

Languages of Science between Western and Eastern Civilizations

Roma Sinica

Mutual Interactions between Ancient Roman
and Eastern Thought

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Languages of Science between Western and Eastern Civilizations



Edited by
Carlo Ferrari, Fabio Guidetti
and Chiara Ombretta Tommasi

In collaboration with Kihoon Kim

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Carlo Ferrari, Fabio Guidetti, and Chiara Ombretta Tommasi

Introduction

This volume contains a number of contributions presented at the International Conference *Roma Sinica III – Languages of Science between Western and Eastern Civilizations* (Pisa, September 7–9, 2022) organized by the Universities of Pisa, Turin, and Siena within the framework of the research project *SERICA (Sino-European Religious Intersections in Central Asia)* funded by the Italian Ministry of University and Research under the program *FISR 2019*. The aim of the conference was to explore the network of scientific exchanges between Europe and Asia (with a special focus on China and the Far East) from the medieval period to the twentieth century, which not only sheds light on the convergence of intellectual pursuits by European and Asian actors but also aims to uncover the intricate linguistic, cultural, and philosophical dialogues that accompanied the evolution of scientific thought in different geographical contexts.

The intellectual exchanges that flowed between these civilizations were made possible, and found their tangible manifestations, through a diversity of languages that facilitated the dissemination of knowledge. Latin and Chinese were, of course, the most widespread and influential, although other languages also played a major role, such as Sanskrit and Korean in the Asian world, Portuguese and French in Europe. As the Western world experienced the Renaissance and the Scientific Revolution, China too participated in a rich history of scientific achievements and philosophical inquiry. This volume addresses the knowledge exchange between these two worlds focusing on the linguistic strategies that made communication and dialogue between such distant cultures possible.

Languages were the instrument through which knowledge originating from a different culture was transmitted, received, transformed, and ultimately appropriated. With this in mind, the volume also explores the cultural, social, and political contexts that shaped the encounter between these civilizations, with the dynamics of mutual curiosity, collaboration, and sometimes divergence examined against the background of historical events and societal transformations. The contribution by specialists in different disciplines, and from different geographical and cultural provenance, enables a holistic examination of the interplay between languages, cultures, and scientific ideas, providing fresh insights into the global dimensions of knowledge production and transmission.

The volume opens with an article by Alberto Anrò on the transmission of Indian mathematical knowledge in medieval Western Europe. This contribution provides a convenient illustration of how scientific influences between the Asian world

and Europe can be seen within a perspective of *longue durée*; centuries before the first direct contacts, established by European seafarers and missionaries, knowledge exchange was already made possible through the mediation of Near Eastern cultures such as the Arabs and Persians.

As soon as the first stable contacts were established between Europe and China in the sixteenth century, especially thanks to the Jesuits' missionary effort, two main problems arose for intellectuals on both sides. On the one hand, the linguistic barrier between Latin and Chinese had to be overcome not only by learning the two languages but also by adopting a transliteration system as unambiguous as possible; on the other hand, the dissemination of knowledge required the production and circulation of books printed in both languages. The contributions by Sara Procaccini and Noël Golvers explore these two fundamental aspects, examining respectively the complex elaboration of a systematic Chinese-Latin transliteration system by European scholars between the sixteenth and the seventeenth century and the amount and content of European books available in the libraries of the Jesuit missions in China between the seventeenth and the eighteenth century.

As the contacts between the two civilizations intensified through the travels and reports of missionaries, traders, and diplomats, the amount of knowledge on the Far East available to the European audiences increased considerably. The contributions by Sven Günther and Michele Castelnovi investigate the demand for, and dissemination of, information about these distant worlds by focusing, respectively, on the *Historiae Indicae* of Giovanni Pietro Maffei (1536–1603) and the geographical and historical works by Martino Martini (1614–1662). Although both were members of the Jesuit order, only the latter had a direct knowledge of China thanks to his missionary activity there: the comparison of their works shows the diversity of approach between Maffei's idealized depiction of China, relying on Portuguese travel reports and shaped by the traditional categories of ancient Roman ethnography, and Martini's description of the country and its contemporary history based on personal experience.

The settlement in China of Jesuit missionaries, many of whom had a solid scientific background, and the dialogue they established with local scholars paved the way for a contamination between Western and Chinese traditions in various disciplines. The contributions by Claudia von Collani and Arianna Magnani examine the development of astronomical and medical knowledge, respectively, in Europe and China in the early modern period, focusing on the outcomes of the encounters between the two cultures. In the field of astronomy, the contribution of the more advanced scientific achievements of European scholars was instrumental in laying the basis for the reform of the Chinese calendar; in the field of

medicine, by contrast, despite the strong mutual curiosity, the integration between the two traditions remained rather limited before the nineteenth century.

The cross-cultural dialogue did not concern only those disciplines that might appear more strictly “scientific” to our modern eyes, but also the philosophical, ethical, and religious sphere; in particular, the contact with Confucianism, practised by the Chinese elites, prompted different reactions among European clerics. The contributions by Tiziana Lippiello and Li Hui examine the opposing positions taken by the Jesuit Prospero Intorcetta (1626–1696) and the Franciscan Carlo Orazi da Castorano (1673–1755) regarding the much-debated question of the compatibility of Confucianism and Christianity. Their analysis shows that the two missionaries’ diverging views on a possible accommodation between Christian and Confucian traditions depended also on the peculiar approaches and aims of their different religious orders, often in competition with one another for leadership in missionary activity.

This group of contributions devoted to the early modern period ends with the article by Kim Kihoon on the philosophical treatise *On Friendship* composed in Chinese by the Jesuit Matteo Ricci (1552–1610) at the end of the sixteenth century. Kim’s analysis focuses on the reception of this very influential work and on the different versions of it that circulated between China and Korea in the seventeenth and eighteenth century, demonstrating the urgent need for a new critical edition based on a reassessment of the history of its transmission.

The two following contributions extend the chronological scope of the volume to the nineteenth and twentieth century, focusing more specifically on the Catholic missionary activities in China, again led by the Jesuits and Franciscans, in competition not only with one another but also with the ever more present protestant missionaries. Antonio De Caro firstly examines the works of the Jesuit Angelo Zottoli (1826–1902), reconstructing his didactic and pastoral efforts to translate Catholic theological and spiritual texts into Chinese to the advantage of local converts. Following this, Raissa De Gruttola focuses on the Franciscan periodical *Apostolicum*, published in China between 1930 and 1946, analyzing its combination of Latin and Chinese texts and reconstructing its intended audience.

The same chronological scope is also investigated by Aldo Petrucci in his contribution on the acquisition and teaching of Roman law in China from the late nineteenth century onwards. Petrucci shows that the juridical culture of ancient Rome played a fundamental role in the process of modernisation of Chinese institutions and in their assimilation to European standards, prompted by the political difficulties of the time and inspired by the successful example of the modernization of Japan.

The final contribution, by Federico Galatolo et al. illustrates the functioning of Dense Information Retrieval (DIR) systems applied to the Latin texts included

in the *SERICA* Digital Library, concentrating on the additional challenges due to the peculiar features of this corpus of texts. This research shows the potential of an experimentation carrying out multilingual queries, in Latin and English, and proposes a novel search-engine metric to evaluate the system performance starting from a set of graded documents.

In navigating the intellectual landscape of cultural encounters between Western and Eastern scientific traditions, the contributions to this volume shed light on the potential and challenges posed by linguistic diversity. They show how the languages of science can serve at the same time as both bridges and barriers, especially when the cross-cultural interchange involves the questioning of philosophical and religious paradigms. By doing so, the volume aims at illuminating the complex interweaving of linguistic and cultural threads that constitute the fabric of scientific collaboration and innovation, ultimately contributing to a more nuanced understanding of the global history of science.

Alberto Anrò

Method Matters: Languages of Exact Sciences in Sanskrit and Latin Corpora

Beginning in the twelfth century, a full-scale revolution in the field of mathematics influenced the European Middle Ages – a renaissance in the exact sciences that preceded that in letters, with no less innovatory outcomes, and ushered in that fruitful cultural season described, in a well-chosen oxymoron, as the *émergence de la modernité classique*.¹ Starting with algebra and algorism and zero, as well as the numerical figures of the breakthrough positional notation, the East provided a rich, unified collection of techniques, procedures, concepts, and new words that sparked off all of this process, with Arab and Indian cultures explicitly acknowledged as having led this paradigm shift. Nonetheless, after at least two centuries of cultural interaction and hybridization, identity and cultural borders hardened, and the past was reinvented. In stark contrast to the patent debt owed by European exact sciences to Indo-Arabic ones, a true, deep re-foundation project ensued. In 1464, after the fall of Constantinople in 1453 at the hands of the Ottoman Empire, Regiomontanus (Johannes Müller; 1436–1476) reported in Padua the partial recovery of Diophantus’s oeuvre, re-establishing algebra’s safe and well-documented Greek origin.² This marked the beginning of European mathematical culture having a single, unique Greek root: one of the foundational passages for the “myth” of Greek mathematics as “our” mathematics.³ Niccolò Tartaglia, in his *General trattato di numeri e misure* (1556–1560), “is in fact the last major figure [. . .] who does not feel the need to distance himself from the Arabs.”⁴ Nonetheless, the myth of European mathematics having solely a Greek origin can be said to have been fulfilled in Petrus Ramus’s (Pierre de La Ramée) *Scholae mathematicae* (1569), when “dishonest ignorance [became] convenient gullibility.”⁵ Ramus’s book 1 “shows that nobody but the Patriarchs, the Greeks, and (appearing in books 2–3) modern Europeans ever did anything worth mentioning in mathematics – with the one exception that Abraham once taught the Egyptians about the subject, which helps Ramus explain away the references of Greek authors to the Egyptian origin of geometry and the Phoenician invention of arithmetic.”⁶ Algebra, even in its own name, may have unquestionably

1 Rashed (2021).

2 Zinner (1990) 69–74.

3 Høyrup (1996) 113.

4 Cifoletti (1996) 128.

5 Høyrup (1996) 114.

6 Høyrup (1996) 114.

been the stumbling block in the formation of this myth about Greek mathematics, but “within a generation, [. . .] European-wide mathematics had become an actual reality, producing quite new insights and formalisms, which made what had once been a strained intellectual construction look credible.”⁷

In the framework of comparative studies, the *SERICA Indica* Research Unit⁸ aims to investigate languages and modes of expression in this significant episode of intellectual history by examining the earliest Latin texts in which the new mathematics appear along with some of the oldest South Asian texts on the subject. In Fibonacci’s successful formula this is the *modus Indorum*, the “method of the Indians,” which encompasses not just a notational system but also all associated operational procedures. As stated in *Dixit Algorizmi*’s crystal-clear language:

What we have decided to expound and reveal about the number of the Indians expressed through nine letters, thanks to which they expounded all their numbers, for the sake of lightness and conciseness.⁹

This project solely addresses the beginning and end points of this dissemination and assimilation process, in an effort to highlight the *modus Indorum* from the perspective of medieval Latin authors with even greater clarity. Clearly, this in no way diminishes the significance of Arabic mediation, which remains a major area of interest. Furthermore, given the earlier significant contributions of Greek and Babylonian mathematics to South Asian thought, the picture becomes even more nuanced and challenging, revealing a complex web of mutual contaminations.

Here follows a synthetic definition of the textual *corpora* investigated during the *SERICA Indica* project:

1. South Asian texts

- Āryabhaṭa I (born ca. 476), *Āryabhaṭīya* (ĀB; ca. 499)¹⁰
- Bhāskara I, *Āryabhaṭīyabhāṣya* (ĀBh; ca. 629); commentary to Āryabhaṭa I’s *Āryabhaṭīya*¹¹

7 Høystrup (1996) 115.

8 *SERICA Indica* Research Unit (Sino-European Religious Intersections in Central Asia. Interactive Texts and Intelligent Networks; Indian-European Intersections in Exact Sciences), University of Turin.

9 Allard (1992) 1, ll. 5–7: *que decreuimus exponere ac patefacere de numero Indorum per IX literas, quibus exposuerunt uniuersum numerum suum causa leuitatis atque abreuiationis*. All translations into English are mine unless otherwise stated.

10 Āryabhaṭa I was presumably born in the Āsmaka region, between the Godavari and Narmada rivers, and flourished in Pāṭaliputra (modern Patna, Bihar state, India): see Shukla (1976), vol. 1, xvii–LXXII and Plofker (2009) 70–83, 317–318.

11 Bhāskara I is connected with the Āsmaka region and Vallabhī (modern Vala, Gujarat state, India): see Plofker (2009) 318.

- *Bakhshālī Manuscript* (BM; ca. seventh century), anonymous¹²
 - Brahmagupta (born ca. 598), *Brahmasphuṭasiddhānta* (ca. 628)¹³
 - Śrīdhara, *Pāṭīganīta* (PT; eighth–ninth century)
2. Latin texts¹⁴
- *Dixit Algorizmi* (DA; twelfth century), anonymous Latin translation of Muḥammad ibn Mūsā al-Khwārizmī’s lost *Kitāb al-hisab al-hindī* (eighth–ninth century):
 - DA(c) = Cambridge, Cambridge University Library, ms. Ii. vi. 5, ff. 104r–111v
 - DA(n) = New York, Library of the Hispanic Society of America, ms. HC 397/726, ff. 17r–24v
 - *Liber pulveris* (LP; twelfth century)
 - *Liber ysagogarum alchorismi* (LY; twelfth century)
 - *Liber alchoarismi de practica arismetice* (PA; twelfth century)
 - Robert of Chester (Robertus Castrensis; fl. ca. 1140), *Liber Algebrae et Almucabala*, Latin translation of al-Khwārizmī’s *al-Kitāb al-mukhtaṣar fī ḥisāb al-jabr wal-muqābala*
 - Gerard of Cremona (Gerardus Cremonensis; ca. 1114–1187), *Liber Maometi filii Moysi Alchoarismi de Algebra et Almuchabala*, Latin translation of al-Khwārizmī’s *al-Kitāb al-mukhtaṣar fī ḥisāb al-jabr wal-muqābala*
 - Leonardo Pisano *vulgo* Fibonacci, *Liber Abbaci* (LA; 1202, 1228)
 - Alexander de Villa Dei (ca. 1170–1250), *Carmen de Algorismo* (CA)
 - Johannes de Sacro Bosco (ca. 1195–1256), *Algorithmus sive De Arte Numerandi* (AN)

SERICA Indica is an intertextually structured project, and this contribution will focus on its methodological aspects by highlighting the advantages of intertextually investigating multiple corpora in multiple languages. It will discuss how intertextuality, textual analysis, and comparative research can be articulated, and with what results, in the specific case of the exact sciences, especially in the case of corpora originating from very different textual traditions separated by time and space. A significant number of examples will provide an overview of the issues at hand and allow, albeit indirectly, the elaboration of provisional conclusions.

¹² The village of Bakhshālī is located in the Mardan District, Khyber Pakhtunkhwa Province, Pakistan.

¹³ Brahmagupta was probably born in Bhillamāla (modern Bhinmal, Rajasthan, India): see Plofker (2009) 319.

¹⁴ Latin authors and translators were mainly active in the Iberian (*al-Andalus*) and Italian peninsulas.

The *Indica* Project employs an analysis technique comprising multiple interdependent levels. Texts are initially studied on a strictly *linguistic* level, paying special attention to the vocabulary, locutions, and expressive strategies used. However, the lexical and formal choices directly lead to the content aspect. In contexts y and z but not q and p , the term x was chosen. Why? With what effect? Pertaining to what content? Form directly brings content into question. In this respect, I adopt the notion of greater or lower mathematical transparency of terms. A term, in any natural language (say, Sanskrit or Latin), is mathematically transparent when its meaning in a particular context can be deduced from its generic meaning; for instance, in Euclidean mathematics, the words for “numerical square” (a^2) and “root” ($a=\sqrt{a^2}$), i.e., “square” and “side” respectively, are entirely transparent, since the numerical square corresponds to the area of the square constructed on that side. In contrast, a term is opaque when its context-specific meaning cannot be clearly deduced from the term itself. The transparency of a term is the ratio between its generic and contextual meanings; if the two coincide, the term is clear, while if they diverge significantly, it is opaque. As a result, a non-transparent term always raises a question, assuming it is not accepted uncritically as a mere locution. Through the following examples it will be suggested that comparing texts, as well as texts and contexts, in a multi-tiered approach can lead to greater transparency, even when reconstructing debts, innovations, or genealogies.

