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Why the Jesuit mission in Ming-Qing China (1583-1793) matter for historians beyond the narrow confines of Church history? How shall we make sense of the broad range of cultural commodities Jesuits promoted as “Western learning (*xixue* 西學)”, interpret the interest or hostility it met up with in China, in such a way that the story around a handful of missionaries may fit into a bigger picture, and illuminate historical questions with more general significance? For a long time, the framework that commends the widest consensus, among scholars as well as the general public, is that of civilisational encounter. Joseph Needham’s *Science and Civilisation in China* (hereafter *SCC*) offers an early, powerful, as well as typical narrative in this respect. Although the *SCC* does not focus on the Jesuits, their contributions as knowledge brokers between the two ends of Eurasia at the pivotal time of the Scientific Revolution occupy a prominent place in Needham’s magnum opus. With the introduction of key aspects of early modern mathematical astronomy – including the geometrical analysis of planetary motion, the mechanisation of time measurement, the latest instruments such as the telescope – Jesuits’ arrival in China by 1600 marks the chronological endpoint of the entire *SCC* project. Beyond this ‘fusion point’, Chinese science can no longer be investigated as a distinct tradition, as it has merged with the universal ‘world science’ through the fruitful and mutually profitable “intercourse between civilisations”:

“In the history of intercourse between civilisations there seems no parallel to the arrival in China in the 17th century of a group of Europeans so inspired by religious fervour as were the Jesuits, and at the same time so expert in most of those sciences which had developed with the Renaissance and the rise of capitalism. The year 1600 is a turning point, for after that time there ceases to be any essential distinction between world science and specifically Chinese science. But the part which the Jesuits played in Chinese astronomy had many links with the Asian astronomy of past centuries, and has much to teach us about the mutual impact of Chinese and Western thought.”²

An analogous vision is also at work in the classical work by the French Sinologist Jacques Gernet, *China and Christianity* (first published in French in 1982), which focuses on Jesuits’ religious and philosophical, rather than scientific teaching. Gernet spoke very similarly about the arrival of Jesuits in China as “a subject of exceptional interest, for it was around 1600 that, for the first time, real contacts were in fact made between two great civilisations that had developed entirely independently of each other”.³ His overarching appraisal of the Jesuits was apparently very different from Needham’s. If Needham foregrounds unity and convergence, comparing the fusion of Chinese science with world science to “rivers flowing to the sea”, Gernet portrays a ‘first confrontation’ akin to the clash between two tectonic plates. By his reckoning, the Jesuit mission was a failure. China did not convert to Christianity, and Western Learning more generally remained incomprehensible to

¹ This paper was first written for the panel “Western Learning in East Asia: Changing Historiographies” of the 15th International Conference on the History of Science in East Asia in Jeonju, Korea, 2019. I thank Catherine Jami for inviting me on the panel, and Lim Jongtae for his discussions. I also thank the anonymous referees for their critical comments.

² Needham and Wang 1959, p. 437. This chapter had previously been published as an article in 1957.

³ Gernet 1985, p. 2.

even the most willing Chinese. Conversely, the Jesuits also failed to appreciate the originality of Chinese ways of thinking, only approaching them in terms of their compatibility or incompatibility with Catholicism. Such failure lay in the many unbridgeable differences between China and Europe: the conception of the Church-State relationship, the role of religion in society, the beliefs about cosmos and mankind, or even the basic structure of the languages that convey these beliefs. Thus for historians, instead of signalling fusion between Chinese and world science, the Jesuit mission represents an unusual opportunity to observe, through the eyes of historical actors themselves, “To what extent do the reactions of the Chinese at the time of the first contact reveal fundamental differences between western and Chinese concepts of the world?”⁴

This divergence between Needham and Gernet lies to a certain extent in their different definition of “civilisation”. In Needham’s work, “civilisation” is scientific at its core: as a body of practical or broadly intellectual knowledge of how to comprehend and act on the natural world, it is inherently transmissible, and measurable by universal standards. Indeed, the Jesuits’ coming is preceded by two millennia of fruitful transmission of Chinese civilisational achievements to the rest of the Eurasia, as indefatigably documented by the bulk of the *SCC*. In this perspective, cultural values, social norms and religious beliefs matter chiefly in terms of their capacity to stimulate or to inhibit scientific progress. For Gernet, these values, beliefs and their philosophical basis – such as the “representations connected with the gods, the development of ideas about the soul, individual salvation, defilement and religious sin”⁵ – are the very essence of civilisation. They signal the originality of a society, its durability in time as a cohesive community of human beings, and the extent of its contribution to world history.

Much can be said about such divergence and the historiographical legacies it reveals.⁶ However, these very contrasts reveal more fundamental agreements. Needham’s and Gernet’s works are both underlaid by a humanist vision of world history which is not monopolised by the West, but rests on the exchange between civilisations. Both stand against Eurocentrism – the view of the West as the sole cradle of science, or the claim of Christianity to universal truth – to affirm the originality of Chinese civilisation and the necessity for the West to learn from it. As *China and Christianity* concludes: “Instead of rejecting from the start the arguments of the Chinese, it might have been worth taking the trouble to learn from them”.⁷ The significance of the Jesuits is assessed against the background of a world history into which Chinese contributions shall be built.⁸ They only diverge in their appraisal of the Jesuits’ role in that first contact – as worthy pioneers whose foundational, although imperfect achievements were to be emulated and continued, or as persons responsible for a missed opportunity whose errors are to be remediated by modern scholars.

This humanist and synoptic vision explains the enduring appeal of these works, as well as many world history classics of the twentieth century. And just like most of these world histories, they share yet another commonality on the methodological level: both Needham and Gernet see the story of China Jesuits and Western Learning as a macro-history which unit of analysis is civilisation, not individual. Gernet elaborated on the relationship between the two

⁴ Gernet 1985, p. 1.

⁵ *Ibid.*, p. 3.

⁶ We may usefully refer to a review article by Fernand Braudel, originally published in 1969. Braudel observed the confusion surrounding the word “civilisation” that existed in histories of civilisations since the nineteenth century, with some authors using the term in singular as a process of materialistic and technological progress, while others used it in plural as a collection of cultural phenomena. Braudel 1980 [1969].

⁷ *Ibid.*, p. 247.

⁸ On Needham’s *SCC* as a world history, see Finlay 2000. I have discussed Gernet’s vision of a global humanism in Wu 2020, pp. 92-94.

levels of analysis, stating that –

“...it is a property of any society, not solely of so-called ‘traditional’ ones, to be founded upon a body of traditions accepted by all its members, who are, indeed, so little aware of the particular nature of these traditions that they consider them to be quite natural. These become rooted in history, are an inherent part of social behaviour, ways of thinking and feeling, and even languages. The missionaries, just like the Chinese literate elite, were the **unconscious bearers of a whole civilisation**. The reason why they so often came up against difficulties of translation is that different languages express, through different logics, different visions of the world and man.”⁹

“Civilisation” is construed as a set of impersonal tenets that permeate a society. For scholars of that society, they are supposed to be known qualities. Therefore, the history of Sino-Western encounter can be framed as a comparison between these tenets generally attributed to “the Chinese”, “the European” or “the Christian”: “Chinese astronomy was fundamentally empirical and observational”, “The Chinese were free from that obsession of European astronomers for the circle as the most perfect figure”,¹⁰ or “The Christian idea of a personal God, now angry, now merciful... is countered by the Chinese idea of an impersonal Heaven which is at one with the order of nature”¹¹... Such generalisations lend macrohistorical significance to the contingent encounter between the Jesuits and their Chinese interlocutors. Yet they also lend a similar impression of inevitability to the narratives. Since these tenets are macrohistorical, multiseular phenomena with impersonal logics that transcend the agency of individuals, the outcome of the encounter between civilisations, positive or negative, appears determined in advance. For Needham, the river of premodern Chinese science is bound to flow into the ocean of modern science by virtue of the latter’s truth value, while in Gernet’s account, incommensurable traditions are bound to talk past each other. The chief historical interest of the civilisational encounter, therefore, appears to illustrate the characteristics that China and Europe are assumed to possess. Individual agency matters little: actor’s personal attitude is taken for granted when it conforms to expectations, and dismissed as a result of misunderstanding or ignorance when it does not. Neither, ultimately, necessitates explanation.¹²

