earliest of their reports, that of William of Rubruck: “The everyday currency of Cataua [i.e., Cathay or north China] is of paper, the breadth and length of a palm, on which lines are stamped as on [Khan] Mangu’s [i.e., Möngke’s] seal.”⁴² As a result, when modern historians have sought to determine early knowledge of either the Chinese practice of printing in general or the printing of paper money in the Chinese manner, they have had to rely on medieval Persian sources. Those Persian sources about the Mongol

39. Timothy H. Barrett, *The Woman Who Discovered Printing* (New Haven, CT: Yale University Press, 2008): 20, 140; Joseph Needham, *Clerks and Craftsmen in China* (Cambridge: Cambridge University Press, 1970): 61, 201; and Iris Origo, “The Domestic Enemy: The Eastern Slaves in Tuscany in the Fourteenth and Fifteenth Centuries,” *Speculum* XXX (1955): 321–66.

40. Allsen, *Culture and Conquest*: 6–7.

41. Carter, *Invention of Printing*: 121–22.

42. *The Mission of Friar William of Rubruck: His Journey to the Court of the Great Khan Möngke, 1253–1255*, translated by Peter Jackson (London: Hakluyt Society, 1990): 203.

introduction of paper money, however, uniformly warn the reader of the folly of any such printing.

In 1294, we read, the recent Mongol subjugator of Persia imposed a contemporary “Chinese/Mongol” solution to the Persian problem of a coin shortage: he printed paper money,⁴³ most likely off a wooden or metal block. To this khan’s consternation his currency innovation flopped. The merchants in Tabriz rejected his printed money so resolutely that they forced the markets to close and the ruler to withdraw his paper currency from the market. Their understandable preference for metal thereby not only led to a seven-century reversion to metal currency but, more germanely, boded ill for the potential transfer to Persia of any East Asian printing technology. No books were printed in Persia by woodblock or moveable type—that is, there was no publishing industry—until the early nineteenth century. If the Genoese and Venetian merchants trading in late thirteenth-century Tabriz returned to Italy with tales of printed paper money, as speculated by Carter,⁴⁴ then surely they would not have shared our modern assumption that the benefits of printing are self-evident. They would have reported home its infliction of market chaos and collapse rather than its expansion of trade and profits. Not for the last time in the global history of printing did the introduction of its technology, even in the simple form attempted here, lead to havoc and arouse stubborn opposition to any promise of its economic or social benefits.

For Western knowledge of the printing of books (as opposed to money) in Asia, Thomas T. Allsen would have us turn to another passage in Marco Polo’s account of his travels in Mongol China: “And so, they will make (*facient*) many little pamphlets (*quatrini*) in which they write everything (*scribent omnium*) which shall happen in each month that year, which pamphlets are called *tacui*. And they sell one of these pamphlets for one groat to any who wishes to buy that he may know what may happen that year.”⁴⁵ Allsen takes these pamphlets to refer to printed almanacs, a view that he backs with Chinese textual evidence of a Yuan-dynasty government Office for Calendar Printing as well as with a unique surviving example of a Mongolian calendar dated 1324 and printed in the Uighur script, which was discovered a century

43. Karl Jahn, “Paper Currency in Iran: A Contribution to the Cultural and Economic History of Iran in the Mongol Period,” *Journal of Asian History* 4 (1970): 101–35, esp. 131–32.

44. As mentioned in Carter, *Invention of Printing*: 128–29.

45. Allsen, *Culture and Conquest*: 183, as in Marco Polo, *The Description of the World*, translated and annotated by A. C. Moule and Paul Pelliot (London: Routledge, 1938), v.1: 252. The surviving manuscript versions of Marco Polo are translations of translations of, possibly, translations. Our use of the Moule and Pelliot edition of the Toledo copy (a Latin manuscript that is often taken to be the most reliable and comprehensive extant version of the text) assumes the word choice of this Latin manuscript closely follows that of whatever earlier version was dictated in Franco-Italian by Marco Polo to his scribe. Note that other consulted texts (e.g., the Yule-Cordier edition) also have this meaning of “write.”

ago by German scholar-adventurers in Turfan in Central Asia.⁴⁶ Yet, strictly speaking, the passage in Marco Polo's account—which of course would have been the only one of these three sources known to premodern Europeans—speaks simply of pamphlets in which men “write.” No fifteenth-century or later European reading or hearing of this passage would have had reason to think here of printing by either woodblock or moveable type.

Thus, even though Europeans may have orally learned of the practice of printing from travelers to and from Central Asia and China, the earliest textual evidence of European knowledge of the Chinese practice of book printing appears to date from the start of the sixteenth century. Portuguese navigators had arrived home from their forays in East Asian waters, and although they sought to monopolize their information on China and the Eastern trade routes, the Portuguese king could not in 1514 refrain from sharing with an astonished pope one of their most remarkable souvenirs from Chinese ports, a printed book from China. Knowledge of this first-dated European mention of an East Asian printed book soon spread in Europe, and the volume itself won entrance to the Vatican Library.⁴⁷ In other words, from the very late thirteenth century some literate Europeans for sure knew of Chinese printing of paper money, but European knowledge of Chinese book printing began much later. It seems to postdate by roughly three-quarters of a century the start of European woodblock printing of books as well as Gutenberg's technical breakthrough in Mainz.

To answer the second and third of our questions about European knowledge of the priority of East Asian printing and its production methods, we have to look separately at the European evidence for the arrival of knowledge about woodblock and moveable-type printing. Whereas the earliest extant description in any language of how Chinese printed books from woodblocks was written by a late thirteenth-century Persian (whose account was first translated into Western languages centuries later),⁴⁸ it is only with the French Jesuit Du Halde's 1735 book on China that an account of the Chinese method of woodblock printing appears in any detail in a European publication.⁴⁹ Yet, two centuries earlier, in 1546, in an influential book by Paolo Giovio

46. In other parts of Eurasia, such as Turfan, early woodblock prints were made in Chinese, Uighur, Sanskrit, Tangut, Tibetan, and Mongolian.

47. Donald F. Lach, *Asia in the Making of Europe* (Chicago, IL: University of Chicago Press, 1968), II, book 1: 41.

48. Tsien, *Paper and Printing*: 194–95.

49. J. B. Du Halde, *Description Géographique, Historique, Chronologique, Politique et Physique de l'Empire de la Chine et de la Tartarie Chinoise* (Paris: Chez P. G. Le Mercier, 1735), v. 2: 249–51; and Theodore J. De Vinne, *The Invention of Printing* (London: Trübner, 2nd edition, 1878): 109–10. De Vinne's account of Chinese printing still merits reading by students of East Asian printing. It draws on nineteenth-century missionary reports, most likely including the first account in a Western language that is detailed enough to allow a Westerner to print books by practicing the entire Chinese process of woodblock carving and printing: William Milne, *A Retrospect of the First Ten Years of the Protestant Mission to China*.

we find the first Western textual acknowledgement of possible Chinese priority in the printing of books.⁵⁰

Even if the textual evidence would seem then to argue against any transfer of East Asian woodblock printing technology westward to pre-Gutenberg Europe, some surviving material evidence has been interpreted by scholars, including Giovio, to argue just the opposite. The European use of woodblock printing for objects other than books, as we have already seen, predates Gutenberg's invention by about a century.⁵¹ By the mid-fourteenth century, some European textiles were being printed with woodblock designs, and by the same century's end so were images on paper sheets (which, from the 1440s, were produced in increasing numbers, often for inclusion in moveable-type imprints).⁵² While some Chinese like Tsien Tsuen-hsuei have traced the appearance of these European printed materials to the prior introduction of "Eastern" woodblock-printing materials and practices, we remain to be persuaded. In our belief, none of the surviving material evidence, when carefully examined in light of present scholarship, confirms claims of a transfer of these woodblock-printing practices or materials either directly from East Asia or indirectly through Central Asia and the Middle East. Consider first the seventy-seven or so Arabic printed amulets traceable to Islamic Egypt, the only extant examples of Arabic paper printing from the medieval Middle East.⁵³ Their calligraphic style, archeological context, and a few possible textual references have persuaded some scholars to date their production to the period between 900 and 1400.⁵⁴ Rough confirmation of these dates has come from the archeological context of two unearthed amulets (their excavation site at Fustāt near Cairo has been dated to the century between 950 and 1050) and from scientific analysis of two other amulets (the production of their paper has been dated

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50. Tsien, *Paper and Printing*: 314. The oldest European document with Chinese characters that was printed in Europe dates from the second half of the seventeenth century (Urs App, *The Birth of Orientalism* [Philadelphia, PA: University of Pennsylvania Press, 2010]: 17).
51. Tsien, *Paper and Printing*: 131–32, 309–10; Carter, *Invention of Printing*: 139–44; Richard S. Field, "Early Woodblocks: The Known and the Unknown": 19–36, in Peter Parshall and Rainer Schoch, eds., *Origins of European Printmaking: Fifteenth-Century Woodcuts and Their Public* (New Haven, CT: Yale University Press, 2005); David McKitterick, "The Beginning of Printing," in Christopher Allmand, ed., *The New Cambridge Medieval History* (Cambridge: Cambridge University Press, 1998): 287–98; and De Vinne, *The Invention of Printing*: 251.
52. Field, "Early Woodblocks": 20, 30; and, Peter Schmidt, "The Multiple Image: The Beginnings of Printmaking, between Old Theories and New Approaches" in Parshall and Schoch, eds., *Origins of European Printmaking*: 40.
53. The only other printed sheet from the medieval Middle East appears to be a crude Hebrew print now in the Genizah Collection at Cambridge University Library and dated to ca. 1400 by nowhere less than Scotland Yard. The precise implications of this date for a single printed sheet await further study, but the print's quality shows little sign of direct influence from Chinese or Central Asian carving.
54. D. S. Richards, "The Block-Printed Fragments," in Wladyslaw Kubiak and George T. Scanlon, *Fustāt Expedition Final Report, Vol. 2, Fustāt-C* (Winona Lake: American Research Center in Egypt/Eisenbrauns, 1989): 69–70, 76–78, 80.

to the thirteenth century and the early fifteenth century).⁵⁵ Furthermore, educated Persians in the fourteenth century certainly knew of Chinese printed books,⁵⁶ and their rulers received Chinese books, almost certainly imprints, from the Yuan court.⁵⁷ Yet, as Allsen astutely observes, only one Persian writer, the extraordinary Rashid al-Dīn, rightly appreciated the Chinese practice of printing as “one of the wonders of the age.”⁵⁸ Hence, claims of a direct Chinese influence on the printing of these Arabic amulets have been few. Even fewer have been assertions by Islamic specialists of these printed amulets’ influence on European woodblock-printing practices and prints.⁵⁹

Another means of possible Chinese or Middle Eastern influence, printed playing cards, seems to offer a more credible explanation, if only because playing cards were woodblock-printed by no later than the ninth century in China and by the fourteenth century in Europe (where they now are the most common kind of woodblock-printed paper item that survives from the fifteenth century). Yet, any posited passage of Chinese printed playing cards or of their production method across Eurasia to Europe is very hard to trace, since no material evidence of printed playing cards survives from the medieval Middle East. Instead, all extant playing cards from the medieval Middle East are painted (an indication of how limited was the use of printing there during the centuries when Arabic amulets are said to have been printed). Furthermore, even if we forget the inconvenience of this missing Middle Eastern link for printed playing cards, not one of the surviving pre-1450 printed European cards (numbering about 70) contains a text. Thus, even though the practice of playing cards may have been transmitted orally from one gambling trader to another over very long distances, claims of the direct or indirect passage of Chinese or Middle Eastern printed playing cards to medieval Europe are at best speculative and would for sure concern the reproduction only of single images and not of texts and by extension books.⁶⁰ One might argue around this conclusion by positing that some Chinese or Central Asian printed cards may have entered Eastern Europe directly with invading

55. Karl R. Schaefer, *Enigmatic Charms: Medieval Arabic Printed Amulets in American and European Libraries and Museums* (Leiden: Brill, 2006): 41–45; and, Richard W. Bulliet, “Medieval Arabic *Tarsh*: a Forgotten Chapter in the History of Arabic Printing,” *Journal of the American Oriental Society* 107 (1987): 427–38.

56. Allsen, *Culture and Conquest*: 117–22 for agricultural manuals, 144–46 for medical translations.

57. E.g., the album page, “The sages of China bringing books of history to Uljaitu,” from a *Majma’ al-Tavarikh* (ca. 1425–30) of Hafiz-I Abru, Timurid, Herat, depicting Li Dazhi and Maksun presenting books a century earlier to Uljiatu, the Mongol ruler of Persia from 1304 to 1316 (British Museum, OA 1966.10–10.013).

58. Allsen, *Culture and Conquest*: 184.

59. We wish to express our thanks to Stefan Reif, Geoffrey Roper, Ben Outhwaite, Ulrich Marzolph, and Gabriele Ferrario for sharing their expertise with us on these and other matters.

60. Field, “Early Woodblocks”: 21, 22–23; Allsen, *Culture and Conquest*: 180–81; Tsien, *Paper and Printing*: 131–32, 309–10; Carter, *Invention of Printing*: 139–44.

Mongol forces in the early fourteenth century. But bereft of textual and material evidence, that claim also remains only speculation.

Other scholars interested in showing a Eurasian transfer of printing technology have sensibly chosen to compare the European and East Asian woodblock prints and their methods of production. In finding similarities in the spatial arrangement of text and image on Chinese and European early woodblock sheets, some have rushed to conclusions of “influence” that handily forget that medieval Chinese and Europeans each had several ways to arrange text and image on woodblock sheets and manuscripts and that European woodblock solutions to this problem resemble and arguably derive from their own earlier practices for manuscripts and textile pieces.⁶¹ A second line of argument based on surviving Chinese and European woodblock prints is more direct, in that it focuses on similarities in Chinese and European techniques for woodblock print and book production. If we forget for the moment that all such modern comparisons of techniques are ahistorical in that they project recent survey findings onto otherwise unknown techniques of the distant past, certain woodblock production practices in the view of the celebrated nineteenth-century printer and bibliophile Theodore De Vinne were common to China and European craftsmen: the preliminary drawing of lines and images onto paper, the transfer of lines from the paper onto wood, the cutting away of the field, the use of a fluid writing ink, and the use of only one side of a paper sheet for printing.⁶² Note, however, what is missing from this list: not just key differences in production that De Vinne mentioned⁶³ but also the essential knowledge of how to prepare a woodblock, how to cut it, how to print sheets from it, and how to bind those sheets. When faced, then, with sample printed sheets of each woodblock tradition, one is hard put to avoid concluding that the “primitive beauty”—or, more accurately, technical crudity—that some have found in the surviving European woodblock prints of the fifteenth century indicates that no skilled East Asian carver transmitted his trade to a European carver then. Moreover, the few specific similarities found for their making of woodblock prints could just as well have come from the far from rare circumstance of craftsmen in these two parts of Eurasia independently reaching common solutions to common problems. The awkward images on the European woodblock prints, then, are testimony not just to

61. Jean-Pierre Drège, “Du texte à l’image: les manuscrits illustrés”: 105–68, in Jean-Pierre Drège et al., eds., *Images de Dunhuang, Dessins et peintures sur papier des fonds Pelliot et Stein* (Paris: École française d’Extrême-Orient, 1999).

62. De Vinne, *The Invention of Printing*: 131.

63. For example, the common European use then of brown rather than black ink and the practice of cutting with rather than against the grain of the wooden plank (ibid.: 114, 253). Contrary to the impression given by Tsien, *Paper and Printing*: 313, De Vinne is far more tentative in his conclusion: “They have been regarded as sufficient warrant for the hypothesis that our knowledge of engraving on wood must have been taken from China . . . The mechanics of Europe had little to learn of the theory, and but little of the practice of xylography.”

the brevity of Europe's woodblock tradition and the decisive shift in late fifteenth-century Europe away from woodblocks, that is, to moveable-type printing for texts and eventually copper etching for images. The awkwardness also manifests the absence of an encounter between European craftsmen and their skilled counterparts—or at least skilled teachers—from Asia. If the transfer argument based on the westward movement of printed cards is at best inconclusive, that based here on the similarity of some production practices in East Asian and European woodblock printing runs aground on the slimness of the evidence. It is also strongest when we assume the mediation of an unskilled transmitter of a sophisticated East and Central Asian tradition of woodblock carving. But, to sum up, the posited presence of an intermediary is yet one more assumption set up to support a nebulous argument of technological transfer that is backed by little if any convincing evidence, textual or material.

For the westward transfer of East Asian moveable-type printing technology to Europe, the evidence is even less supportive. Gutenberg's production process, as described above, depended on many mechanical parts, such as type molds, orderly metal-type frames, a press to print legible paper sheets with a new kind of ink, and a font of metal type. As Barrett acknowledges,⁶⁴ any claims of East Asian influence on Gutenberg's invention can relate to only the last of these parts. The printing press itself was partly based on old Mediterranean oil or wine presses, which made use of helical gears to squeeze grapes for wine or olives for oil, and which had no counterpart in traditional East Asian technology (compare the press mechanisms in Plate 1.2 and Fig. 1.3 for sixteenth-century European and Chinese presses).⁶⁵

No type molds are described in any pre-Gutenberg Chinese accounts of making moveable type; in fact, not until the late fifteenth century did Chinese solve problems of ink control and type arrangement in the use of metal type.⁶⁶ Furthermore, according to Beth McKillop, metal-type frames, at least in Korea (where metal-type printing was achieved more than a century before Gutenberg) had little to teach Gutenberg:

Contemporary [fourteenth and fifteenth century] Korean accounts of the process of printing process read to us today (and, I dare say, Gutenberg's contemporaries in Mainz) like a DIY operation: the use of copper plates instead of a frame for the arrangement of type, the consequent need for first beeswax and then bamboo to fill empty space between type, and the production expanding from 'only a few

64. Barrett, *The Woman*: 16.

65. Christian Daniels, *Agro-Industries: Sugarcane Technology*: 330, in Joseph Needham, *Science and Civilisation in China, Volume 6: Part III* (Cambridge: Cambridge University Press, 1996); and Rudolf P. Hommel, *China at Work* (New York: John Day, 1937; Cambridge, MA: MIT Press, 1971 reprint): 87–91, 112–14. Helical gearing on screws is first recorded in East Asia only in the mid-seventeenth century, with the use of the Archimedean screw to pump water out of silver mines in Sado, Japan. The use of this kind of gearing in China came later, as late as the nineteenth century. Our thanks to Christian Daniels for guidance on this matter.