Defining the meaning of an opaque term is never simple. The situation becomes even more complicated when comparing texts that are so distant in time and space, as in the case of *Indica* Project corpora. In this regard, *functional* analysis – i.e., determining the meaning of a term in the textual and conceptual context to which it belongs – comes to the rescue. Functional analysis changes the emphasis from meaning to function and probes the text with the question: what purpose does this opaque term serve in conveying the textual content? And again: how does this term fit into the larger mathematical domain of discourse? Thereby, functional analysis redefines the meaning of terms and locutions based on the function they play in their textual and, thus, conceptual contexts. In the present instance, the answers to the function questions are often extremely precise and stem directly from the mathematical character of their subject.

At this stage, the third level of analysis, the *mathematical-procedural* level, comes into play. In fact, Sanskrit and Latin writings cover the same mathematical, geometric, trigonometric, algebraic, etc. techniques, and linguistic and functional analyses can thus be mediated by the mathematical content of the two corpora, including through modern language and notation, as an additional level of translation. On the other hand, it is equally vital to resist the temptation to flatten the mathematical content of those texts on contemporaneity without considering possible further connotations; this is especially true for non-transparent terms, which

risk having their operational-procedural meaning assumed with no improvement to their informational content. Some examples will elucidate the problem at hand.

The fourth level of analysis, which I refer to as *structural*, broadens the perspective by examining the texts in their entirety. Which themes are therefore present or absent? What arrangement and presentation strategies does a text employ? Moreover, which texts share a similar structure? What are the differences?

The answers to these questions lead to the next level of analysis, the *genealogical* level, which is defined as the reconstruction of the dependency ties between various texts, corpora, and traditions. In actuality, the reconstruction of textual genealogies employs all previous levels of analysis, including lexical and expressive cues along with their functions in context, strictly mathematical procedures and concepts that are common or divergent, the discussion of particular themes or their omission, and the textual structure itself.

The sixth and final level of analysis, which I refer to as *contextual*, broadens the scope even more and points out the debts, exchanges, and contaminations between the texts under investigation and non-mathematical disciplines. As will be shown in the examples that follow, the larger cultural contexts to which the texts belong can provide crucial information regarding the definition of the authors' lexical choices, the valence of their expository strategies, and hence, ultimately, their conceptual content.

Let us now examine some examples of how these distinct levels of analysis interact to reveal fresh and, at times, unexpected perspectives. As mentioned, a notable advantage of the corpora under discussion is that they address rigorously defined entities. Consider first the decimal positional notation (for brevity: 10P), which is adopted almost universally today; in 10P, the numerical string 353, e.g., represents the value of three hundred fifty-three – an unsurprising, even trivial fact. Despite its seeming simplicity, the string 353 in 10P conforms to a set of implicit rules that sharply distinguish it from the same string if it were, for instance, part of a telephone number, since no one ever mistakes a ten-character telephone number for a value of n tens of billions and more. The first of these implicit rules is that there are nine numeric graphemes, whose values range from one to nine, plus a tenth, the zero, which does not correspond to any of those, where graphemes are defined as “discrete numeral-signs [or] single elementary symbols [. . .] used in combination to represent numbers.”¹⁵ The second rule imposes that the numeric graphemes must always and only be written and read in linear succession from right to left. The third is that each position in the linear succession of graphemes represents a difference in order or degree between the grapheme val-

¹⁵ Chrisomalis (2010) 3–4.

ues (let us keep this expression in mind). Therefore, grapheme 3, which occurs twice in the numeral-phrase 353, does not have the same value in both iterations; its second occurrence is worth a hundred times more than its first one (always reading from right to left; cf. the second rule). As a result, a grapheme in a certain position expresses ten times the value of the same grapheme in the prior position (cf. *infra* [3]). Formally, in a generic positional notation, if a is a grapheme, n is the position of a in the numeral-phrase and b is the base of the system:

$$a_n = a \cdot b^{n-1} \text{ iff } n \in \mathbb{N}^+ \text{ and } \mathbb{N}^+ = \{1, 2, 3, \dots\} \quad (1)$$

That is to say:

$$a_n \dots a_4 a_3 a_2 a_1 = (a_n \cdot b^{n-1}) + \dots + (a_4 \cdot b^3) + (a_3 \cdot b^2) + (a_2 \cdot b) + a_1 \quad (2)$$

In the case of 10P, for $b = 10$, however:

$$a_n = a \cdot 10^{n-1} \text{ iff } n \in \mathbb{N}^+ = \{1, 2, 3, \dots\}; a_n \in A, \quad (3)$$

$$\text{and } = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}$$

Position in 10P can thus be unequivocally defined as the positional index n of the grapheme a in a linear numerical string, capable of expressing the power of the base relative to that position, namely 10^{n-1} .

The Latin texts under consideration introduce this positional notation to an audience that is completely unfamiliar with it. Therefore, such works provide a wealth of fundamental information regarding the conception and description of 10P, particularly when examined according to the six levels of analysis we are addressing. So let us return to *Dixit Algorizmi*, the text with which we began; this work contains three notation-specific technical terms, *litera*, *dispositio*, and *differentia*, with the first two entirely transparent whereas the third is not. Clearly, the transparent term *litera* (“letter”) counts as a grapheme here. Analogous to an alphabetic letter, *litera* is a graphic sign; the lexical choice may change from source to source, but the function of the term remains consistent, whether the authors are using *litera*, *figura* (“shape”), or *notula* (“little sign”).¹⁶ In the functional and procedural terms expressed in [3] $a_n = a \cdot 10^{n-1}$, the Latin terms *litera*, *figura*, and *notula* denote the grapheme $a_n \in A$ for $A = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9\}$ and connote its distinctly graphic character. The term *dispositio* (disposition) is also unsurprising, as it refers to the spatial organiza-

¹⁶ See, e.g., LY (Allard [1992] 25), PA (Allard [1992] 68–69), LA I.4 and I.11 (Giusti and D’Alessandro [2020] 3–4), CA (Halliwell [1841] 73–74), or AN (Halliwell [1841] 3) for the use of *figura*; PA (Allard [1992] 70–71) or LP (Allard [1992] 68–70) for *notula*. Cf. also de Vaan (2008) 346 s.v. *litera*.

tion, the reciprocal arrangement of graphemes in a numerical string, as well as its combinatorial nature. This is paired with the term *locus*, which denotes the place, or position, of the grapheme. In terms of the formula [3] $a_n = a \cdot 10^{n-1}$, *dispositio* and *locus* both represent the positional index n of the grapheme a .

The issue is compounded by the opaque, functionally non-equivalent term *differentia*.¹⁷ Consider, for example, the following lines from the anonymous twelfth-century *Liber ysagogarum alchorismi* (LY):

They [the Indians] set the units in the first *differentia*, the tens in the second, the hundreds in the third, the thousands in the fourth, and so on to infinity.¹⁸

Similarly, LY evokes the notion of *differentia* to denote fractional denominators (*denominatio*) when describing the “multiplication of fractions of diverse genera” (*de multiplicatione minutiarum diversorum generum*):

If we have to multiply or divide a number by fractions or fractions between them, such as fifths, sevenths, ninths, and the like, we use the aforesaid method, reducing everything to the lower *differentia*. [. . .] We say that the *differentiae* are the denominators of the type of fractions, since fifths are so denominated because they contain five parts, sevenths because they contain seven parts, elevenths because they contain eleven parts.¹⁹

It is quite clear how these passages, along with many others, make it difficult to equate the concept of *differentia* with that of “graphic position,” despite the fact that contemporary scholarship has previously regarded them as equivalent. For instance, a fractional order, or denominator, cannot simply be a position, although it can be represented graphically by a position. In parallel, other medieval authors juxtapose the graphical-notational, transparent notion of position with the complementary, opaque terms of *ordo* (“order”), *gradus* (“step”), and *limes* (“limit”), all terms whose function in context is analogous to that of *differentia*,

¹⁷ Consider also, e.g., DA(c) (Allard [1992] 2–3) or LP (Allard [1992] 68–69) regarding *dispositio*; and DA(c) (Allard [1992] 2–3), DA(n) (Folkerts [1997] 32), PA (Allard [1992] 69–70), LA I.22 (Giusti and D’Alessandro [2020] 7), or AN (Halliwell [1841] 3) regarding *locus*. Note: a) *lōcus*, “locus,” “place,” “position”; unclear etymology (de Vaan [2008] 347); b) *dispōsītīo*, “disposition,” “spatial arrangement”; from *dis-pōnēre*, “to place,” “to distribute” (de Vaan [2008] 479); c) *diffrēntia*, “difference,” “diversity”; from *dif-fērrē*, “to carry different ways,” “to separate,” “to differ” (de Vaan [2008] 213–214).

¹⁸ LY (Allard [1992] 25, ll. 9–12): *nam ferunt [scil. Indi] unitatem in numeris in prima differentia, denarium in secunda, centenarium in tertia, millenarium in quarta, sic in infinitum*. Regarding the attribution of the system to the Indians, refer to the preceding sentences.

¹⁹ LY (Allard [1992] 45, ll. 10–14 and 18–20): *si uero numerum cum fractionibus uel etiam fractiones multiplicare uel diuidere quandoque iubemur, ut sunt quinte, 7, 9 et his similes, predicta ratione utemur deducendo omnia ad inferiorem differentiam*. [. . .] *dicimus autem differentias generis minutiarum denominationes esse si quidem 5 a quinario, 7 a septenario, undecime quoque ab undenario denominantur*.

generating a series of related terms that all refer to a difference, *differentia*, grade, step, or rank.²⁰ Consider also that all these terms are highly interrelated, both functionally and semantically. Translation can prove extremely misleading in this regard; as has been the case to date, the lexical richness of the original risks being erased by vague umbrella terms such as position. Nonetheless, these lexical distinctions must have played a significant role from a theoretical standpoint; otherwise, the oddity of referring to a position as a *differentia*, and vice versa, would be impossible to justify.

Applying the same levels of analysis to Sanskrit texts reveals a similar distinction in notion and function. Āryabhaṭa I and its first commentator, Bhāskara I, distinguish between *sthāna* and *varga* in a systematic manner (along with its negation, *avarga*; see ĀB 1.2 and 2.2). Clearly, *sthāna* alludes to a position, the physical placement of a grapheme within a numerical string. There are, for example, previous and subsequent positions, or even and odd positions, counting from right to left, etc.; thus, *sthāna* is akin to the Latin *locus*, the positional index n of the grapheme a in [3] $a_n = a \cdot 10^{n-1}$: however, it remains to be determined what the other Sanskrit term, *varga*, refers to.²¹ This is the term commonly used in Sanskrit grammatical literature to identify distinct phonetic classes, as revealed by contextual analysis. According to all sources, *varga* are the five classes of plosives, each comprising five elements: five times five, i.e., a square, by implication or secondary meaning (*lakṣanā*). On the basis of this metaphorical sense, Sanskrit mathematical literature almost uniformly refers to both numerical and geometrical squares as *varga*. Nonetheless, at the moment, this concept is opaquely linked to number notation and the concept of position in 10P. How should we connect them? Clarification is provided at the mathematical-procedural level of analysis; according to Bhāskara I, odd and even notational positions correlate to squares and non-squares respectively.²² *Varga, qua* class, indicates the distinct orders of powers of the number base according to whether they are perfect squares of the base (*varga*: “class” or “order,” here in its derived sense “class of squares”) or non-perfect squares of the base (*a-varga*).

The intertwining of lexical, functional-in-context, contextual, and mathematical-procedural analyses on interlingual corpora enabled the clarification of how the related terms *sthāna*, *locus*, and *dispositio* refer to the positional index n of

20 Regarding the etymology of the term *grādūs*, see de Vaan [2008] 268–269, s.v. *grādior*, *grādi* (“to step”). Compare this with the Sanskrit *√kram*, with the same meaning (Mayrhofer [1992–2001], vol. 1, 409–410), and its derivative *krama*, alluding to an order, series, or regular arrangement.

21 Regarding the Sanskrit *√sthā* and its Latin cognate *stāre*, see Mayrhofer (1992–2001), vol. 2, 764–766 and de Vaan (2008) 589–590 respectively. Mayrhofer (1992–2001), vol. 2, 517 connects *√vrj* (and thus its *guṇa* grade *varj*) with the Latin *vertēre*. Regarding *vertēre*, cf. de Vaan (2008) 667.

22 Refer to, e.g., ĀBh 1.2 (Shukla [1976], vol. 2, 7).

the grapheme a in [3] $a_n = a \cdot 10^{n-1}$, qua 10P definition. On the other hand, the set of terms *varga*, *differentia*, *limes*, *gradus*, etc. primarily implies a requirement for classification. It denotes in [3] the ordering of the powers of the base (10^{n-1}) relative to the position n of the grapheme a , with numerous examples and textual confirmations existing in this regard.

The *Pāṭiganita* (PT) of Śrīdhara presents an intriguing variance in vocabulary choice. This time, *varga*, the complementary positional rank to the positional index *sthāna*, is expressed as *pada*, “step,” in exact accordance with its Latin equivalent, *gradus*. While describing the technique of square root extraction, for instance, the anonymous commentary to PT bridges the gap between step, or rank, and position. The analysis is validated and permits a clear conceptual distinction:

The appropriate square (*varga*) must be subtracted from the odd (*viṣama*) step (*pada*), [also] known as uneven (*oja*); [that is] from the last step (*pada*) [corresponding to] any position (*sthāna*) such as the first, third, fifth, seventh, etc.; [in other words], from the positions of units, hundreds, tens of thousands, millions, etc.²³

The issue of root extraction, just mentioned, provides an opportunity to examine, albeit briefly, an additional application of the procedural and genealogical features of this method of analysis. As early as the nineteenth–fourteenth century BCE, Babylonian mathematicians had already developed procedures for computing the square root through successive approximations, which can be summed up by the following formula:²⁴

$$a_{n+1} = a_n + \frac{B_n}{2a_n} \lim_{n \rightarrow \infty} a_n = \sqrt{A} \quad (4)$$

$$\text{iff } B_n = A - a_n^2 \wedge a_0 \approx \sqrt{A} \wedge (a_0, A) > 0$$

In [4], a represents the approximate value of the root, whereas A represents the value of the area whose root is being sought. This is a recursive method of approximation similar to what Heron of Alexandria would develop (first century CE).²⁵ The geometric interpretation of the procedure is to consider the area of the equi-extended rectangle, whose area is equal to the square of area A (i.e., $A = a^2 + B$). This principle also underpins the procedure of the *Bakhshālī Manuscript*, which employs the same simple approximation twice, corresponding to the first two steps of the Babylonian method; therefore, it would generate no more than [4], in general

²³ Comm. PT 25 (Shukla [1959] 18): *viṣamāt padāt oṅkhyād eka-trīya-pañcama-saptamāder eka-satāyuta-prayutādi-sthānebhyo 'nyatamasthānād antyāt padāt sambhavinam vargam tyajet.*

²⁴ Cf. the Old Babylonian tablets VAT 6598 (Neugebauer [1935–1937], vol. 1, 279) and YBC 7289 (Fowler and Robson [1998]) in particular.

²⁵ Heath (1921), vol. 2, 323–324.

iterative terms, if not confined to the first two steps.²⁶ Clearly, Euclid (fourth–third century BCE) first articulated the geometric principle underlying these processes. Let us take as a guide the words of none other than Niccolò Fontana, *alias* Tartaglia (1499–1557):

It cannot be denied that the rationale of the rule given by our forerunners for extracting the square root, as well as that for forming the fractional component of that, which exceeds in non-square numbers to offer roots close to the truth, must be attributed to the fourth proposition of Euclid’s second [book].²⁷

In the words of Euclid:

If a straight-line is cut at random, then the square on the whole [straight-line] is equal to the [sum of the] squares on the pieces [of the straight-line], and twice the rectangle contained by the pieces.²⁸

In algebraic notation:

$$A = (a + b)^2 = a^2 + 2ab + b^2 \quad (5)$$

Āryabhaṭa applies the same principle but offers a significant positional novelty to the procedure. His digit-by-digit algorithm reads:

Subtract the square from the square [ranks]. Repeatedly divide non-square [ranks] by twice the root of square [ranks]. In another position, that quotient is the root.²⁹

Based on what has been said, the tag *varga* (square rank) refers to the values corresponding to the odd positional indices and even powers of the numerical base, i.e., the perfect squares of ten (cf. *supra*). Likewise, the “non-square ranks” correspond to even positional indices and odd powers of the base; when Āryabhaṭa prescribes subtracting the square from the “square rank,” he selects an appropri-

²⁶ BM *Sūtra* Q2, occurring in BM 3.12; 7.3, 5–7 (Hayashi [1995] 431–434). Refer also to Hayashi (1995) 100–109; Bailey and Borwein (2012).

