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The twelve essays in Looking at it from Asia consider a central theme of the history of science that has long been stuck within the nineteenth and twentieth century: the construction of sources and its impact on our modern view of the development of scientific thought. Each chapter is rigorously argued and thoroughly substantiated, representing the highlights of an innovative research project that began in 2003 and brought together a distinguished group of specialists. Contributions tackle Mesopotamia, China, India, Vietnam and Europe.

The project behind this anthology sought to analyse the “unequal treatment [that] written documents had undergone in the historiography of science” (p. v). The resulting study reveals inequality as an issue in various phases of source selection. Viewing the past from the perspective of the past, this book can be situated within a specific literature on the present and acknowledging the presence of the past in Asian cultures.¹ By emphasising this theme within the history of scholarly, mathematical or medical texts and their transmission, the book confidently grants scientific thought a conceptual history beyond the European and modernist view.

The book is organized into two sections whose headings highlight the major themes evident in all the contributions: (1) the way in which actors initially preserved, circulated and promoted medical, astronomical, mathematical or scholarly texts and corpuses, and (2) what the analysis of

various usages and interpretations of corpora divulges about practices in the fields of science. The chapters are expertly arranged, guiding the reader along a useful dramaturgy from concerns on corpora classification to the question of the relation between text and practice. Section I begins with a thorough analysis of the formation of libraries in first millennium Babylonia. Writings in mud were one of the first artefacts digitized using modern technology, as eighteenth and nineteenth century archaeological campaigns and politics had left the cuneiform tablets of Sumerian and Akkadian palaces, libraries and elite households scattered throughout museums, libraries and private collections around the world. Combing through a huge range of paper and digital resources, Philippe Clancier convincingly explains how varying historical customs of copying supplementary commentaries depend on the divergent functions of the original repositories: in collections with a teaching purpose, for instance, only the first of a series of tablets was copied (p. 10). The coherence of collections can only be understood in relation to their particular preservation method. Within this context Clancier suggests that the tablets’ “fragility” was the fundamental reason for copying them in full: “to preserve a text in perfect state it was therefore necessary to regularly copy it” (p. 23). Not only were there, as Clancier states himself, many reasons to copy a text. Interesting to explore would then also how scholars dealt with the risk of misrepresentation that each transcription brought about.

While a thorough belief in texts being used as tools of transmission is evident throughout Clancier’s article, Don Harper’s discussion of occult miscellanies stresses the role of texts as working tools. He focuses on pre-tenth century Chinese texts excavated from the Dunhuang caves in Central Asia, and compares them to official and private compendia edited at the centre of Chinese intellectual life, that is the coastal Jiangnan region. Harper meticulously elucidates how a text’s practical relevance and role invariably changed beyond just the issue of their textual continuity, adjusting to local (spatial) and current (temporal) needs. Consequently, he asserts that the transmission of occult texts depended to a large degree on “the happenstance of a passage recurring in a variety of texts in multiple manuscript copies over time rather than on the careful and unbroken manuscript transmission of a single text” (p. 42).

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Practices were recorded in Chinese culture for all the same reasons that are found elsewhere: to enhance social or professional status, for marketing reasons, or to satisfy an elite’s curiosity in folk knowledge, religious or medical beliefs. A historian of texts, Harper suggests that a continuity of content in manuscript culture implies the continuity of synchronous ritual practices. Jan Assman, however, has made a convincing case that ritual and textual continuity must be clearly distinguished, and that both can come to serve different socio-political aims and historical identities and thus often develop independently. Also, others have shown that the text as an artefact regularly achieves a completely new—and separate—function. Ruitenbeek demonstrates that the same is true for the printed copy of the classical Chinese carpentry manual Lu Ban jing. Taiwanese carpenters, for instances, handed over manuscripts delineating carpentry rituals as a paraphernalium to “provide a legitimation for the pursuit of his profession”.