66. Zhang Xiumin, *The History of Chinese Printing*, revised by Han Qi (Paramus, NJ: Homa and Sekey Books, 2009): 327.

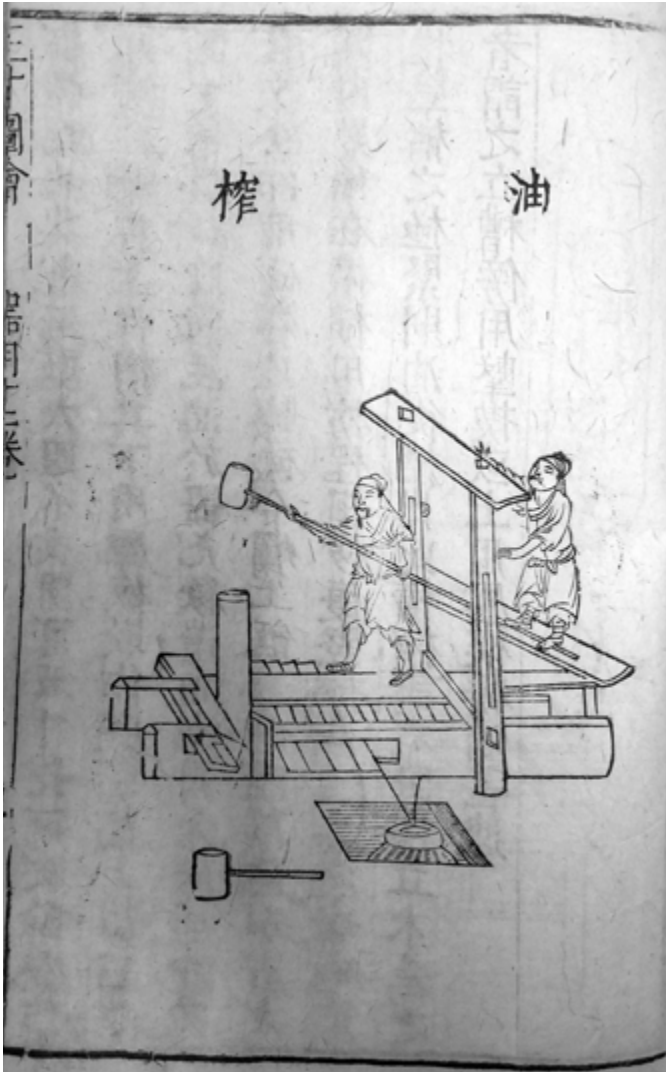


Fig. 1.3
A Chinese oil
squeeze, ca. 1609
(Wang Qi, *Sancai
tuhui*, Ming edition)
(courtesy of the
Naikaku Bunko
Library). This wedge
press extracts oil by
hammering seeds
with wooden wedges.
Chinese artisans
traditionally showed
little interest in
screws of any sort.

sheets a day to several sheets in a day.’ The amateurish nature of the operation is underlined by the use of civil service examination graduates, rather than artisans, to supervise the entire process.⁶⁷

And when we examine the evidence about the only metal part of Gutenberg’s machine that in Barrett’s view can have possibly benefitted from East Asian influence—the metal moveable type—the evidence is nonexistent. No text indicates the presence or knowledge of any kind of Asian moveable type or moveable-type imprint in Europe before 1450. The material evidence is even more conclusive. While

67. Beth McKillop, “The History of the Book in Korea,” in Michael F. Suarez, SJ, and H. R. Woodhyusen, eds., *The Oxford Companion to the Book* (Oxford: Oxford University Press, 2010): 370.

pre-1450 printed texts have been found in seventeen different languages in Turfan alone,⁶⁸ no non-European printed book or sheet, either woodblock or moveable type, is attested to have reached Europe before the early sixteenth century. Furthermore, no pre-1450 Chinese or other Asian moveable type for any script has ever been discovered west of Dunhuang and Turfan in Central Asia (Paul Pelliot dated the Uighur type he found there to ca. 1300).⁶⁹ The German scholar Anne-Marie v. Gabain has claimed that a mural scene from a Turfan cave of two men hammering away at an anvil depicts the Chinese inventor of moveable type, Bi Sheng, making his font and thus shows Central Asian appreciation of the transfer westward of his invention; this piece of pure speculation (Bi Sheng made ceramic rather than metal type) has won the scholarly silence it richly merits.⁷⁰

In sum, however tantalizing all these leads are about a possible transmission of East Asian woodblock or moveable-type printing practices to Europe, they do not add up to a convincing case that any European based his or her printing “invention,” woodblock or moveable type, on previous Chinese or Korean innovations. His or her “invention” certainly followed theirs, but evidence of it being derivative is highly conjectural, even for woodblock printing. Of course, a Middle Eastern cave or archaeological site may someday emit a printed playing card, the metal type of a Chinese character, or even a Chinese printed book. But in the meantime, can we not sensibly conclude that Gutenberg and his fellow printers in fourteenth- and fifteenth-century Europe were as ignorant of crucial events that had taken place in their craft centuries earlier and 8,000 miles away, as are most Europeans today of Chinese rockets into space?

About the spread of Gutenberg’s printing press across the breadth of Eurasia we fortunately have far more information, much of it underlining the difficulty of transferring one region’s printing technology elsewhere. Within Europe and eventually some of its colonies outside of Europe the transmission of the printing press was rapid and smooth. A copy of Gutenberg’s new machine reached Bamberg and Strasbourg in the 1450s and Cologne in 1464. Outside of Germany similar machines were set up in Italy (Rome in 1465 and Venice in 1469), France (Paris in 1470, Lyon in 1473), Britain (London in 1475–76), Sweden (Stockholm in 1483), Greece (Salonika in 1515), and Russia (Moscow in 1553).⁷¹ From just 14 in 1470, all in Germany and Italy, the number of European printing offices grew eightfold over the course of the next decade to 110, now including Spain, France, Poland, and England. By ca. 1500 a printing press had operated in as many as 240 to 270 European cities, and together

68. Allsen, *Culture and Conquest*: 177.

69. Tsien, *Paper and Printing*: 304, n. d.

70. Annemarie v. Gabain, *Die Drucke der Turfan-Sammlung* (Berlin: Akademie-Verlag, 1957): 15–16, and illustration 7.

71. Stephan Füssel, *Gutenberg and the Impact of Printing* (Aldershot: Ashgate, 2003): 59–70.

these presses had published an estimated 30,000 titles in 9 million volumes.⁷² Its spread westward to European colonies in the New World occurred largely during its second century: it was first operated in Mexico in 1539, in Peru in 1584, in New England in 1638, and finally in Brazil in 1808.



Map 1.4
Map of fifteenth-century printing towns of Incunabula (Creative Commons)

72. Jean-Francois Gilmont, "Printing at the Dawn of the Sixteenth Century," in Jean-Francois Gilmont, ed., *The Reformation and the Book*, translated by Karin Maag (Aldershot: Ashgate, 1998): 133; and Henri-Jean Martin, *The History and Power of Writing*, translated by Lydia G. Cochrane (Chicago, IL: University of Chicago Press, 1994).

Yet, in the long-settled and relatively literate cultures of Eurasia to the east of Europe, the printing press enjoyed far less success. It met stubborn resistance in the Islamic Middle East, heavy state and church domination in Russia, apparent indifference in South Asia, and knowing rejection in China and eventually in Japan. The first non-Europeans introduced to the invention were groups in the Islamic Middle East, who put up the staunchest opposition, notably with the sultan's 1485 ban on Islamic printing (as the ban did not apply to Arab Christians, Jews, Armenians, and other non-Muslims in the Ottoman Empire, these non-Islamic groups showed some interest in printing books, but their printing activities were very restrained). Only in the 1720s did Muslims begin, very tentatively, to produce Arabic-language imprints in the Islamic world, that is, centuries after books were printed in Arabic by non-Muslims first outside the Islamic world and then within it; even so, this experiment was rapidly terminated.⁷³ Hence, Venice, not Istanbul, was the location of the first printing of a book in Arabic, in 1514, and of the *Qu'ran* itself in 1537–38 (virtually all of this edition was shipped to Istanbul, apparently to be sold but actually destined for a bonfire due, it appears, to its egregious textual errors).⁷⁴ Northward, in the kingdom of Muscovy the first printing press arrived in the late 1550s, only to fall so rapidly and completely under the control of the state-supported Russian Orthodox Church, that by the end of the eighteenth century only one major publishing house had been set up in Moscow. Other presses were imported by modernizing Russian rulers, but their activity was frustrated by limited demand in a country with stubbornly low levels of literacy.⁷⁵

Meanwhile, in South Asia the printing press, introduced in 1556 by Jesuits to Goa, remained essentially the tool of Christian missionaries for the next two centuries. Its

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73. Geoffrey Roper, "The History of the Book in the Muslim World," in Suarez and Woodhyusen, eds., *Oxford Companion to the Book*: 321–39, 332. Hebrew typographic printing began in the Ottoman Empire in 1493 and in Morocco in 1515. Armenian type was used from 1567 in Turkey (i.e., Constantinople) and then from 1638 in Iran. Syriac type was used for Syriac and Arabic in Lebanon in 1610 (it was the first Arabic book printed in the Middle East), and Greek books were printed in Istanbul in 1627. This Muslim tardiness has been attributed to religious or social conservatism, deep attachment to manuscripts and scribal culture, sultans' bans on printing, and scribal fear of unemployment (Allsen, *Culture and Conquest*: 184–85, discusses the problem of printing in premodern Islamic culture). Although the matter is not yet conclusively understood, one cannot fail to note the importance of non-Muslims (i.e., Jews and Christians) in Middle Eastern printing before 1819–20, the founding date of the first Muslim printing press in the Arab world at the state-run Būlāq Press near Cairo. Commercial presses appeared later on in the nineteenth century, but only under strict supervision by the state.
74. Geoffrey Roper, "Early Arabic Printing in Europe," in Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper, eds., *Middle Eastern Languages and the Print Revolution*: 131; and Hartmut Bobzin, "From Venice to Cairo: On the History of Arabic Editions of the Koran (16th–early 20th century)," in *ibid.*: 153–54.
75. Gary Marker, *Publishing, Printing, and the Origins of Intellectual Life in Russia, 1700–1800* (Princeton, NJ: Princeton University Press, 1985): 19. Over the entire seventeenth century, Russian imprint production amounted to fewer than 500 titles, usually issued in runs of between 1,200 and 2,400 copies.

use was also restricted geographically, to mainly a few locations along the western and then eastern coasts: to Tranquebar by German/Danish Protestants, to Colombo by the Dutch Reformed Church, to Pondicherry by French Jesuits, and to Vepery by the British Protestants' Society for Promoting Christian Knowledge.⁷⁶ Virtually no native Indian use of a printing press with native script fonts is recorded before the late eighteenth century.⁷⁷ In fact, commercial publishing of any sort in India started only in 1777 in Calcutta, when a bankrupt English businessman there turned to his former London trade of printing books to pay off some of his creditors and so gain release from debtors' prison.⁷⁸ Whatever the reason for the tardiness of the Indian response to Gutenberg's machine—its foreign or Christian origin, India's low rate of literacy and lack of demand, the relative expense of imprints, the power of scribe castes, respect for the tradition of transmitting texts privately from teacher to disciple, or simple satisfaction with the practice of transcribing texts onto banana leaves—moveable-type printing took root in India eventually but only very slowly: more than two centuries after it had been introduced, three centuries after its "invention" by Gutenberg in Germany, and more than seven centuries after its first "invention" in China.⁷⁹

In East Asia the printing press also had a limited impact, but for very different reasons. Initially, in fact, it won a respectful following in Japan. Into a book culture then dominated by manuscript reproduction for secular writings and woodblock editions for Buddhist texts, the Jesuits in 1590 imported a printing press from Goa to publish mainly Christian texts in the Japanese language but in a non-Japanese (that is, romanized) script. Then, in 1593, a rival font of moveable type for Chinese characters, seized in Korea by invading Japanese soldiers, was brought back to Japan, where the

76. Graham Shaw, *Printing in Calcutta to 1800* (London: Bibliographical Society, 1981): x and 52; Dennis E. Rhodes, *The Spread of Printing: Eastern Hemisphere, India, Pakistan, Ceylon, Burma, and Thailand* (Amsterdam: van Gendt, 1969): 11–19 and Illustration 1. Note that the earlier presses published only intermittently.

77. J. Mangamma, *Book Printing in India, with Special Reference to the Contribution of European Scholars to Telugu (1746–1857)* (Nellore, India: Bangorey Books, 1975). Though printing was overwhelmingly practiced by Christian missionaries, five books in Tamil script were printed by the Portuguese Jew Henrique Henriques from 1577.

78. Shaw: x and 52; Mangamma, *Book Printing*. Between 1780 and 1790, seventeen weekly and six monthly periodicals started in Calcutta (Abhijit Gupta, "The History of the Book in the Indian Subcontinent," in Suarez and Woodhyusen, *Oxford Companion to the Book*: 343–44). Even so, virtually all materials and equipment had to be imported from Europe.

79. India (or rather certain people in India) has the distinction of having been indifferent to both moveable type and woodblock printing. The latter form of printing, known to some Tibetans in the ninth century and practiced in Tibet since at least the early fifteenth century, was introduced to some Indians as early as the ninth century and by no later than the fifteenth century; but it never proved popular (Kurtis R. Schaeffer, *The Culture of the Book in Tibet* [New York: Columbia University Press, 2009]: 9; and Sheldon Pollock, "Literary Culture and Manuscript Culture in Precolonial India": 86–87, in Simon Eliot, Andrew Nash, and Ian Willison, eds., *History of the Book and Literary Cultures* [London: British Library, 2006]).

nascent Tokugawa government used it for secular imprints. As the Jesuits took their printing presses with them to Macao on their expulsion from Japan two decades later in 1613, moveable-type printing in Japan was thereafter carried out overwhelmingly by the Tokugawa government without recourse to a Gutenberg-like press. From the second quarter of the seventeenth century, however, “as publishing became increasingly a commercial enterprise, the more economic method of printing from woodblocks . . . soon replaced moveable type.”⁸⁰ In the mid-nineteenth century Western printing technology—by then improved over Gutenberg’s printing press—would return, to replace woodblocks in the 1880s.

Elsewhere in pre-1850 East Asia, outside of the Spanish colony of the Philippines,⁸¹ Gutenberg’s invention won even fewer converts. In the late sixteenth century, the Chinese printing world, based overwhelmingly on woodblock production, was thriving as never before.⁸² To the European eye, as seen in Beth McKillop’s account above, the Korean—and by extension Chinese—use of moveable type appears clumsy and inefficient. But to East Asians, Gutenberg’s printing press would have had more serious drawbacks. We refer not to the potential technical challenge that the press’s lumbering hardware might have posed to East Asian craftsmen. Chinese and Japanese proved themselves more than equal to the task: at least one of the Japanese boys sent to Europe on the Date Mission learned how to print books from a printing press, and in 1604 a Chinese migrant to the Philippines (known in Spanish records as Juan de Vera) published the earliest surviving moveable-type imprint of the Philippines, the types, punches, and matrices made there and not imported.⁸³

Rather, the problems that restricted the acceptance of Gutenberg’s machine in East Asia were more basic: it required huge capital outlays and overhead costs, its type fonts were for just 26 alphabetic letters and thus useless for a written language with well over 50,000 Chinese characters and no letters, and its ink and paper were not usable for anything resembling a Chinese or Japanese book. Moreover, its operation and its regular imprints tended to be more expensive, its maximum print runs for an edition of a popular title (and thus moneymakers) often smaller, its exposure to state censors and tax collectors more vulnerable, and the shape of its Westerner-punched characters unattractive to readers accustomed to the proper shape of characters written with calligraphic strokes. In pre-1850 China and Japan, Gutenberg’s press, then, had met its match not from fearful clerics, autocratic rulers, or a thriving

80. Donald S. Shively, “Popular Culture,” in John W. Hall and James McLain, eds., *Cambridge History of Japan Volume 4: Early Modern Japan* (Cambridge: Cambridge University Press, 1991): 726.

81. Piet van der Loon, “The Manila Incunabula and Early Hokkien Studies,” *Asia Major* 12 (1966): 1–43 and 13 (1967): 95–186.

82. McDermott, *Social History*: 99–103.

83. Van der Loon, “Manila Incunabula,” 12: 1, 25–27; and C. Salmon, “L’édition chinoise dans le monde insulindien (fin du XIXe s.-début du XXe s.),” *Revue Française d’Histoire du Livre* 42 (1984): 111–34, esp. 112.

manuscript culture, but from an alternative kind of technology which its users found more useful, affordable, attractive, and profitable than any moveable-type option invented by their compatriots or a European. Did sensible Chinese, Japanese, and by extension Koreans need any further reason to let the Jesuit printing presses languish in the Portuguese colony of Macao?

Europe and East Asia, then, had evolved two different primary kinds of book publishing technology, each functioning in parallel to suit what became its own linguistic, cultural, and economic practices. Technological connectivity between these two kinds of printing was severely constrained, as their technology sets—ink, paper, woodblock, or metal type font—and their required skills—block-cutting styles or press control—were not mutually exchangeable. Hindsight encourages us to speculate that the more mechanical nature of publishing with the printing press offered more long-term opportunities for basic improvements in production and efficiency than did woodblock with its heavy reliance on manual skills. But that European advantage lay in the future, long after this machine had been introduced to East Asia and found wanting.