²⁷ Tartaglia (1556), vol. 2, book 2, ch. 3, c. 29r: “La causa della regola data da nostri antichi per cavar la radice quadra, e similmente quella da formar il rotto di quello, che sopr’avanza nelli numeri non quadrati per dar tai radici propinque al vero, il non si può negare, che quella non si possa assignare per la quarta propositione del secondo di Euclide.”

²⁸ Euc. 2.4: ἐὰν εὐθείᾳ γραμμῇ τηθηῖ, ὡς ἔτυχεν, τὸ ἀπὸ τῆς ὅλης τετραγώνων ἴσον ἐστὶ τοῖς τε ἀπὸ τῶν τμημάτων τετραγώνοις καὶ τῷ δις ὑπὸ τῶν τμημάτων περιεχομένῳ ὀρθογωνίῳ. Translation: Fitzpatrick (2008) 52–53. Consider also, as a quick reference, the visual demonstration of Byrne (1847) 56–57.

²⁹ ĀB 2.4 (Shukla [1976], vol. 1, 36–37): *bhāgaṃ hared avargān nityaṃ dviguṇena vargamūlena | vargād varge śuddhe labdhaṃ sthānantare mūlam.*

ate value, represented by the letter a in [5], by which to cut the side of the square $A = (a + b)^2$ whose root we wish to obtain, in accordance with Euclid 2.4. Āryabhaṭa then considers the class or order of magnitude only implicitly, through the positional index n (cf. *supra*), focusing just on the digit and, in fact, vastly simplifying the calculation. The algorithm first order of magnitude always belongs to the *varga* classes, and the algorithm recognizes and treats it as such. Therefore, in 10P and referencing [2], [3], and [5]:

$$A = x_{2n+1} + q = x \cdot 10^{2n} + q \quad (6)$$

$$\text{iff } n \in \mathbb{N} \text{ and } 1 \leq x < 99$$

$$x_{2n+1} - a^2 = c \quad (7)$$

$$\text{and } \sqrt{A} = \frac{a_{2n+1}}{2} + p, \text{ for } a \in D \text{ and } D = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$$

Formulae [6] and [7] imply that the last digit, or the last two digits, of the square A , as belonging to the order of magnitude of the perfect squares of the base (*varga*), are subtracted from the square of the chosen value a . The same a will also be the first digit of the root of the square A , whose order of magnitude is equivalent to the *varga* order of magnitude of the first digit (or two digits) of the square divided by two. By following this algorithm, Āryabhaṭa determines the segment a in [5] that will compose the final value of the root of A as its first digit and whose order of magnitude will match that of A (as *varga* order) divided by two. Then, the algorithm proceeds by operating on the square of segment b in [5] and the double area of rectangle ab , once again exploiting the positional properties of the remaining digits expressing A . Within this framework, mathematical analysis has enabled the identification of a procedural core dating back to the Babylonian achievements and around which several algorithms have been structured in the centuries to come. The analysis of these procedures, in turn, enables the identification of debts, innovations, and genealogies. The effects of the innovative positional algorithm preserved in the *Āryabhaṭīya*, as its earliest attestation, would reverberate through the early twelfth-century Latin texts up to its canonical exposition by Rafael Bombelli (1526–1572).³⁰

On the other hand, the application of lexical analysis may reveal even more about the issue of root extraction. In fact, comparative analysis demonstrates the existence of two independent expressive traditions: the Greek-Euclidean, in which the root appears in transparent form as a “side” (πλευρά), and the South Asian, which

³⁰ Bombelli (1579) 34: *Modo di trovare il lato quadrato di qualsivoglia numero* (“Method of finding the square side of any number”). Note the locution “square side”: cf. *infra*.

always employs the opaque term “root” (*mūla*). Thus, it is possible to probe into the texts based on whether they belong to one or the other lexical tradition, retracing their genealogical debts. Euclid correlates the geometric and numerical squares with their sides in a symmetrical and transparent way, illustrated by Proposition 47 in Book 1 of the *Elements*, the famous formulation of the alleged Pythagorean theorem, when compared to the occurrences of the square number in Books 7 and 8:

In a right-angled triangle, the square on the side subtending the right-angle is equal to the [sum of the] squares on the sides surrounding the right-angle.³¹

$$a^2 + b^2 = c^2 \quad (8)$$

If a square [number] measures [another] square [number], then the side [of the former] will also measure the side [of the latter]. And if the side [of a square number] measures the side [of another square number], then the [former] square [number] will also measure the [latter] square [number].³²

$$\begin{aligned} B = iA &\leftrightarrow D = jC \\ \text{for } A = C^2 \wedge B = D^2 \end{aligned} \quad (9)$$

The Latin translation of Euclid’s *Elements* by Adelard of Bath (Adelardus Bathensis; ca. 1080–1150) resorts to the transparent term “side” (*latus*) in both instances:

In any triangle, the square placed on one side, and constructed on it, is equal to the two squares placed on the remaining sides and constructed on them. The angle opposing that side must be right by necessity.³³ (cf. [8])

It is demonstrated that if a square number measures another square number, its side will also measure the side of that one. Indeed, if its side measures the side of that one, then the square measures the square.³⁴ (cf. [9])

31 Euc. 1.47: ἐν τοῖς ὀρθογώνιοις τριγώνοις τὸ ἀπὸ τῆς τὴν ὀρθὴν γωνίαν ὑποτείνουσας πλευρᾶς τετραγώνων ἴσον ἐστὶ τοῖς ἀπὸ τῶν τὴν ὀρθὴν γωνίαν περιεχουσῶν πλευρῶν τετραγώνοις. Translation: Fitzpatrick (2008) 46.

32 Euc. 8.14: ἐὰν τετράγωνος τετράγωνον μετρήῃ, καὶ ἡ πλευρὰ τὴν πλευρὰν μετρήσει· καὶ ἐὰν ἡ πλευρὰ τὴν πλευρὰν μετρήῃ, καὶ ὁ τετράγωνος τὸν τετράγωνον μετρήσει. Translation: Fitzpatrick (2008) 242.

33 Clagett (1953) 31: *Omnis trianguli a cuius aliquo latere in se ipsum ducto quadratum constitutum duobus quadratis constitutis ex reliquis lateribus in se ipsa ductis equale fuerit, angulum lateri illi oppositum rectum esse necesse est.* Cf. Euclides/Adelard (1482) c. 10r: *Si quod ab uno trianguli latere in se ipsum ducto producit equum fuerit duobus quadratis que a duobus reliquis lateribus describuntur, rectus est angulus cui latus illud opponitur.*

34 Euclides/Adelard (1482) c. 60v: *Si quis quadratus numerus alium quadratum numeret latus quoque suum latus illius numerare probatur. Si vero latus suum latus illius numeret quadratus numerat quadratum.*

Let us now compare Euclid's lexical choices in [8] with the laconic formulation in the *Āryabhaṭīya* of the theorem of the "relation between base, height, and hypotenuse" (*bhujakoṭīkarnānām sambandhaḥ*) – terms that sound in the original Sanskrit as "arm," "tip," and "ear".³⁵

The square of the arm and the square of the tip [equal] the square of the ear.³⁶

Secondly, consider the passage in *Āryabhaṭīya* on root extraction, where *varga*, "square," corresponds to *mūla*, first and foremost the "root" of a tree or plant (ĀB 2.4, quoted *supra*, note 30), which here serves the arithmetic and geometric function of the Euclidean 'side', thus becoming a 'numerical root': a peculiar lexical choice, entirely opaque, that is reflected in the corresponding Latin term *radix*, again a tree root, and then in modern European languages. In light of the foregoing, it is interesting to note that the twelfth-century manuals of algorisms, and Fibonacci himself, not only follow the various positional procedures of the South Asian matrix but also adopt the very terminology of their distant source.³⁷ Even more intriguing, the distinction between Greece and India appears to persist even when the sources diverge. Both earliest translations of al-Khwārizmī's *Algebra* (*al-jabr wal-muqābala*), that by Gerard of Cremona and that by Robert of Chester, resort to the opaque Latin term *radix* – a hint of a direct genealogical relation with the East precisely because of its opacity:

Moreover, I found that the numbers required for the calculation of *algebra* and *almuchabala* (restoration and opposition) were of three types: roots, squares, and simple numbers unrelated to either roots or squares. In fact, the root, which is one of them, consists of what is multiplied by itself, starting with the unit, the numbers higher than the unit, and the fractions besides the unit. In contrast, the square is the aggregate value of the root multiplied by itself. Nevertheless, a simple number is whatever number can be expressed by words, irrespective of its proportionality with respect to the root or square.³⁸

In addition, I observed that the number of restoration and opposition was found in these three types: roots, squares, and numbers. However, no ratio connects numbers to roots or

³⁵ ĀBh 2.17 (Shukla [1976], vol. 2, 96).

³⁶ ĀB 2.17a (Shukla [1976], vol. 1, 59): *yaś caīva bhujāvargaḥ koṭīvargaś ca karnāvargaḥ saḥ |*.

³⁷ See, among the many, DA(n) (Folkerts [1997] 92–106); PA and LP (Allard [1992] 175–191); LA 14 (Giusti and D'Alessandro [2020] 547–574).

³⁸ Gerard of Cremona, in Hughes (1986) 233: *Deinde repperi numeros qui sunt necessarii in computatione algebre et almuchabale secundum tres modos fore, qui sunt: radicum et census et numeri simplices non relati ad radicem neque ad censum. Radix vero que est unum eorum est quicquid in se multiplicatur ab uno, et quod est super ipsum ex numeris, et quod est preter eum ex fractionibus. Census autem est quicquid aggregatur ex radice in se multiplicata. Sed numerus simplex est quicquid ex numeris verbis exprimitur absque proportione eius ad radicem et ad censum.*

squares. Of these, the root is any unit that can be multiplied by itself, any number higher than a unit multiplied by itself, or anything below a unit that is discovered to be multiplied by itself. The square represents the product of multiplying a root by itself.³⁹

Finally, a brief remark on the sixth level of analysis, the structural level. The operational and pragmatic slant of the South Asian mathematics texts under consideration is remarkably consistent. The pattern repeats itself essentially unchanged; an initial listing of numerals, and sometimes even a mention of numerical notation, is followed by a description of mathematical operations, and finally, a section devoted to application algorithms is added in varying numbers. The previously mentioned *Pāṭīgaṇita* (PT) is a prime example, with Verses 2 through 5a providing a comprehensive summary of the material presented (see Table 1). The author declares that

Table 1: Śrīdhara, *Pāṭīgaṇita*: the 29 *parikarman* and 9 *vyavahāra* (PT 2–6; Shukla [1959] 2).

The 29 <i>parikarman</i>	
<i>saṅkalita</i>	addition
<i>vyavakalita</i>	subtraction
<i>pratyutpanna</i>	multiplication
<i>bhāgahāra</i>	division
<i>varga</i>	square
<i>vargamūla</i>	square root
<i>ghana</i>	cube
<i>ghanamūla</i>	cube root
<i>bhāga</i>	fractions (8 algorithms)
<i>kalāsavarṇa</i>	reducing fractions (6 algorithms)
<i>trairāśika</i>	three-component [proportion]
<i>vyastatraināśika</i>	inverse three-component
<i>pañcarāśika</i>	five-component
<i>saptarāśika</i>	seven-component
<i>navarāśika</i>	nine-component
<i>bhāṇḍapratibhāṇḍa</i>	goods exchange
<i>jīvakraya</i>	trade in living (cf. <i>supra</i>)

³⁹ Robert of Chester, in Karpinski (1915) 66–68: *Postea inueni numerum restaurationis et oppositionis his tribus modis esse inuentum, scilicet radicibus, substantiis et numeris. Solus numerus tamen neque radicibus neque substantiis ulla proportione coniunctus est. Earum igitur radix est omnis res ex unitatibus cum se ipsa multiplicata aut omnis numerus supra unitatem cum se ipso multiplicatus: aut quod infra unitatem diminutum cum se ipso multiplicatum reperitur. Substantia vero est omne illud quod ex multiplicatione radices cum se ipsa colligitur.*

Table 1 (continued)

The 9 vyavahāra	
<i>miśraka</i>	miscellany
<i>śreḍhī</i>	progressions
<i>kṣetra</i> [incomplete]	plain geometry
<i>khāta</i> [lost]	volume of excavations
<i>citi</i> [lost]	piles (e.g., of bricks)
<i>krākaca</i> [lost]	sawing [wood]
<i>rāśi</i> [lost]	heaps and collections
<i>chāyā</i> [lost]	shadows (e.g., of a gnomon)
<i>sūnyatvatva</i> [lost]	zero (e.g., operations with)

29 *parikarmans*, or operations and algorithms, will be covered first, in this order: the eight fundamental operations; the same eight operations applied to fractions; six algorithms for reducing fractions; three-, five-, seven-, and nine-members proportions; and finally, a section devoted to the application of the preceding proportional procedures to the mercantile sphere, in the form of story problems. Following the 29 *parikarmans* are nine *vyavahāras*, or application algorithms, devoted to specific problems (PT 5b–6). This is followed by the *paribhāṣā* section, which includes definitions and terminology for numerals, notation, and units of measurement (currency, weight, volume, length, and time).⁴⁰ This introductory section of content exposition (*viśaya-nirdeśa*) concludes with verse 14, devoted to addition, where the actual treatment begins.⁴¹

On the contrary, the Greek texts present a different structure, as shown by the number theory-focused books of Euclid’s *Elements*, beginning with the seventh. Significant space is dedicated to the definition of number and its notable properties, with particular emphasis given to the ancient Pythagorean tradition of distinguishing between even and odd numbers: a fundamental distinction for the Greek theoretical framework, which would define every introduction discourse to European arithmetic for centuries, but which is largely ignored in India. In this regard, consider the sequence of definitions presented in Book 7 of the *Elements*:

1. unit
2. number
- [. . .]

⁴⁰ PT 7–13; Shukla (1959) 5–6.

⁴¹ Shukla (1959) 6.

- 6. even number
- 7. odd number
- [. . .]
- 11–12. prime number
- 13–14. composite number
- 16–17. plain and solid numbers
- 18. square number
- 19. cube number
- 20–21. proportional numbers
- 22. perfect number (cf. *infra*, [10]).

The paradigmatic example of the intersection between the Greek and Euclidean approaches and the Latin world is unquestionably Severinus Boethius's *De institutione arithmetica* (fifth–sixth century AD), whose table of contents is partially reproduced here for conciseness (Table 2):

Table 2: Boethius, *De institutione arithmetica*, Book 1: Table of contents (Friedlein [1867] 5–6).

<i>Incipiunt capitula libri primi</i>	Chapters of book one begin
[. . .]	[. . .]
<i>II. De substantia numeri.</i>	II. The substance of number
<i>III. Definitio et divisio numeri et definitio paris et imparis</i>	III. The definition and division of numbers. The definition of even and odd
[. . .]	[. . .]
<i>XIV. De primo et incomposito</i>	XIV. Prime and incomposite numbers
<i>XV. De secundo et composito</i>	XV. Second and composite numbers
[. . .]	[. . .]
<i>XIX. Alia partitio paris secundum perfectos, imperfectos et ultra quam perfectos</i>	XIX. Another partition of the even numbers: perfect [10], imperfect, and over the perfect [11]
[. . .]	[. . .]
<i>XXIV. De superparticulari eiusque speciebus earumque generationibus</i>	XXIV. Of the superparticular [number], its species, and their generations [12]
[. . .]	[. . .]

$$\begin{aligned}
 n &= \sigma(n) - n & (10) \\
 \text{iff } \sigma : \mathbb{N} &\rightarrow \mathbb{N} \\
 n \in \mathbb{N} &\mapsto \sigma(n) := \sum_{d|n} d
 \end{aligned}$$

Every positive integer n qua equal to the sum of its aliquots

$$\begin{aligned}
 n = \sigma(n) &> n & (11) \\
 \text{iff (cf. } &\textit{supra})
 \end{aligned}$$

The sum of the aliquots of the number n is greater than n

$$\begin{aligned}
 a &= b + \frac{b}{c} & (12) \\
 \text{iff } (a, b, c) &\in \mathbb{N}
 \end{aligned}$$

The number a is composed of b plus a fraction of b

The structural analysis, with clear genealogical implications, also demonstrates how the Latin texts under consideration exhibit a structural arrangement akin to their South Asian matrix but a far weaker link to ancient and late ancient Greek and Latin teaching. Indeed, they unfailingly begin listing operations and algorithms with a pragmatic, operational, and applicative approach, structured by story problems, sometimes overtly mercantile, and with little interest in the notable properties of numbers that formed the foundation of Greek number theory. Consider, for example, the opening of the most celebrated of these texts, the *Liber Abbaci*, where Fibonacci lists the titles of his 15 chapters (summarized here in Table 3):

Table 3: The 15 chapters of Fibonacci’s *Liber Abbaci*.