Such examples show that manuscripts do not inevitably bring us closer to the actors and practices, as Bretelle-Establet suggests in the introduction (p. xxx). Minkowski develops this point into the academic question: to what extent can the history of texts and textual transmission genuinely illuminate communal practices of the past? Minkowski assumes that the answer depends very much on the role assigned to textual canon formation for professional identities. The eighteenth century Rajasthani bibliophile King Anupa and the nineteenth century collector and historian Georg Bühler (1837-1898), for instance, primarily focused on the rarity of the pieces when amassing their collections (pp. 87, 105). Minkowski also shows that selective criteria in traditional and early modern Sanskrit collection can be indicative for professional practices, and that an investigation of collective practice divulges contradictions between the image and reality of communal practices. Practical issues lay at the heart of the collection of texts by the Toro family, though they depicted themselves as highbrow ritual specialists.

Dhruv Raina’s contribution emphasises that the mandate of a text must be situated within the broader context of how a culture or era authorized knowledge as being true or reliable. He shows that actors such as Père Xavier Duchamp relied mainly on their peers’ accounts and never got at the texts themselves (p. 129), favouring an ethnographic method in their


Attempts to understand Indian knowledge of mathematics and astronomy. Raina thus emphasizes a point that Simon Schaffer has made prominent in his discussion of contemporary British science, namely that social status and personal familiarity affect the reception of knowledge as truth or the value assigned to written information in general. The Jesuits' collective efforts were also far from systematic. Their financial means were limited and eventually the French missionaries also depended on the capabilities and goodwill of interlocutors. Similar to British scientists such as Isaac Newton, Raina sees French actors also expanding their empirical perspective (p. 119). Chu Pingyi subsequently pinpoints the increasing interest of seventeenth century Chinese in European mathematics and astronomy. In contrast to the impact that Western methods had on Chinese scholars, which has already been told many times, Chu Pingyi emphasizes the dramatic effect that Chinese attempts to anchor the foreign knowledge in native traditions had on the documentary basis on which Chinese mathematics and astronomy of that era relied.

Section II of this anthology begins with three powerful essays on mathematics. Karine Chemla contests approaches that aim to identify a fixed hierarchy between main text and commentaries or which view commentaries as explanatory references in the Chinese mathematical canon. She shows how the changing viewpoints of Chinese actors on the relation between text and comment indicate divergent approaches to mathematical content, proof and reasoning. Commentaries then could change the character of the actual canon (pp. 202-203). Compilers integrated two different editions of the Nine Chapters on Mathematics into a collection when they saw commentaries amalgamating with the basic text to produce a new inseparable whole. Presenting a fresh view of Chinese reading practices, Chemla demonstrates that a “canon” was by no means an unchanging entity. Agathe Keller’s view of commentaries on mathematical contents in Sanskrit traditions explicitly revises her previous notion that such commentaries were merged in historiography. A topical cross-reading of commentary literature concerning square root extraction demonstrates that nineteenth century historians of Indian mathematics, similar to those concerned with China, favoured the canon, whilst simultaneously and tacitly relying on the commentary.

Restoring classificatory frameworks and reading traditions, Keller and Chemla both follow the changing contextualization of a text or text passage within a corpus and re-unite sources of mathematical thought. Christine Proust’s chapter on Mesopotamian mathematical tablets in contrast

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discusses the process of fragmentation itself and issues various methodological concerns on the effect of an archival approach or the role a focus on provenance (that prompted, for instance, the reconstruction of the original composition of mathematical tablets found in houses in Nippur) had on the reception of Mesopotamian mathematics.

In David Brown’s article, the focus shifts back to astronomy, and from the effects of past unification to its possibilities for present day research. Brown also draws unspoken but clear attention to the huge impact which enhanced access modes within digital humanities have brought to research on Mesopotamian texts. A major strength of his debate on astral and mathematical cuneiform is to reveal the impact that factors external to the actual collection have on text reception. Brown also identifies how, in this context, quantity (i.e. an analysis of tablets of similar content across collections) is not necessarily a helpful method of evaluating contemporary importance and future impact. Brown concludes with some suggestions on how representative the currently available samples are, and then proposes that—rather than trying to reunite textual corpora to form a master composition or reflect upon mainstreams—researchers should understand current collections as comprising a refined composition of peculiar trends situated in specific eras and approaches (p. 300). Fortunately, technical capabilities enable twenty-first century academics to do both.