Unwittingly, the printing museums in Mainz and Beijing today reflect these cultural and technical differences. In Mainz one finds an impressive array of metal machinery, that is, the printshop of the German artisan and its mechanical means for printing an untold number of identical copies of a single text. In Beijing, by contrast, the focus is not on machines but on humans. An imposing statue of Bi Sheng is given pride of place, and a few modern pieces of ceramic type show why he rather than Gutenberg deserves to be known as “the inventor of moveable type.” But elsewhere in the building woodblock printing reigns, the Chinese scholar presiding as its driving spiritual force, at times its publisher, and always its consumer. The world of manual work, of block-cutting and printing, is a world away. However much the scholar enjoyed his brushes and ink, he would not have dirtied his hands with the cutter’s tools and the printer’s ink. Even less can one imagine him, inside or outside of this museum, wrestling with a mass of clanging ironware, hard wood, and ink, as did Gutenberg and his successors in German printshops.⁸⁴

These fundamental differences in printing technology, practice, and values would end, not with the first legal introduction of the printing press to China by Protestant missionaries in 1844–45, but with Chinese publishers’ ready adoption of another German technological innovation, that of lithography. Invented in 1796, this method of printing spread rapidly through post-Napoleonic Europe and eventually reached Shanghai in 1866. Dependent on chemicals to fix texts and images onto flat stone surfaces before they were carved,⁸⁵ it was more suited to the traditional

84. For further discussion of woodblock printing practices and advantages, see the instructive comments by Cynthia Brokaw in her chapter in this volume.

85. Reed, *Gutenberg in China*.

needs and carving practices of the Chinese script, stone carver, reader, and market than was moveable type. As it also had many of the advantages of the printing press and few of its clear disadvantages, it was quickly taken up by enterprising Chinese firms in Shanghai. Soon, their lithographic imprints were outselling not just rival Chinese publishers' woodblock versions of the same titles but also the same titles from Christian missionaries' letter presses. From the 1880s, the high quality, large runs, low prices, and high profits of Chinese lithographic imprints dominated book publishing in Shanghai and much of the rest of China, until an improved version of letter-press machinery—far cheaper and more productive than the Protestant missionaries' Gutenberg-style printing presses a century earlier—eventually replaced lithography in the 1910s for the mass production of many kinds of printed materials. Meanwhile, new vernacular language publishing for newspapers and journals had expanded the Chinese demand for printed materials and made the adoption of this latest Western printing machinery commercially viable. In short, European printing technology had to become more suited to the Chinese and Japanese markets' special (and arguably more sophisticated) needs and wishes, and the demand for printed matter in some Chinese cities had to expand before the two largest book worlds in Eurasia had strong commercial grounds to use similar print technology and printing practices.⁸⁶

Knowledge Transfer and Exchange

This absence of a “technological connectivity” for Gutenberg's printing press, however, did not prevent the books of these two pre-1850 book worlds from enjoying some “intellectual connectivity.” This three-century dialogue between Europeans and Chinese has long attracted attention from scholars like Joseph Needham and Donald Lach, not least because they regarded it as the first concentrated effort by some members of these book worlds to link their cultures' central intellectual and moral concerns. This bridge building through imprints, however, did not win universal acclaim, as its bold goal of establishing a Eurasian conversation with common conceptual vocabulary aroused in some Chinese and European quarters a distrust and opposition as fierce as did the printing press in the Middle East and South Asia. The books and ideas that the Jesuits introduced to both China and Europe were destined to cause as much dissent as consent, just as the universalizing presumptions of European discourses' clash with the Chinese court's and elite's insistence on autonomy

86. The quicker Japanese adoption of Western printing presses in the mid-nineteenth century is partly explained by a high level of demand, enabled by an exceptionally high level of literacy in a pre-industrial society (see Ronald Dore, *Education in Tokugawa Japan* [Berkeley, CA: University of California Press, 1965]).

impeded close cultural ties between Chinese and Europeans right up to the twentieth century. Overall, this book connectivity was less than many scholars have assumed.

With the 1549 arrival of Francis Xavier, SJ, on an outlying island of Japan and the 1583 admission of two other Jesuits into China, we can with hindsight see how an East-West dialogue over cultural and technical knowhow began to take root in East Asia. Although the Jesuit mission lasted for less than a century in Japan, it survived the rough and tumble of Chinese politics for two centuries and eventually gained entry—illicitly—into Korea and Vietnam as well. During their travels in Eurasia, the Jesuits came to the view that the peoples of East Asia (and some peoples in India) were civilized and rational, and thus inferior to Europeans principally because of their ignorance of Christianity. Convinced that these East Asians were amenable to the Christian message through persuasion rather than force, they set about evangelizing by writing, translating, and printing books.⁸⁷ In Japan they published “as many as 100 titles,”⁸⁸ until the Tokugawa government ordered their expulsion. Whereas the Jesuit publishing accomplishment in Japan has been appreciated for its fonts and other technical breakthroughs (e.g., the use of romanized script for the Japanese language), in China it was the contents of their books that underlined the intellectual character of the cultural exchange and that subsequently won them both accolades and brickbats.

It is the history of these books, those they introduced, translated, wrote, and published in China and Europe, that will be the prime concern of this section’s discussion of knowledge transfer. We will begin by assessing the limited extent of the Jesuit transfer of Western learning, by examining the obstacles to its spread in China in the sixteenth and seventeenth centuries, by considering its shaping of some trends in early and mid-Qing thought, and by discovering initial steps in the mid-eighteenth century to the involvement of both Chinese and Europeans in their regular exchange of information about their social and economic conditions. We will next briefly discuss the return-flow of this Eurasian exchange, whereby Jesuit missionaries’ writings on China influenced European and other countries’ views of China, even in the Middle East. This wider perspective will encourage us to explore dimensions of connectivity not simply in the circulation of these books but also in the way their information and questions prompted certain responses and were shaped by a culture’s overall framework for handling new ideas and values. In other words, we will

87. See the astute discussions of this point in Francisco Bethencourt, *Racisms, From the Crusades to the Twentieth Century* (Princeton, NJ: Princeton University Press, 2013): 79, 81, 157; and Mary Laven, *Mission to China: Matteo Ricci and the Jesuit Encounter with the East* (London: Faber, 2011): 148.

88. Kornicki, *Book in Japan*: 125–27; and William J. Farge, SJ, “Translating Religious Experience Across Cultures: Early Attempts to Construct a Body of Japanese Christian Literature”: 83–105, in M. Antoni J. Üçerler, SJ, ed., *Christianity and Cultures: Japan and China in Comparison, 1543–1644* (Rome: Institutum Historicum Societatis Iesu, 2009).

find it necessary to discuss religion as well as science in any meaningful account of how these kinds of early modern European knowledge entered the book world of East Asia.

Let us first consider the role of European imprints themselves in this transmission. In the view of Henri Bernard, SJ, a lifelong historian of early modern Chinese-European relations, “the ‘commerce des lumières’ between the two civilizations [of China and Europe] was begun by the exchange of printed books and by the formation of durable libraries.”⁸⁹ This assessment, on first reading, seems grossly overstated. In the early seventeenth century, major European libraries, such as the Bibliothèque de Roi in Paris, the Königliche Bibliothek zu Berlin, and the Collegio Romano, held just “hundreds of volumes” apiece.⁹⁰ By 1791, the first of these Chinese-language collections had grown from no volume in 1667 to 4,000 volumes (*ce*) to become “by far the largest [collection] in Europe.” Yet, not only were many of its volumes actually translations of Jesuit writings on Christianity and Confucian canonical texts, but also its size would have had it rank as small and minor among provincial Chinese private book collections at the time.⁹¹ Educated Parisians may no longer have regarded Chinese books simply as curios, to be presented to European rulers for inclusion in their cabinets of curiosities (the Portuguese king’s gift of a Chinese book to the pope in 1514 was accompanied by an elephant).⁹² But, with mere handfuls of Europeans able to read Chinese, these Chinese-language books could not, on their own, have sparked great European interest in China.

Back in China, the largest collections of Western books were found in Jesuit libraries in Beijing and Macao. The college library in Macao had by 1746 grown to about 4,200 books (*livros*) (or volumes?). Judged “disappointingly low” by Noël Golvers in

89. As expressed in 1969 in his welcome for Hubert G. Verhaeren, comp., *Catalogue de la Bibliothèque du Pé-t'ang, Mission catholique des Lazaristes à Pékin* (Beijing: Impr. des Lazaristes, 1949; reprint Paris: Belles Lettres, 1969): xxxiii. Golvers, *Libraries*, v. 1: 15, continues this trope, by designating the seventeenth Jesuit mission to China “a true *Mission of the book*.”

90. Marcia Reed and Paola Demattè, eds., *China on Paper: European and Chinese Works from the Late Sixteenth to Early Nineteenth Century* (Los Angeles, CA: Getty Research Institute, 2011): 4.

91. Nathalie Monnet, “De Mazarin à Bertin, lessor de la collection chinoise à la Bibliothèque royale entre 1668 et 1793”: 140–45, in Marie-Laure de Rochebrune, comp., *La Chinoise à Versailles, Art et Diplomatie au XVIIIe Siècle* (Paris: Somogy, 2014). By 1739, this collection’s catalog contained just 403 entries, or titles (far more in volumes). Further acquisitions from the missionary Joseph-Marie Amiot, SJ, and the minister Henri-Leonard Bertin added to the collection, as did some purchases by the French kings. Nathalie Monnet, “Les livres chinois de Louis XIV”: 213, in *Kangxi, l’Empereur de Chine, 1662–1722, La Cité Interdite à Versailles* (Paris: Bibliothèque nationale, 2004); and Nicolas Standaert, Ad Dudink, and Nathalie Monnet, eds., *Textes Chrétiens Chinois de la Bibliothèque Nationale de France* (Taipei: Taipei Ricci Institute, 2009), preface: i–xiv. The collection had a preponderance of illustrated volumes, an indication of how Europeans understandably appreciated Chinese pictures more than they did the Chinese text.

92. Carter, *Invention of Printing*: 125, 134n9; and Lach, *Asia*, II: 1: 41; Monnet, “Les livres chinois”: 213. A rhinoceros was also anticipated but died on the way to his delivery and audience.

comparison with contemporary Jesuit college collections in Europe, it was seized and sold off in 1762.⁹³ Eventually, larger and longer lasting were the Western libraries set up in Beijing, three of them Jesuit-run. The Xitang Library, said by some to have begun with books left by Matteo Ricci, had by the mid-seventeenth century over 3,000 volumes. By the century's end it had grown to be "moderately large" like many Jesuit colleges in Europe. But Golvers downplays its size, putting it at no more than 6,000 volumes.⁹⁴ The size of another Jesuit collection in Beijing, the Nantang (later called the Beitang), is recorded only in its 1949 catalog, so long after its original holdings had been either lost or intermixed with other collections that its pre-1850 size is beyond our knowledge today.⁹⁵

Although this Nantang collection then included an up-to-date set of European writings on mathematics, astronomy, and medicine (as well as issues of some European periodicals that were several years old), its catalog consists largely of theological, philosophical, and religious texts. Unlikely, then, to arouse widespread interest even among educated Chinese, this collection—what Golvers rightly calls a Renaissance library—would have posed an awesome obstacle to Chinese readers interested in learning about the West. Its books were all written in European languages, principally Latin, French, and Italian,⁹⁶ and in the sixteenth and seventeenth centuries, as in all previous centuries, even fewer Chinese read Latin or any other European language than Europeans read Chinese. Although some of these European imprints escaped into Chinese hands and Chinese bibliophiles admired their binding and print quality,⁹⁷ virtually no European imprint is listed, to the best of my knowledge, in the surviving printed catalog of any significant private Chinese collection of books before the twentieth century.⁹⁸ While Golvers has richly described the operation of at least seven European networks for collecting and sending books

93. Golvers, *Libraries*, vol. 2, *Formation of Jesuit Libraries* (Leuven: Ferdinand Verbiest Institute, 2013): 87. The buyers, alas, are not identified.

94. *Ibid.*, v. 2: 97–103, 115–16.

95. Golvers, *Libraries*, v. 1: 9. Late Ming Chinese wrote of its 7,000 "pieces" (*bu*). Verhaeren: xi–xii, sensibly argues that their estimates refer to another unit of calculation. But, even if these estimates need to be replaced by recent recalibration of this figure to 4,100 titles (or about 5,200 volumes), this new estimate remains almost twice the number of Chinese titles then in the Bibliothèque de Roi.

96. Golvers, *Libraries*, v. 1: 21n16.

97. Cheng Huanwen, *Wan Qing tushuguan xueshu sixiang shi* (Beijing: Beijing tushuguan, 2004): 62–63.

98. The principal exception is the hereditary family collection of Xu Guangqi, the famous Catholic convert, in the Xujiahui (also known as Zikawei) area of present Shanghai; this library presently holds about 1,830 pre-1800 Western titles, most of them collected for this library in the mid-nineteenth century (Golvers, *Libraries*, v. 1: 21n15). Just as the Western books sent to the Kangxi emperor's private collection were considered Western exotica (Joachim Bouvet, SJ, *Journal des Voyages*, Claudia von Collani, ed. [Taipei: Taipei Ricci Institute, 2005]: 53), so were Chinese books widely treated as curiosities by their early modern European collectors (e.g., Oxbridge college libraries have cataloged their few East Asian titles only in the past half-century). Both cultures had trouble accurately transcribing the titles of the other's books in any script.

to the Jesuit mission in China,⁹⁹ neither he nor anyone else has demonstrated the use of most of these Western volumes inside China, especially by Chinese. Indeed, Richard Rudolph has shown that on three occasions (1643, ca. 1650, and 1698–1703) Jesuits translated Western books on anatomy from the Nantang collection's 271 titles concerned with medicine and natural history, and that none of these translations was ever published. The sole surviving copies of the first two efforts, all manuscripts, survive only in Europe, and although the Kangxi emperor is said to have wished to print and distribute the third of these works throughout his empire, it survives only in manuscript. Western medical knowledge in fact had minimal impact on Qing medical knowledge and practice until the latter half of the nineteenth century, when Protestant medical missionaries saw to the printing of books with European anatomical and other knowledge, by then centuries old.¹⁰⁰

While future research on this aspect of Chinese cultural history may contain surprises, so far the clearest evidence of the *direct* impact of these Jesuit-owned volumes on Chinese culture concerns the artistic response of some late Ming (1368–1644) and early Qing-dynasty painters to the engravings in these books. For Chinese intellectual life the influence of these volumes instead was indirect, thanks to the translation and publication of some of them into Chinese from 1584 onwards (the question of these scholars', as opposed to painters', direct access to the Jesuit libraries thus becomes a minor issue). Persisting at publishing far longer than any other Catholic missionary group active in East Asia, the Jesuits in China translated and published books long past the papal order for their dissolution in 1773 (by contrast, the Dominicans' Chinese-language printing efforts in the Philippines lasted only from about 1593 to 1607).¹⁰¹ Between 1584 and 1636, no fewer than 107 Western titles (210 volumes) were translated by the Jesuits and/or their converts into Chinese (of these, 36 titles, or 121 volumes, remained unpublished as of 1636).¹⁰² By 1700, their published translations in China had risen to 590 titles.¹⁰³

Published privately, like many Chinese scholars' own writings, these imprints initially circulated mainly through gift, loan, and hand copy. Only eventually did some enter the market through private sale as used books. Yet, in the late Ming especially, the laxness of government censorship and lack of any author's or publisher's legal claim to copyright privileges allowed anyone to reprint and circulate these texts as he

99. Golvers, *Libraries*, v. 1: 386–91.

100. Richard C. Rudolph and Schuyler Van Rensselaer Cammann, *China and the West: Commerce and Culture* (Los Angeles, CA: William Andrews Clark Memorial Library, University of California, 1977): 19–21. Rudolph's fine study deserves to be better known.

101. Lucille Chia, "Chinese Books and Printing in the Early Spanish Philippines," in Eric Tagliacozzo and Wen-Chin Chang, eds., *Chinese Circulations, Capital, Commodities, and Networks in Southeast Asia* (Durham, NC: Duke University Press, 2011): 259–82.

102. Nicolas Standaert, ed., *Handbook of Christianity in China, Volume One: 635–1800* (Leiden: Brill, 2001): 600–601.

103. *Ibid.*: 600.

or she wished.¹⁰⁴ Thus, in sharp contrast to the absence of original Western imprints in private Chinese book collections, we see that 138 translated volumes of Western books are listed in the catalogs of thirteen major private book collections in the lower Yangzi delta dating from the seventeenth and eighteenth centuries (another survey focused on just mid- and late seventeenth-century collectors and found over 150 such titles, roughly two-thirds of them “scientific”).¹⁰⁵ In other words, once translated, some of the Jesuits’ books secured a presence in major Chinese book collections, including the imperial Four Treasuries. That presence supports claims of their significance in Chinese and Western cultural interaction in the seventeenth century.

Even so, the numbers are small and, judged alone, they can give only weak support to any claim of widespread influence, especially when they are compared to the figures we have for the number of printed books then being exchanged among the separate countries of Europe or East Asia (e.g., from China to Japan and Korea,¹⁰⁶ or from Italy, Germany, the Low Countries, and France to London).¹⁰⁷ What instead has led many modern Chinese and Western scholars to stress the historical significance of this late Ming introduction of European knowledge to East Asia is other evidence of the depth of Western learning’s impact on many aspects of late Ming and early Qing elite culture and society. In recent decades scholars have explored this influence in Chinese writings on “practical learning,” in Chinese prints and painting, however exotic, and even in some traditional storytelling. For early modern Japan the influence may have been both wider and deeper. Frédéric Girard has shown how the Jesuits introduced the Aristotelian notion of the soul to Japanese Christians through manuscript translation and formal teaching. He has also pointed to Buddhist monks’ use of concepts of freedom and other Western political concepts, if only to counter growing Jesuit intellectual influence within Buddhist circles. Another Japanologist has revealed the impact of Western music in sixteenth-century Japan.¹⁰⁸

104. Cynthia Brokaw, “On the History of the Book in China,” in Cynthia Brokaw and Kai-wing Chow, eds., *Printing and Book Culture in Late Imperial China* (Berkeley, CA: University of California Press, 2005): 18–19; and Inoue Susumu, *Min Shin gakujuitsu henshen shi* (Tokyo: Heibonsha, 2011): 110–45.

105. Nicolas Standaert, “Note on the Spread of Jesuit Writings in Late Ming and Early Qing China,” *China Missions Studies Bulletin* 7 (1985): 22–32; and Xu Haisong, *Qingchu shiren yu Xixue* (Shanghai: Dongfang, 2000): 72–76.