<i>De cognitione nouem figurarum indorum</i>	notation
...	
<i>De multiplicatione integrorum numerorum</i>	multiplication of integers
<i>De additione</i> . . .	addition of integers
<i>De extractione</i> . . .	subtraction
<i>De diuisione</i> . . .	division of integers
<i>De multiplicatione</i> . . . <i>cum ruptis</i> . . .	multiplication involving fractions

Table 3 (continued)

<i>De additione ac extractione et diuisione . . . cum ruptis atque . . . reductione</i>	addition, subtraction, and division involving fractions; reduction of fractions
<i>De emptione et venditione rerum uenaliū . . .</i>	buying and selling goods
<i>De baractis rerum uenaliū et emptione bolsonalie</i>	goods exchange; currency purchase
<i>De societatiū . . .</i>	companies
<i>De consolamine monetarum . . .</i>	coin casting
<i>De solutionibus multarum positarum questionum . . .</i>	miscellany of problems
<i>De regula elcataym . . .</i> <i>De reperiendis radicibus quadratis et cubitis . . .</i>	false position method (<i>regula falsi</i>) [13] square and cube roots
<i>De regulis proportionibus . . . de questionibus aliebre et almuchabale</i>	proportions; restoration and opposition

$$ax + b = c \quad (13)$$

$$ax_1 + b = c_1 \wedge ax_2 + b = c_2$$

$$\frac{x_2 - x_1}{x_2 - x_1} = \frac{c_2 - c_1}{c_2 - c_1}$$

Solution of linear equations via proportional adjustment, guessing the solution of the unknown (“false position”); cf. Sigler (2002) 628.

The briefly sketched examples have demonstrated, albeit in an unsystematic manner, how the six distinct levels of analysis adopted by the SERICA *Indica* Project – linguistic, functional, mathematical, structural, genealogical, and contextual – might be applied to interlingual text corpora on particular topics, from wording to root extraction procedures, to textual structure, etc. What emerges is the reconstruction of an articulate framework of debts and hybridizations in the exact sciences, which an analysis with a narrower scope in method and object would not have permitted. Further investigation is required on specific issues.

Sara Procaccini

Antroponimi, toponimi e *realia* nei testi latini sulla Cina

L'ipotesi dell'impiego di sistemi di scrittura a base fonetica in alternativa al tradizionale sistema a base ideografica per la notazione scritta della lingua cinese si pose in Cina con l'arrivo dei primi missionari gesuiti tra la fine del XVI e l'inizio del XVII secolo. Con lo scopo di facilitare l'apprendimento della lingua cinese agli stranieri, questi si fecero promotori di differenti sistemi di trascrizione fonetica, adattati alle necessità linguistiche delle differenti utenze.

1 I primi contatti tra Oriente e Occidente: l'arrivo dei missionari gesuiti

Nei secoli XII e XIV, la comparsa sulla scena politica mondiale dell'impero mongolo sembrò colmare le enormi distanze tra Europa e Cina che avevano sempre impedito contatti diretti tra l'Impero Romano e quello degli Han. Nell'avanzata dei mongoli, europei e cinesi videro una minaccia per la propria civiltà. Se questa minaccia non si concretizzò mai in Europa, la Cina venne invasa e dovette sottostare a un dominio straniero. L'epoca mongola, che rese possibile il primo vero contatto tra Oriente ed Occidente, fu una delle più affascinanti nella storia dell'umanità. In quegli anni, viaggiatori, mercanti e religiosi giunsero numerosi in Estremo Oriente. Se la tolleranza dimostrata verso altre religioni e l'aver favorito la circolazione di persone nelle varie parti dell'impero costituirono degli aspetti positivi della nuova dinastia Yuan, d'altro canto l'incapacità dimostrata dai governanti mongoli di far fronte alle difficoltà economiche accelerò il processo di disfacimento e pose fine al sogno di un impero universale.

All'indomani della caduta della dinastia Yuan, la rivalutazione della cultura tradizionale da parte cinese culminò in un diffuso disinteresse per il mondo esterno. L'insorgere di complessi di superiorità spinse le nazioni europee a cessare le spedizioni d'oltremare. I pochi occidentali cui fu permesso entrare nel paese e giungere a Pechino erano religiosi, soprattutto gesuiti, ai quali va riconosciuto il merito dei risultati conseguiti nel campo degli scambi culturali tra Europa e Cina.¹

1 Bertuccioli and Masini (2014).

Primo fra tutti ad arrivare fu Alessandro Valignano (Chieti 1539–Macao 1606), giunto a Macao nel settembre del 1578. Valignano si rese subito conto della profonda differenza culturale che condizionava la penetrazione del cristianesimo, in quanto i missionari imponevano schemi e concetti europei che non venivano compresi, anche per un'approssimativa conoscenza linguistica dei religiosi. Trasse quindi la conclusione della necessità di un cambiamento, elaborando il metodo missionario dell'*accommodatio* dei religiosi europei agli usi locali e incentivando lo studio della lingua locale come imprescindibile strumento di comunicazione.² In quest'ottica apparve chiara la necessità di inviare giovani missionari che si sarebbero dovuti dedicare, sin da subito, allo studio della lingua cinese. La scelta ricadde su Michele Ruggieri (Spinazzola 1543–Salerno 1607),³ giunto in India nel 1578 e inviato a Macao nel 1579, e Matteo Ricci (Macerata 1552–Pechino 1610),⁴ partito per l'Estremo Oriente nel 1578 e giunto a Macao nel 1582. I due riuscirono a stabilirsi nell'entroterra e furono immediatamente destinati allo studio della lingua cinese. In verità, Michele Ruggieri dovrebbe essere considerato il vero fondatore della missione cattolica in Cina, essendo stato il primo a dedicarsi allo studio della lingua cinese, a redigere un catechismo in lingua e a stilare, con la collaborazione di Ricci il primo dizionario portoghese-cinese. Tuttavia, la strabiliante avventura intrapresa da Matteo Ricci, che si concluderà con il suo arrivo a Pechino nel 1601, ha finito per oscurare i meriti che andrebbero riconosciuti a Ruggieri.

2 L'elaborazione del metodo dell'adattamento ha trovato la sua sintesi in un testo redatto nel 1581 da Valignano, *Advertimentos e avisos acerca dos costumbres e catangues de Jappão*, noto anche come il *Cerimoniale*.

3 Michele Ruggieri (Spinazzola 1543–Salerno 1607) è stato un gesuita, missionario in Cina e primo sinologo europeo. Nel 1579 fu inviato in Cina dove rimase per quasi un decennio, acquisendo una profonda conoscenza della cultura e della lingua cinese. Nel novembre del 1588 venne richiamato a Roma, una scelta probabilmente suggerita dallo stesso Ricci, forse per non offuscare il primato al quale egli aspirava. Successivamente, Ruggieri si ritirò a Salerno dove si accinse alla redazione del primo atlante europeo della Cina. Morì l'11 maggio del 1607.

4 Matteo Ricci (Macerata 1552–Pechino 1610) è stato un gesuita e missionario in Cina. Nel 1577 partì per l'Estremo Oriente e arrivò a Macao nel 1582 dove si applicò allo studio della lingua cinese, fondando, l'anno seguente, insieme a Ruggieri la prima missione. Ricci iniziò così a costruire il proprio percorso come missionario con modalità profondamente diverse da quelle di Ruggieri in quanto consapevole di poter affascinare le élites cinesi con le sue conoscenze scientifiche. Giunto a Pechino nel 1601, si dedicò a una vasta produzione di opere. Morì l'11 maggio 1610. Cf. Hsia (2016).

2 I primi sistemi di romanizzazione dei dialetti Min nelle Filippine

Prima dell'arrivo di Matteo Ricci a Macao, i missionari giunti nelle Filippine tra il 1565 e l'inizio del XVII secolo cercarono di carpire i segreti della lingua cinese e del suo sistema di scrittura. Incontrando la necessità di disporre di strumenti pratici di base che permettessero loro di imparare le lingue locali, questi primi missionari, per lo più agostiniani, domenicani e francescani, compilarono i primi dizionari della lingua cinese. Il primo dizionario di cui si ha notizia è *Arte y Vocabulario de la lengua China*, attribuito al missionario agostiniano spagnolo Martin de Rada che, giunto nelle Filippine nel 1565 come membro della missione spagnola partita dal Messico al comando di Miguel López de Legazpi, raggiunse il Fujian tra il 1575 e il 1576.

Fu poi la volta dei missionari domenicani spagnoli che raggiunsero le Filippine nel 1578. Avendo stabilito contatti con i cinesi della provincia meridionale del Fujian, i sistemi di trascrizione che elaborarono si basavano sui dialetti di quella regione e vennero utilizzati in opere a carattere religioso, stampate tra la fine del XVI e l'inizio del XVII secolo, nonché in alcuni dizionari cinese-spagnolo e spagnolo-cinese, come il *Bocabulario de la lengua sangleya pro las letraz de el A.B.C.* e il *Dictionarium Sinico-Hispanicum*, attribuito al gesuita spagnolo Pedro Chirino tra il 1595 e il 1602.⁵

Tuttavia, tali sistemi di trascrizione, pur presentando alcune caratteristiche originali, non trovarono alcuna eco presso i letterati cinesi, trattandosi di sistemi elaborati esclusivamente a scopi pratici e perfino i loro stessi ideatori li abbandonarono, dedicandosi, una volta stabilitisi nell'entroterra, all'elaborazione di sistemi di trascrizione, grammatiche e dizionari relativi al cinese mandarino.

3 Matteo Ricci: il *Dicionário português-chinês* e il *Xizi Qiji* 西子奇迹

A Matteo Ricci si deve un'enorme produzione di opere. Sebbene meno noti dei suoi trattati sulla scienza, sulla religione, sulla cultura occidentale e sulla cultura classica cinese, i suoi scritti sulla lingua cinese rivestono un'importanza inestima-

⁵ Per informazioni dettagliate sul *Bocabulario* e sul *Dictionarium* si vedano Cushner (1971); Fernandez (1979); Masini (2005) 179–193; Masini (2000) 53–79.

bile.⁶ È proprio a Ricci che va attribuito il merito di aver elaborato uno dei primi sistemi di trascrizione del cinese in lettere latine e di aver messo a punto, con la collaborazione del confratello Lazzaro Cattaneo (Sarzana 1560–Hangzhou 1640), un sistema di notazione dei toni con i segni diacritici sovrascritti alle sillabe.

Una prima presentazione della lingua e della scrittura cinese è offerta da Ricci nel *Della entrata della Compagnia di Giesù e Christianità nella Cina*,⁷ fonte principale delle riflessioni sul cinese del celebre missionario. È opportuno sottolineare che in quest'opera la romanizzazione degli antroponomi e dei toponimi cinesi, basata sull'ortografia italiana, costituisce una fonte importante per la ricostruzione del sistema di trascrizione noto come il *Ricci's Later Romanization System*.

L'interesse del Ricci per la lingua cinese, tuttavia, non si limitava a mere riflessioni, a lui si devono almeno due opere linguistiche: il *Dicionário português-chinês* e il *Xizi Qiji* 西子奇迹 (*Strani esempi di scrittura occidentale*).

Il *Dicionário português-chinês* (*Pu-Han Cidian* 葡漢辭典),⁸ redatto nei primi anni della missione in Cina fra il 1583 e il 1588, è dai più considerato frutto della collaborazione di Matteo Ricci e Michele Ruggieri. Si tratta di un dizionario portoghese-cinese di eccezionale importanza, essendo considerato il più antico dizionario di cinese mandarino in una lingua occidentale e il primo tentativo europeo di trascrizione del cinese mediante lettere dell'alfabeto latino.

Per la trascrizione fonetica i due missionari gesuiti si basarono essenzialmente sull'ortografia italiana del XVI secolo, influenzata in parte da quella portoghese. Sebbene la trascrizione manchi di due tratti distintivi della fonetica cinese, l'indicazione delle aspirate e dei toni, esso costituisce un'assoluta novità nella storia della sinologia europea, trattandosi del primo tentativo di elaborazione di un dizionario bilingue tra una lingua europea e la lingua cinese. La ragione più ovvia che spinse i due missionari a omettere i segni diacritici per notare l'aspirazione e i toni fu dettata essenzialmente dall'assenza della distinzione tra aspirata e non aspirata delle consonanti iniziali e delle variazioni tonali nelle lingue romanze, come l'italiano e il portoghese. D'altronde va ricordato che la romanizzazione italoфона di Ruggieri e Ricci è forse la prima attestazione di un sistema

6 Degli scritti cinesi di Ricci, assai numerosi, si ricordano: il *Jiaoyou Lun* 交友论 (*Dell'amicizia*, 1595); l'*Ershiwuyan* 二十五言 (*Le Venticinque Sentenze*), scritto nel 1599 e pubblicato nel 1602, contenente brani adattati dell'*Enchiridion* di Epitteto, costituisce un'introduzione della filosofia stoica nella Cina dei Ming; il *Kunyu Wanguo Quantu* 坤輿萬國全圖 (1602), il *Tianzhu shiyi* 天主實義 (*Vero significato del Signore del Cielo*, 1603); una traduzione in cinese dei primi sei libri di Euclide, col titolo il *Jihe Yuanben* 幾何原本 (1607).

7 Per informazioni dettagliate si veda Yang (1989) 200–202.

8 Sul *Dicionário* si vedano Masini (2000) 179–193; Masini and Paternicò (2014) 23–29; Messner (1995) 57–66; Yang (1989) 191–242.

organico per la trascrizione dei suoni del mandarino, che permette di osservarne e determinarne la natura e le caratteristiche fonetiche e fonologiche.

Di questo dizionario, gran parte del merito viene spesso attribuito a Ricci, sottovalutando il ruolo svolto da Ruggieri, il quale può essere invece considerato l'apripista nello studio della lingua cinese. Il valore del suo contributo all'insegnamento e all'apprendimento della lingua cinese, a lungo adombrato da altre personalità, è riscontrabile proprio nell'invenzione di questo primo sistema di romanizzazione che contribuì ad accrescere la sua figura e il suo originale apporto alla nascita della sinologia.

Il sistema di romanizzazione elaborato da Ricci e da Ruggieri rimase a lungo in uso tra i membri della missione, prima di essere superato da un sistema più evoluto, messo a punto da Ricci con la collaborazione di Lazzaro Cattaneo, conosciuto come il *Ricci's Later Romanization System*.

Prima dell'avvento del *Ricci's Later Romanization System*, il sistema di Ruggieri continuò a essere utilizzato in alcuni scritti in una forma revisionata, rappresentando uno stadio intermedio tra i due sistemi. Sembra infatti che Ricci lo abbia utilizzato per redigere un secondo dizionario, con l'aiuto di Cattaneo e di Sebastianus Fernandez (Zhong Baxiang 鍾巴相),⁹ durante il viaggio da Pechino a Nanchino nell'inverno del 1598, in cui, con tutta probabilità, adottò tale sistema in una forma stabilizzata e migliorata. Tuttavia, a oggi, non è stata rinvenuta alcuna copia del suddetto dizionario, per cui resta impossibile determinarne le caratteristiche.¹⁰ Ma, come affermato precedentemente, Ricci fu il promotore di un nuovo sistema di romanizzazione, il *Ricci's Later Romanization System*, ideato insieme al confratello Cattaneo, abile musicista, a cui è stato riconosciuto il merito di aver messo a punto un sistema ottimale, basato su elementi grafici, per marcare le più sottili differenze di suono. Inoltre, va sottolineato che tale sistema fu il risultato di un lungo processo di accomodamento della romanizzazione di cui i due confratelli si fecero promotori e che vide la sostituzione della pronuncia italiana con l'ortografia portoghese per annotare i suoni della lingua cinese. L'avvento di questo nuovo sistema è testimoniato nello *Xizi Qiji* 西子奇迹 (*Strani esempi di scrittura occidentale*), pubblicato da Ricci a Pechino nel 1605.¹¹

Si tratta di un libello didattico in sei fogli, contenente tre articoli, riguardanti episodi biblici, scritti in caratteri cinesi dall'abile mano di Matteo Ricci, compresi di romanizzazione. Sebbene la mole ridotta dell'opera riduca sensibilmente il nu-

⁹ Trigault (1622) 279.