Many of the processes described in the chapters identify inequality as mainly an issue of the marginal emphasis that the history of science has given to Asian processes of source selection. From a local perspective, however, the corpora under scrutiny often constituted canonical and orthodox trends. Inquiring into the traits of Knowledge and Practice of Mathematics in Late Ming Daily Life encyclopaedias, Andréa Bréard finds that late imperial publishing in the boom of the seventeenth till eighteenth centuries recycled readily-available materials and thus spread quotidian mathematical knowledge useful to gaming or economic calculation (pp. 320-322). Scholars often refrained from using these texts due to their low status. Most household encyclopaedias were only handed down to the present via diachronic transmission in Japan. Bretelle-Establet suggests that geographical origins and social factors mattered in the construction of medical canon. The medicine section of the eighteenth century imperial collection Siku quanshu hence preconfigured assessments by emphasizing the coherence of corpora at its centre, and identified a scattered landscape of manuscript culture at the geographical peripheries of the South.

Section II concludes with two indepth studies of the impact of language choices on knowledge transmission. Catherine Jamie discusses the Qing’s purposeful use of Manchurian script for confidential issues that confirmed
Chinese language as the preferred mode of transmitting universally-approved knowledge. Conversely, Qing emperors recorded more Western knowledge in Manchurian than in Chinese. Michèle Thompson highlights the relation between language proficiencies, socio-cultural values and knowledge evaluation in medical knowledge, showing that Vietnamese rulers and elites favoured Chinese as their language of higher knowledge, in the same way that Europeans used French or Latin. Elite and popular medicinal traditions and physicians had considered themselves as more of a mixed group without any obligatory ideological foundation until the Nguyen court and French colonial reception, with its emphasis on Confucian scholarship, consolidated a clear distinction of orthodoxy depending on the language in which a tract was written. Nôm literature, however, remained a substratum of medical knowledge, and thus reveals the Vietnamese response to the sweeping impact of Chinese medicinal traditions intruding into the Nguyen region by the eighteenth century. Jami’s and Thompson’s studies both vividly illustrate how language proficiencies and choices predetermine knowledge flows and assessment.

Florence Bretelle-Establet suggests that the Asian perspective is useful to shed light on the diversity of actors involved, emphasizing how the Eurocentric view largely overshadows the manifold ways in which past efforts of “privileging and promoting some documents” (p. xxvii) affected scientific text preservation and circulation before the nineteenth century. Methodologically, she then connects the study to gender research. Clearly the authors’ conceptual approaches to disparities are informed by enhanced quantitative and qualitative access to original or copied sources, a point that would have been worthwhile some attention. Over the last decade, new technical methods and the changing intellectual climate have enabled academics in Asian studies to see what had previously been omitted from the historiography of the history of science. In this regard, Looking at it from Asia provides a perfect verification of what Bretelle-Establet claims to be true for any historical document: that it is “a child of its time” (p. xxiv).

The view from Asia shows that, as in Europe, local social, economic, material, and political configurations as well as global issues shaped out textual repositories in the fields of mathematics, astronomy, astrology, and medicine. The relations that Asian cultures drew between texts and practices were different, though. Specialists in Asian mathematics, astronomy and medicine will value this book for its thoroughly argued and well-researched contributions. As an edited volume the book convinces through its accurate dramaturgy, and astute selection of topics. As Florence Bretelle-Establet remarks in the introduction, source criticism is a “prerequisite to any analysis of historical sources” (p. xxii). Tackling data
evaluation and audience selection, narrative and interpretation, *Looking at it from Asia* will hence appeal to more than Asian historians or historians of science. The book also comes with several useful tables and statistics and an index.