106. Fan Jinmin, “Qingdai qianqi Jiangnan shuji de Riben xiaochang,” in Zhou Shengchun and He Zhaohui, eds., *Yinshua yu shichang* (Hangzhou: Zhejiang daxue, 2012): 291–314.

107. P. G. Hoftijzer and O. S. Lankhorst, “Continental Imports to Britain, 1695–1740,” in Michael F. Suarez, SJ, and Michael L. Turner, eds., *The Cambridge History of the Book in Britain, Vol. 5: 1695–1830* (Cambridge: Cambridge University Press, 2009): 513–22.

108. For painting, see James Cahill, *The Compelling Image* (Cambridge, MA: Harvard University Press, 1985) and *Pictures for Use and Pleasure: Vernacular Painting in High Qing China* (Berkeley, CA: University of California Press, 2010): 67–98; for literature, Li Shexue, *Zhongguo Wan Ming yu Ouzhou wenxue: Mingmo Yesuhui gudian zhengdao gushi kaoquan* (Beijing: Sanlian shudian, 2005; rev. ed. 2010); for philosophy, Frédéric Girard, “Discours bouddhiques face au christianisme,” in Frédéric Girard, Annick Horiuchi, and Mieke Macé, eds., *Repenser l'ordre, Repenser l'héritage, Paysage*



Fig. 1.4

Franco-Chinese male fashion in late seventeenth-century China. In a book of prints depicting the good works of the Buddhist deity Guanyin, the last sheet is devoted to an exotic image of Guanyin dressed *à la mode occidentale* within a bamboo frame (Hu Yinling, *Guanyin dashi xiansheng linying ji*, print 51) (courtesy of Machida City Museum of Graphic Arts, Japan).

And, of course, some Chinese preserved a resilient faith in another type of learning introduced by the Jesuits, Roman Catholicism. In the face of hostile Qing edicts and campaigns, Chinese converts to Christianity at the end of the eighteenth century are estimated to have numbered over 200,000. While statistically insignificant in a population then of 400 million, their numbers had risen from the middle of the eighteenth

Intellectuel du Japon (XVIIe–XIXe siècles) (Genève: Droz, 2002): 167–208; and for music, David Waterhouse, “The Earliest Japanese Contacts with Western Music,” *Review of Culture* 26 (1996): 36–47 and “Southern Barbarian Music in Japan,” in S. Castelo Branco, ed., *Portugal and the World: The Encounter of Cultures in Music* (Lisbon: Publicações Dom Quixote, 1997): 351–77.

century, partly due to a new policy of ordaining Chinese as Jesuit priests.¹⁰⁹ Some Chinese Jesuits active in the interior acquired training abroad, in a French Jesuit college in Siam (Thailand) and Paris or in an Italian seminary in Naples. One Siam-educated Jesuit, born to a Catholic family in Shanxi province, even left a diary, whose seven hundred pages of Latin recounts almost two decades of clerical life in western China (it has never been translated into Chinese). And, progress, however slow, was made during the seventeenth and eighteenth centuries in that most challenging of book tasks, the translation of the Bible into Chinese. The oldest surviving pieces of evidence of this centuries-long struggle appear to be Chinese-language translations or accounts of parts of the New Testament, associated with the French Jesuit Jean Basset (1662–1707) and held respectively in the Biblioteca Casanatense in Rome, the British Library, and the Cambridge University Library. The Cambridge manuscript embodies these religious strands of Eurasian cultural connectivity. Written in fine literary Chinese in standard Chinese script by an educated Chinese, this volume presently is bound in the Western manner, its cover is thoroughly Western, and its paper bears a Western watermark of ca. 1650–1700 vintage. It tells the story of the Four Gospels in the form of a “harmony,” an ancient genre of Christian writing that removes the inconsistencies of the Four Gospels’ lives of Christ to tell one clear and consistent tale of how Christ came to save the world, not just the West or China.¹¹⁰ Its direct impact, however, remained limited, since it was never printed.

The major qualitative impact of these translations on East Asian culture was felt, it is widely believed, in certain fields of scientific and technical learning, such as mathematics, astronomy, clocks, cartography, and weaponry. For, even though the Jesuits as missionaries favored publishing Christian apologetica—four-fifths of the 590 works they published by 1700 treated religious and moral topics—they were aware that literate Chinese had different reading priorities. In Nicolas Standaert’s view, seventeenth-century Chinese were more interested in science than was any other educated group of people outside of Europe (some even offered to pay to publish certain Western books on science). In response, more than in any of their other missions, the Jesuits in China made use of Western science to attract potential converts.¹¹¹ And so, by 1700, they had published 120 titles on science and the West, mainly in Beijing but also in Fuzhou, Fujian province, and Hangzhou. Their influence, according to Xiong Yuezhi, was extensive, especially in fields of practical learning.¹¹²

109. Standaert, *Handbook*: 385–86.

110. Uchida Keiichi, “Morison ga moto ni shita Kanyaku Seisho atarashiku hatsugen saretta Jean Basset yaku: Xinyaku Seisho kohō,” *Ajia bunka koryū kenkyū* 5 (2010): 191–98; Standaert, *Handbook*: 462–64; and Andre Ly, *Journal d’Andre Ly, Prêtre Chinois, Missionnaire et Notaire Apostolique, 1747–1763*, ed. A. Launay (Paris: Alphonse Picard et Fils, 1906).

111. Standaert, *Handbook*: 600, 601, 689.

112. For evidence of influence on as many as 173 seventeenth- and eighteenth-century Chinese intellectuals, see Xiong Yuezhi, *Xixue dongjian yu Wan Qing shehui* (Shanghai: Renmin, 1994): 77–90.

In succeeding centuries this celebrated transfer of scientific knowledge gave rise to two general approaches and interpretations, one scientific and the other historical. The first, focusing more on the knowledge transferred than on the process of transfer, is closely associated with the writings of Joseph Needham. This famous historian of Chinese science viewed the first century of Jesuit-Chinese exchange of learning as a pivotal event in the evolution of “oecumenical science.”¹¹³ Before the sixteenth century, East Asian and European worlds of learning confronted linguistic and cultural differences even greater than those that had separated the Arabic and European worlds of learning in medieval times. Virtually no one in Europe or China knew the other’s written or spoken languages (which are also linguistically unrelated). They also knew very little about one another’s history and religions; the teachings of Buddhism, for instance, were first described in reasonably accurate detail in a Western language only at the turn of the sixteenth century for Jesuits (and a century later for the educated reader); and, whereas Christianity was known of in mid-sixteenth-century China and Japan, it was associated with, respectively, Central Asian cults and Buddhism.¹¹⁴ By contrast, Arabic, as a Semitic language, was at this time taught at various European universities, and Islam was along with Judaism and Christianity considered an Abrahamic religion. All three religions had arisen in the same region of the world and shared the same understanding of a monotheistic godhead. Admittedly, some Jesuits strove to persuade both Chinese and Westerners that the ancient Chinese had believed in the same god as Christians still did (up to the nineteenth century many Westerners continued to think of the Chinese as an offshoot of ancient Egypt or even as the biblical “lost tribe of Israel”). But the vast majority of Chinese would have disagreed with this eccentric reading of their history. To them the only important religious or cultural import in their country’s long history had been Buddhism, and it was an influence that by the sixteenth and seventeenth centuries many of the educated had come to deplore.

Despite these sharp differences, Needham argued that the Jesuit mission to China succeeded in playing an indispensable role in the initial stages of the formation of global science. By plotting “transcurrent points” and “fusion points” in the exchange of different strands of the traditions of East Asian and Western science, Needham charted a long-term trajectory for the merger of their different fields of scientific knowledge into one “universal science” that all educated people could henceforth hold as true. Mathematics, physics, and astronomy had essentially developed as distinct Chinese and Greek-Arabic science traditions, until in the late Ming the Jesuits’ dissemination of Greek/Renaissance science among the Chinese had created transcurrent and fusion points for these fields of knowledge: “By 1644, the end of the Ming dynasty,

113. Joseph Needham, “The Roles of Europe and China in the Evolution of Oecumenical Science,” in his *Clerks and Craftsmen in China and the West* (Cambridge: Cambridge University Press, 1970): 396–418.

114. App, *The Birth of Orientalism*: 16–19, 123–25.

there was no longer any perceptible difference between the mathematics, astronomy, and physics of China and Europe; they had completely fused, they had coalesced.”¹¹⁵ In other fields of scientific knowledge, like botany and medicine, the actual fusion, he conceded, occurred no earlier than the late nineteenth century. Sixteenth- and seventeenth-century Jesuits, for instance, informed the Chinese of many animals they had previously known little or nothing about, but Qing authors regularly continued to quote earlier Chinese accounts that failed to look widely beyond the books studied and thus to distinguish real from imagined features. “Generally, there is very little progress in recording new zoological details, and with a few exceptions only the most original writers are willing to break with literary traditions.”¹¹⁶ Nonetheless, overall, Needham’s “universal science” was first forged in the late Ming, in the early seventeenth century.

Five decades on, Needham’s pioneering hypothesis about the fusion of Western and Chinese science still holds our attention, but due more to its imaginative leap than to its historical validity. Perhaps most crucially, the Western science transmitted by the Jesuits is now seen as a conservative, arguably out-of-date, version of the scientific learning then exciting some of the liveliest minds in Europe. As Jacques Gernet has observed of this conventional Jesuit science, “the teaching of the missionaries contained nothing of a kind to upset existing ideas. Nor did any of the Jesuits’ teaching to the Chinese bear the mark of modern science or indeed convey its spirit. Their teaching always remained in conformity with that purveyed in their colleges in Coimbra and Rome. Neither Copernicus nor Galileo were really legitimated in China. The Jesuits first taught the Chinese the astronomical theories which were current in Europe at the end of the sixteenth century, and once they had become installed in the astronomical service of the capital, they limited themselves to introducing into China such new knowledge as was useful to their own calculations, which was strictly of a practical and immediate nature.”¹¹⁷ Whatever the reason—the Chinese court’s limited interest in scientific topics other than astronomy, the strongly Aristotelian education these Jesuits had received in Europe, or their wish to avoid the spread of Western skepticism into the innocent minds of potential Chinese converts—the Jesuits did not inform their Chinese readers and listeners of contemporary European debates and advances in science. For instance, none of them taught Copernicus’ heliocentric understanding of the universe until the early eighteenth century.¹¹⁸ As a result, the

115. Needham, “Oecumenical Science”: 398, 404–15.

116. Roderich Ptak, “Intercultural Zoology: The Perception of Exotic Animals in Chinese Jesuit Works,” in his *Birds and Beasts in Chinese Texts and Trade* (Wiesbaden: Harrassowitz, 2011): 107–28, esp. 109–10.

117. Jacques Gernet, *Confucianism and Christianity* (Cambridge: Cambridge University Press, 1994): 251–52n22.

118. Copernicus, as Nathan Sivin has reminded us in his *Science in Ancient China: Researches and Reflections* (Aldershot: Variorum, 1995), had many non-Catholic critics in Europe as well. Yet, our

Western contribution to this alleged fusion was a distinctly constrained transfer of information.

The Chinese input was, if anything, less comprehensive and persuasive, if only because the disorganization of their reflections on nature made a genuine fusion very difficult. Ricci predictably attributed the problem to Chinese ignorance of Aristotelian learning. Whatever the reason, “the Chinese did not have a discipline, a system of knowledge, or even a coherent scholarly tradition equivalent to Western notions of ‘natural history,’ ‘botany,’ or ‘zoology.’”¹¹⁹ When Li Shizhen created a Chinese system of botanical classification in the late Ming, it was less a system than a description of what he had read about.¹²⁰ Furthermore, it was introduced to the West only after Linnaeus’s new classification system had taken root and thus negated any need for Li’s “system” in the West.¹²¹ In the fields of astronomy and mathematics seventeenth-century Chinese certainly did have something to learn from the West, but their ideas about physics (at least before Newton) just as certainly deserved more attention than they received from the Jesuits in their reports to Europe. Indeed, some late Ming Chinese ideas about the cosmos have struck recent Western scholars as more modern and accurate than the early modern Jesuits’ notion of God the Great Clockmaker: “The Chinese imagined the heavens as an infinite space in which heavenly bodies floated and in which, over extremely long periods of evolution, universes formed and disintegrated as a result of the condensation or dissipation of an omnipresent, universal energy.”¹²² In medicine as well, the Jesuits displayed little interest in the varieties of Chinese treatment and knowledge. Overall, then, Needham’s “oecumenical science” at its core was neither universal nor exploratory. Rather, as packaged by the Jesuits it was a narrow version of Western conventional wisdom on science, a version that in China and Europe was soon to become “backward” and “provincial.”

Post-Ming Europeans might still adopt some Chinese technology (e.g., the iron mold board for ploughs).¹²³ But even in technology they already felt that they had more to teach than learn from China, as some Chinese acknowledged in their

point here is simply that as the seventeenth-century Jesuits were imparting neither the spirit nor the correct scientific knowledge of contemporary European science, they were in the process of undermining in the eyes of most educated Chinese the intellectual basis or justification for their presence at the court.

119. Fan Fa-ti, *British Naturalists in Qing China: Science, Empire, and Cultural Encounter* (Cambridge, MA: Harvard University Press, 2004): 104–5.

120. Georges Métaillé, “Concepts of Nature in Traditional Chinese Materia Medica and Botany (Sixteenth to Seventeenth Century)”: 345–67, in Hans Ulrich Vogel and Günter Dux, eds., *Concepts of Nature: A Chinese-European Cross-Cultural Perspective* (Leiden: Brill, 2010).

121. Fan Fa-ti, *British Naturalists*: 95, on Du Halde’s translation of parts of it in 1735.

122. Gernet, *Confucianism and Christianity*: 60–61, 193–95.

123. For example, Francesca Bray, *Agriculture*, in Joseph Needham, *Science and Civilisation in China, Volume 6: Biology and Biological Technology, Part II* (Cambridge: Cambridge University Press, 1985): 582.

assessment of Western lenses, clocks, bells, nautical instruments, and especially military weapons (e.g., cannons).¹²⁴ The main early modern European exponent of the use of Chinese scientific knowledge was Leibnitz (1646–1716). But his case only underlines the one-sided basis of the “fused science” that Needham hypothesized: the data from China that Leibnitz used in his writings were gathered and sent him by European Jesuits living there, not by Chinese or even the converted Chinese.¹²⁵

The second approach to understanding this West-East transfer of scientific knowledge has stressed its broader historical, that is, political and cultural, context. Needham, despite his professed commitment to Marxism, presented a disembodied evolutionary view of this scientific or cultural encounter, which had more to do with books and ideas than with people and interests, more with Hegelian syntheses, or “fusions,” than with human beings and their conflicts.¹²⁶ Other than by noticing how certain Chinese astronomers and Chinese (and Korean) cartographers made use of some Western learning, he did not clarify precisely what he meant by the “fusion” of these two civilizations’ scientific traditions. Nor, as Benjamin Elman has recently shown, did he look in detail into the fate of the science that emerged from this supposed “fusion.” If he had done so, he would have found a clash between these traditions, in which different groups of humans became so involved in the transmission of this knowledge, that in the end political interests mattered more than scientific learning *per se*. Conflicts between European Jesuits and Chinese officials, between the Kangxi emperor and officials’ factions (some of which had links to court Jesuits), and eventually between this emperor and the Vatican in the famous “Rites Controversy” of the early eighteenth century, all combined to derail any prospects for a fusion of East Asian and Western sciences. Instead, these tragic events, whereby the Vatican delegate challenged the Chinese emperor’s authority to tell his subjects how to worship their ancestors in his country, led the Kangxi emperor in 1706 to order that all China missionaries had to agree to follow “the rules of Matteo Ricci.”¹²⁷ In this battle of the orthodoxies the Chinese emperor was ill disposed to see his subjects kowtow

124. Di Cosmo, “Did Guns Matter?”; Yin Xiaogong, *16–17 shiji xifang huoqi jishu xiang Zhongguo de zhuanji* (Jinan: Shandong jiaoyu, 2014): 66–69 for books on Western weaponry that were written or translated into Chinese by Jesuits; and McDermott, “Chinese Lenses”: 9–29.

125. Gottfried Wilhelm Leibnitz, *Discourse on the Natural Theology of the Chinese*, translated by Henry Rosemont, Jr. and Daniel J. Cook (Honolulu: University of Hawai‘i Press, 1977); and Maria Rosa Antognazza, *Leibnitz: An Intellectual Biography* (Cambridge: Cambridge University Press, 2009): 359–61.

126. Carlo Cipolla’s stress on the greater importance of people than books in the transfer of knowledge is persuasive: “Through the ages, the main channel for the diffusion of innovation has been the migration of people”; “The transfer of really valuable knowledge from country to country or from institution to institution cannot be easily achieved by the transport of letters, journals and books: it necessitates the physical movement of human beings” (Carlo Cipolla, “The Diffusion of Innovations in Early Modern Europe,” *Comparative Studies in Society and History* 14 [1976]: 46–52).

127. Standaert, *Handbook*: 498.

to foreigners' orders within his realm, particularly when he considered these same foreigners ill-mannered and incompetent at Chinese.¹²⁸ And so, the French Jesuits' dream of establishing a scientific academy in Beijing that would exchange information regularly with its counterpart in Paris came to naught. The Jesuits remained at the Qing court, but never again did they reign as imperial favorites.

This outcome gave rise in the modern West to two widely influential narratives. Christian commentators have held that this breakdown ruined their chances of converting China to Christianity,¹²⁹ while other Westerners have judged it a fatal step toward the Qing dynasty's eventual failure to modernize, or Westernize, peacefully.¹³⁰ Recently, Elman and to some extent Catharine Jami have preferred to see these conflicts not in such essentialist terms but as part of the intellectual and political history of Qing China. They place it within a political and cultural context, one that saw a neo-Confucian orthodoxy and its official supporters gain hegemony at the court over the findings of Jesuit science and its far fewer supporters.¹³¹ In the eyes of many Chinese officials the Jesuits were interfering interlopers. Not only were they foreigners from countries the court neither knew nor trusted, but more importantly, they were seen as mere technicians and private employees of the emperor. Like other such specialists at the court (e.g., Moslem astronomers, Manchu shamans, and Chinese eunuchs) they held posts outside the official ranks and so had no legitimate claim to participate in matters of state. Rightly or wrongly, their learning was dismissed by neo-Confucians as "absurd," and their "methods" or "techniques" acceptable only when they operated within a dominant neo-Confucian framework of values and learning. And regarding these methods and techniques, here too some neo-Confucians issued damning, if self-interested, judgments. To their satisfaction they demonstrated that the Jesuits' mathematics actually had added little to what could be found in the classical Confucian canon. Hence, it was not the contemporary Chinese who had to learn mathematics from the contemporary West; rather, it was the Westerners who had to acknowledge that their mathematics and astronomy actually derived from the Confucian classics. Even less did the Chinese need to read Ricci and other Jesuit fathers on the Chinese classics to learn of a God that their ancestors had supposedly once shared with the Christian West.