These works remain must-read classics, and continue to inspire by their insights, broad historical vistas and masterful synthesis. The fact that “East meets West”, “China meets Europe” and other similar formulations still pervade book titles, lectures and exhibits about the China Jesuits, testifies to the enduring vitality of the civilisational framework in shaping public discourses. Yet practising historians have grown increasingly uneasy with the word “civilisation” as an analytical category, which remains treacherously difficult to define and to handle. How coherent are civilisations? Can one write about civilisations as if they were people who develop a distinctive personality from birth, maturation, climax to decline? Over the past decades, master narratives in both Western and Chinese history have disintegrated, compromising the conception of the “West” and “China” as civilisations with a linear trajectory. Historians of science now widely contest the very existence of a “Scientific

⁹ Gernet 1985, p. 2, my emphasis. The view of civilisations as bounded by mutually incommensurable languages, suggested here and elaborated in the last chapter of *China and Christianity*, is probably the most controversial argument in Gernet’s book. It does not belong to this article to discuss this thesis, as it does not sum up Gernet’s definition of civilisation which is political, social, philosophical as well as linguistic. I have analysed the thesis of linguistic relativity at greater length in Wu 2019.

¹⁰ Needham and Wang 1959, p. 460.

¹¹ Gernet 1985, p. 212.

¹² Standaert also discussed Gernet’s framework in Standaert 2002, pp. 13-18.

Revolution” as a defining moment which fundamentally shaped the Western civilisation and its way of thinking the natural world. The new ideas and methods most intimately associated with the Scientific Revolution are no longer considered as pure knowledge, but as the product of very specific local contexts. In *Leviathan and the Air Pump*, Shapin and Schaffer influentially argued that the advent of experimental philosophy was integral to the political context of the Restoration following the English Civil War, when the need for sure means to achieve assent and guarantee civil order was paramount;¹³ Mario Biagioli’s *Galileo Courtier* similarly contended that the culture of the Medici court was part and parcel of Galileo’s science, whose “commitment to Copernicanism and self-fashioning as a court client fed on each other”.¹⁴ With the “messy contingencies”¹⁵ surrounding the gestation of modern science restored, there is increasing agreement that modern science did not spread across the globe because of its innate universality; on the contrary, it was an inherently local culture which became universal as a result of its circulation, and that circulation in turn needs to be “put in place”,¹⁶ situated in particular sites of knowledge, and contextualised against the history of European expansion. Today, “as the tightly woven, elegant narrative of the Scientific Revolution gives way and finds its place within a global history of early modern science – geographically diffuse, conceptually open, yet defined by the pursuit of scientific knowledge by many different means – we are in search of new models to explain this transformative period for understanding the natural world.”¹⁷ Against this backdrop, it is increasingly impossible to speak, like Needham comfortably did in the 1950s, of “those sciences which had developed with the Renaissance and the rise of capitalism”.

Likewise, Chinese studies no longer speak of “Chinese civilisation” and of its great tradition in singular form as a timeless cultural monolith, striving instead to uncover the plurality of little traditions, regional specificities, and internal developments overtime. Since the 1980s, with improved accessibility of archival sources and fieldwork, regional and local approaches have gained momentum in the study of late imperial China. Commenting in 1984 on the inadequacy of the holistic approach, incapable of doing justice to China’s inner complexity, William Skinner influentially called for Chinese history to be re-envisioned as “an internested hierarchy of local and regional histories” of a dozen discrete and interrelated macroregions, each defined by physiographic coherence (most importantly drainage basins of major riverways) and each with regional-specific cyclical episodes.¹⁸ Anthropologists and cultural historians have likewise questioned the meaningfulness of a common Chinese culture at the grassroot level. Through fieldwork and local documents, particularly in ecologically, ethnically, and linguistically diversified South China, they have offered thick description of how lineages, popular religious rituals, and other daily practices order people’s everyday life within a community, alongside the influence of stately and empire-wide structures.¹⁹ Intellectual movements such as evidential studies (*kaozhengxue* 考證學), once taken to characterise an entire era, have been circumscribed as the programme of a geographically delimited community in the Lower Yangzi Region sustained by specific patterns of official

¹³ Shapin and Schaffer 2011 [1985].

¹⁴ Biagioli 1993.

¹⁵ Shapin & Schaffer 2011 [1985], p. 13.

¹⁶ Livingston 2009.

¹⁷ Findlen 2019. We can also note that a similar tendency towards pluralisation and localisation can be observed elsewhere in intellectual history: for instance, the Enlightenment, once considered a unifying programme, is increasingly studied as a series of geographically and socially disparate interlocking agendas. See Wither 2007, Conrad 2012.

¹⁸ Skinner 1985, p. 288. The address was originally delivered at the Association of Asian Studies conference in 1984. See also Naquin and Rawski 1987.

¹⁹ For a review of the field, see Li 2018.

patronage and scholarly infrastructures (academies, libraries, printers, etc.).²⁰ In some ways, the more recent flourishing of Qing historical scholarship has been driven by the same concerns with territoriality, diversity, and internal dynamics when it has sought to debunk clichés about stagnation, and to understand the Qing as a multi-ethnic and multilingual empire, which saw new patterns of governance, robust socio-economic restructuring, large-scale internal migration, and a mosaic of non-Han peoples.²¹ In fact, these currents have already emerged around the time *China and Christianity* was published. We will return later in this essay to the studies of Chinese Christian texts, pioneered by the Dutch Sinologist Erik Zürcher through the 1970s and 1980s, followed by Ad Dudink and Nicolas Standaert. While fundamentally in agreement with Gernet that the scholarly focus needed to shift from the missionaries to the “Chinese reaction”, they did not see the reaction as unified and predetermined, but as a spectrum of possible attitudes ranging from total acceptance to total rejection, with many shades of hybridisation in between and various socially stratified “levels of responses”. The studies of Chinese converts’ writing also shed light on such hybrid identities as “Chinese Christian” or “Confucian Monotheist”, beyond the assumption of an East-West dichotomy.²² Keeping these in mind, scholars today would find it more difficult to take the “Chinese literate elite” as a unified group, or to generalise them as “bearers of a whole civilisation”, than Gernet did.

But how can the local approach really change our overarching narratives about Western learning in China? To be sure, with the help of the increasing availability of primary sources, growing attention to studies of local situations is a welcome remedy to the many sweeping generalisations and essentialisations that are still current in academic and public discourses. However, focusing on micro-level case studies is not without drawbacks. Most importantly, it can mean a fallback on an antiquarian, “butterfly-collecting” type of erudition: gathering large amounts of empirical data without drawing more generally meaningful lessons from them. To Western historians of sciences, Jim Secord once warned against the risk of parochialism and fragmentation, observing that efforts to debunk the worn-out master narrative of the Scientific Revolution have not led to viable alternatives on the same overarching scale, and that studies of non-canonical figures and neglected knowledge have often assumed, rather than demonstrated the broader significance of their subject.²³ This warning is equally valid for studies of the Jesuits in China. In fact, Church history has long been producing archive-packed studies of missionaries’ endeavours, so much so that every missionary who has left a fair amount of documents today enjoys one or more biographies. While critiquing its flaws, we need to keep in mind that the turn to “civilisation” as exemplified by Needham’s or Gernet’s work had once been a salutary move which opened the field to a broader audience. Moreover, if the civilisational framework has its failings in overgeneralisation, simply “going local” will not automatically solve the problem. For instance, innumerable studies of missionaries’ translations today, while focusing on individual documents, still consist of error-hunting, looking for presumably untranslatable words and invariably concluding that an unbridgeable gap between Chinese and Western cultures existed. While we excavate an ever-growing number of sources from an ever-widening range of localities, how can we find a new set of questions, to serve as common denominators that connect scattered local stories into meaningful overarching narrative across large spans of time and space?