¹⁰ Di questo dizionario parlano Kircher (1667) 118, secondo il quale si sarebbe chiamato *Dictionarium Sinicum*, e il gesuita Bartoli (1825) 196–200, secondo il quale si sarebbe chiamato *Vocabulario Sinicoeuropeo*.

¹¹ Le informazioni sullo *Xizi Qiji* sono state tratte da Raini (2010); Yang (1989) 191–242.

mero di dati analizzabili, il *Xizi Qiji*, a ogni modo, rappresenta la fonte principale per la ricostruzione di tale sistema, in cui, come già anticipato, si attesta la presenza di cinque segni grafici per i toni indicati sistematicamente, il cui impiego fu adottato anche nei sistemi successivi.

4 Nicolas Trigault: il *Xiru ermuzi* 西儒耳目資

Nonostante i successi riportati da tale sistema standardizzato, non mancò chi tentò di minarne l'autonomia, promuovendone una versione leggermente modificata, il cui destino, tuttavia, non fu quello di assurgere al grado di standard corrente. Tale tentativo venne intrapreso dal gesuita belga Nicolas Trigault¹² che nel 1626 a Xi'an pubblicò la sua opera più significativa, il *Xiru ermuzi* 西儒耳目資 (*Aiuto agli occhi e alle orecchie dei letterati d'Occidente*),¹³ apportando un contributo fondamentale alla fonologia cinese.

Si tratta di un'opera in tre volumi redatta da Trigault su richiesta dei letterati cinesi, i quali contribuirono anche a compilarla, sulla base delle ricerche sulla lingua cinese dei missionari precedenti.¹⁴

Data la coerente analisi della fonologia della lingua cinese, quest'opera è probabilmente la più studiata tra quelle compilate in cinese dai missionari stranieri. Trigault era ammirato dai suoi contemporanei proprio per aver elaborato un'analisi organica della fonologia cinese utilizzando esclusivamente 29 lettere dell'alfa-

¹² Nicolas Trigault (Douai 1577–Hangzhou 1628) è stato un gesuita, missionario e letterato belga. Inviato in Cina nel 1606, iniziò una febbrile attività missionaria, tra i cui esiti si possono ricordare la fondazione di una nuova residenza ad Hangzhou e, a Nanchino, un intenso lavoro di traduzione in cinese di opere scientifiche e religiose provenienti dall'Europa. Nel 1612 dovette tornare in Europa per raccogliere sussidi per le missioni e per risolvere i problemi legati all'evangelizzazione della Cina. La sua opera principale è *De Christiana Expeditione apud Sinas suscepta ab Societate Iesu, ex P. Ricci commentariis* (1615), la traduzione latina dell'opera manoscritta di Matteo Ricci *Della entrata della Compagnia di Gesù e Christianità nella Cina*, resoconto dell'attività missionaria svolta dal Ricci. Fra le tante opere relative all'analisi della lingua cinese dobbiamo citare il *Xiru Ermuzi* 西儒耳目資, un libro di fonologia in tre volumi in cui Trigault illustrò l'uso dell'alfabeto latino ai cinesi e fornì la pronuncia romanizzata dei caratteri cinesi. Nel 1618 Trigault si imbarcò nuovamente da Lisbona per la Cina, dove proseguì l'opera di evangelizzazione e divulgazione della religione cristiana e della cultura europea sino al 14 novembre 1628, giorno della sua morte ad Hangzhou. Si vedano: Raini (2010); Raini and Paternicò (2014).

¹³ Per quanto riguarda l'esatto titolo dell'opera, il cui scopo è stato sempre travisato, alcuni studiosi ritengono che sia a lungo stato tradotto erroneamente. Per maggiori informazioni si veda Raini and Paternicò (2014) 49–57.

¹⁴ Coblin (1997) 261–307; Masini (2005) 179–193; Trigault (1957).

beto europeo, con l'aggiunta di un segno per l'aspirazione e cinque marche grafiche per i toni. A lungo si è ritenuto che si trattasse di uno strumento didattico, finalizzato allo studio della lingua cinese per un pubblico composto da occidentali; tuttavia, un'analisi dell'opera escluderebbe tale opzione, essendo scritta interamente in cinese e quindi difficilmente fruibile da parte dei neofiti che si accingevano a studiare questa lingua. Pertanto, si potrebbe pensare che il *Xiru ermuzi* non fosse né un dizionario né un semplice manuale di pronuncia, bensì un repertorio fonetico in chiave bilingue con lo scopo di fornire agli europei una pronuncia standard dei caratteri cinesi e uno strumento utile per i letterati cinesi, dimostrando loro i vantaggi della trascrizione alfabetica. In tal senso, va ricordato che, al tempo, il dialogo tra i gesuiti e gli intellettuali cinesi si concretizzò sempre più nella compilazione di testi scritti o tradotti in cinese. Tale produzione letteraria richiedeva una stretta collaborazione tra le due parti, non potendo gli uni emanciparsi dagli altri: per i letterati occidentali la collaborazione era necessaria essendo il cinese una lingua ideografica, quindi priva di alfabeto; per i collaboratori cinesi l'assistenza dei letterati occidentali era necessaria per poter apprendere l'uso della scrittura alfabetica prima di poter annotare i suoni da soli. Ne deriva che, sebbene il *Xiru ermuzi* sia stato inizialmente compilato con l'intento di aiutare i confratelli nello studio della lingua cinese, successivamente divenne anche un manuale di presentazione ai lettori cinesi delle teorie fonologiche occidentali, rappresentando concettualmente il primo passo verso strumenti che avrebbero permesso l'autosufficienza nello studio della lingua.

Sebbene si tratti di un'opera monumentale, che apportò miglioramenti notevoli allo standard della romanizzazione precedentemente promosso da Ricci, risolvendone inoltre alcuni problemi e offrendo uno strumento di studio eccellente, negli anni successivi alla sua pubblicazione non riuscì a imporsi come nuovo sistema di trascrizione ufficiale e il notevole interesse suscitato dai gesuiti in Cina rimase circoscritto a quest'area. Quasi nulla fu la ripercussione che ebbe sulla successiva generazione di gesuiti, così come dimostrano i sistemi di romanizzazione elaborati dal gesuita Martino Martini (Trento 1614–Hangzhou 1661).¹⁵

15 Martino Martini (Trento 1614–Hangzhou 1661) è stato un gesuita, missionario, storico e cartografo italiano. In una lettera del 1634 chiese al padre generale Muzio Vitelleschi di essere destinato alle missioni nelle Indie. Nel 1638 la sua domanda fu accolta e ricevette l'ordine di partire per la Cina, giungendo a Macao nell'agosto del 1642. Nei primi mesi del 1643, entrò in Cina e raggiunse la città di Hangzhou. Successivamente, fu disposto che facesse ritorno a Roma per perorare la posizione dei gesuiti sulla questione dei riti. Nell'aprile del 1657 ripartì da Lisbona e raggiunse la sua residenza ad Hangzhou nel 1659, dove morì due anni dopo a causa di un'intossicazione. Si veda Masini (2008).

Dei vari scritti del gesuita tridentino, tra cui si ricordano la *De Bello Tartarico Historia*, il *Novus Atlas Sinensis*, la *Brevis Relatio* e la *Sinicae Historiae Decas Prima*, particolare attenzione merita la *Grammatica Sinica* che costituisce il primo tentativo di descrivere analiticamente le caratteristiche della grammatica cinese. Differenti sono le copie manoscritte rinvenute adespote di quest'opera,¹⁶ le quali presentano differenze interessanti nell'utilizzo della romanizzazione. Martini rappresenta infatti un caso particolare nell'uso di differenti sistemi di romanizzazione, una scelta dettata non solo dalla diversa natura dei lavori interessanti ma anche e soprattutto da una variazione della grafia di riferimento. Se nella *Grammatica Sinica* la romanizzazione risulta essere più precisa, trattandosi di un'opera di riflessione sulla lingua, e la matrice grafica di riferimento è basata sulla pronuncia dell'alfabeto portoghese, il sistema adottato in altri lavori di natura storico-geografica, successivi al 1654, risulta essere più approssimativo e basato sulla pronuncia dell'alfabeto spagnolo.

Ciò nonostante, sebbene la diffusione della *Grammatica Sinica* avvenne prevalentemente in forma manoscritta, l'influenza che ebbe sui confratelli fu considerevole, ribadendo la romanizzazione ideata da Ricci come standard ufficiale e ignorando pressoché totalmente il tentativo di innovazione promosso da Trigault. La romanizzazione proposta da Matteo Ricci è quindi sopravvissuta, più o meno immutata, subendo una serie di lievi modifiche che ne hanno generato alcune varianti personali.

5 La standardizzazione del sistema di romanizzazione: l'*Historia Tartaro-Sinica Nova*

Nel 1664 a seguito delle accuse mosse da Yang Guangxian 杨光先 nei confronti di Adam Schall von Bell,¹⁷ una violenta persecuzione venne perpetrata ai danni di tutti i missionari presenti sul suolo imperiale, che furono relegati a Canton. Tale

¹⁶ Per informazioni dettagliate si vedano Bertuccioli (2003) 629–640; Paternicò (2013).

¹⁷ Adam Schall von Bell (Colonia 1591–Pechino 1666) è stato un missionario in Cina. Nel 1630 ottenne l'incarico dall'imperatore Chongzhen 崇禎, ultimo dei Ming, di riformare l'antico calendario cinese, pubblicando anche trattati di matematica e di fisica in lingua cinese. Caduto in disgrazia in conseguenza della caduta della dinastia Ming, tornò a godere di grande favore a corte sotto l'imperatore Shunzhi 順治 venendo nominato capo dell'ufficio astronomico di corte. Dopo la morte di questo, perseguitato per invidia dall'astronomo musulmano Yang Guangxian, fu processato insieme con altri e condannato a morte. Alcuni fenomeni straordinari, tra i quali l'apparizione di una cometa e un terremoto, interpretati dai cinesi come segni della collera del cielo, lo salvarono. Morì a Pechino nel 1666.

convivenza forzata si dimostrò particolarmente proficua sul piano linguistico, risultando in una standardizzazione del sistema di romanizzazione. Di fatto, la romanizzazione impiegata dalla maggior parte dei gesuiti del *padroado* a partire dalla seconda metà del 1600 mostra una maturità più consolidata dello standard portoghese rispetto ai sistemi di Ricci e Martini, di cui sono una dimostrazione le trascrizioni fonetiche dell'*Historia Tartaro-Sinica Nova* (1673) di François de Rougemont.¹⁸

L'opera, pubblicata a Lovanio nel 1673, è suddivisa in tre parti e ricostruisce le vicende della conquista mancese nonché delle persecuzioni e dell'espulsione dei missionari dal territorio imperiale. Fu infatti durante la prima fase di detenzione a Canton che Rougemont si dedicò alla scrittura di quest'opera, completata il 5 ottobre del 1668.

Da un punto di vista prettamente linguistico, l'opera fu originariamente composta in latino, a dimostrazione di quanto l'educazione umanistica avesse definito la personalità dei gesuiti del tempo, in particolar modo nella loro espressione intellettuale e scritta.

Le antiche trascrizioni fonetiche presenti nel testo seguono le regole di romanizzazione del sistema diffuso tra i gesuiti nella seconda metà del XVII secolo e consistono essenzialmente di antroponimi, toponimi e *realia*, distinti tra di loro per un differente grado di precisione fonologica (se presentano o meno le marche grafiche per i toni) e un differente grado di integrazione nel testo (se sono distinte dal contesto o se sono declinate per casi secondo le regole di accordo vigenti per i sostantivi latini).

5.1 Gli antroponimi

Gli antroponimi presenti nel testo consistono di:

- a. nomi propri come Yang Guangxian e Zhang Xianzhong 张献忠;
- b. nomi del periodo di regno dell'imperatore come Wanli 万历, Shunzi 顺治 e Kangxi 康熙;
- c. titoli e appellativi come Guoxingye 国姓爷.

In generale, gli antroponimi mostrano un certo grado di integrazione nel testo, essendo declinati secondo le regole di accordo vigenti per i sostantivi latini, come ad esempio *Chinchilungum* (Zheng Zhilong 郑芝龙), *Quesingus* (Guoxing 国姓). Al-

¹⁸ François de Rougemont (Maastricht 1624–Changzhou 1676) è stato un missionario in Cina. Autore dell'*Historia Tartaro-Sinica Nova*, insieme ad altri confratelli, curò la prima edizione (1663) della biografia di Confucio.

cuni presentano le marche per i toni, come *Lí tím qué* (Li Dingguo 李定国) e *Sún có vâm* (Sun Kewang 孙可望).

Analizzando il testo si osserva che alcuni di essi presentano le marche per i toni in corrispondenza della prima occorrenza nel testo, mentre nelle occorrenze successive vengono declinati all'uso latino, come ad esempio *Litimqueio*, *Suncovamus*, dimostrando un certo grado di latinizzazione delle parole cinesi, a spese della resa reale della pronuncia.

Si osserva inoltre una certa standardizzazione del sistema di trascrizione nell'utilizzo dei diacritici per i toni nella trascrizione dei nomi del periodo di regno degli imperatori, essendo nella maggior parte delle occorrenze complete dei toni.

5.2 I toponimi

Per quanto riguarda i toponimi, un'attenta analisi del testo suggerisce che questi possono essere introdotti da preposizioni latine, come ad esempio “in *Quâm cheu fû*”, “ex *Quâm chéu fû*”; nel caso in cui non siano introdotti da preposizioni, si trovano in combinazione asindetica con un sostantivo, ad esempio “Provincia *Fo-kien*”, “Provinciae *Kiâm sí*”.

Da un punto di vista formale:

- a. 87 toponimi presentano le marche grafiche per i toni, come ad esempio *Ló ngán* (Luo'an 涿安), *Ngám kieu* (Anqiu 安丘), *Nhí xuí* (Yíshuǐ 沂水), evidenziando un certo grado di precisione fonologica nella trascrizione fonetica e una maggiore precisione narrativa;
- b. 22 toponimi non presentano le marche per i toni, come ad esempio *Xantum* (Shandong 山东) e *Chekiam* (Zhejiang 浙江);
- c. 124 toponimi mostrano un elevato grado di integrazione nel testo, come ad esempio *Nankinensis* (Nanjing 南京), *Pekini* (Beijing 北京), *Quantoniensium* (Guangdong 广东). Ciò, oltre a dare prova della ricezione degli elementi cinesi in un contesto linguistico “europeo”, deriva anche dalla natura del testo stesso, di tipo storico-geografico e con un intento divulgativo, in cui, in una certa misura, ci si limita a dar conto della pronuncia dei nomi occorrenti nel testo, trascurandone la precisione fonologica.

5.3 I realia

Per quanto riguarda i *realia*, ovvero quelle parole che denotano concetti e oggetti culturali specifici e che, per questo motivo, non hanno corrispondenze precise in altre lingue, nel testo ne sono presenti alcuni di tipo etnografico, appartenenti a

differenti categorie e riguardanti organi e cariche, *realia* militari, religione, arte e cultura. Alcuni esempi:

- a. *Colao*, romanizzazione del moderno *gelao* 阁老, un termine traducibile come Grande Segretario dell'Impero, governatore ausiliario, ma in generale si tratta di un termine utilizzato per designare un ufficiale di alto livello.
- b. *Sánfá sú*, romanizzazione del moderno *sanfasi* 三法司, il nome collettivo che designa i tre organi giudiziari centrali nella Cina antica.
- c. *Cú xán*, romanizzazione del moderno *gushan* 固山, un termine militare che fa riferimento al sistema delle Baqi 八旗 (“Otto Bandiere”) ideato da Nurhaci dopo aver unificato le tribù mancesi. Si trattava di divisioni amministrative in cui venivano suddivise tutte le famiglie manciù che strutturarono l'organizzazione civile e militare dell'intera società. Con il termine *gushan* 固山 si indicava una bandiera.
- d. *Lá má*, romanizzazione del moderno *Lama* 喇嘛, il titolo onorifico che designa la guida spirituale della tradizione buddhista tibetana.
- e. *Lúm y chúen*, romanizzazione del moderno *Long yi chuan* 龙衣船, ovvero le barche che portavano alla corte abiti e drappi di seta.¹⁹

In generale, le trascrizioni fonetiche dei *realia* presentano le marche grafiche per i toni, a sostegno di quella maturità raggiunta dal sistema di trascrizione, visibile in un utilizzo più sistematico dei diacritici. Tuttavia, anche in questo caso, le marche tonali non vengono riportate in corrispondenza di ogni occorrenza nel testo di un determinato elemento, per cui la trascrizione risulta integrata al cotesto, essendo venute meno le sue caratteristiche distintive, come nel caso di *Colao* e *Cham*.