128. Jonathan D. Spence, "The K'ang-hsi Reign," in *Cambridge History of China, Volume 9, Part 1: The Ch'ing Empire to 1800* (Cambridge: Cambridge University Press, 2002): 120–82. Spence reports on the emperor's low opinion of Jesuit sinology: "Even Father Bouvet's work on the *I-Ching* [*Yijing*] which the Jesuits regarded as the pinnacle of his attainments was described by the emperor in his private comments as an incomprehensible jumble of misunderstood textual and historical references" (159).

129. Kenneth Scott Latourette, *A History of Christian Missions in China* (London: Society for Promoting Christian Knowledge, 1929): 152.

130. For example, Alain Peyrefitte, *The Collision of Two Civilisations: The British Expedition to China in 1792–4* (London: Harvill, 1993): 144–45.

131. Benjamin Elman, *On Their Own Terms* (Cambridge, MA: Harvard University Press, 2008); and Catharine Jami, *The Emperor's New Mathematics* (Oxford: Oxford University Press, 2011).

With learning of all sorts turned into blunt weapons for bureaucratic infighting and academic grandstanding, the immediate and mid-term scientific impact of this court joust is hard to measure. But political currents favored neither the Jesuits nor the cause of “Western science” in China. The Jesuits were as vulnerable to Jansenist and Dominican calls for Counter-Reformation orthodoxy in Paris and Rome as they were to attacks from neo-Confucian fundamentalists in Beijing. Caught uncomfortably in this doctrinal wedge, they quickly fell under the heightened suspicion and skepticism of the aging Kangxi emperor and then faced outright hostility from his successor, the Yongzheng emperor (r. 1723–36). Despite some court interest in Jesuit-introduced skills like cartography the status of Western learning in educated Chinese circles fell precipitously over the course of the eighteenth century. In the 1770s, Confucian scholars and officials included seventeen Western titles in translation in the imperial book collection, but in its descriptive catalog they took care to declare their outright opposition to the broader claims of Western learning: “Our dynasty possesses deep insight in limiting its use [of the Westerners’ knowledge] to their skills, while banning the spread of their learning.”¹³² As Western scientific learning was reduced to technology and as no Chinese needed to look outside the country’s separate moral and intellectual tradition to understand the world and especially the Chinese world, the Jesuits and their books no longer persuaded Chinese that they shared the “same mind and same principles” with learned people in the distant West.¹³³ Even in the late nineteenth century some distinguished Chinese scholars believed that science, including modern Western science, was what Westerners had stolen from China.¹³⁴

But, of course, “Western knowledge” did not disappear. Miyazaki Ichisada, echoed by Benjamin Elman, has speculated that the late Ming Jesuit interest in the ancient meaning of certain key Chinese terms of ancient Chinese texts may have helped spark late Ming and early Qing scholars’ interest in textual studies.¹³⁵ And, less speculatively, the strongly orthodox stances that the Vatican and the Qing court presented at their early eighteenth-century encounters and subsequently adopted toward one another had been shaped by even stronger orthodox intellectual pressures within each of their cultures, the strict Jansenist teachings of certain French Jesuits in Europe and the inward-turning and strict textual readings of the Confucian classics increasingly favored in Chinese intellectual circles from the late seventeenth century.¹³⁶

132. Ibid.: 391.

133. Han Qi, “Astronomy, Chinese and Western: The Influence of Xu Guangqi’s Views in the Early and Mid-Qing,” in Catherine Jami, Peter Engelfreit, and Gregory Blue, eds., *Statecraft and Intellectual Renewal in the Late Ming: The Cross-Cultural Synthesis of Xu Guangqi (1562–1633)* (Leiden: Brill, 2001): 378–79.

134. Michael Lackner, “Ex Oriente Scientia? Reconsidering the Ideology of a Chinese Origin of Western Knowledge,” *Asia Major*, 3rd series, 21(1) (2008): 183–200.

135. Elman, *From Philosophy to Philology*: 47–48.

136. For example, Kai-wing Chow, *The Rise of Confucian Ritualism in Late Imperial China: Ethics, Classics, and Lineage Discourse* (Stanford, CA: Stanford University Press, 1994).

The context of the Qing court's argument with the Vatican had been set not only in Beijing but also in Rome, thanks to the strong pressures for conformity in both of these centers with strong universalist claims for their cultural values. Ironically, what actually became global in eighteenth-century Beijing and Rome was less collaborative science than intolerant doctrinal orthodoxy. Leibnitz's disciple Christian Wolf lost his chair at Halle University and was banished from Prussia due to his immersion in the study of Confucianism. The depressing nadir of this Western ignorance would be reached at the end of the nineteenth century, when a figure as distinguished as a professor of Chinese in Berlin University, Carl Arendt, would state, "I do not think that the history of China (with the exception of a few episodes) will ever be considered as forming an essential part of the general history of mankind."¹³⁷

A brief look at the different fate of Western science in Japan is instructive here, since the Tokugawa shogunate encouraged its admission only from 1720, that is, a century after it had effectively banned Catholicism, evicted all Christian missionaries, outlawed trade with all Westerners but for the Protestant Dutch, and prohibited the entry of Western learning even on scientific matters. Eventually, this Japanese change of policy had them learn Western science from books rather than from people. Unlike the well-educated Jesuits, the Dutch and Chinese merchants who sold them these books had few cultural interests, and so Japanese could appreciate this learning's utility apart from its religious implications and freed of whatever political and intellectual challenges it would have posed to government scholars and officials. Admittedly, this "Dutch Book Learning" had serious inadequacies. Having entered Japan in a random manner, it tended to consist of practical findings rather than basic theories. It assumed a permanent canon of Western science rather than ongoing "progressive improvements" arising out of public debate, and so it was frequently outdated. And, crucially, it stayed clear of the social, political, and religious implications of this thought that then was revolutionizing notions of nature and man back in Holland and the rest of Western Europe. Yet, it was arguably the very same tunnel vision of this Dutch learning that in contrast to the Jesuit learning in Qing China gradually won it and its Japanese advocates an institutionalized foothold in an otherwise hostile Tokugawa order.¹³⁸

Thus, those scholars wishing to claim a strong interconnectivity of Chinese and European books and knowledge at any time between 1500 and 1850 may be able to point to the use of Chinese-language material in a variety of European publications

137. Rudolph: 9, 11. See similar sentiments about "the Sacred Books of the East"—"by the side of so much that is fresh, natural, simple, beautiful, and true, [they] contain so much that is not only unmeaning, artificial, and silly, but even hideous and repellent"—by Max Muller, *The Sacred Books of the East* (Oxford: Clarendon Press, 1879), v. 1:xii.

138. These observations draw upon Grant K. Goodman, *Japan: The Dutch Experience* (London: Athlone Press, 1986): 222–35; and Donald Keene, *The Japanese Discovery of Europe* (London: Routledge and Kegan Paul, 1952): 5–38.

(arguably, this type of scholarship in the West began with João de Barros's use of Chinese books, translated by his bilingual "Chinese slave," for *Décadas da Ásia*, his celebrated history of Portuguese nautical achievements in Asia).¹³⁹ But despite peaks of interest in the seventeenth century the impact and input of these books worlds on one another was neither continuous nor substantial. Those arguing otherwise will need to find a great deal more evidence, perhaps in dusty books on, say, medicine, plants, and nautical cartography in old European libraries or in books translated from the intervening cultures of the Middle East and South Asia. But so far, not enough has been found to persuade us from being generally sympathetic to the conclusion reached by Francesca Bray on the shallowness of the cultural exchange between China and Europe in the seventeenth and eighteenth centuries: "despite the lively curiosity exhibited by a broad range of educated Europeans about China and the keen interest in Western learning shown by a smaller but decidedly influential group of Chinese intellectuals, the exchange of scientific and technical knowledge was remarkably limited. Information was available on both sides, but although in some cases new knowledge was explored, it was seldom adopted and even more seldom put to effective use. In certain important respects this was an era of noncommunication rather than communication between cultures, and the significance of such exchanges as did occur has frequently been overevaluated or misinterpreted in the light of hindsight."¹⁴⁰

This general assessment, it must be admitted, holds true more for Britain and northern Europe than for France. On the other side of the Channel, some members of the cultural and political elite took China more seriously. We refer not to French Jesuits' willingness to admit Chinese into their order first as brothers and then as priests from the seventeenth century.¹⁴¹ Nor to some scholars' belief that the inspiration for Diderot's *Encyclopédie* project came in part from some of the Chinese books and manuscripts in the *Bibliothèque de Roi*, and certainly not to the French copperplate printing of sketches of imperial battle victories that had been drawn by, among others, the Jesuit painter Giuseppe Castiglione (1688–1766) and sent to France for etching and printing on orders of the Qianlong emperor.¹⁴²

139. C. R. Boxer, *João de Barros: Portuguese Humanist and Historian of Asia* (New Delhi: Concept Publishing Company, 1981): 106. Barros's reliance on a "Chinese slave" as the translator of his Chinese books suggests an interesting if neglected link between the origins of European sinology and the Asian slave trade. Was this unnamed "Chinese slave" a "prime ancestor" of European Sinology?

140. Francesca Bray, "Some Problems Concerning the Transfer of Scientific and Technical Knowledge," in Thomas H. C. Lee, ed., *China and Europe: Images and Influences in Sixteenth to Eighteenth Centuries* (Hong Kong: Hong Kong University Press, 1991): 205–19.

141. Standaert, *Handbook*: 301–8.

142. Madeleine Pinault Sørensen, "La fabrique de l'Encyclopédie": 395, in Roland Schaer, ed., *Tous les savoirs du monde: encyclopédies et bibliothèques, de Sumer aux XXIe siècle* (Paris: Bibliothèque nationale de France, Flammarion, 1996); Paul Pelliot, "Les conquêtes de l'Empereur de la Chine," *T'oung Pao* 20 (1920): 183–275; and Matteo Ripa, *Memoirs of Father Ripa: Thirteen Years' Residence at the Court of Peking in the Service of the Emperor of China*, translated by Fortunato Prandi (London:

Table 1.1

European book titles on China, by century and site of publication

Site	To 1599	1600–99	1700–99	1800–50	Total
Britain	11	54	105	355	525
France	43	168	263	306	780
Italy	64	78	128	42	312
Spain	14	58	16	1	89
Portugal	16	27	18	11	72
Netherlands	10	134	76	20	240
Germany	31	91	160	98	380
Belgium	7	13	37	3	60
Macao		1	2	36	39
USA			1	37	38
Sweden		4	21	13	38
Russia			30	49	79
Hong Kong				16	16
Canton		2	1	81	84
Malacca				21	21
Shanghai				11	11
Peking			1 (?)		1 (?)
TOTAL	196	630	859	1100	2785

Source: John Lust, *Western Books on China Published up to 1850* (London: Bamboo, 1987): ix, itself based on the classic Henri Cordier, *Bibliotheca Sinica*, 4 vols. plus a one-volume supplement (Paris, 1922–24).

Rather, our concern is with two French schemes to institutionalize the exchange of scientific and technical information between Paris and Beijing. In 1685, a group of French Jesuits were sent to China as their “King’s mathematicians.” They were expected to report their latest research findings in Beijing to Louis XIV in Paris as well as to transmit French academicians’ latest discoveries in Paris to the Kangxi emperor in Beijing (the Russian Imperial Academy of Sciences in St. Petersburg also received some of the French reports from China). This plan, alas, ran aground, reportedly due to the opposition of Portuguese Jesuits in Beijing.¹⁴³

Nearly a century later, however, a far more ambitious French project for the exchange of scientific and technical information attained some success. Two high-ranking French officials, Henri-Léonard-Jean-Baptiste Bertin (1719–92) and A. R. J. Turgot (1727–81), arranged to have two Chinese, having studied in France to become Jesuit priests, communicate regularly with them on contemporary secular matters in China upon their planned return to Beijing. Anxious as much to learn as to teach, these two French ministers prepared their “deux Chinois” for this collaborative

J. Murray, 1844): 82–84. Ripa introduced to the Qing court this technology as well as a printing press he cobbled together for this print job; his failure to work it properly won him dismissive abuse from court officials.

143. Standaert, *Handbook*: 228, 722, 892.

work by providing financial and educational support for their nonreligious studies in France in 1764–66. Bertin had them travel around France to become familiar with its contemporary economic conditions and manufacturing practices. He had members of the Académie Royale des sciences instruct them in the physical and social sciences and natural philosophy (they also learned sculpture and oil painting). And, Turgot, a soon-to-be minister of finance, instructed them in the upcoming field of economics. Impressed by their quick minds, he personally presented them with a manuscript copy of his unpublished “Reflections on the Formation and the Distribution of Wealth” (“Réflexions sur la formation et la distribution des richesses”). This economic treatise would subsequently bring him fame for its novel analysis of the economy as a self-equilibrium “machine,” that in its present phase required the involvement of capitalist entrepreneurs even in landownership and agriculture.¹⁴⁴ In addition, Turgot drew up a list of fifty-two questions on China’s current political economy that he wanted his two Chinese students to answer from within China.¹⁴⁵ Ranging from land and rice prices and types of labor (e.g., slaves and serfs) to the scale of China’s commercial wealth and interest rates, Turgot’s questions strikingly resemble those that historians of late imperial China have been arguing about for the past century. And to assure these Chinese students’ ongoing cooperation in this research, Bertin arranged for them an annual royal pension of 1,200 livres in China. Although one of these Chinese Jesuits died not long after his return to China, the other survived into the nineteenth century and was instrumental in seeing to the completion of the sixteen-volume set, *Mémoires concernant l’histoire, les sciences, les arts, les moeurs, les usages, &c. des Chinois*, published in Paris between 1786 and 1814. Precisely why this set of books contained far more on historical and cultural topics than on the technical and social science matters that so interested Bertin and Turgot is not clear. The Qing government, if it had ever learned of such collaborative research, would have undoubtedly condemned it as spying. Despite the Qianlong emperor’s construction of a European-type palace in Beijing, he and his government simply did not share the French Enlightenment’s keen interest in distant cultures at the opposite end of Eurasia.¹⁴⁶

What, though, of the transmission of East Asian book knowledge westward to Europe? Nearly 2,800 titles directly about China were printed in Europe between

144. Ronald L. Meek, ed., trans., and introd., *Turgot on Progress, Sociology and Economics* (Cambridge: Cambridge University Press, 1973): 14–27. The two Chinese in question were Pierre Louis Ko (Gao Leisi) and Etienne Yang (Yang Dewang).

145. Anne-Robert-Jacques Turgot, *Oeuvres de Mr. Turgot, Ministre d’État* (Paris: Belin, 1808), v. 5: 140–65, “Questions sur la Chine adressées à Mm. Ko et Yang.”

146. Marcia Reed, “A Perfume Is Best from Afar: Publishing China for Europe,” in Reed and Demattè: 20. Qing court interest in other cultures was reserved for Central and Northeast Asia, minorities within China, and some art work from Japan.

1450 and 1850.¹⁴⁷ Although their number and variety expanded greatly every century (Table 1.1) and the sites and countries with the greatest number of these publications shifted over time—from Venice and Italy before 1600 to Paris and France in the seventeenth and eighteenth centuries and increasingly to London and Britain in the first half of the nineteenth century—the image of China in the minds of educated Europeans by and large remained that imparted by the early Jesuit reports and writings: China was the “Celestial Kingdom,” a land of learning, philosophy, and technical ingenuity.¹⁴⁸ Although this positive assessment like the eighteenth-century European interest in the Middle East and India freed the mind of some of Europe’s more adventuresome thinkers from the all-encompassing hold of classical Greek ideals and Roman models, it provided neither a full nor an accurate picture of China’s rich and varied culture.

Part of the reason for this incompleteness was the overwhelming predominance of European authors in this list of Western publications on China, a point obvious to us today but unfortunately not to most of our predecessors.¹⁴⁹ Over a hundred Chinese males are thought to have reached Europe between 1650 and 1850, usually for seminary study. But, virtually none of them left a detailed report on his experiences in Europe, as the Jesuits had so effectively done about China. Thus, no Chinese ever played the role of a spokesman to the West for his own country and its learning. Even when in the nineteenth century British books dealt with more mundane aspects of Chinese life like commerce, farming, family life, and popular religion, the spokesman in the West for China and the Chinese remained the Western missionary, now more likely Protestant than Catholic.

To Western knowledge of earlier Chinese authors and their writings, the Catholic missionaries had made a slower and more erratic contribution than is usually recognized. Understandably, they considered their main tasks in China to be religious conversion and the pastoral care of their converts. Hence, for the first century and a half they translated far fewer Chinese books into a Western language for Western readers than they did Western (usually Latin) books for Chinese readers. Also, when in the eighteenth century they reversed this publication strategy, their selection of

147. A few titles written by Jesuits at least partly in Latin were printed from woodblocks and sent to Europe (e.g., *Innocentia Victrix*, printed in Guangzhou [Canton] in 1671, included the original Chinese-language texts of the official government ruling that in 1661 declared Christianity innocent of recent charges against it, as well as a romanized transcription and translation into Latin of these documents). Publications in China of a book wholly or partly in a Western language, however, remained highly unusual throughout the centuries under consideration here.

148. An instructive discussion of this flow of influence in Britain is found in David Beevers, ed., *Chinese Whispers: Chinoiserie in Britain 1650–1930* (Brighton: Royal Pavilion and Museums, 2008).