To answer this question the discussions around the relationship between microhistory

²⁰ Elman 1984.

²¹ Waley-Cohen 2004, Rowe 2009.

²² For a review of Zürcher’s work on Christianity, see Standaert 2008.

²³ Secord 2004, p. 659

and global history could be illuminating. Microhistory in its original conception, its defenders and adepts (mostly Italian and French scholars) argue, is not antithetic with the *longue durée*, structural macrohistory advocated by the Annales School.²⁴ Beyond the concern with compelling storytelling through thick description of social life in community, its heuristic ambition is to use micro-scale of analysis as a “tool to test entrenched generalisations” and facile simplifications, and its subject of predilection is the “exceptional normal”: apparently idiosyncratic and extraordinary individual cases or situations that nonetheless reveal broad trends usually invisible in the conventional historiography of a given topic.²⁵ Microanalysis can lead to the macro-picture, if through systematic investigations, actions and beliefs of individuals can be situated “in relation to those of his or her relatives, neighbours, acquaintances, and superiors”, or “via a progressive distancing from a single text in order to identify echoes and filiations across a chosen galaxy of texts that would normally be ascribed to different cultural traditions”.²⁶ The idea of the “exceptional normal” is well adapted to our discussion, as Jesuits who set off to China, as well as the individuals that took an interest in Western Learning or embraced Catholicism in Ming-Qing China, were doubtlessly a demographically insignificant minority: at the peak of its success around 1700, Church statistics registered about 100 missionaries and 200,000 Catholics across the empire, whose total population was estimated at around 150 million.²⁷ In fact, methods of microhistory have already been explicitly and fruitfully applied to the study Catholicism in local settings in China. We will now turn to two examples – the Catholic community of Fu’an (Fujian) studied by Eugenio Menegon and Zhang Xianqing; and a Catholic village in Shanxi studied by Henrietta Harrison²⁸ – to illustrate the strength of the local approach in studying Sino-Western contact. In a way, these works can be considered as a continuation of Gernet’s work, as they rely heavily on Chinese sources to restore the perspective of the Chinese Catholics in a way that missionary sources alone cannot. But instead of asking “why Christianity failed in China”, they ask how, after all, Christianity managed to carve out a niche in some particular places. The focus on small localities allows them to operate with a more pluralistic understanding of both China and Europe, geographically and sociologically, thus uncovering different sets of dynamics that the civilisational-scale analysis could not see.

Such a move restores the two things that were missing in the narratives about civilisational encounters: the sense of contingency and personal agency. Cultural imperatives were present, but they appear as something actors could resist, escape or negotiate with. These scholars all take Christianity as an actor category, rather than an observer category defined by the missionary or by the historian. Harrison illuminatingly argued that the history of Catholicism in China is not about “how Christianity became a Chinese religion”, but rather “how Chinese relate to Catholicism as a world religion”²⁹: historians accept the actors’ self-identification as Christian, then seek to unpack the meaning of that identity. Menegon looked into the motivation of different subgroups of people in adopting Christianity and sticking to it even in a time of general hostility: how priesthood offered an alternative career track for lower-degree literati; how women, by becoming sworn virgins, could expect to gain authority and access inheritance. We also find out how contingent circumstances allowed these personal choices to perpetuate and become locally accepted way of life. For instance, in the rural context of Fu’an, there was indeed a “continuous tension between Christian religious

²⁴ Revel 1996; Trivellato 2015; Bertrand and Calafat 2018, Ghobrial 2019.

²⁵ Trivellato 2015, p. 10

²⁶ *Ibid.*, pp. 14-15.

²⁷ Standaert 2001, p. 383.

²⁸ Menegon 2009, Zhang Xianqing 2009, Harrison 2013.

²⁹ Harrison 2013, p. 8-9.

imperatives and the social imperatives of Chinese daily life”,³⁰ particularly over issues of ancestral rituals and female chastity. However, as it happened, the Ming-Qing transition wars devastated the region for over four decades between the 1640s and the 1680s, paradoxically creating a “window of opportunity” for the new religion, as the shambled lineages were no longer able to persecute their Christian members and left them to transmit their faith through households or minor lineage branches largely unbridled.³¹

Historians of science would be sympathetic with the microanalysis that emphasises individual agency, internal logics of communities, and historical contingency. Yet there is another lesson we can draw from these microhistorical works about Christianity in China: a locality is not studied as an isolated, self-contained microcosmos, but as a meeting point between different large-scale, potentially global, networks. In Harrison’s analysis, “Christianity in China” in the village she studied was specifically the fruit of an encounter between the networks of Italian Franciscans and of Shanxi merchants. On one hand, in contradistinction to the conception of a uniformised Christendom, it was particular episodes of Church-State struggle *in Italy* that appear to have shaped the dynamics of the Catholic community in that village, over issues such as equality between Chinese and foreign priests, or the attitude towards Japanese invasion during WWII. These episodes include the 1848 revolution in Naples, where Chinese priests were trained and witnessed the events;³² and the rise of Italian Fascism in Bologna in the 1920s, from where many Italian missionaries hailed.³³ The relevance of these episodes for the history of Christianity in China is not something we would obviously expect. On the other hand, the Shanxi merchants’ network which sprang from Central Asia and Mongolia to Beijing and the coast of Guangzhou was key to understanding both the inception and the sustainability of Catholicism in an inland village through the period of prohibition, as well as the role its members were able to play beyond the local community: the first converts were sojourning traders who received baptism in Beijing; during the period of prohibition, that same merchant network made it possible to smuggle Italian missionaries in from Guangzhou, where Shanxi merchants were bringing fur, rhubarb and other products from Mongolia to trade with the Portuguese.³⁴ In the mid-eighteenth century, as Shanxi merchants were provisioning the Qing army during the conquest of Xinjiang, they were also able to smuggle Chinese priests there to assist exiled Christians in Ili and Kashgar.³⁵ The Shanxi merchants’ network was as far-ranging, indeed “global”, as the network of maritime Europe that brought missionaries to the shores of China. The overland network of Shanxi merchants and its transregional stretch are not usually visible in the narrative of Christianity in China, by and large perceived as a religion from the Western “Oceans”.

The history of Christianity in China has its own logic that does not entirely overlap with the history of Western Learning. But there are some heuristic lessons that apply more generally to the use of a local and microhistorical approach in studying Sino-Western contacts. More than a collection of isolated and discrete stories, local case studies point to the multiplicity of networks with varying chronological spans and geographical extensions,

³⁰ Menegon 2009, p. 91.

³¹ Zhang Xianqing 2009, p. 252-255; Menegon 2009, p. 92-115, 177-197.

³² Harrison 2013, p. 76-77.

³³ *Ibid.*, p. 141-143.

³⁴ *Ibid.*, chapter 1.