6 Identificazione delle trascrizioni nell'*Historia Tartaro-Sinica Nova*

In generale, nell'identificazione delle antiche trascrizioni fonetiche, il contesto concorre a facilitarne il riconoscimento, attraverso riferimenti geografici, storici, narrazioni di avvenimenti che forniscono una visione più chiara.

¹⁹ Gemelli Careri (1700) 315: “[. . .] cioè barche, che portano alla Corte gli abiti, e pezze i drappi di seta, ei broccati dell'Imperadore. Ve ne sono tante, quanti sono i giorni dell'anno, o 365. [. . .] Così Lum-y, significa abito del Dragone, perché la divisa del Re è composta di Dragoni, con cinque unghie; e perciò i suoi abiti, e mobili denno necessariamente essere ornati di figure di Dragoni, ricamate, o dipinte.”

In altri casi è il testo latino stesso a offrire una spiegazione, in genere introdotta da locuzioni latine come *id est* o *sive*, che segue la trascrizione fonetica. Ad esempio:

- a. *Pim-nan, id est, Pacantis Australem Sinarum Regionem*,²⁰ ovvero il Principe che pacifica il Sud (Pingnan Wang 平南王) titolo attribuito a Shang Kexi 尚可喜, uno dei generali della dinastia Qing.
- b. *Sán fá sú, sive Concilio Sextumvirali*,²¹ ovvero i tre organi giudiziari della Cina antica: il Xingbu 刑部 (Tribunale di Giustizia), il Duchayuan 都察院 (Censurato) e il Dalisi 大理寺 (Tribunale del Riesame).

In altri casi, la trascrizione può rimanere dubbia nonostante il contesto sia piuttosto chiaro. Un chiaro esempio è stato riscontrato in un passaggio dell'*Historia Tartaro-Sinica Nova*, nell'identificazione della trascrizione di *Fa-sumvam*:

*Accidit autem eodem fere tempore, ut duo sociorum in aulam pervenirent: Gabrieli Magalhães, et Ludovico Bulhio nomen erat. Adducebat illos cum magna captivorum turba Fa-sumvam ab occupata provincia Suchuen, extincto eiusdem crudelissimo tyranno, redux, Frater Imperatoris maior natu.*²²

In questo passaggio si narra dell'arrivo dei confratelli Gabriel de Magalhães e Ludovico Buglio a Pechino nel 1648, dopo un periodo di prigionia nel Sichuan. Questa regione, all'indomani della caduta della dinastia Ming, era stata presa d'assalto dal ribelle Zhang Xianzhong che l'aveva invasa nel 1643, proclamandosi *Daxi Huangdi* 大西皇帝 (Imperatore del Grande Occidente).

Per via delle loro conoscenze in campo astronomico e matematico, Zhang Xianzhong volle i due padri al suo servizio e questi, seppur con riluttanza, furono costretti ad accettare gli ordini del nuovo sovrano. Quando, nel 1647, alcune truppe mancesi, guidate dal principe Haoge 豪哥, giunsero nel Sichuan e uccisero Zhang Xianzhong, i due padri, giudicati collaborazionisti di un ribelle, furono fatti prigionieri. Fu solo grazie al prestigio di Adam Schall von Bell, capo dell'Ufficio Astronomico di corte e amico di Haoge, che i due padri furono presi in custodia e scortati a Pechino.

Come si legge nel passaggio sopra riportato, fu il fratello maggior dell'Imperatore (*redux, Frater Imperatoris maior natu*) a scortare i due confratelli a Pechino, dopo aver liberato la provincia del Sichuan (*ab occupata provincia Suchen*) dalla tirannia di Zhang Xianzhong (*extincto eiusdem crudelissimo tyranno*). All'epoca dei fatti, l'imperatore era Shunzhi, che regnò dal 1644 al 1661, e il fratello mag-

²⁰ Rougemont (1673) 31.

²¹ Rougemont (1673) 274.

²² Rougemont (1673) 33.

giore era il principe Haoge. Il principe Haoge nel 1638 fu insignito da suo padre, l'Imperatore Huang Taiji 皇太极, del titolo di “Principe Su del Primo Rango”, uno dei dodici titoli di nobiltà principesca grazie a cui si godeva del privilegio di *shixi wangti* 世袭罔替 (ereditabilità perpetua) che consentiva la trasmissione del titolo senza declassamento.

In mancese tale titolo si traduce come *hošoi fafungga cin wang*, mentre in cinese *heshuo su fafeng qinwang* 和硕肃法奉亲王. Nell'identificazione di questa trascrizione è necessario ricordare che il testo di riferimento è una fonte a stampa per cui si potrebbe pensare che la “s” di *sumvam* sia in realtà una “f”. Ne deriverebbe quindi che la corretta trascrizione sarebbe *Fa-fumvam*, per cui, seguendo le regole di trascrizione fonetica, potrebbe trattarsi di un'abbreviazione di tale titolo, ovvero *Fafeng Wang* 法奉王.

Ovviamente si tratta di una supposizione, ma ciò sarebbe in linea con i racconti del tempo presenti in alcune fonti occidentali, tra cui la relazione dello stesso de Magalhães, scritta con molta probabilità poco dopo il suo arrivo a Pechino e inviata a Roma nel 1651, nota con il titolo *Relação da perda e destituição da Provincia e Christiandade de Su Chuen e do que os pes. Luis Buglio e Gabriel de Magalhães passarão em seu cativ.*

Dunque, nell'*Historia Tartaro-Sinica Nova* antroponimi, toponimi e *realia* presentano un certo grado di precisione fonologia, nonché un certo grado di integrazione al testo essendo, in alcuni casi, declinati secondo le regole grammaticali latine. Come già accennato precedentemente, ciò deriverebbe dalla natura storico-geografica dell'opera e dall'intento divulgativo. Tuttavia, in questo testo si ha prova del grado di standardizzazione ormai raggiunto dal sistema di romanizzazione inizialmente messo a punto da Matteo Ricci, visibile in particolar modo in un uso sistematico dei diacritici per indicare i toni della lingua cinese.

7 Conclusioni

In conclusione, ciò che questo articolo ha tentato di dimostrare è come il sistema di trascrizione inizialmente proposto da Matteo Ricci e Michele Ruggieri nel corso degli anni sia stato oggetto di cambiamenti e aggiornamenti, che, seppur non radicali, hanno concorso alla sua standardizzazione e alla realizzazione di uno strumento sistematico che potesse facilitare lo studio della lingua cinese, limitando al minimo le ambiguità.

Sebbene non si possa ancora parlare di un sistema linguisticamente coerente e ampiamente accettato, tale sistema di romanizzazione rappresenta, senza alcun dubbio, il primo tentativo coerente di trascrizione delle parole cinesi in latino.

Noël Golvers

Jesuit Libraries on Western Sciences (*xi xue*) in China in the Seventeenth–Eighteenth Century

The Jesuit mission to the Far East, firstly in China, was not only a daring enterprise of evangelization; it also represented, especially, a far-ranging intercultural contact and exchange, which spanned more than two centuries, with conspicuous mutual effects. This was a consequence of the particular methods of the China Mission since the period of Matteo Ricci (1552–1610): not only the well-known method of “accommodation,” by which the mission tried to enlarge its penetration into the closed and xenophobic Chinese society by adapting its preaching and its rituals to the Chinese traditions,¹ but also – and this is the point of this contribution – the application of scholarship and sciences to convince the Chinese *literati* of the “superiority” of Western sciences, in order to attract their attention and acquire social prestige and a strong position/acceptance for the mission.

Indeed, after Ricci had understood in the first decade of the seventeenth century how Western scientific lore and skills impressed the Chinese *literati* – with a positive effect on the more specific missionary action – he and his successor Niccolò Longobardo (1565–1655) developed a “master plan” to introduce, in a more systematic way, Western sciences in China. The instruments for this strategy were in the first place books, either imported or produced on the spot through translation and original compositions, accompanied by demonstrations of the results of their skills. Therefore, in the letters of Ricci an urgent request to send up-to-date Western books on science to China recurrently appeared, which was the start of the “*Apostolate through books*, as part of a real *Bibliothekenstrategie*.”² The real large-scale implementation of this master plan, however, happened only in 1613, when Nicolas Trigault was sent to Europe as a *Procurator Missionum*, not only for organizational and diplomatic questions, but also to search for patronage, new missionaries, financial support, books, and instruments.³ The target of his “scientific mission” was, from the beginning, holistic and the entire operation focused on the totality of what in China was defined as “Western Learning” (*xi xue*), and described for the Chinese public by Giulio Aleni in his *Xi xue fan* (1623).

1 Betray (1955).

2 Dudink and Standaert (2001).

3 Lamalle (1940).

Of this program, the ultimate finality was the promotion of Christianity, the science as well as “philosophy” being instrumental, but not less important. The practical purpose was to organize a real network of libraries, based in the so-called Portuguese residence of Peking, *Xitang* (since ca. 1700 renamed Nantang), complemented with smaller reference libraries in the other Jesuit residences spread over the Chinese mainland. All this would constitute the basis for a program of systematic translation, next to new textual productions, mostly composed by the method of compilation and patch working from a variety of different European sources. Starting from books on science, such as astronomy, this program would further ascend, through philosophy to theology, creating by this a scientifically based teaching with the contemplation of God and the sky as culmination point.

When Trigault arrived in Europe and toured through the continent between 1615 and 1618, the “scientific” part of his “mission” was entrusted to a young Jesuit *socius*, the scholar Johann Schreck Terrentius (1576–1630), former pupil of, among others, Galileo (in Padua), ex-Lyncean (1611) and a real polymath.⁴ The core of his competences was (paracelsianist) medicine or chemistry, pharmacy and botany, completed with pure and practical mathematics, and other specialties. All these “specialties” are clearly reflected in the books he selected and bought for the China mission – next to the donations Trigault had received from pope Paul V (the *Bibliotheca Pontificia*)⁵ – among others on the *Frankfurter Michaelmesse* (1616) and the *Officina Plantiniana* (Antwerp) in December 1616. From the last acquisition we found again the detailed acquisition list, in which 40% of the books were scientific.⁶ When Trigault and Terrentius arrived, via Lisbon and the *carreira da Índia* with these books and instruments in Macau in July 1619, Chinese sources spoke of 7,000 “items” (unclear whether volumes or titles), of which the majority arrived in 1625 in Peking; a short time later, the first Catalogue of the mathematical books which arrived there was made by Adam Schall von Bell (1592–1666).⁷

This basic library became the basis for the scholarly and scientific activities and publications of the next generations of Jesuits in Peking. It remained the only acquisition on that scale, representing a basic supply, which in the next generations was completed with mostly minor acquisitions, in Peking and elsewhere, until the end of the Jesuit mission in China ca. 1800.⁸ The main poles around which book acquisitions were concentrated were Peking, with the Portuguese colleges Xitang

4 Golvers (2020b).

5 Golvers (2020b) 19, 551–562.

6 Golvers (2020b) 360–404, 563–582.

7 Golvers (2020b) 450–451.

8 Golvers (2012; 2013; 2015a).

(Nantang) and Dongtang, since ca. 1690 flanked by the French residence Beitang, with an independent program of acquisition and research topics, as well as other residences spread over the country. Most of the inland residences were, after the anti-Christian Decree of the Yongzheng Emperor of 1724, gradually abandoned, with their books transferred to Peking, except for some local exceptions.

In the later period, the process of extension did not follow a linear process but rather a discontinuous one, due to external circumstances, such as the political situation in China (e.g. the Oboi-Regency period [1655–1671], with the menacing end of the mission), the Civil War known as the *San Fan*-War (ca. 1674–1680) with an interruption of the supply lines from Europe through Macau and the Jesuit residences throughout China, and the aforementioned anti-Christian Decree of 1724. In this entire acquisition process the role of “individual” Jesuits was determinative, as not all of them had the same scientific interest/competence, and the interests were not in all the periods or on each spot the same. For the Portuguese College in Peking, for instance, our evidence shows a period of ca. 70 years after the decease of Terrentius (1630), during which barely new “medical” books were introduced, as in the same period the local Jesuits were especially involved in the Calendar affair and focused on the introduction of Western mathematics, especially after they were appointed at the head of the Imperial Astronomical Bureau (*Qintianjian*); only some years later, in 1685, Ferdinand Verbiest wrote to Rome to fill this lacuna through the sending of *libri medici moderni*, especially on anatomy, as he had understood that not only were astronomy and calendar the means to acquire a strong basis for the mission, but also advanced therapeutic competences.⁹ In the same library – and despite the 1724 Decree (which spared the Peking college) – the period 1725–1750 demonstrates a strong concentration of 231 new (preserved) acquisitions, characterized by the inscription (*inscriptus Catalogo*) *Collegii Societatis Jesu Pekini* of which 132 (or 57%) were related to science and technology, all printed between 1670 and 1691, which suggests a direct link with Claudio Filippo Grimaldi’s journey through Europe¹⁰ and the scientific activities of Ignaz Kögler (1680–1740).¹¹

On the level of monographs we see that, apart from ancient and (early) modern Classics (e.g. Ptolemy; Tycho Brahe), there was in the correspondence to Europe a recurrent and urgent request for *libri moderni*, especially in the fields of astronomy (eclipse and calendar calculation), medicine, and technology-engineering, three domains where the challenge from the Chinese authorities and the native op-

9 Golvers (2017) 644–652.

10 Baldini (2010).

11 Stücken (2003).

ponents was very high and the potentiality of creating goodwill by particular, if not spectacular, results was the greatest. In the domain of astronomy – directly related to the production of reliable year calendars – this appears in the urgent request of up-to-date *Tabulae astronomicae*, of which no less than 26 different series circulated in China, from the *Tabulae Alphonsinae* through the *Tychoniana* to the *Whistoniana*, partly complementing, partly overlapping each other,¹² as well as star catalogues etc.¹³ In the field of medicine up-to-date books and graphics on anatomy, in particular, were required. But also in other fields the same pressure from the Chinese public existed, such as that of technology, including mechanics, hydraulics, and even ballistics.¹⁴

In all these respects, the “actual” or up-to-date aspect of the books which arrived was of a primary importance, expressed in the term *nov(issim)a* or *recentissima* of so many letters to Europe. When possible, the comparison of the publication date of a book in Europe with the date of its arrival, or its first reference in China, is revealing for this wish to introduce “recent” science. A quick arrival of new European discoveries in China was obviously also dependent on the logistic and navigational circumstances; whereas in the 1620s Terrentius considered correspondence as a quicker and more reliable way to communicate novelties than books, which – as sent in only one copy – were more vulnerable for disappearing *in via*, and arrived often only after two to three years, in the late seventeenth century the duration for an oversea transport of a new publication sent from Europe was reduced to some eight months.

The same urge for recent information appeared in the request for the current issues of scholarly or academic periodicals, which from the second half of the seventeenth century appeared as the communication instrument of new inventions in the European *Respublica Litterarum*. In my evidence for Peking I found at least 7 + 15 series of international periodicals of the type *Acta Eruditorum*, *Journal des Sçavans*, etc.¹⁵ Elsewhere, and outside Peking, in 1723, the French Jesuit Joseph de Prémare received a set of 28 issues of the German *Curiosi naturae* in Jiu Jiang (Northern Jiangxi).¹⁶ Besides the contacts with the *Académie des Sciences* in Paris and the *London Philosophical Society*, especially significant was from the 1730s also the regular contact with the *Academia Imperialis*, founded in 1724 in St. Petersburg: from that time books from Europe arrived in China also through Russia, as well as correspondence and the publications of the same *Academia*, the *Com-*

12 Golvers (2015a) 243–255.

13 Golvers (2015a) 256–264.

14 Golvers (2015a) 155–205.

15 Golvers (2015a) 461–473.

16 Golvers (2013) 301, 307, 463.

mentarii, and the *Dissertationes Academiae Imperialis Petropolitanae*; the Portuguese *estrageirado* and physician Antonio Nunes Ribeiro Sanches (1699–1783) played an important role in creating this contact.¹⁷ A detailed inventory of the issues mentioned in the correspondence shows that the arrival of these issues was not a “random” phenomenon but the result of a systematic, patient, expensive, and difficult research; this is also important to prove that the wish to be in touch with actual European scholarship and to introduce in China “up-to-date” science was truly a basic intention.