149. The principal exception to this generalization is the large number of testimonies that Chinese officials and scholars wrote at Jesuit request for the Vatican about their understanding of Confucian ancestral rites. Nicholas Standaert, *Chinese Voices in the Rites Controversy* (Rome: Institutum historicum Societatis Jesu, 2012).

Chinese books for Western readers was sometimes eccentric and uninformed. For instance, the first European language (i.e., Latin) translation of a Chinese book (its title was transliterated as *Beng Sim Po Cam*) was accomplished in Manila in 1592 by a Dominican friar. This anthology may have usefully introduced certain Chinese philosophical concerns to Western preachers, but the overall banality of its truisms virtually assured this translation would remain unpublished and forgotten until the mid-twentieth century.¹⁵⁰

The Jesuits tended to choose more wisely but saw their translations into print very slowly. In line with their general policy of accommodating Christianity with Confucian learning, they concentrated their translation efforts on the Confucian classics, that is, the Four Books and Five Classics. In fact, until their order was dissolved by the Vatican in 1773, the Jesuits were the only direct translators of these Confucian classics in the West.¹⁵¹ Yet, as the publication dates of their translations make clear,¹⁵² their efforts took an inordinate length of time. Ricci is thought by some to have translated the Four Books and Trigault the Five Classics, but their translations were never printed and appear not to have survived.¹⁵³ The first publication of a full translation of just one of the Confucian classics appeared in print ten full decades after the first Jesuits had started studying Chinese in Macao and eight decades after two of them had won permission to enter China. Their translation of the Five Classics was first printed another seven decades later. In other words, a Western reader anxious to read all the Confucian classics that some of his Jesuit contemporaries were so enamored of would have had to wait a century and a half after the first Jesuit entry into China. It reminds one of the death that “the demands of scholarship” had until recently inflicted on the study of the Dead Sea scrolls.

150. Chia, *Printing for Profit*: 260–63.

151. Standaert, *Handbook*: 895; and David Mungello, *Curious Land: Jesuit Accommodation and the Origins of Sinology* (Honolulu: University of Hawai'i Press, 1994): 247–99.

152. In 1593, Antonio Possevino quoted from a manuscript translation of the Four Books, possibly made by Ruggieri, when presenting his nearly complete translation of the opening section of the *Great Learning* (Knud Lundbaek, “The First Translation from a Chinese Classic in Europe,” *China Mission Studies Bulletin* 1 [1979]: 2–11). Ricci's 1591–94 translation of the Four Books appears to have been a study manual transmitted within the Jesuit mission; it was never published and survives, it seems, only hidden within the unattributed text of subsequent published translations: the entire *Great Learning* and first quarter of the *Analects* by Confucius were published in translation in *Sapientia Sinica* in 1662, the full Four Books in 1687, and the Five Classics in 1735, a century and a half and two centuries after the Jesuits had arrived in East Asia (Standaert, *Handbook*: 863, 895–96). Note also that a Cambridge graduate, John Vincent, translated a part of the *Great Learning* into English from the Latin translation in the *Sapientia Sinica* (1662, 1667). Inserted at the end of a book he had published in London in 1687, it is the first English-language translation of any part of a Chinese Confucian classic.

153. Louis Pfister, SJ, *Notices biographiques et bibliographiques sur les Jésuits de l'ancienne mission de Chine, 1552–1773* (Shanghai: Imprimerie de la Mission catholique, 1932–34), 1: 41, 119. One pities the poor Chinese Christians who had to wait more than three centuries to get a reasonably well translated Chinese version of the Bible, the Old Testament as well as the New Testament.

As time passed, the Jesuits wrote little on Chinese science and even less on Chinese technology. Their first serious account of Chinese medicine was printed in Europe only in 1682 (pulse reading was the main feature of Chinese medicine that interested them and that they passed on to Europe in 1671).¹⁵⁴ Chinese knowledge of botany and *materia medica* they learned of only in the eighteenth century.¹⁵⁵ If, as Leonard Blussé argues, the heyday of Western interest in East Asia was the last third of the seventeenth century,¹⁵⁶ then the eighteenth century saw less European reliance on Jesuit intermediary book reports and more on direct European observation of Chinese technology at work. The Dutch adopted the Chinese plough's curved iron mold board for their own ploughs in Holland, it appears, not because they had read Jesuit books on agricultural technology but because some of them had noticed this plough's high productivity in Asia.¹⁵⁷ The Jesuit writings were similarly uninformative about the detailed production practices and technology for the Chinese manufactures that won their admiration—porcelain, silk, and tea planting. The Europeans made either their own technological discoveries or their own observations,¹⁵⁸ if necessary onsite in China. In the mid-nineteenth century two Western commercial agents, Isidore Hedde and Robert Fortune, disguised themselves as “Chinese,” slipped into China, and surreptitiously collected information, skills, and plants that ended up useful for, respectively, silk factories in Lyon and tea plantations in British India.¹⁵⁹ Books had piqued their interest but did not divulge the technological and agronomic secrets these Europeans then had to hunt down inside China. Even then, the absence of Chinese experts to teach these skills significantly slowed the transfer of technology outside of China, especially in Europe.

154. That is, Andreas Cleyer's *Specimen medicinae sinicae*; Standaert, *Handbook*: 795; Roberta Bivins, *Acupuncture, Expertise and Cross-Cultural Medicine* (Basingstoke: Palgrave, 2000); and “Imaging Acupuncture,” *Asian Medicine* 7 (2012): 298–318, referring to Willelm ten Rhijne, *De acupunctuus* (1683). Ricci is said to have noticed the superiority of this Chinese medical technique, even though it was reported to Europe only six decades after his death (Cheng Lun, *Cunbu* [Naikaku bunko copy], 2nd ce, anyi, 2a–b).

155. Michael Boym's *Flora Sinensis* (1656 ed.) dealt with only twenty-one Chinese plants (Standaert, *Handbook*: 795, 805). Du Halde's introduction of some of the findings of Li Shizhen, nonetheless, attracted some Western attention to Chinese plant studies.

156. Leonard Blussé, “Doctor at Sea: Chou Mei-yeh's Voyage to the West”: 8, in Erika Poorter, ed., *As the Twig Is Bent: Essays in Honour of Frits Vos* (Amsterdam: J. C. Gieben, 1990).

157. Francesca Bray, *Agriculture*: 582.

158. Back in England, Josiah Wedgwood is said to have been aided in his ceramic research by Wang I Tong, one of the few Chinese visitors to Europe. Wang had been brought to England by John Bradby Blake, a naturalist, to help him with his research on medicine and food; he gave Josiah Wedgwood information on manufacturing Chinaware before becoming a page to the Dowager Duchess of Dorset at Knole, who had him educated at Sevenoaks School and then painted by Joshua Reynolds in a now well-known portrait (British Museum, Paintings and Drawings, 1967, 101, 4, b7 [or 67]).

159. That is, Isidore Hedde, *Description méthodique des produits divers recueillis dans un voyage en Chine, 1843–1846* (Paris: Théolier aîné, 1848); and Robert Fortune, *A Residence among the Chinese* (London: J. Murray, 1857).

The limited role of books in the Eurasian transfer, or theft, of technical knowledge is underlined by the European reception of a now celebrated compendium of mid-seventeenth-century Chinese technology, the *Tiangong kaiwu*. This 1637 publication arrived in the Bibliothèque de Roi after 1716.¹⁶⁰ Covering a wide range of production practices and technology, it includes a surprisingly detailed account of porcelain manufacture (but oddly nothing on printing). Some have attributed to this book a hand in the European success in the production of porcelain. If so, it assuredly was a game hand, since, as Kimura Kōichi reported in 1954 on his use of it for trial production of porcelain in Kyoto, its technical information was not fit for purpose. Experienced potters in Kyoto who followed its instructions failed to make porcelain.¹⁶¹ At the opposite end of Eurasia, where none understood the process and techniques of porcelain production, its impact was mute. Thus, while Chinese books may have been sufficient for Tokugawa Japanese anxious to introduce better agricultural practices from China (e.g., sugar beet planting), they had nothing to do with the westward transmission of industrial secrets from China. The failure to transmit such skills out of China to Europe has far more to do with engrained Chinese practices of secrecy established principally against other Chinese, rather than with the nationalist or mercantilist agenda already evident in some contemporary European states' shielding of their advanced technologies.

With few writings on Chinese science or technology translated or introduced to Europe, Western books on China often either indulged in fantasizing a foreign utopia (that is, the chinoiserie of some plays, political writings, and garden manuals) or in reporting on maritime journeys to China. These travel books contained some information on actual conditions in China. But, as their authors were usually barred from traveling in the interior of the country, they and their readers seldom learned much about the country and its culture. A major exception to this general ignorance about Chinese life was a travel book of sorts written by Matteo Ricci. This Jesuit's report on his thirty years as a missionary in China from 1583 to 1610, published most often under its Latin title *De Christiana expeditione apud Sinas*, won him instant fame in Europe as the European most knowledgeable of China.

Written in Italian, Ricci's manuscript had been taken back to Rome by the Flemish Jesuit Nicholas Trigault. During this return voyage Trigault translated it into Latin for a wide educated readership and upon arrival saw to his translation's first publication in Augsburg, Germany, in 1615. European interest in Ricci's account of a land, where "scholarship reached the heights of the most learned European nation,"¹⁶² proved so strong that over the following decade it was printed in its entirety in no fewer than

160. Monnet, "Les livres Chinois": 215.

161. Yabuuchi Kiyoshi, *Tenkō kaibutsu no kenkyū* (Kyoto: Kōseisha kōseikaku, 1953): 123–36, esp. 132.

162. Liam Brockey, *Journey to the East: The Jesuit Mission to China, 1574–1724* (Cambridge, MA: Harvard University Press, 2007): 243. The words are those of Juan Antonio de Arnedo in 1690.

eleven other editions in five other European languages. In 1621 it was even published in the New World, in Lima, Peru (but not in North America until 1942).¹⁶³

Away from Europe and the New World, this book—a European best seller written in China about China—had few readers for a very long time. In East Asia one would have thought its sympathetic assessment of Chinese culture would have assured it a warm welcome. Yet, from 1630 to 1720, the Tokugawa government was decidedly hostile. Having expelled the Jesuits and banned all Christian texts, it compiled a list of proscribed Jesuit writings and honored Ricci by including in it all his known Chinese writings. His *Tianzhu shiyi* (pub. 1603) had already entered Japan and been criticized as early as 1606 by none other than the strict neo-Confucian scholar Hayashi Razan. Banned as unorthodox, his works in Chinese continued to circulate in Japan covertly in manuscript and imprint, but their impact and readership were undeniably reduced even after the government ban was removed. Indeed, a Japanese translation of his *De Christiana expeditione apud Sinas* was first published in its entirety only in 1982.¹⁶⁴

In Ming- and Qing-dynasty China the government did not ban Ricci's writings; to the contrary, some of his texts in Chinese (mainly on Chinese religion, Western philosophy, and friendship) won warm applause from the cultural elite and thereafter were repeatedly reprinted. But the Chinese government and its officials and subjects seem not to have known of his *De Christiana expeditione apud Sinas* until the twentieth century. The Jesuits never introduced or translated it for a Ming or Qing readership even though two copies of it were in the 1949 catalog of the Nantang (later Beitang) Library in Beijing. Thus, although in a time of increasingly troubled relations between China and Europe Confucian scholars continued to shower praise on Ricci for his exemplary appreciation of their culture, no pre-twentieth-century Chinese ever remarked about, let alone saw to the Chinese translation of, arguably the most influential book ever written about their country by a foreigner. *De Christiana expeditione apud Sinas* had to wait three and a half centuries before receiving this honor; it was translated into Chinese from Gallagher's English-language version, in parts in 1965 in Taipei and in its entirety in 1983 in Beijing (that is, two decades after the first virtually complete translation had appeared in English). At last in 1986, a full translation from the original Italian text was printed in Taipei.¹⁶⁵ Consequently, only in the past generation has Ricci's most important book acquired in China a reputation anywhere approximating its standing in the West and his own personal reputation in China.

163. Mungello, *Curious Land*: 46–48. Excerpts of Ricci's work appeared in an English imprint in 1625, and the first full English-language translation was published in Milwaukee in 1942, as *China in the Sixteenth Century: The Journals of Matthew Ricci: 1583–1610*, translated by Louis J. Gallagher, SJ.

164. Matteo Ricci, *Chūgoku Kiristokyō fukukyō shi* (Tokyo: Iwanami shoten, 1982); and Hirakawa Sukehiro, *Matteo Ricci den* (Tokyo: Heibonsha, 1997), v. 2: 190–92.

165. Wu and Ceng, *Mingdai Ouzhou*: 44–49, give a brief account of the prolonged and tortuous process of translating Ricci's writings into Chinese.

Ricci's work, however, had another non-Western afterlife that has only recently come to light in the West and East Asia. In ca. 1650 a Persian painter named Mohammed Zaman had acquired a copy of Ricci's book from Henry Busi (also known as Uwens), the Dutch Jesuit missionary who had converted him to Christianity. Intrigued by Ricci's account of China, Zaman made a close translation into Persian—reportedly the first ever for a Latin book—of virtually all of the long first part of Ricci's book, and by 1926 a slightly worm-eaten copy was stored in the Curzon Collection of the Asiatic Society of Bengal. Fortunately, we know more about the life of its author than about this manuscript's provenance.¹⁶⁶ Zaman appears to have been sent to Rome by his shah to acquire skills at oil painting and debating, to rebut the Christian message. Apparently because his subsequent conversion to the side of the enemy would have made further residence in Islamic Persia somewhat problematic, he moved to Moghul India where he spent the rest of his life. He would gain considerable fame in his lifetime for his paintings, but his translation of Ricci's text seems to have won him minimal attention in either Persia or India. That is, it led to the creation of few, if any, other copies (the Curzon copy is said to be unique), and no copies were printed, since the Persian shah's ban on the import of the printing press remained in effect until 1784–85, and his additional ban on the use of the printing press to print books lasted until 1817.¹⁶⁷ Locked into a manuscript culture, Zaman's translation languished, its circulation restricted, and eventually its existence was preserved in just one Calcutta library. Only in Europe did Ricci's book enjoy a wide readership and conditions favorable for opening the reader's mind to the possibility of a successful social order based on a moral and political philosophy free of theological underpinnings. This Enlightenment message had to wait until 2008 for publication in Persian, when Zaman's original version was updated and published in, of all places, Tehran. Presumably, the mullahs there no longer feel threatened by Jesuits, even those from Ming China.

Eurasian News

Accounts like this of the reception of Ricci's book in different parts of the world provide a rich description of how the book worlds of East Asia and Europe have only slowly come to share knowledge of one another's books and history. The broader efforts to build up this shared body of knowledge will be strengthened by future

166. Matteo Ricci, *Chin'nāmāh / ta'lif-i Mātiyū Ricchī*, originally translated by Muḥammad Zamān from Latin and revised and edited by Muẓaffar Bakhtiyār and Lu Jin (Tehran: Mirās-i Maktūb, 2008), preface; Ivanow Wadimir, comp., *Concise Descriptive Catalogue of the Persian MSS. in the Curzon Collection, the Asiatic Society of Bengal* (Calcutta: Asiatic Society of Bengal, 1926), vol. 1: 124; and Mario Casari, "Italy XII Translations of Italian Works into Persian," *Encyclopaedia Iranica* (online version): 1–2.

167. Roper et al., eds., *Middle Eastern Languages and the Print Revolution*: 251.

studies of the global history of information, of how people in particularly these two regions overcame enormous technical and political obstacles to share an increasingly common sense of the “news,” that is, current events.

In nineteenth-century Western eyes, China was a land with either too much history or none of it. Yet, unknown to Europeans, its empire had had newspapers—and thus “news”—since arguably the Han dynasty or, more plausibly, the Song dynasty. Whereas Han-dynasty government offices distributed written information about official appointments, Song-dynasty government offices—and especially their employees acting privately—compiled news on court matters and then had it distributed through official channels. Upon receiving the page or two of these printed news reports, their counterparts in provincial, prefectural, and county offices then distributed the news regularly in simply printed sheets to local officials and others willing to pay local government employees a subscription charge in order to learn of the latest central government decisions and appointments. While none of these local efforts ever developed into a full-scale newspaper on even a seventeenth-century European model, they did serve to distribute court information to the outskirts of the empire in a way that seems archetypically Chinese: the private use of official institutions to spread centrally approved information (see Fig. 1.5). In addition, some government employees leaked information to private local sheets, despite harsh government bans and punishments.¹⁶⁸ These local sheets seem never to have reported on local events, since “news” was what happened elsewhere in the empire, particularly at its center.

In Europe from the sixteenth century onwards, information about current events circulated in the form of the manuscript newsletter, produced in scores of copies but adapted by the scribes to the needs of individual clients (these manuscripts often contained information that reigning regimes banned from print). The printed newspaper, in the sense of a sheet or sheets appearing at regular intervals—whether every week, every two or three days, or every day—dates from the beginning of the seventeenth century. These newsheets appeared from 1605 onwards in the Netherlands, Germany, and England. Each issue was dated and numbered so that readers would know if they had missed one.¹⁶⁹

This invention came at the right time. It was almost unthinkable before the establishment of a postal system in sixteenth-century Central Europe allowed journals to reach their readers rapidly. When newspapers began to appear, they owed their rapid success in part to the Thirty Years’ War (1618–48), a war that involved most

168. Sogabe Shizuo, *Shina seiji shūzoku ronkō* (Tokyo: Chikuma shobō, 1943): 348–74; and Hilde de Weerd, “‘Court Gazettes’ and ‘Short Reports’: Official Views and Unofficial Readings of Court News,” *Hanxue yanjiu* 27, 2 (June 2009): 167–200.

169. Folke Dahl, “Amsterdam—Earliest Newspaper Centre of Western Europe,” *Het Boek* 25 (1939); Brendan Dooley and Sabrina Baron, eds., *The Politics of Information in Early Modern Europe* (London: Routledge, 2001); and Andrew Pettigree, *The Invention of News* (New Haven, CT: Yale University Press, 2014).



Fig. 1.5

News in the *Capital Gazette* (*Jingbao*), issue dated 1874, ninth lunar month, and eighth day (editor's personal collection).