³⁵ *Ibid.*, chapter 2.

different mobility patterns, and often unexpected long-distance connections.³⁶ For the history of Western Learning, these structures, as well as their gradual or abrupt changes, offer other overarching narrative frameworks which we may call “the share of the environment (*la part du milieu*)”, to borrow the title of the first volume of Braudel’s *The Mediterranean World in the Age of Philip II* which delineates the climatic, geographical and infrastructural conditions of the Mediterranean world in the sixteenth century. In fact, the recent edited volume on Matteo Ricci seems to suggest such a move: its title, *The China of the Ming and of Matteo Ricci*,³⁷ in the same way as *The Mediterranean*, puts the world before the man and takes the man as a portal into the bigger and more complex world.

A general and dynamic cartography of Western Learning in Ming-Qing China that charts large-scale patterns by aggregating local cases and individual itineraries is yet to be undertaken, but based on recent studies, we can already imagine what it might look like. Thanks to the systematicity of the Jesuit archives, and the painstaking work undertaken by Church historians, in particular Joseph Dehergne in the 1950s, we already have a fine-grained picture of the “corporate geography” of the Jesuit China mission and of the “spatial order” Catholic communities in China from *ca.* 1580 to 1800.³⁸ We can ascertain the location of Jesuit churches, colleges and residences at a given time, as well as the identity of the resident missionaries. However, it is still difficult to draw the “thread maps” of people, objects, instruments, natural objects and texts moving in and between these sites.³⁹ While scholars have reconstructed in detail, for instance, how the first residence founded by Matteo Ricci in Zhaoqing in 1588 displayed world maps, mechanical clocks, leather-bound books, perspectival paintings and other impressive European curios for local visitors,⁴⁰ how about other less prominent sites? Which scholarly resources were available to individual Jesuits and their Chinese interlocutors?

In this respect, Noël Golvers’s recent multi-volume work on Jesuits’ libraries in China is a ground-breaking publication.⁴¹ No seventeenth- or eighteenth-century catalogue of Jesuit libraries has survived. Based on requests and mentions of books scattered in China Jesuits’ correspondence, Golvers has reconstructed around 1400 titles of books that were once held by a Jesuit library in China, as well as their mode of acquisition, transportation, distribution, and consumption. Such an endeavour is itself indicative of a different methodological assumption compared to Needham or Gernet: the missionaries are no longer taken as “unconscious bearers of a whole civilization” or “expert of so many sciences”. Their membership to European scholarly community is no longer taken for granted, but reliant upon accessibility to material resources such as books, liable of erosion on account of their physical displacement to a faraway place, and needing to be actively maintained through reading and correspondence. While Needham departs from historians’ understanding of “the most important features of European astronomy” and regrets that the Jesuits enabled only an “imperfect transmission”,⁴² Golvers implies that “imperfect transmission” is the default state of long-distance knowledge circulation, primarily because of material constraints and pragmatic considerations. These include the difficulty of maritime transportation, the shortage of funding and the limited time that could be diverted from evangelisation to

³⁶ A more recent article by Eugenio Menegon also explicitly advocated the “global potential of micro-historical analysis” through four “vignettes” of late eighteenth-century court Jesuits’ life, “connecting individual stories with both local and global social and economic networks”. Menegon 2019.

³⁷ Landry-Deron 2013.

³⁸ The expressions are of Harris 1996, p. 216. Dehergne 1955, 1959, 1961, 1973, 1976.

³⁹ Harris 1996, pp. 217-227.

⁴⁰ Hsia 2010, p. 111.

⁴¹ Golvers 2012, 2013, 2015, 2020.

⁴² Needham and Wang 1959, p. 443.

scholarly pursuit. Jesuits were fully aware of these constraints and devised their scholarly tactics accordingly. Philippe Couplet thus explicitly discouraged his European correspondents from sending learned in-folios to China: such books were, according to his words, “here of interest to the worms, a useless expense and a hindrance during the journey”.⁴³ Instead, they prefer general reference works, “readers’ digest”, and from the late seventeenth century onward, the newly invented scholarly periodicals which provided excerpts, summaries and reviews of new publications across Europe. History of Western Learning in China still needs to take stock of this more realistic understanding of Jesuits’ own knowledge of European sciences.

Golvers’s analysis of Jesuit libraries in China was not simply a global history. Books in Jesuit libraries circulated not only on the transcontinental level between Europe and China, but also on regional and local scales inside of Europe and China. Within the China mission, books appear highly unevenly distributed between the large “research library” of Beijing and provincial residences; certain resources requiring a continuous investment, such as scholarly journals, could only be found in Beijing. The books themselves came from all over Europe from Portugal to Russia, and a wide array of social milieus including the Pope, high aristocracy, career scholars as well as the lower clergy and common people. While it is not possible to reconstruct the trajectory of every single book and the social networks it was embedded in, some well-documented individuals can be studied microhistorically as a gateway into the Republic of Letters in Europe and its material resources conditions at a given time. This is particularly the case of Johann Schreck (1576-1630), arguably the most high-profile scholar who ever joined the Jesuit China mission, and whose sizeable collection of books has been the subject of Golvers’s most recent publication.⁴⁴ Peritextual elements on some books can allow a precise reconstruction of their trajectory: a copy of Agricola’s *De Re Metallica* had been handed from a citizen of the mining town of Eichendorff to a magistrate of Munich before being collected by Schreck at the court of Bavaria and later translated as *Kunyu Gezhi* 坤輿格致 (*Investigation of Things of the Terrestrial Realm*); a copy of *Geographica Nubiensis* of the Muslim geographer Al Idrisi was donated to the China mission by its Latin translators, Maronite Christians in Rome.⁴⁵ For the history of Western Learning, these trajectories beg the questions of the diversity of book culture in Europe: how generally “Western” was Western Learning? Did it draw from a shared European heritage, or from a contingent collection of discrete local traditions? Can we envision a microhistorical account that connects Western Learning in China to these less than obvious local knowledge cultures of Europe – the mining expertise of Southern Germany, or the Islamic tradition mediated by the Near Eastern Christian communities – just as microhistory has connected a Catholic village in Shanxi to episodes of Italian history?

The same kind of ground-up work can also be extended to other non-bookish means of knowledge that Jesuits brought to China, such as instruments, images, maps, drugs and other material objects. Such investigation may help to further complicate the “Western” origin of Western Learning, since these material objects that found their way to China through the Jesuits often originated from outside of Europe, especially from the Americas: the cinchona bark which the French Jesuits famously presented to the Kangxi emperor;⁴⁶ the chocolate beverage introduced to Kangxi by the Italian apothecary Giuseppe Baudino (1657-1718), to

⁴³ Golvers 2012, p. 153.

⁴⁴ Golvers 2020. I have written elsewhere on how Schreck’s exceptional career could be read as a microhistory that illuminates the broader intellectual economy of 17th century Europe that undergirded the Jesuit-mediated Western Learning in China. Wu 2021.

⁴⁵ Golvers, 2012, pp. 35-38.

⁴⁶ Dong 2008, pp. 216-226.

which Beatriz Puente-Ballesteros recently devoted an excellent microhistorical study;⁴⁷ or the Mexican feather paintings that Ricci presented to the Wanli Emperor.⁴⁸ These discreet objects all remind us that the “Western” world of knowledge at the time of the Jesuits was not solely rooted in Europe, but one that had already been, and continued to be reshaped by its experience of contact with the broader non-Western world.⁴⁹

Meanwhile, on the receiving end in China, scholarship based on Chinese sources has flourished since the 1980s. These studies often consist of case studies focusing on individual careers or single documents, as the nature of literati sources encourages scholars to do. While overall they confirm Gernet’s position – that the reasons for which Chinese actors accepted or rejected the Jesuits and their teachings were products of the internal logic of Chinese history, irreducible to a teleological narrative about Christian universality or scientific modernity – they also circumscribed and complexified the “Chinese” perspective. Through gradual accumulation of case studies, Western Learning no longer appears as merely the result of one single encounter between Chinese and Western civilisations; it appears to have been consecutively shaped by two distinct and competing models of scholarly patronage in Chinese history, resting respectively on the Chinese scholar-officials of the Late Ming and on the imperial court of the High Qing. Approximately along the watershed of the Ming-Qing transition, these two models generated two bodies of Western Learning which differed in terms of chronological span, geographic foci, and social inclusiveness.