Next to the general (“public”) “college libraries,” the European colleges had constituted separate room (*cubiculum*) collections, with books temporarily put at the disposal (*ad usum*) of a particular father, or belonging to a particular class. This was also the case, e.g., in the Portuguese college of Peking, the basis of the calendar-related Jesuits; at least since Adam Schall von Bell, there was a separate *cubiculum* (also called: *Musaeum mathematicum* – following the model of the *Collegio Romano* – where the actual Jesuit head of the astronomical Bureau (*Qintian-jian*) lived, and where vulnerable and precious instruments and specialized books were kept;¹⁸ we can follow the history of this collection, through the period of his successors Ferdinand Verbiest (1623–1688) and Antoine Thomas (1644–1709), at least until the period of Ignaz Kögler (1680–1746), but unfortunately no particular inventory of this collection is preserved. Other such collections with a focus on science are better known, such as the personal library, in the French compound of Beitang, of Jean-François Fouquet (1665–1741), with a revealing concentration of contemporary works, especially on mathematics, both French and English.¹⁹

This raises, in its turn, another basic question, that of the selection of the new acquisitions, which was – for the missionaries often living for decades in China – not only a question of information, but also of economics. As for the source of information, this arrived in China through multiple ways: (1) every new Jesuit candidate, when arriving, had a (small or large) supply of (old and new) books with him, offered mostly by the Jesuit Province he left; they gave also oral information on new publications circulating in Europe; (2) Jesuits reading in China found in the books at hand references to “work in process;” and (3) information on new scientific/scholarly publications they received through the current correspondence with European colleagues, procurators, etc.²⁰ A selection was also imposed – and shaped – by the permanent budgetary crisis of the Chinese Vice-Province; in some rare letters (for instance the one of de Contancin in 1730, with

¹⁷ Golvers (2013) 152–153, 180, 213, 218.

¹⁸ Golvers (2013) 145–151.

¹⁹ Golvers (2010).

²⁰ Golvers (2012c).

regard to the library of the French mission in Canton) we can follow in detail the discussion with his Paris correspondent to discover the most appropriate work, in order to avoid a waste of money.

In general we can conclude that the selection was “dictated” by the necessities of the Jesuit agenda, crossed – and to some extent also limited – by Chinese interests and sensibilities. Many requests were indeed directly linked to current Jesuit projects: in the first place with regard to the Calendar, but also with various other commitments. In some cases we can even follow the impact of the arrival of a new book, e.g. when Verbiest in 1663 succeeded in lifting very heavy bells to install them on the Bell Tower of Peking more efficiently than Adam Schall von Bell did some years before, thanks to the recent arrival of a copy of Paolo Casati’s *Terra machinis mota* (1655). Limits were not only budgetary but also linked to Chinese sensibilities, which were, e.g., an obstacle for introducing nude representations of the human body on European “anatomical sheets.” Finally, there were also obstacles from the side of the Catholic church, through the influence of the *Index* and the Inquisition, which was apparently active, e.g. in the 1720s, through agents in the harbor of Macau, but these affected not in the first place scientific books, focusing mainly on Jansenist publications. Quite unexpectedly, books which were on the *Index* circulated in China, the most prominent example of which was an uncensored copy of Kepler’s *De revolutionibus*.²¹

All the general and particular desiderata were transferred through book requests in the outgoing mail and separate wish lists to Europe. Often, however, the requests were left open, leaving to the *Procurator Missionum* of the native province the responsibility of making an appropriate selection among newest publications; as these Mission procurators were mostly not professionals in the various domains covered by the Jesuit activities in China, they regularly relied on the advice of nearby, also non-Jesuit and laic scholars; see, e.g., the way by which Antoine Verjus, SJ, Mission procurator in Paris (1632–1706), answered this kind of question from his colleagues in China. They tried to counter the budgetary problem by asking for free author copies, and doubles or triples from nearby befriended private collectors.

Another aspect of this “book chase” was the international scale on which the book supply was organized because of the multi-national composition of the Jesuit staff of the China mission of the Portuguese *padroado* (not that of the French mission). Indeed, although since its beginning the Far Eastern mission relied for financial and logistic reasons on the Portuguese Crown, the institutions of the *padroado*, and the facilities of the *carreira da India*, China missionaries were often also re-

²¹ Gingerich (2004).

cruited in Italy, German Central Europe, the Low Countries, France, Poland, etc., and brought from their own homeland particular books and specialties. By consequence, the Jesuit libraries in China had in their stacks – next to each other – books from heterogeneous origins, traditions, and even languages: Latin, Italian, French, Portuguese, Spanish, English, Dutch, German, Polish, and ancient Greek (in descending line of frequency). While Latin covered almost all domains, other languages are represented in particular subgroups; the few books written in English, for instance, are almost all books on navigation,²² and we know that the missionaries’ knowledge of English was very marginal (basically limited to Jean-François Foucquet); Italian books on the hydrography of the Po-basin and on the control of the inundations caused by the *Tevere* in Rome were applied for the control of the *Yangtze* river,²³ while German books on therapeutic thermalism (“spas”) were brought to China by the iatrochemist Johann Schreck Terrentius,²⁴ etc.

Still another characteristic of the scientific book requests from China was the focus on practical science, even when the importance of a theoretical backing was recognized. This was, among others, the case in the field of mathematics, both in their theoretical (e.g. books on algebra, etc.) and “applied” aspect (*mathematicae mixtae*), as well as in that of medicine and of engineering. Especially in the field of engineering books on instruments, their construction and use (*de fabrica et usu*) were highly in demand, next to the instruments themselves, to be assembled by the Jesuits on the spot. Therefore, illustrated books were preferred, with etchings and other graphics explained by extensive captions. Illustrations were also particularly desired for their accessibility towards the Chinese “readers,” who could not read nor understand the European languages, and were therefore especially attracted by the pictures: the Kangxi Emperor – an eager collector of Western books on all kind of mathematical, medical, and natural sciences – is more than once portrayed by the Jesuits as glancing through his European books and looking at their illustrations.

This need for clear technological “manuals” was also due to the fact that many of the European Jesuits had not received in Europe a “specialized” professional education: not in Jesuit colleges nor at Universities. Real specialists with a professional preparation and curriculum who arrived in China were mainly in the field of mathematics, especially in the case of the Jesuits from German countries, such as, e.g., Ignaz Kögler – although several of them were withheld in Portuguese colleges in Coimbra, Lisbon, or Évora to teach advanced mathematics to Portuguese Jesuit pupils (e.g. Johann König/João dos Reyes) or died *in via* (e.g.

22 Verhaeren (1949) 4075–4092.

23 König and Kink (2022).

24 Golvers (2020b) 417–418, 475.

Adam Aigenler) – and the “5 mathématiciens du Roy” who arrived in 1688 in China, with an academic affiliation – and a precise commitment – from the Paris *Académie des Sciences*.²⁵ Far fewer professionals were in the field of medicine (according to the *Constitutiones* also not a field for Jesuits), and almost none were in “engineering.” Apart from these groups, the education of most Jesuits who arrived in China was of an “average” level, in a series of individual cases also completed by some extra-curricular *studium privatum*, for us often difficult to trace as this was – because of its “private” character – organized outside the normal curriculum, and therefore not included in the (streamlined) official provincial *Catalogi*.

The question which now arises is: what are our sources of information to determine which books really did arrive and circulate in China and were accessible in a particular period and place, and were really used? The answer is multiple:

1. Our most direct evidence are, of course, the books still surviving in the Beitang Collection of the National Library of China in Peking (Wenjin Street, Xicheng District): these are the ca. 4,100 items (titles, volumes?) which at the end of the 1940s were still in the Beitang library – inventoried in detail by Hubert Verhaeren, the last librarian in 1949,²⁶ these books come from the pre-1800 Jesuit libraries of Peking and some other Jesuit “stations” in China; their provenance – sometimes going back 200 years – is clearly indicated by the surviving book inscriptions.²⁷
2. Many other books – no longer existing – can be traced thanks to precise (also numerical) references in manuscript sources (letters or books) produced in China but sent to Europe and now preserved in private or public European collections: especially when containing also literal quotations, they provide reliable testimonies for books once circulating and used in the China mission; through some ten years of reading Jesuit manuscript sources preserved in European collections, I compiled a “Source Book” with some 1,700 titles of which I found at least one convincing trace, completing in this way the evidence of the extant books which survived the “shipwreck” of the Jesuit collections in China.
3. In other cases, particular passages in Chinese productions or even illustrations clearly derived from identified European models point to the presence and use of a European source, as in the case of, e.g., A. Paré.²⁸

²⁵ Landry-Deron (2001); Brizay (2013) 25–40.

²⁶ Verhaeren (1949).

²⁷ On these inscriptions see Golvers (2012a).

²⁸ Standaert (1999b).

For all these reasons, these books were not part of a “sleeping” or a ‘show library,’ even when impressing or persuading the Chinese – by the size of books (especially the folio-volumes), the monumental covers and the almost “architectural” pictures of the frontispieces – was a real, secondary concern. The “real use” of these books, which made the libraries “living” libraries and the books and their contents ready for transmission into Chinese, is proven in various ways:

1. By the “physical” signs in the preserved books (such as underscores, interlinear or marginal remarks, etc.); a more systematic research on this aspect through a series of selected books would become a first-hand and much revealing source for the *modus operandi* of the Jesuits in China. One example is the copy of the tables of Andreas Argoli, where we can recognize a series of (unedited) meteorological annotations by Ferdinand Verbiest, etc.²⁹ But in many more cases it is probable to recognize the owner’s inscription, and to link it to a particular Jesuit, his scientific activities and Chinese publications; it is a real thrill to find a recognizable personal inscription, or another textual indication in a Western book, which could be directly related to a Chinese text.
2. By the numerical references and (almost) literal quotations, even if this evidence is not 100% conclusive, due to the possible (but limited) effect of personal collections of quotations, and reading reminiscences.
3. By their reception in Jesuit publications in Chinese: the experience teaches that many Chinese publications produced by the Jesuits were composed by the technique of patch working, by which fragments from different original works were amalgamated into a new text, with additional “binding texts,” etc. In this sense the new texts were “intercultural books,”³⁰ and the identification of the European source texts – also with regard to illustrations – shows which European books had really been used; also in this field a lot of work on individual Jesuit Chinese publications and their possible source texts is still waiting.
4. An indirect but equally real indication here is the presence of a large series of bi- or trilingual dictionaries, which served as “keys” to the multi-lingual publications, proving in this way these books were indeed intensively consulted, and not only piled up on the book shelves.

The sources of information I mentioned confirm that the original intention of presenting, at least in Peking, an overall representative, “complete” (*acabada*) library

²⁹ Bernard (1940) 111.

³⁰ Standaert and Van den Bosch (2022).

of Western learning (*Xi xue*) was appreciated as such by the Chinese *literati*, including the Kangxi Emperor who openly recognized that the Jesuit libraries had books “for every possible problem.” Jesuits indeed did not jealously hide their treasures and knowledge; this would – in suspicious China – have been counter-productive to their mission. Therefore, they showed their books to Chinese visitors during “guided” tours, which sometimes had unexpected – and less desirable – consequences, e.g. when a Chinese visitor found in the Xitang library a book on European ballistics with challenging illustrations (either a copy of Tartaglia’s *Nuova Scientia* of 1550 brought by Giacomo Rho, or of Colliado’s *Prattica manuale dell’artiglieria* of 1641), which was the start of the tricky involvement of the Peking Jesuits in the 1670s and 1680s in the restoration and modernization of the Chinese-Manchu artillery. On the other hand, when in 1625 Wang Zheng visited Adam Schall and Terrentius in their residence library in Peking, they showed him Western books on technological instruments, which were the origin of the shared translation of a Chinese book on Western technological instruments, published as *QiQiTuShuo*.³¹

The capstone of the entire *Bibliothekenstrategie* was, however, the distribution of these Chinese productions among the Chinese courtiers, mandarins, and common *literati*, through extensive book donations, as relation presents and gifts, accepted as bibliographic curiosities and collector’s items. The spread of these books on a large scale is proven through the analysis of the inventories of private book collections.³²

The described system of scientific book acquisition and distribution remained basically unchanged until the very end of the mission after the suppression of the Jesuit Society at the end of the eighteenth century: only the actors changed, as well as the specializations expected from the Chinese authorities; in addition to eclipse prediction, calendar calculation, and medicine, civil architecture and garden architecture (fountains, etc.) were now the more prominent topics. During the last decades of the mission the productions of the *Enlightenment* arrived in China as well, including Descartes and Newton, from France, England, Germany, and Portugal. The most splendid illustration of this is the last “great” personal library built up in Peking, already no longer by a Jesuit but by the Portuguese Franciscan Alexandre de Gouveia (1751–1808), pupil of the reformed post-Pombal Jesuit College of Coimbra, which contained five books on contemporary mathematics and physics, electricity, the lighting rod, etc.

31 Jäger (1944).

32 Standaert (2022).

It was obviously impossible to give in this context an overview of the many thousands of individual scientific or scholarly titles once circulating in the context of the Jesuit mission in China.³³ Therefore, I preferred for this occasion to focus on the characteristics and the dynamics of these book collections. The main result of this research is: the identification of probable or possible sources for Chinese publications by the Jesuits; the recognition of the continued intention to constitute up-to-date and, if possible, “complete”/representative libraries; to introduce “modern science” among Chinese *literati*; to keep in touch with the developments of contemporary European research, not only through books, but also through correspondence and periodicals. As such, this evidence is the most convincing denial of some recent hypotheses, that the Jesuits introduced, more or less intentionally, old-fashioned science into China, being responsible to a certain extent for the backwardness of Chinese science in later times. On the other hand, these libraries, especially those of Peking, are described as a remarkable mirror of European science, its “classics”, and its more modern developments. Further detailed research on the preserved books – a possible but not an easy project in the actual conditions – would be the most appropriate way to gain a deep insight into the *modus operandi* of the Jesuits in China in transmitting European science, and into its reception within China.

33 An attempt I made in Golvers (2015a).

Sven Günther

The Role of “Western” Antiquity in G.P. Maffei’s *Historiae Indicae*, Book 6: China

Giovanni Pietro Maffei’s (1536–1603) sixteen-volume *Historiae Indicae* (first published Florence 1588¹) is a work about the Portuguese colonial discoveries and conquests during the fifteenth and sixteenth century in Africa, India, and South-east Asia, with the section focusing on China constituting the sixth book. The *History of the Indies* was composed by the learned Italian Jesuit at the request of Henry of Portugal (1512–1580; at that time Cardinal-Prince and later King) and was finished after Henry’s death in dedication to his successor, Philip II of Spain (1527–1598), who had ascended to the throne and united the Spanish kingdom with the kingdom of Portugal to become the most influential colonial power of the time.² The sixth book, contrary to the other parts of the work, contains only little chronological and historical information on the rather violent and consequently negatively framed first contacts between the Portuguese conquistadores and the Chinese in the first quarter of the sixteenth century, which is mainly featured in the last part;³ instead, Maffei provides a richly painted geographical-

1 Maffei (1588), used and cited after in this paper; printed several times and at different locations in the following years, see Maffei (1747) xxxiii–xxxiv. Most recent is the edition printed in Vienna (Maffei [1752]); furthermore, there is a Tuscan (Maffei [1589]) as well as two French (Maffei [1603]; Maffei [1665]) translations. A new Italian translation with notes is in preparation by Caterina Fregosi (Università di Pisa), within the SERICA project; and an English one is currently prepared by Christopher Franchese. Selected passages of Book 6 for a high-school course were compiled, didactically edited, and commented on by Günther et al. (2022).