European countries and gave news writers a regular supply of dramatic and tragic events. In similar fashion in Britain, the Civil War or Revolution of the 1640s encouraged a proliferation of rival newssheets with names such as *Mercurius Aulicus* (supporting the king), *Mercurius Britannicus* (supporting the parliament), and so on.¹⁷⁰

International news was arranged by the name of the city from which the information originated, with Istanbul as the farthest point from which news regularly arrived. By the end of the seventeenth century, the periodical press was well established and specialized journals were emerging. Besides the newssheets, which concentrated on

170. Joad Raymond, *The Invention of the Newspaper: English Newsbooks 1641–9* (Oxford: Clarendon, 1996).

politics and war, we find journals such as the French *Journal des Savants*, founded in 1665 and published in Paris, offering book reviews, scholars' obituaries, and other news about the European world of learning.

The outbreak of the French Revolution encouraged more and more people to read the newspapers, both in France and outside it: 130 new political newspapers were founded in France in the year 1789 alone. Journalists played an important role in the events of the time. As in the case of England in the 1640s, the Revolution was good for the press. In its turn, the press was good for the Revolution. It has been suggested that the periodical press was "indispensable to give legitimacy to the new law-making of the Revolution by making that process public."¹⁷¹ The Irish politician Edmund Burke saw the newspapers as a "Fourth Estate" of the realm like the clergy, the nobles, and the common people.

While books on China in the first few centuries of European printing tended to impart a static view with a focus on general conditions, other sources imparting particular information, such as recent returnees' travel accounts, merchant reports, and especially the great number of letters sent by the Jesuits to their priest houses back in Europe, played a more vital role in laying a framework for the more regular and systematic transmission of useful and profitable knowledge about this distant country.¹⁷² The growing incidence and interconnectedness of such information between East Asia and Europe led to an institutionalization of this knowledge sharing, whereby the transmission of information from China became far more regular and organized and its reception standardized even before the founding of daily newspapers.

This sense of interconnectedness between East Asia and Europe, nonetheless, took a very long time to take shape. From the fourteenth century to the early nineteenth century, silver may have flowed continuously out of European countries and their colonies in the direction of China,¹⁷³ but "news" followed the money very slowly.¹⁷⁴ Western consciousness and recording of "news" coming from East Asia quite possibly began with the shocking reports of the 1587 Japanese proscription of Christianity as a "pernicious doctrine" and expulsion of missionaries and then the mass crucifixion of twenty-six Christians in Nagasaki a decade later. But, as European newspapers began only from 1605, the reporting of this tragedy through the printed press was probably impeded.

171. Jeremy Popkin, *Revolutionary News: The Press in France, 1789–1799* (Durham, NC: Duke University Press, 1990).

172. Noël Golvers, *Building Humanistic Libraries in Late Imperial China* (Rome: Nuova cultura, 2011): 96–130.

173. Peter Spufford, *Power and Profit: The Merchant in Medieval Europe* (London: Thames and Hudson, 2002): 344, 346, 348, 375, 410, on long-term trade imbalances leading to a regular flow of silver from Europe to Asia; and Richard von Glahn, *Fountains of Fortune* (Berkeley, CA: University of California Press, 2004): 112–257.

174. For example, Iwashita Tetsunori, *Edo no Napoleon densetsu* (Tokyo: Chūō kōron shinsha, 1999), tells of the growing reputation of Napoleon in Japan, two to three decades after his death.

The first “event” reported from China to the West—which interestingly involved virtually no European—was the fall of the Ming dynasty and establishment of the Qing dynasty in 1644. The earliest talk of these two earth-shattering events in Beijing reached Nanjing in about ten days; more credible reports arrived ten or so days later.¹⁷⁵ By contrast, this news took years to reach Europe by merchant boat, first becoming well known in detail in 1654 from Martino Martini’s eyewitness account in his *Bellum Tartaricum*. Published in seven Latin editions and in nine other languages, this book was avidly consumed by European readers startled by the fall of a country they had recently come to admire for its stately order. Martini’s account not only filled the columns of European papers as a “news event” but also soon fed the narratives of Dutch, German, Danish, and English novels and of Dutch and English plays, notably Joost van den Vondel’s *Zungchin* (1667). In the words of Donald Lach and Edwin Van Kley, “the reports of the Manchu Conquest seemed dramatically to move China into the European awareness, and for a time, informed Europeans seemed conscious of living in the same world with the Chinese.”¹⁷⁶ Nearly a century later, as trade contacts grew, even French missionaries in China were reporting to the West a great variety of mundane information, ranging from the flood of a city in 1742 and the value of a Chinese *tael* of silver in French currency to the current rate of interest and the overall population of China.¹⁷⁷

By contrast, the mid- and late eighteenth-century Qing court showed a degree of indifference to Western news that today can only startle a reader. During the last century of the Ming and for most of the Qing after 1684, the Chinese government had allowed its own people to engage in foreign trade and go overseas to Japan and Southeast Asia. It could have called on these overseas Chinese to report on foreign governments, just as some Chinese merchants and even a Chinese doctor in Kyushu had done on their own initiative to the Ming court during the Japanese invasions of Korea in the 1590s. It could even have maintained the practice of sending secret agents to Japan, as established in 1701, when the Kangxi emperor had a Manchu bannerman dress up as a Chinese merchant and go to Nagasaki to report to him directly on Japan’s recent ban on exporting copper to China.¹⁷⁸ A very small number

175. Golvers, *Building Humanistic Libraries*: 107; and Kishimoto Mio, *Min Shin koeki to Kōnan shakai* (Tokyo: Tokyo daigaku shuppankai, 1999): 145–57.

176. Donald F. Lach and Edwin J. Van Kley, *Asia in the Making of Europe, Volume 3: A Century of Advance, Book 4* (Chicago, IL: University of Chicago Press, 1993): 1,663.

177. Standaert, *Handbook*: 722, 728–31, 892.

178. Matsuura Akira, “Mindai kaishō to Hideyoshi ‘Nyūkō Dai Min’ no jōhō”: 45–79, in his *Kaigai jōhō kara miru Higashi Ajia: Tōsen fūsetsugaki no sekai* (Osaka: Seibundō shuppan, 2009); and Angela Schottenheimer, “Japan the Tiny Dwarf? Sino-Japanese Relations from the Kangxi to the Early Qianlong Reigns”: 8–9, in Asian Research Institute, Working Paper No. 106 (2008), National University of Singapore. Court officials presumably opposed the establishment of rival channels of information for policy decisions. Meanwhile, the Tokugawa shogunate was kidnapping Chinese doctors to treat its rulers.

of Chinese had even made their way to Europe, and although their published reports rarely went beyond broad generalizations on customs and products (in the manner of traditional gazetteers or descriptions of foreign countries),¹⁷⁹ the Qing government could easily have prompted these travelers to impart more detailed impressions and information. For sure, overseas news entered southeast China through private channels; how otherwise explain the occasional presence of unconventional Western images in Chinese paintings and the early nineteenth-century Cantonese craze for foreign things that saw them publish prints of Western buildings and transform some Canton wine shops and even government offices into “barbarian-style” buildings?¹⁸⁰ Furthermore, political and military developments in Central Asia remained of interest to the Manchu court.

Nonetheless, after the death of the Kangxi emperor in 1722,¹⁸¹ the same government paid little attention to “news” and other information from and about faraway Europe (boxes of Gobelin tapestries sent by Louis XV to the Chinese court in 1767 remained unopened in the Forbidden City until 1914, nearly three years after the fall of the Qing dynasty).¹⁸² Even the European advance into South Asia attracted Qing attention very belatedly. When in 1793 a Qing border official passed on information about the British in India, he used a Tibetan word, *P'i-leng*, meaning “foreigner,” to refer to the British, as he and the court seem not to have known the more specific Chinese terms used for them in Canton, where they traded. Only in 1799 did the Qing court learn that three of its trading nations from Europe—England, France, and Spain—were at war with one another; an English boat captain had divulged the information to a Canton official, who dutifully passed it on to Beijing.¹⁸³ Yet, no reasons for this continental conflict are mentioned, as news of the French Revolution and Napoleon Bonaparte would be widely disseminated in China only half a century later.¹⁸⁴

The Japanese response to news about the situation in Europe proved quite different. Despite the Tokugawa shogunate’s severe restrictions on Japanese contact with Europeans—it prohibited the propagation of Christianity in 1612, expelled

179. Xie Qinggao and Yang Bingnan, *Hailu xiaoshi* (Beijing: Shangwu, 2002).

180. Zhang Hongxing, comp., *Masterpieces of Chinese Painting, 700–1900* (London: Victoria and Albert Museum, 2013): 316–17; and Zhu An, *Renwu fengsu zhidu congtan* (Shanghai: Shanghai shudian, 1989): 161. For even earlier Western-style buildings there and elsewhere in China, see Zhang Li and Liu Jiantang, *Zhongguo jiaoran shi* (Chengdu: Sichuan sheng shehui kexueyuan, 1987): 226.

181. Laura Hostetler, *Qing Colonial Enterprise* (Chicago, IL: University of Chicago Press, 2001), shows how the Kangxi emperor acquired a sophisticated knowledge of contemporary European politics. He appears not to have shared his interest and knowledge with his Chinese officials, who possibly regarded his interest as a threat to their privileged position as chief channel of information to him.

182. Daniele Varè, *Laughing Diplomat* (London: J. Murray, 1938): 111–12.

183. Fu Lo-shu, *Documentary Chronicle of Sino-Western Relations, 1644–1820* (Tucson, AZ: University of Arizona Press, 1969), v. 1: 324, 336, and v. 2: 580n463.

184. That is, with Wei Yuan’s *Haiguo tuzhi* (1844 ed.).

Catholic missionaries and all Spaniards in 1616, outlawed all Japanese Christians in 1624, expelled all Portuguese and prevented all Japanese from going abroad in 1636, and from 1641 restricted all foreign trade to one port (Nagasaki) and banned all Western merchants except the Dutch from trading there—it obliged these same Dutch merchants to inform it regularly of world affairs (Chinese traders to Japan were questioned about East Asian matters). From 1641 to 1854, these annual Dutch reports were transmitted by a group of Nagasaki interpreters to Edo, where the shogunate's leaders retained tight control over this valuable information. Leaks of course occurred, not least when the Dutch made visits to Edo and were widely questioned. But the handwritten translations of their handwritten reports would first be published only in 1976. For two centuries, then, the shogunate planned its policy toward the West with only limited need to be concerned about popular or even samurai reaction.

The foreign news transmitted by the Dutch was more accurate than we might expect. Well aware that they were the shogunate's sole channel for information from Europe, the Dutch withheld, added, distorted, and created some of this information to suit their purposes. The surviving reports in Dutch and Japanese read like newspaper headlines or thin *présis*. Nonetheless, Japanese historians today believe that overall the information they passed on to the Tokugawa government, when all realistic qualifications are considered, was accurate, especially on European matters (inaccuracies arose more often from Japanese mistranslations). Furthermore, reports of European news now reached Japan more regularly than ever before and more quickly than to anywhere else in East Asia but for the Dutch colony of Batavia. Usually no more than a year separated an event's occurrence in Europe and the Dutch traders' reporting on it to the shogunate. Thus, in 1649, they told it of the Treaty of Westphalia (1648), in 1650 of the execution of King Charles I of England (1649), in 1691 of the flight of the Stuart King James II to France (1688), and in 1757 of the Dutch prediction of Halley's Comet (1759).

Interestingly, the only major European event the Dutch were lax about reporting to the Japanese was the French Revolution; finally, five years after its outbreak, Dutch representatives broke the news of the establishment of a revolutionary government in France and the execution of its king. Later, for the changes their own monarchy suffered from Napoleon's occupation of the Netherlands, they hit upon an ingenious explanation that they rightly thought the Japanese would comprehend and accept: the king of the Netherlands, they reported, was Napoleon's younger brother, adopted by marriage into the Dutch royal family to continue the Dutch royal family's line. The Dutch may well have passed on more details in their private unrecorded meetings with the shogunate authorities. But the selection they annually presented of foreign current events was accurate enough to let the early nineteenth-century shogunate know that Asia and Europe were undergoing rapid political and military changes. The sudden arrival of Russian and British boats in Japanese waters as well as news of

their expansion in Asia alarmed the shogunate, but it also introduced additional news sources that left it far better prepared than the Qing to handle the increasing number of gunboats approaching its shores.¹⁸⁵ Its first newspaper would be set up in 1861 by a Briton in Nagasaki and then Yokohama, but only after Japanese had learned enough of European politics to create their own cult of admirers of the Great Napoleon.¹⁸⁶ By 1868, this Yokohama paper had Japanese rivals in Tokyo, Osaka, Kyoto, and Nagasaki, and from 1871, the *Yokohama Mainichi Shimbun* was up and running as the first Japanese daily. Within a few years telegraph and underwater communications cables were in place, making the traditional exclusionist policies of East Asian governments look stupid and self-destructive in an age of free trade and the extensive flow of information. With the adoption of modern Western printing technology and the import of many Western imprints, the book worlds of East Asia became increasingly immersed in global networks of book translation, production, distribution, and consumption centered in Europe.

Aware, then, that the pre-1850 book worlds of Europe and East Asia by and large interacted only indirectly or intermittently, the authors of the chapters in this volume have pursued different strategies to show how these separate histories of Eurasia can still inform one another. More by accident than by design, the focus of their research overlaps with the way they chose to explore the perceived lack of connectivity between East Asia and Europe in book matters. One pair of authors has focused on distinctive features and problems of book production in just one of these book worlds, with the hope of casting light thereby on the practices of production in the other book world. A second pair has directly compared consumption practices in these book worlds by studying their shared features in readership and book use. And, the third pair has chosen the economic dimension of distribution. While relating the historical development of book distribution in either Europe or China, each has repeatedly woven into his or her analysis the knowledge gained from the other's article, so that the conclusions they reach are deeply informed by one another's findings in a way rarely seen in comparative research. In fact, the interconnectivity of these pairs of chapters and of all six of these chapters, we hope, will demonstrate the benefits that await historians of East Asia and Europe who collaborate in adopting any of these strategies to discuss key issues of Eurasian history and problems of interconnectivity between 1500 and 1850.

185. Iwao Seiichi et al., comps., *Oranda fūsetsugaki shūsei* (Tokyo: Yoshikawa kōbunkan, 1976), vol. 1; and Matsukata Fuyuko, "From the Threat of Roman Catholicism to the Shadow of Western Imperialism: Changing Trends in Dutch News Reports Issued to the Tokugawa *Bakufu*, 1690–1817": 130–46, in Nagazumi Yōko, ed., *Large and Broad: The Dutch Impact on Early Modern Asia* (Tokyo: Tōyō Bunko, 2010).

186. Iwashita, *Edo no Napoleon densetsu*.

McKitterick and McDermott each deal with production practices seemingly particular to the region of their expertise and thereby highlight important points usually overlooked by specialists in the other's region of research. McKitterick identifies the pitfalls encountered by historians of the Western book in identifying, classifying, and counting the materials they use in their research. He then offers clear advice to East Asian bibliographers on what recent European bibliographical practices they should avoid as well as follow. In a deeply informed piece of historical bibliography he reminds us all how statistics often conceal as much as they reveal, how geographical or national units can be used only with great care for long-term analyses, and how changes in the readership of certain European languages greatly shaped the production and reception of European texts over time. McDermott likewise concentrates on just one region, East Asia, to identify a significant and distinctive feature of Chinese and Japanese book production: private noncommercial publishing. He shows how the frequency of such publishing in premodern East Asia seriously challenges efforts to apply to late imperial China those conventional Western historical narratives that identify the growth of publishing with the rise of capitalism, the growth of a "public sphere," and the development of an integrated culture.

In making extensive use of primary and secondary sources from both Europe and East Asia, Peter Kornicki and Peter Burke adopt a different approach. Each tackles differences in East Asian and European book consumption to make direct comparisons and contrasts. Kornicki examines women readers and books published for women in early modern East Asia, including Korea, Japan, and Vietnam, as well as China. He compares the rise of printing in the vernacular and the proliferation of conduct books for women in East Asia with similar trends in Europe, taking care to note important differences in their contents and reception. Educated males and governments in East Asia displayed far less anxiety about women's literacy than did their counterparts in Europe, where males also worried about the religious message of books written for and read by women. Burke and McDermott in turn focus not so much on the male readers of reference books but on these books themselves and what they tell us about the culture and society that produced and consumed them. They discuss general reference books such as encyclopedias, large and small. They also call attention to the increasing number of different kinds of "how to" books in both East Asia and Europe in the early modern period, and to the relative lack of Chinese interest in dictionaries or translations. Tokugawa Japan is also considered, if only to highlight how distinctive the Chinese tradition of reference books and encyclopedias remained throughout the centuries covered by this book.

Finally, James Raven and Cynthia Brokaw show how a comparative approach to the history of book distribution can disclose much about the economic obstacles to book production as well as to varieties of economic organization used to establish long-distance trade within Europe and China. James Raven's chapter is concerned

with the transmission of books in Europe and its colonies in the period between Gutenberg's invention of the hand press and the nineteenth-century introduction of the steam press. Besides telling a story of market expansion for publishing, his wide-ranging chapter examines the geographical and social range of distribution. He considers whether publications circulated within a "closed" or an "open" circuit and whether the sellers remained at home or traveled with the books. Cynthia Brokaw, after reporting on her remarkable findings about local book production, devotes the last two-thirds of her chapter to distribution networks. In showing how the simplicity and portability of the tools of woodblock printing allowed for the spread of production sites and extensive networks of book distribution throughout much of South China beyond large urban centers.

These, then, are the issues that the authors of this book have addressed in trying to write a Eurasian book history. In this introduction we have introduced their discussion of these issues by placing them within a broader context of an incompletely realized history of interconnectivity between Europe and East Asia up to 1850. We hope thereby to have found useful ways to answer the sorts of questions that readers are increasingly posing about the past of our now globalized world, especially about the role of European and East Asian book technology, knowledge, and information in the creation and circulation of shared knowledge in Eurasia.