During the last decades of the Ming dynasty, scholar-officials were the predominant sponsors of Jesuits, and revealingly, the Jesuit residences that became centres of scholarly production were all located in the native places of influential literati converts or sympathizers: Shanghai with Xu Guangqi 徐光啟 (1562-1633), Hangzhou with Li Zhizao 李之藻 (1571-1630) and Yang Tingyun 楊廷筠 (1562-1627), Fuzhou with Ye Xianggao 葉向高 (1559-1627) and Jiangzhou 絳州 with Han Lin 韓霖 (1596?-1649). Biographical studies of these prominent figures have invariably demonstrated how the personal networks and mobility patterns of late imperial China’s literati élite was at work in creating and sustaining these centres.⁵⁰ As Zürcher pointed out, the mobility pattern of Chinese literati within the bureaucratic system favoured the quick nationwide spread of Christianity.⁵¹ As a “class with high mobility potential”,⁵² literati regularly travelled across long distances for examinations, studies or temporary work; once they succeeded in the examinations, they held posts away from their home province, while exerting an influence in their native place where they would return for retirement. This mobility pattern, as well as the transregional dimension of the personal network constructed during this process – classmates, co-workers, teachers, disciples, underpins the Jesuits’ rapid albeit often unstable expansion over long distances during this period. Xu Guangqi first met Lazzaro Cattaneo (1560-1640) in Shaozhou, Guangdong, when he was working as a teacher in the 1590s; he later invited Cattaneo to his native Shanghai in 1607 where he was spending the obligatory mourning period following the death of his father.⁵³ Ye Xianggao first befriended the Jesuits in Beijing during his tenure as the grand Secretary, and when he retired to Fuzhou in 1624, he invited Giulio Aleni (1582-1649) – then making a scholarly reputation in Hangzhou with Yang Tingyun – to travel in his retinue and

⁴⁷ Ballesteros-Puente 2020.

⁴⁸ Bailey 2001, p. 92.

⁴⁹ I have discussed elsewhere how Jesuits’ European language scholarship on China was likewise shaped by other non-Western regions (India, America, Inner Asia). Wu 2017.

⁵⁰ Standaert 1988; Jami, Engelfriet and Blue, 2001; Huang 2006, etc.

⁵¹ Zürcher 1990, p. 420.

⁵² Standaert 2001, p.569.

⁵³ Standaert 2001, p. 542.

to start the Fujian mission.⁵⁴ Some of these centres ultimately became integrated into the fabric of a local community, anchoring projects of publication often led by literati of lesser degrees. The Fujian literati converts' community in the 1630s has been most thoroughly studied through microanalysis of such exceptional works as the *Kouduo richao* 口鐸日抄 (Diary of Oral Admonitions) which recorded teachings by Giulio Aleni and other Jesuits with an editorial team of 25 Chinese literati led by Li Jiubiao 李九標, mostly from the prefectures of Fuzhou and Quanzhou.⁵⁵ The transregional connections were not lost: *Kouduo richao* counted two contributing editors from Hangzhou,⁵⁶ and boasted a preface penned by the prominent Shanxi literatus convert Han Lin.⁵⁷ The making of Ming Western Learning was at once local and transregional, reflecting the dual dimension of the literati network sustaining it.

The Ming-Qing transition drastically altered this landscape by shifting its patronage to the imperial court, “closer to the centre of power and further away from literati elites”.⁵⁸ As other contributions to this special issue shows, in keeping with the more general revision of Qing history, the Qing court has now been rehabilitated as a proactive patron of Western Learning rather than an inhibiting factor of modern science.⁵⁹ Scholars have studied the shifting attitude of the Qing emperors to the Jesuits through the lens of Qing imperial politics in China, underlining the unique perspective of the Manchu rulers as distinct from both the Jesuits' and the Han Chinese literati's. Imperial institutions and court-sponsored projects, some of which have long been neglected for their alleged conservatism and lack of innovation, are now studied as nexuses of encounter between different knowledge traditions, and epitome of the imperial politics of learning at a given historical moment. Based on these works, we can now see the transformation of Western Learning over the Ming-Qing transition as both a redefinition of knowledge order and of spatial reach, which cannot be encapsulated in linear terms of progress or decline. On one hand, while for late Ming literati proponents of Western Learning, interests in “science” and “religion” generally went hand in hand, Kangxi unequivocally separated the two branches, recruiting only the Jesuits' technical expertise in the “numbers” (*shu* 數) but keeping the higher learning of “principles” (*li* 理) to himself and his Neo-Confucian officials. This epochal change can be exemplified by the diverging fate of two works: *Tianxue chuhan* 天學初函 (*First Collection of Heavenly Learning*, 1626), edited by the literati convert Li Zhizao, and *Qiongli xue* 窮理學 (*Study of the Fathoming of Principles*, 1683) by Ferdinand Verbiest. The latter strove to ally Western science, technology and Aristotelian philosophy following the model of the former; yet while the former was published under the patronage of an influential Chinese official, the latter was rejected by Kangxi emperor and subsequently lost.⁶⁰ On the other hand, contrary to Late Ming works of Western Learning which were mostly meant for public circulation, new translations of Western science that Jesuits made for Kangxi's tutoring were deliberately kept under secrecy. They were often translated into Manchu rather than Chinese,⁶¹ kept in manuscript form, while the tutoring took place in the strictly segregated spaces of inner court.⁶² The Kangxi Atlas

⁵⁴ Menegon 2009, pp. 28-29.

⁵⁵ Zürcher 2007, pp. 30-31; Zhang Xianqing 2015, pp. 61-99; Xiao 2015, pp. 148-161. Nicolas Standaert offered a similar analysis of the local, transregional and global networks of Catholic community at the turn of the eighteenth century through the testimonies that Jesuits collected from Chinese Christians to support their position in Rome during the height of the Rites Controversy. Standaert 2012.

⁵⁶ Xiao 2015, pp.128ff.

⁵⁷ Xiao 2015, p. 282.

⁵⁸ Jami 2010, 378.

⁵⁹ See in particular, Jami 2012, Chu Longfei 2017, Cams 2017, Han 2018.

⁶⁰ Jami 2012, pp. 79-80.

⁶¹ Jami 2010.

⁶² Jami 2008, p. 59-60.

(1707-1718), produced with a combination of Chinese and European mapping techniques by a team of Chinese, Manchu and Europeans, was never circulated outside the court.⁶³ The production of Western Learning in the High Qing was a matter of stately monopoly, in contradistinction with the decentralised landscape of the Late Ming.

However, this does not make the court of Beijing and imperial institutions such as the Astronomical Bureau (*qintianjian* 欽天監) the sole loci of Western learning during the Qing. Art Historians, who have likewise identified the High Qing court as a key site of Sino-Western artistic encounter, also noted the existence of “overlapping networks” and “multiple contact zones between China and Europe in the local societies of China” outside of the court, “contrary to the ingrained assumption that casts the High Qing court as the sole source for European artistic styles”.⁶⁴ European artistic models circulated from the court to Jingdezhen and other imperial manufactures; Catholic images accessible to Christian painters in Jiangnan gave rise to “Suzhou print”, woodblock prints displaying salient features of European art such as linear perspective and chiaroscuro.⁶⁵ Moreover, Western Learning was not simply about the production of “new knowledge” through the direct involvement of the Jesuits, but also about readers’ responses and re-interpretations. How would the intellectual economy of Western Learning look like from the late Ming to the High Qing, if we switch from the producers’ to the consumers’ point of view? Where, and in what forms, could interested readers encounter Western Learning resources? To be sure, the reception of a work or an idea anywhere is bound to be hazier to study than its production, as most people do not document their reading or understanding of an idea in a durable manner. Alexander Statman’s recent article about the friendship between the Jesuit Joseph-Marie Amiot (1718-1793) and the Manchu prince Hongwu 弘晔 (1743-1811) presented a striking case of an intense intellectual exchange about the latest developments of European natural philosophy in a private context of late eighteenth century Beijing that left no documentary trace at all outside of Amiot’s French letters.⁶⁶ Nevertheless, current scholarship can suggest a few elements of response for further investigations.

To start with, the flourishing of recent scholarship on imperial institutions and imperial projects which integrated Western Learning and Chinese tradition begs the question of their actual impact. Western Learning certainly circulated outside of the court as an integral part of this new imperial science, trickling down the empire’s administrative hierarchy. We can, for instance, visualise this administrative geography through the memorials Ferdinand Verbiest presented in his role as administrator of the calendar. In this series of documents, precise timings of solar and lunar eclipses were predicted for all major metropolises across the empire, so that adequate rituals could be carried out in each place accordingly: Beijing, the Manchu home-base of Mukden, followed by the summer capital of Jehol, and the capitals of the thirteen Chinese provinces, ending with the capital of Choson Korea.⁶⁷ Western Learning was also available in court-sponsored publications establishing state orthodoxy in an area of learning – such as the *Shuli jingyun* 數理精蘊 (*Essence of Numbers and their Principles*, 1722), used as textbooks in the Imperial College and for officials,⁶⁸ or the *Gujin tushu jicheng* 古今圖書集成 (*Compendium of Books and Illustrations Ancient and Modern*, 1725), bestowed in the 1770s on private libraries in the provinces as a reward for their outstanding contribution to the *Siku quanshu* 四庫全書 (*Complete Works of Four Treasures*) project.⁶⁹ It

⁶³ Cams 2017, pp. 196-197.

⁶⁴ Wang 2014, 386

⁶⁵ *Ibid.*, pp. 387-388.

⁶⁶ Statman 2018.

⁶⁷ Jami 2008, p. 57-59.

⁶⁸ Jami 2008, p. 60; Jami 2012, p. 272.

⁶⁹ Bian 2018, p. 304.

remains an open and intriguing question how the Western elements in these imperially-issued works and documents were perceived and enacted in these variegated local contexts across the empire.

Unsurprisingly, the literati remain the best-studied group in terms of their critical reception of Western Learning. In fact, intellectual historians have long established the Jesuits' influence on the Chinese learned world as "pervasive and profound", so much so that "of the principal early Ch'ing figures included in the standard histories of Ch'ing thought, all but two or three devoted a few pages of their works to some aspect of Western astronomy or mathematics".⁷⁰ Few intellectual biographies of High Qing *kaozheng* scholars could avoid discussing their relationship to Western Learning, and the recent trend in global intellectual history has injected a renewed dynamism in this area.⁷¹ The discourses literati employed to assess, validate, and critique Jesuit knowledge, as well as how these discourses – most famously the argument that Western Learning originated from China (*xixue zhongyuan* 西學中源) – were co-constructed by Kangxi and the literati,⁷² and how Jesuit-mediated knowledge fitted into the broader intellectual agenda of the Qing elite, are all well-known today. These well-documented and well-studied high-profile figures may further still serve as a portal to map the scholarly infrastructure of Western Learning, particularly in the cultural core area of the Jiangnan region where most of them were active, the same way Golvers's works on Jesuits' libraries or Johann Schreck's career did. How were resources circulated and shared in the literati's community of learning? What roles were played by the major institutions of Chinese book cultures, such as private libraries and commercial printers? If books co-produced by Jesuits and literati during the late Ming kept on circulating during the high Qing, how did their circulation overlap with, and differ from, that of Qing imperial publications?

While we await systematic research to answer these questions, existing scholarship has delivered many clues. Nicolas Standaert and Ad Dudink have perused catalogues of private libraries to locate titles of Western Learning.⁷³ Catherine Jami has traced Mei Wending's 梅文鼎 (1633-1721) itinerary and identified the channels by which he obtained works on Jesuit mathematics and astronomy – how for instance the private collection of the bibliophile Huang Yuji 黃虞稷 (1629-1691) gave him access to a complete copy of *Chongzhen lishu* 崇禎曆書 (*Book on Calendrical Astronomy of the Chongzhen Reign*) in 1675.⁷⁴ Bian He's work on Zhao Xuemin does a similar job unpacking the material "condition of new knowledge" for a middle level Jiangnan literatus, including the various means of information about exotic drugs from overseas.⁷⁵ Furthermore, the bibliographical data about Jesuit publications meticulously compiled by generations of scholars remains a rich vein to be mined for studying the circulation of this text-based knowledge. For example, to what extent can we chart the circulation of the "thousands of copies" of Ricci's world map that has been legally or illegally made, as he proudly reported?⁷⁶ What was the role of encyclopaedias (*leishu* 類書) and collectanea (*congshu* 叢書) offering classified digests of knowledge or reprints of rare texts,⁷⁷ such as Zhang Huang's 章瑨 (1527-1608) encyclopaedia *Compilation of Texts and*

⁷⁰ Henderson 1986, pp. 121-122; see also Peterson 1976, etc.

⁷¹ Zhang Qiong 2015; Sun 2017; Sela 2018. The network around Fang Yizhi in the mid seventeenth century, and the evidential scholars in the mid eighteenth century, are particularly well studied.

⁷² Henderson 1986, pp. 139-143; Han 2018, chapter 5.

⁷³ Standaert & Dudink 1999 was based on 12 catalogues, in which 138 titles were located; an expanded version of this study, based on 36 private library catalogues, is to be found in Standaert forthcoming.

⁷⁴ Jami 2013, p. 28.

⁷⁵ Bian 2017.

⁷⁶ Standaert 2001, p. 755.

⁷⁷ Elman 2007.

Illustrations (*Tushu bian* 圖書編 1603) which included a reproduction of Ricci's world map,⁷⁸ or Zhang Chao's 張朝 (1650-1707) collectanea *Zhaodai congshu* 昭代叢書, which included the *Xifang yaoji* 西方要記 (*A Record of the Essentials of the West*), presented by Ludovico Buglio (1606-1682), Gabriel Magalhães (1610-1677) and Ferdinand Verbiest (1623-1688) as a series of responses to Kangxi's questions about the Western countries?⁷⁹

And how about the world outside of the cultural heartland of Jiangnan? How far towards the periphery of the empire did Western Learning circulate? Recent research has already drastically renewed our knowledge, by showing how Korean embassies, and the network of Tibetan Buddhist monasteries, allowed Western learning to travel from Beijing to Korea and Tibet.⁸⁰ The geography of Western Learning inside China needs to be remapped in light of these revelations. Paradoxically, for a microhistory which has famously relied on serendipitous discovery of documents to reconstruct the perspective of the marginal, the increasing availability of "Big Data" and digital tools may be opening up unprecedented opportunities.