East Asian and European Book History

*A Short Bibliographical Essay*¹

For important secondary scholarship on specific topics the footnotes in each chapter provide expert guidance. But, as readers of these chapters may wish to pursue broader book history interests, a list of some of the seminal studies that have over the past half-century made book history so vital a field of scholarship in the West and East Asia may prove of interest. Among the pioneering studies on Europe we can note Henri-Jean Martin's *Print, Power and People in 17th-Century France* (Geneva: Droz, 1969; English translation, London: Scarecrow Press, 1993) and *La naissance du livre moderne (xive-xviiè siècles)* (Paris: Editions du Cercle de la librairie, 2000); Rolf Engelsing, *Der Bürger als Leser* (Stuttgart: Metzler, 1974), which launched the idea of an eighteenth-century "reading revolution." Also essential reading are Don MacKenzie, *Bibliography and the Sociology of Texts* (London: British Library, 1986); Roger Chartier, *The Cultural Uses of Print in Early Modern France* (Princeton, NJ: Princeton University Press, 1987); and Robert Darnton, *The Forbidden Best-Sellers of Pre-Revolutionary France* (New York: Norton, 1995), which provoked the responses in H. T. Mason, ed., *The Darnton Debate* (Oxford: Voltaire Foundation, 1998). Thomas R. Adams and Nicolas Barker then offered "A New Model for the History of the Book," in Nicolas Barker, ed., *Potencie of Life: Books in Society* (London: British Library, 1993): 5–43. David McKitterick, *Print, Manuscript and the Search for Order, 1450–1830* (Cambridge: Cambridge University Press, 2003) offers a judicious summing-up of these scholarly disputes as well as his own research on a variety of other important book history topics.

For East Asia the most significant studies so far have had a national basis. For China major works of book history have until recently tended to focus on printing technology and cover a long stretch of time, most notably in the cases of Zhang Xiumin, *A History of Chinese Printing*, revised by Han Qi (Paramus, NJ: Homa and Sekey Books, 2009) and Tsien Tsuen-hsuei, *Science and Civilisation in China, Volume 5:*

1. This set of recommended readings is written with the Western reader in mind and so omits all relevant studies in an East Asian language, largely on East Asian book history. For such information, please see the bibliographies found in the volumes mentioned above by Tsien Tsuen-hsuei, Cynthia J. Brokaw and Kai-Wing Chow, and Joseph P. McDermott.

Chemistry and Chemical Technology, Part 1 (Cambridge: Cambridge University Press, 1985). Those wishing to understand new approaches to long-term changes in the history of the Chinese book can consult two excellent conference volumes. Lucille Chia and Hilde De Weerd, eds., *Knowledge and Text Production in an Age of Print: China, 900–1400* (Leiden: Brill, 2011) covers the early centuries, and Cynthia J. Brokaw and Kai-Wing Chow, eds., *Printing and Book Culture in Late Imperial Culture* (Berkeley, CA: University of California Press, 2005) the later. Read together, they show the evolution of not just China's book world over the past millennium but also Western study of that Chinese book world ever since its first important contribution nearly a century ago, Thomas Carter's richly researched *The Invention of Printing and Its Spread Westward* (New York: Columbia University Press, 1925, second revised edition, 1955). Endymion Wilkinson, *Chinese History: A New Manual* (Cambridge, MA: Harvard University Asia Center, 2012) likewise summarizes a great deal of previous Chinese, Japanese, and Western research to present a superb cornucopia of information on Chinese books and book history. Essential reading for all bibliophiles, this scholarly treasure trove can be profitably read section by section or just by serendipitous "dipping." It is that rare manual, a book to start with and yet to return to frequently and happily for wise instruction.

For premodern Japan there presently is no counterpart to Wilkinson, but fortunately we have Peter Kornicki's authoritative *The Book in Japan: A Cultural History from the Beginning to the Nineteenth Century* (Leiden: Brill, 1998). It is a judicious synopsis of decades of Japanese research, enriched by personal observations. Just as McKitterick's survey is useful to students of both East Asian and European books, so is Kornicki's volume valuable to students of Chinese and Korean as well as Japanese printing.

A number of European national histories of the book have been published or are under way, among them Henri-Jean Martin and Roger Chartier, eds., *Histoire de l'édition française*, 4 volumes (Paris: Promodis, 1982–86) and *The Cambridge History of the Book in Britain*, 6 volumes (Cambridge: Cambridge University Press, 1999–2011). Brian Richardson, *Print Culture in Renaissance Italy: The Editor and the Vernacular Text, 1470–1600* (Cambridge: Cambridge University Press, 1994), presents an exemplary national case study for Italy.

The shift from manuscript to imprint books has attracted a great deal of research, much of it stressing changes not just in book production but also in the world of learning and culture. Two classics advocating the imprint's revolutionary impact in Europe are Lucien Febvre and Henri-Jean Martin, *L'apparition du livre* (Paris: Michel, 1958; trans. *The Coming of the Book* [London: N. L. B., 1976]) and Elizabeth Eisenstein, *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 1979). More recent and noteworthy proponents of this view are Michael Giesecke, *Der Buchdruck in den frühen Neuzeit: Eine historische Fallstudie über die Durchsetzung*

neuer Informations- und Kommunikationstechnologien (Frankfurt: Suhrkamp, 1991) and Frédéric Barbier, *L'Europe de Gutenberg: le livre et l'invention de la modernité occidentale (XIIIe–XVIIe siècles)* (Paris: Belin, 2006); both authors make comparisons between the digital and print revolutions.

A critique of the notion of “a print revolution” from an East European perspective is Gary Marker, “Russia and the Printing Revolution: Notes and Observations,” *Slavic Review* 41 (1982): 266–83. A more general critique, from the perspective of a historian of science, is Adrian Johns, *The Nature of the Book* (Chicago, IL: University of Chicago Press, 1998). Johns’s rejection of the idea that print led to the fixity of texts provoked a debate: Eisenstein, “An Unacknowledged Revolution Revisited,” *American Historical Review* 107 (2002): 87–105; Johns, “How to Acknowledge a Revolution,” *ibid.*: 106–25; and Eisenstein, “Reply,” *ibid.*: 126–28. David McKitterick, *Print, Manuscript and the Search for Order, 1450–1830*, reviews the issues and the evidence to offer a thoughtful account of book history up to the nineteenth century.

In East Asia similar, if more muted, debates have taken place about the introduction of printing and its impact. For discussions of the earliest years, see the stimulating studies of Timothy H. Barrett, especially *The Woman Who Invented Printing* (New Haven, CT: Yale University Press, 2007) and D. C. Twitchett’s brief but wide-ranging *Printing and Publishing in Medieval China* (London: The Wynkyn de Worde Society, 1983). The impact of printing technology in China has long been considered far less revolutionary than in Europe (at least according to Eisenstein and Martin). Some recent studies have strengthened this understanding by delaying the imprint’s replacement of traditional scribal culture to the sixteenth century within at least the core area of late imperial Chinese culture (for example, Joseph P. McDermott’s *A Social History of the Chinese Book: Books and Literati Culture in Late Imperial China* [Hong Kong: Hong Kong University Press, 2006]). Skepticism of such views can be found in some chapters in Chia and De Weerd.

Interest in the survival and transformation of a manuscript culture has thus become common in European and East Asian studies. Major contributions to this research on the West include Harold Love, *Scribal Publication in Seventeenth-Century England* (Oxford: Clarendon Press, 1993); François Moureau, ed., *De bonne main: la communication manuscrite au 18e siècle* (Paris: Universitas; Oxford: Voltaire Foundation, 1993); Fernando Bouza, *Corre manuscrito: una historia cultural del Siglo de Oro* (Madrid: Marcial Pons, 2001); and Brian Richardson, *Manuscript Culture in Renaissance Italy* (Cambridge: Cambridge University Press, 2009). For East Asia, see the discussions on China by Tian Xiaofei, *Tao Yuanming and the Manuscript Tradition* (Seattle, WA: University of Washington Press, 2005), and McDermott, *A Social History of the Chinese Book*.

One change that some Sinologists attribute to the transition from manuscript to imprint production is the growth of notions of authorship and textual fixity. The most

searching discussions of this issue include Christopher M. B. Nugent, *Manifest in Words, Written on Paper: Producing and Circulating Poetry in Tang Dynasty China* (Cambridge, MA: Harvard University Asia Center, 2011); Susan Cherniack, “Book Culture and Textual Transmission in Sung China,” *Harvard Journal of Asiatic Studies* 54.1 (1994): 5–125; and David McMullen’s critique in “Boats Moored and Unmoored: Reflections on the Dunhuang Manuscripts of Gao Shi’s Verse,” *Harvard Journal of Asiatic Studies* 71.1 (2013): 83–145. The actual process of making and compiling a book clearly differed not just between manuscripts and imprints but also between East Asia and Europe. For instructive studies on technical and social difference we can turn, respectively, to Tsien’s *Paper and Printing* volume in the well-known Needham series, *Science and Civilisation in China*, and to Kai-wing Chow’s *Publishing, Culture, and Power in Early Modern China* (Stanford, CA: Stanford University Press, 2004). Chow’s account of the late Ming editorial and publishing process casts a clear light onto previously obscure activities. Likewise, He Yuming’s insightful *Home and the World: Editing the “Glorious Ming” in Woodblock-Printed Books of the Sixteenth and Seventeenth Centuries* (Cambridge, MA: Harvard University Press, 2013) delves into the more popular varieties of late Ming publications to reveal readers’ notions of both a fashionable lifestyle and a social and political modernity.

A number of seminal studies focus on the book business. Besides numerous monographs on individual printers, major works on Western book business include Giles Barber and Bernhard Fabian, eds., *The Book and the Book Trade in 18th-Century Europe* (Hamburg: Hauswedell, 1981); Robert Darnton, *The Business of Enlightenment* (Cambridge, MA: Harvard University Press, 1979), on the publishing history of the famous *Encyclopédie*; and on Britain, James Raven, *The Business of Books: Booksellers and the English Book Trade 1450–1850* (New Haven, CT: Yale University Press, 2007). For China, see Lucille Chia, *Printing for Profit: The Commercial Publishers of Jianyang, Fujian (11th–17th Centuries)* (Cambridge, MA: Harvard University Asia Center, 2002) and Cynthia Brokaw, *Commerce and Culture* (Cambridge, MA: Harvard University Asia Center, 2007). The first combines bibliographical expertise with historical analysis to produce a model study of regional commercial printing, while the second probes the history of “popular” imprints to recover an exceptionally rich record of one rural region’s commercial book history. Financial records survive in far greater numbers for late nineteenth-century and early twentieth-century Shanghai. Christopher Reed’s *Gutenberg in Shanghai* (Vancouver, BC: University of British Columbia Press, 2007) presents a convincing account of the impact of Western technological innovations in the printing industry on Shanghai’s modernization and domination of Chinese book production in the late nineteenth and early twentieth centuries. Wang Feixian’s forthcoming book on copyright practices in premodern and modern China promises to make a similarly important contribution to the business dimensions of book history. The Japanese record for the nineteenth and twentieth centuries is even richer, and we

can look forward to important studies making stimulating comparisons with Chinese and European commercial publishers.

Popular literature has been another common focus of interest in the book history of East and West. For Europe there are, to name but a few, Robert Mandrou, *De la culture populaire aux 17e et 18e siècles* (Paris: Imago, 1964); Julio Caro Baroja, *Ensayo sobre la literatura de cordel* (Madrid: Ediciones de la Revista de Occidente, 1969); and Joad Raymond, ed., *Cheap Print in Britain and Ireland to 1660* (Oxford: Oxford University Press, 2011). An exemplary study of pamphlets, focused on mid-seventeenth-century France, is Christian Jouhaud, *Mazarinades: la Fronde des mots* (Paris: Aubier, 1985). Cynthia Brokaw's *Commerce and Culture* as well as Robert Hegel's *Reading Illustrated Fiction in Late Imperial China* (Stanford, CA: Stanford University Press, 1998) provide useful bases for a comparison with popular medical, morality book, and novel publication in Qing China. Nuanced accounts of how reading practices have changed in the West can be found in Guglielmo Cavallo and Roger Chartier, eds., *A History of Reading in the West* (English translation, Cambridge: Polity, 1999) and Elisabeth Décultot, *Lire, copier, écrire: les bibliothèques manuscrites et leurs usages au XVIIIe siècle* (Paris: CNRS, 2003). Half a century after its appearance, Marshall McLuhan, *The Gutenberg Galaxy* (Toronto, ON: University of Toronto Press, 1962) remains provocative but needs to be used with care. Scholarly work on Chinese reading practices has begun, and so far the most stimulating book-length analysis of changes in late imperial times remains Ann McLaren, *Chinese Popular Culture and Ming Chantefables* (Leiden: Brill, 2001).

For the early modern West, newspapers, newsbooks or gazettes have been an object of considerable attention, including Folke Dahl, "Amsterdam—Earliest Newspaper Centre of Western Europe," *Het Boek* 25 (1939); Jeremy Popkin, *Revolutionary News: The Press in France, 1789–1799* (Durham, NC: Duke University Press, 1990); Joad Raymond, *The Invention of the Newspaper: English Newsbooks 1641–9* (Oxford: Oxford University Press, 1996); Brendan Dooley and Sabrina Baron, eds., *The Politics of Information in Early Modern Europe* (London: Routledge, 2001); and Stéphane Haffemayer, *L'information dans la France du 17e siècle: la gazette de Renaudot de 1647 à 1663* (Paris: H. Champion, 2002). Private newspapers were introduced to China only in the late nineteenth-century treaty ports (see Barbara Mittler, *A Newspaper for China? Power, Identity and Change in Shanghai's News Media (1872–1912)* (Cambridge, MA: Harvard University Asia Center, 1999), but for earlier government efforts there is Hilde De Weerdt, "'Court Gazettes' and 'Short Reports': Official Views and Unofficial Readings of Court News," *Biblio* 27.2 (2009): 167–200.

General studies of encyclopedias include Robert Collison, *Encyclopaedias: Their History throughout the Ages* (New York: Hafner Pub. Co, 1966); Frank A. Kafker, ed., *Notable Encyclopaedias of the 17th and 18th Centuries* (Oxford: Voltaire Foundation, 1981) and *Notable Encyclopaedias of the Late 18th Century* (Oxford: Voltaire

Foundation, 1994); Franz Eybl et al., eds., *Enzyklopädien der frühen Neuzeit* (Tübingen: M. Niemeyer, 1995); and Theo Stammen and Wolfgang Weber, eds., *Wissenssicherung, Wissensordnung und Wissensverarbeitung: Das europäische Modell der Enzyklopädien* (Berlin: Akademie Verlag, 2004). Useful Western studies of Chinese encyclopedias are conveniently collected in the special issue of *Extrême-Orient, Extrême-Occident* 1 (2007) under the title, “What Did It Mean to Write an Encyclopaedia in China?”

Understandably seen as encyclopedias writ large, libraries have sometimes been studied together with encyclopedias, as in Roland Schaer, ed., *Tous les savoirs du monde: encyclopédies et bibliothèques, de Sumer aux XXIe siècle* (Paris, 1996). Besides the many monographs on particular European libraries, there are a few general studies, including Werner Arnold and Peter Vodosek, eds., *Bibliotheken und Aufklärung* (Wiesbaden: In Kommission bei Harrassowitz, 1988); Claude Jolly, ed., *Les bibliothèques sous l'ancien régime* (Paris: Promodis, 1988); Frédéric Barbier, “Les pouvoirs politiques et les bibliothèques centrales en Europe, XVe–XIXe siècles,” *Francia* 26 (2) (1999): 1–22; and Elisabeth Leedham-Green and Teresa Webber, eds., *The Cambridge History of Libraries in Great Britain and Ireland, Volume 1* (Cambridge: Cambridge University Press, 2006). And, on the demise of many important libraries, James Raven, ed., *Lost Libraries: The Destruction of Great Book Collections since Antiquity* (Basingstoke, 2008) shows how the study of libraries lost to war, pillage, and censorship can revive previously forgotten worlds of learning and thereby reveal kinds of knowledge crucial to our understanding of many historical problems.

For China, the library long played a central role in the preservation and transmission of court culture. But war, dynastic changes, and restricted access to important government and private collections plagued efforts to assure the transmission of cultural knowledge over time. For an informed discussion of this problem at the imperial level, see Glen Dudbridge's *Lost Books of Medieval China* (London: British Library, 2000). For studies of the problem for private libraries in late imperial times, see Benjamin E. Elman, *From Philosophy to Philology: Intellectual and Social Aspects of Change in Late Imperial China* (Cambridge, MA: Council on East Asian Studies, Harvard University, 1984; second revised edition, Los Angeles: UCLA Asian Pacific Monograph Series, 2001) and Chapters 4 to 6 in McDermott, *A Social History of the Chinese Book*. For a discerning account of the formation of the celebrated imperial library of the Qianlong emperor (r. 1736–95), see R. Kent Guy, *The Emperor's Four Treasuries: Scholars and the State in the Ch'ien-lung Era* (Cambridge, MA: Council on East Asian Studies, Harvard University, 1987).

John W. P. Campbell's *Libraries: A World History* (London: Thames and Hudson, 2013) brings within its covers images of some of the most beautiful man-made spaces in the world. These glorious photographs, graced by a knowledgeable text, almost persuade one that the wisdom of the past is in safe keeping. One hopes that future studies of book history adopt a similarly global approach to the study of the problems

of book preservation and to their diverse solutions. In China, where librarians have in recent years increased the restrictions on access to rare and valuable books, readers are regularly provided with microfilms and reprints rather than old editions and original copies. For the time being, those unable to view these editions in the libraries of other countries can find solace in examining the photographs of these treasures in selective Western and East Asian collections, as reproduced in exhibition catalogs like Philip K. Hu, comp. and ed., *Visible Traces, Rare Books and Special Collections from the National Library of China* (New York: The Queens Borough Public Library; and Beijing: The National Library of China, 2000) and Monique Cohen and Natalie Monnet, eds., *Impressions de Chine* (Paris: Bibliothèque nationale, 1992). Just as the Western scholars in this volume have made a contribution to the study of East Asian book cultures, so we hope that in the future East Asian scholars, aware of their own countries' traditions in book culture, will more actively participate in studies of Western book culture. A major aim of this book, the growth of a Eurasian dialogue in book history, will then be one step closer to realization.

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