The recent decades have seen vast sways of historical sources becoming digitalised and full-text searchable, profoundly transforming historians' daily practices. It is important to keep in mind that Digital Humanities does not just allow scholars to locate particular pieces of information from a large amount of sources that would otherwise take a life time to read. More than just a search engine, digital tools are at their best when it comes to synthesise datasets from disparate sources, to reveal, visualise and compare their structural patterns. Discrete individual itineraries of people, books and objects microhistorically reconstructed can be conveniently laid out on a single map, thus making broader spatial patterns immediately visible – for example, localities where books and instruments were concentrated at a certain time, or institutions where different actors appear to have simultaneously frequented without their encounter being documented. Digital tools can be particularly efficient for a research team or community to pool data. The project "Individual itineraries and the circulation of scientific and technical knowledge in East Asia (16th-20th century)" (2010-2012) made a pioneering attempt to geolocate actors involved in scientific and technical activities in China, including Chinese and Westerners, thus building from serialised case studies the vision of China as "a single, albeit heterogeneous historico-geographical space."⁸¹ More recently, the China Historical Christian Database (CHCD) has taken up to gather data accumulated by generations of scholars on "localized areas, smaller groups, or specific time frames", and to "triangulate historical sources or organize them in such a way as to make possible large-scale studies".⁸² The geographical and relational database allows scholars to visualise activities of particular actors as occurring within a shared temporal and spatial framework, and embedded in interlocking social networks. If microhistories should not only revel in idiosyncrasy, but rather aspire to rebuilding the big picture from the ground up, digital tools may facilitate such work on a much greater scale.

INSERT FIGURE

For the purpose of tracing the circulation of Western Learning outside of China's cultural core areas, new digital tools are particularly powerful allies. My own research using the Local Gazetteer Research Tool (LoGaRT) has illustrated how digital tools, ignoring

⁷⁸ Zhang Qiong 2015, p. 53.

⁷⁹ CCT Database, *Xifang yaoji*. http://heron-net.be/pa_cct/index.php/Detail/objects/2940

⁸⁰ Lim 2013; Wei 2014; Yongdan 2015; Yongdan 2018.

⁸¹ Jami 2017, p. 16. The project's database: <http://iccm.huma-num.fr/Presentation/Project>. Last update on 19 November 2012, consulted on 20 November 2022.

⁸² Menegon, Ireland, and Mayfield 2022, p. 1. The database is accessible at: <https://data.chcdatabase.com/>, consulted on 20 November 2022.

historians' preconception, can lead to unexpected places and new research questions. Built by the Max Planck Institute for History of Science (MPIWG) in Berlin, LoGaRT is designed with the premise that Chinese local gazetteers as a genre constitute a structured database, with information about all administrative units systematically recorded under standardised topical headings. It allows for statistical, textual, temporal and geospatial analysis of more than 4,000 gazetteers, including most extant ones of the Ming-Qing period.⁸³ Thus we discover, in numerous gazetteers' arts and literature (*yiwén* 藝文) section, writings by obscure authors recording their encounter with Western Learning, such as the 1711 *Chenggu county gazetteer* 城固縣志 (Shaanxi), edited by the local magistrate Wang Mu 王穆 which includes a long poem Wang himself wrote to the French Jesuit Gabriel Baborier (1663-1727, Chinese name Bu Jia 卜嘉, fondly recording their conversation about the wonders of the world overseas – the fantastic animals of Africa, the colossus of Rhodes, the newfound continent of America (*Yamolijia* 亞墨利加) and the hypothetical Southern landmass of Magellanica (*Mowalanijia* 墨瓦蠟尼加).⁸⁴ As many gazetteers including book catalogues of Confucian schools, LoGaRT also helps to trace the circulation of the imperially-edited compendia discussed – for instance, to locate a copy of *Shuli jingyun* in the county school of Gaolan 皋蘭 in Gansu.⁸⁵ Yet more importantly, as LoGaRT is designed to highlight the geographical distribution of primary sources, it allows to visualise the spatial pattern of the gazetteer data and to highlight their discrepancy with the received narrative. Focusing on the astrological “field allocation” (*fenye* 分野 or *xingye* 星野) section of Qing dynasty gazetteers up to 1850, I have located forty-four gazetteers explicitly acknowledging the use of “Western methods” (*xifa* 西法) in imperial astronomy, and twenty-five others crediting Matteo Ricci (Li Madou 利瑪竇) by name as the transmitter of these methods. Interestingly, a significant proportion of these gazetteers were from the empire's newly pacified or integrated margins, such as Fujian, Taiwan, Guizhou, and Guangxi. They used elements of Western Learning polemically to assert the cosmological place of their locale in the imperial order. Invoking the name of Ricci, the 1754 gazetteer of the Qingyuan 慶遠 prefecture (Guangxi) made a particularly striking argument that, since the known world had now been expanded to many faraway lands both inside and outside of the empire, “south of the Meiling Mountains, north of the Gobi Desert, in Magellanica and in Europe (嶺南、漠北、墨瓦、歐羅之域)” distributed around a spherical Earth, it would be unreasonable for gazetteer writers to stick to the ancient *fenye* scheme which makes the Central Plain the absolute centre of universe and relegates peripheral places like Qingyuan to the jurisdiction of “Barbarian stars (蠻夷星)”.⁸⁶ Truly, we may never be able to identify these obscure gazetteer authors, typically “Confucian school instructors, local degree holders and yamen staff” working under the supervision of the local magistrate,⁸⁷ nor exactly ascertain their sources of knowledge. Yet the very fact that evidence can be found in places usually not included in either Qing intellectual history or the history of Sino-Western contacts, and that these obscure authors could interpret elements of European cosmography in locally-specific ways that diverge from both the Jesuits' teaching and the discourses of the court, should encourage us to further investigate the significance of Western Learning to local-level practitioners of astronomy within a broadened geographic scope.

⁸³ Chen, Yeh, Che and Wang 2017. All materials from local gazetteers here below are based upon research conducted while affiliated with the Max Planck Institute for the History of Science, and sources were made available during this affiliation via Staatsbibliothek zu Berlin's CrossAsia portal. For the conceptual framework of LoGaRT, see Chen, Yeh, Wang and Che 2022.

⁸⁴ *Chenggu xianzhi* 城固縣志, 1717. All local gazetteers are quoted from the LoGaRT. For Jesuit publication in Chinese about America and Magellanica, see Zhang Qiong 2015, p. 305.

⁸⁵ *Gaolan Xianzhi* 皋蘭縣志, 1778, *juan* 7.

⁸⁶ *Qianyuan fuzhi* 慶遠府志, 1754, *juan* 1. I discuss more generally how local gazetteers reflect early modern globalisation, including the arrival of missionaries and Western Learning, in Wu forthcoming.

⁸⁷ Dennis 2015, p. 132.

The place of Western Learning in Catholic communities of the Qing period remains a still greater unknown. In recent years, it has become historiographic common sense that, with the advent of the Qing, the two intertwining branches of Western Learning, “science” and “religion”, increasingly grew apart. Jesuits’ scholarly resources became concentrated in Beijing, while the provincial missions turned to evangelisation among the lower walks of society with little interest in scholarly pursuit.⁸⁸ To be sure, unlike late Ming Hangzhou and Fuzhou, Qing period provincial missions overall ceased to produce new texts to address the generally learned, rather than narrowly Catholic, audience; yet books produced during the late Ming remained attainable from the larger Catholic churches such as Beijing, Hangzhou, Jinan or Canton, where printing blocks were preserved.⁸⁹ Zou Zhenhuan’s and Zheng Cheng’s recent studies show how, between the 1680s-1690s, Nie Huang 聶黃, an obscure literatus from Hangzhou, produced an album of 300 strong marine animals, citing an impressive plethora of books on Western Learning, many printed by churches in Hangzhou and Fuzhou:⁹⁰ a rare case of how a lower-level non-Catholic literatus could gain access to Western Learning. Scholars in recent years have also accumulated careful case studies on a number of early Qing Catholic literati with a local, rather than national standing, and whose life mostly unfolded in their native area without the long-distance mobility that characterized their late Ming predecessors: Zhu Zongyuan 朱宗元 (1616-1660) in Ningbo, Wang Honghan 王宏翰 (1648-1700) in Songjiang 松江, Liu Ning 劉凝 (1620-1715) of Nanfeng 南豐 (Jiangxi).⁹¹ These Catholic literati proved prolific authors and sought to develop their own form of Catholic-Confucian synthesis not only on matters of faith, but also regarding world geography, biblical chronology, medicine or natural history. Liu Ning, in particular, was known to have worked with missionaries on scholarly projects, influencing the French Jesuit Joseph de Prémare in his figurist philology, and assisting the Spanish Franciscan Pedro de la Piñuela with the drafting of the *Bencao bu* 本草補 (Complement to the Materia Medica). He also wrote extensively on Western natural philosophy, and even contributed a text to the local gazetteer of Nanfeng rebutting the traditional *fenye* scheme with notions of European cosmology.⁹² The History of Western Learning needs to integrate these Catholic literati and the local intellectual life of their communities.

These case studies all focus on Catholic literati active before the escalation of the Chinese Rites Controversy in the first two decades of the eighteenth century, and before the imperial ban on Catholic proselytism in 1724. As Xiao Qinghe observed, if literati up till this time had generally held Confucian and Catholic identities as compatible, even mutually enriching, and their sociability patterns had not significantly diverged from non-Catholic literati, such syncretism and dual identity became increasingly untenable after these events. Catholic communities – such as those studied by Menegon and Harrison – increasingly moved away from literati networks, socially and geographically, isolating themselves in mountainous rural areas and delimiting their contacts to members of the same confessional community.⁹³ Towards the mid-eighteenth century, these Catholic villages that stayed true to a heterodox faith could appear antithetical to the world of Jiangnan evidential scholars who engaged with Western astronomy in keeping with Neo-Confucian orthodoxy. However, while

⁸⁸ See in particular Brockey 2009.

⁸⁹ Standeart 2001, p. 581. The Bibliothèque nationale de France preserves catalogues of books which could be printed on demand in Catholic churches in Beijing and Hangzhou: BnF Chinois 7046, f°29-39, *Beijing kanxing Tianzhu shengjiao shu banmu* 北京刊行天主聖教書版目 (Catalogue of woodblocks for the Saint Catholic Religion, issued in Beijing), and *Zhejiang Hangzhou fu tianzhutang shuban mulu* 浙江杭州府天主堂刊書板目錄 (Catalogue of woodblocks for books in the Catholic church of Hangzhou).

⁹⁰ Zou 2020, Zheng 2022.

⁹¹ Chu Ping-I 2006, Chu Ping-I 2012, Sachsenmaier 2018.

⁹² Chu Ping-I 2012, p. 87.

⁹³ Xiao 2015, pp. 288-292.

we account for the growing chasm between the two worlds and the two branches of Western Learning, we should also be careful not to oppose “science” and “religion” too hastily, or to preclude “science” from Catholic villages. In fact, we can find some clues about books circulating among Catholics in the mid-eighteenth century in official records of anti-Catholic trials.

In 1746, Qing officials cracking down on the Catholics of Fu’an discovered printed books by both missionaries and Chinese authors: Francisco Varo, Giulio Aleni, Simao de Cunha, Alfonso Vagnoni, Niccolo Longobardo, Giacomo Rho, Adam Schall von Bell, the Chinese bishop Luo Wenzhao 羅文沼 and the Chinese Christian authors Li Jiugong, Yan Mo 嚴謨 Duan Gun 段袞 Han Lin and Li Zubai 李祖白 (Interestingly, the officials in charge of the case appear utterly ignorant of even such famous names as Schall, and repeatedly pressed the captured missionary for the whereabouts of these long-deceased people. A history of ignorance and non-circulation of knowledge may be outline here as well.)⁹⁴ A year later in 1747, the governor of Sichuan reported the discovery, of “123 barbarian and Chinese books, seven rolls of paintings, 63 printing blocks”, from a sojourning Cantonese man who claimed to have inherited his Catholic faith and the books from his late father, a former “student astronomer” (*tianwen sheng* 天文生).⁹⁵ The governor of Guizhou of 1772 was more specific when his officials apprehended two Catholics from Sichuan carrying with them three books: *Piwang* 闢妄 (*Refutation of Errors*) by Xu Guangqi, *Jiaoyao xulun* 教要序論 (*Introduction to the Essentials of Religion*) by Verbiest, and *Wanwu zhenyuan* 萬物真原 (*True Origin of Myriad Things*) by Aleni.⁹⁶ While these works were primarily written to expose the basic tenets of Catholicism, they also include elements of early modern European natural philosophy, such as the relation between body and soul, the divine Creation of the Cosmo, or the Greek concept of Four Elements. Supposing that the book by Li Jiubiao mentioned in the 1746 case was the *Kouduo richao*, it would have made available to the Fu’an Catholics the notion of the sphericity of Earth and of time difference, an explanation of earthquakes, and the idea of telescope which Aleni used as a moral metaphor that one should magnify the virtue of others and minimise one’s own merits.⁹⁷ The trial records offer no indication as to how these books were read by ordinary Catholics, if at all, but their sole presence in these rural communities suggests that Western Learning may not be as exclusively an elite phenomenon as we used to think. Growing research into popular literacy and the rural textual culture of Qing China may still hold something in store for us in the future.

What would the macro-picture of Western Learning in Ming-Qing China look like when microhistorically constructed from the ground up? Perhaps, unlike Needham’s vision of “rivers flowing to the sea”, or Gernet’s “first confrontation” between two tectonic plates, the world of Western Learning considered in terms of its tangible loci and material means was akin to an “archipelago”.⁹⁸ Stéphane Van Damme used this metaphor to describe the knowledge world of *ancien régime* Europe between 1500 and 1800, which was witnessing the internal emergence of new spaces of knowledge while being reshaped by intensifying interaction with the global world, including China. To account for these dynamics, historians would build the history of science “around certain knowledge... to trace the trajectories unifying certain spaces or certain contact zones, or to isolate contexts propitious for this large

⁹⁴ Wu and Han 2008, p. 87-89.

⁹⁵ *Qing zhongqianqi Xiyang tianzhujiào zaihua huodong dang’an shiliao*, vol. 1, p. 132.

⁹⁶ *Ibid.*, p. 295.

⁹⁷ Menegon 2018, p. 3.

⁹⁸ Van Damme 2015, p. 35

circulation”.⁹⁹ The stories of individual people, texts and objects with regards to European science and religion can similarly illuminate and connect the history of larger places, networks or patterns of mobility in Europe, in China and beyond, moving from the court of Beijing and the learned circles of Jiangnan to the Catholic villages in Fujian, Hubei, Sichuan, Shanxi, and to the imperial peripheries of Guangxi, Guizhou, and Tibet, overlaying the map of threads of the literati’s empire-wide career to that of the global travels of Jesuit libraries. Microanalysis of local and individual cases may not allow for, nor aspire to, grand synthesis and generalisable conclusions; yet, by providing a more complex, open-ended, and human approach to Western Learning as a multifaceted, heterogeneous, and contingent phenomena, it may decentre and pluralise our historical narratives about knowledge culture in both China and Europe, and by the same token, reveal the shared constraints and practices that defined local as well as global movements of knowledge in the early modern world.

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⁹⁹ *Idem*, my translation.

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