2 Franchese (2019) 193–194; cf. Andretta (2006); Maffei’s biography is based on Serassi (1747).

3 Maffei (1588) 121–122 with the remarkable end: *Hunc maxime in modum, paucorum scelere alienati Sinarum animi, et famae fideique inaestimabile damnum est factum. Ac deinceps, quotquot ex orbe nostro in ea loca vel suis, vel alienis navibus devenere pessime accepti mulctatique sunt: et complures in annos, nomini Christiano, ac Lusitano praesertim, ora nulla fuit infestior* (“In this way mainly, by the crimes of few the souls of the Chinese became alienated, and to the reputation and faith an inestimable damage was made. And onwards, how many from our world came down to this place either in own or in foreign ships, they were all received in very bad way and punished: and throughout many years no other coast was more aggressive towards the Christian, and in particular the Portuguese name”). On these first contacts see the classical account by Willis

Note: I thank Caterina Fregosi for her comments and Elizabeth Webster for her help with the English. All translations from Latin or Greek texts are my own.

ethnographical survey of Chinese people and their social, economic, cultural, religious, and political constitution, organization(s), customs, and general morale. This outstanding setup requires closer inspection, especially considering on the one hand the extensive classical education of Maffei; on the other hand, the long-lasting tradition of ancient (and medieval) geographical and ethnographical writings about China, besides the highly praised quality of Maffei's Latin writing style throughout the whole work,⁴ are not only well known in scholarship⁵ but are also arguably visible in this description in the form of references to the Western classical past. The aim of this paper is thus (1) to uncover these references, (2) to trace their origin, and foremost (3), to discuss their use within Maffei's narrative framework.

The character of the references to the Western classical past is generally very different throughout the whole work, and of course Book 6, which does touch on many different topics within the geographical-ethnographical framework,⁶ is no exception. Already the use of the Latin language to describe *res Sinicae* (and others) necessitated the author, of course, to relate them to terms and concepts which may, in their majority, find their origin in ancient times despite the fact that naturally their contemporary meaning or understanding may have altered from the original.⁷ Regrettably, the emulation of classical Latin style by Maffei is

(1998) 335–341, but cf. Fujitani (2016) for a new interpretation of the Chinese (rejecting) behavior as long-standing tension within the East Asian trade networks, thus the traditional (moralizing) view that is also innate in Maffei's account; on this see also below. On the different Christian missionary activities in China from early medieval times to 1800, and in particular the Jesuit mission, see the comprehensive overview with discussion of sources and secondary literature in Standaert (2001); however, Maffei's account is not mentioned therein.

4 Franchese (2019) 193. See also below ns. 7–8.

5 For Greco-Roman times see the sources compiled in Coedès (2010) (English translation of Coedès [1910]) and the commentary by Sheldon (2012). On a further source attesting to the Roman discourse in Augustan times see Geus et al. (2021). For the knowledge about, travel experience to, and images of China/East Asia during medieval times see Reichert (1992).

6 An overview of the detailed topics touched upon in each book of the *Historiae Indicae* is provided by the unnumbered table of contents in Maffei (1665). Cf. the index tables in some editions/translations, e.g., in Maffei (1844) 513–532.

7 And having found adequate Latin terms for new *res*: Serassi (1747) xx: *Incredibilem apud omnes, jam inde usque a priorum operum, multoque magis a D. Ignatii Vitae editione, assecutus fuerat existimationem et famam: verum ob perfectissimam hanc, omnique ex parte admirabilem Historiam, tanta ejus nomini facta est accessio celebritatis, ut communi prope literatorum hominum sententia non elegantissimos modo aurei seculi Historicos adaequasse, sed fortasse etiam eorundum optimos superasse [. . .] diceretur. Nam, ut omittam, quantum ille eleganter inconcinnas barbari idiomatis voces, Regionum scilicet, Urbium, Oppidorum, atque hominum etiam suavissimum Latinae linguae sonum accomodavit, et, quod perdifficile est, quam prudenter inaudita Latinis brutorum genera [. . .] ignotas arbores, neque commemoratas antea mercaturas, species*

a further *tessera* in such a mosaic of classical reception that cannot be touched upon in this chapter.⁸ However, there are clearer and more direct references to the classical past which we can examine, either referring to specific historical persons, generally relating the respective issue discussed to (in the author’s eyes) Western ancient *comparanda*, or alluding to ancient ideas and concepts.

The opening of his China-account unveils the author’s knowledge of ancient geographical ideas about China, followed by a unique, moral-laden comparison regarding the so-called (trade-)isolation-policy termed “sea ban” (*haijin* 海禁) which had been operative within Ming-dynasty China for a long time.⁹ Maffei states:

*SINARVM regio, quam hodie Cinam vulgus appellat, ultima terrarum Asiae, ab Oriente et a Meridie alluitur Oceano quem Sericum vel Eoum prisci dixerunt: ab Occidente Indiam ulteriorem attingit: a Septentrione cingitur Massagetarum Scytharumque limitibus. Multo latius quondam imperasse gentem, annales ipsorum ac litterae, et veterum aedificiorum illustria monumenta, et complures, in India praesertim, ab iis denominatae nationes haud obscure testantur. Sed cum sua ipsi mole viribusque fatigarentur (quod a Carthaginiensibus in re simili factum legimus) sponte misso veluti sanguine, et castigata luxuria, intra hosce fines recepere sese; gravi proposito edicto, ne quis iniussu magistratum excederet.*¹⁰

The territory of the Chinese, which today the common people name ‘China’, the most distant of the lands of Asia, is bathed from the east and from the south by an ocean, which the ancients called ‘Seric’ or ‘eastern’: from west it touches on India ulterior: from north, it is engirdled by the territories of the Massagetae and Scythae. That the [Chinese] people once

armorum, aliaque id genus plurima latinissime expresserit, quid pro divum atque hominum fidem eo ordine quo contexta, iis luminibus quibus ornata, ea varietate qua ubique hujusmodi Historia referta est, cerni pulchrius, aut excogitari illustrius potest? (“Among all, he had reached an incredible esteem and reputation, already since the publication of former works and even more so by the edition of the *Life of the Jesuit Ignatius* [of Loyola]: yet because of this very perfect, in every part admirable *History* such an increase of eminence for his name happened that according to the nearly common judgment of the *literati* he was considered to having not only reached the very elegant historians of the golden age but perhaps also to having outperformed the best of them. For that I omit how much he has adapted elegantly the inconsistent names of barbaric idiom, namely, of regions, cities, towns, and also of persons to a very sweet sound of the Latin language; and, what is very difficult, how prudently he expressed in Latin unheard kind of animals in this language, unknown plants, even goods never heard of before, arms, and very many other such things, what can be judged more beautiful or thought more illustrious – oh divine and human faith – than this order, by which the *History* is composed, than these enlightenments, with which it is ornate, than this variety, with which it is packed such everywhere?”).

⁸ See above n. 4. Based on Serassi (1747) ii–iv and more often throughout the *vita*. Cf. n. 7 on the judgment of style in the *Historiae Indicae*.

⁹ On the Ming maritime trade policy see Li (2010).

¹⁰ Maffei (1588) 109.

ruled much wider their own annals and writings, as well as the illustrious monuments of old buildings and many peoples named by them, particularly in India, clearly testify to. However, when they were exhausted in respect of their own effort and powers (what we read has been made by the Carthaginians in a similar way), just as by an own bloodletting and by castigating luxury, they kept themselves within their own territory; with a very strict edict being proposed that no one shall go out without permission by magistrates.

The geographical situation presents a tripartite division where the “Chinese” are situated somehow in the middle between rather legendary groups of Massagetae and Scythae (to the north) and the Indian territory (here, correctly, to the west; in ancient accounts to the south), accounts of which can be found in several ancient writers as early as Strabo in Augustan-Tiberian or Pomponius Mela in Claudian times.¹¹ Likewise, the direct reference to the naming of the Ocean as *Sericum, vel Eoum* by the ancients (*prisci dixere*) can be found, for instance, in Solinus who in particular had excerpted Pomponius Mela’s *Chorography* and Pliny the Elder’s *Natural History*.¹² This is subsequently followed by reference to Chinese chronicles and writings as well as ethnologically profound attestations of Chinese presence and power; the weakening and the eventual retreat of them into their own borders is then described, the succeeding reasoning and attestation of exhaustion being compared to that of the ancient Carthaginians. The motif of *luxuria*-castigation is mentioned shortly after in the narrative; however, the case of the Romans being viewed as morally declining after defeating Carthage is not evoked here, unlike, for instance, as we find in Sallust (*Cat.* 10); instead, the relation to Carthage might be an interpretation of the alleged exhaustion and weakening of Hannibal’s forces in Campania, as we find narrated in Livy and others.¹³ The end of (imperialistic) expansion and the sea ban law is, thus, put into a Western moral framework by Maffei.

This view of the Chinese world which has, on the one hand, to face similar moral problems as the West and, on the other hand, is able to find a – albeit radical – solution adds to the first main feature of the overall picture drawn by Maffei

11 See Coedès (2010) 4–6 and 9, with the sources, esp. Strab. *Geogr.* 11.11; cf. 15.1; *Chrest.* 15.1; Mela 1.11; 3.59–61. Cf. the commentary in Sheldon (2012) 10–17 and 21–24, respectively.

12 Solin. 23.17: *oras autem extimas Oceanus amplectitur, qui a litoribus suis Arabicus Persicus Indicus Eous Sericus Hyrcanus Caspius Scythicus Germanicus Gallicus Atlanticus Libycus Aegyptius dicitur* (“However, the Oceanus encompasses the furthest coasts; from these shores it is called Arabian, Persian, Indian, Eastern, Seric, Hyrcanian, Caspian, Scythian, Germanic, Gallic, Atlantic, Libyan, Egyptian”). Cf. Solin. 50. Cf. the commentary in Sheldon (2012) 146–149.

13 Liv. 23.45.1–3; cf. Flor. *Epit.* 1.22 = 2.6.21–22; the passage in Cicero’s *On the Commonwealth* on the moral decline of cities with harbors directly located at seaside (Cic. *Rep.* 2.7) was not yet known to Maffei. On the moralizing judgment about harbor (cities) in ancient literature see Günther (2016).

in which the Chinese land and people are rather utopian and offer an alternative world compared to the West. This image becomes clear in many details related by the author, which includes but is not limited to the abundance of resources and products,¹⁴ the working spirit of the Chinese people,¹⁵ the setup of houses, cities, and infrastructures,¹⁶ and the structure of society.¹⁷ In this respect, several further references to classical, and sometimes to contemporary,¹⁸ Western *res* can be noted.

14 Maffei (1588) 109–110, with a list of agricultural products and natural resources.

15 Maffei (1588) 109: *Accedit ad eximiam soli foecunditatem, summa cultorum industria. [. . .] Neque in tanta mortalium turba cessare cuiquam licet. Non privato dedecore tantum, et proximi cuiusque probris ac iurgiis; verum etiam publicis moribus legibusque desidia plectitur* (“To the great fecundity of the soil comes the highest industry of the farmers. [. . .] And in such great amount of people no one is allowed to be idle. Idleness is not only disciplined by private shame as well as name-calling and contention of any neighbor but also by public customs and laws”); cf. Maffei (1588) 114: *Nihil quod ulli usui possit esse, perire per incuriam sinunt* (“Nothing what could be of any use they let perish due to carelessness”).

16 See Maffei (1588) 110–111, for instance, for the description of public ways through challenging landscapes: *Iam, voraginibus, et hiatibus terrae, et stagnantibus aquis, quaeque alia ad iter impedimento sunt, publice occurritur. Quin etiam, asperrimis locis ad montium latera excisis cautibus, viae patescunt, ea molitione sumptuque, ut Romanam in eo genere magnificentiam non requiras* (“Further, one publicly counteracts abysses and deep hollows of the earth as well as floodings and whatever other issues are impedimental to travel. Even pathways are opened in very rough places to the flanks of mountains by having cut the rocks, with this effort and expense that you do not miss the Roman magnificence in this respect”). Cf. also *ibid.* the description of city infrastructure and the setup of houses that evoke ideas of well-planned Roman cities/army camps and villas, respectively.

17 See esp. Maffei (1588) 111–112.

18 Besides the use of *apud nos* or similar expressions, see, e.g., Maffei (1588) 111: [. . .] *sunt etiam quae, ad subvectionis evectionisque commoditatem, canales navium capaces introrsum admittant. Quales multis locis apud Belgas, et alicubi etiam in Italia cernimus; marginatis utrinque semitis ad terrestre iter adstructis* (“There are also those [cities] which allow channels appropriate for ships to their inside for the expedience of import and export. Such kind we know of at several places among the Belgae [= Netherlands], and somewhere also in Italy; with marginal paths on both sides being built to the country roads”); 113: *Itinerum spatia hoc pacto distinguunt. Minimam omnium mensuram patrio nomine vocant Li. Haec intervalli continet quantum aequa planitie, die puro ac sereno, vox humana percurrit. Li decem unum explent Pu, quod Hispaniensi ferme leucae respondet; siquidem Pu dena diei unius iter efficiunt, quod vulgo ychan appellant* (“The distance of ways they distinguish in this standard. The smallest measure of all they call in their own language *li*. This comprises the distance of how long on a plain ground at a clear and serene day the human voice runs. Ten *li* fill one *pu*, which corresponds nearly to one Spanish *leuga*; hence ten *pu* make the way of one day travel, what they commonly call *ychan*”). Cf. also further passages mentioned in this paper.

A strong point of interest lies, first, in the Chinese written and spoken language.¹⁹ Maffei goes to great pains to explain this very different language to his readers:

[. . .] *litteras imaginesque subiectis praelo typis excudere (quibus commentis Europa recentibus adeo gloriatur) vetustissimo in usu apud Sinas esse, compertum est. [. . .] Ad scribendum autem, arcas et oblongas adhibent e laevi admodum ac tenui papyro pagellas. Neque versus ab laeva ad dextram, ut Graeci; neque ab dextra ad laevam, ut Hebraei; sed ad inum ab summo perducunt. Cuius generis impressum volumen, atque inde transmissum, Romae in Vaticano, itemque in Laurentiana Philippi Regis bibliotheca videre me memini. Litteris utuntur velut Aegyptiis, quas hieroglyphicas Graeci dixere. Eae singulae singulis nominibus serviunt, atque etiam integris interdum sensibus. Ita fit, ut cum Sinae, varia lingua, quippe tam multis regionibus tamque disiunctis, utantur, tamen, quae litteris consignata sunt, peraeque omnes intelligent. Praeter suum cuiusque nationis atque provinciae certus insuper et communis eruditorum est sermo. Latinae apud nos linguae respondet. Vulgo Mandarinum appellant. Hoc aulici, scribae, iurisconsulti, iudices, magistratus utuntur: huic impensa cura dant operam.*²⁰

[. . .] one finds out that printing letters and images with a letterpress (which recent invention Europe boasts about very much) is in very old use among the Chinese. [. . .] However, for writing they use small and long sheets from quite light and thin papyrus [*scil.* paper]. And they lead the lines not from left to right, as the Greeks; nor from right to left, as the Hebrews; but from top to down. A book printed in this way and transmitted from there I remember to see in Rome in the Vatican, also in the Laurentian Library [*scil.* San Lorenzo de El Escorial] of King Philip. They use letter signs just as the Egyptians, which the Greeks called hieroglyphs. Each single serves a single *nomen*, and also sometimes for a full concept.²¹ Thus it happens that though the Chinese use various spoken forms of language, namely, in so many and so far distant regions; they nevertheless all understand totally what is indicated with the letter signs. Besides their own dialect of each ethnic group and province there is a certain high-level and common language of the educated. This corresponds to the Latin language in our sphere. They commonly call it Mandarin. This language court officials, scribes, jurists, judges, and magistrates use: this language they study with great effort.

This passage again shows that China is viewed as a highly developed land comparable to Europe, having used letterpress printing with movable letters for a much longer time than the then rather recent invention by Johannes Gutenberg. In addition to having very suitable writing material such as paper, the Chinese used a sophisticated writing and language system with a high language for the *literati*,

¹⁹ Caterina Fregosi has pointed out to me the differences to Indian elite writing for indoctrinating common people (see Maffei [1588] 24–25) and to the people of Brazil who are said to know no counting and written language at all (see Maffei [1588] 33).

²⁰ Maffei (1588) 113.

²¹ Cf. the Italian translation in Maffei (1589) 98v: “una sola di esse serve ad isprimere un nome, et alcune volte ancora un’intero concetto.”

which is visibly shown to be comparable to Latin in Europe, the *lingua franca academica*, an idea that would have been shared among Maffei’s readers.

Second, Maffei focuses on the wealth of products in the Chinese country. For instance, in passing, he notes that he could not find an ancient Greek or Latin equivalent for musk, one among the great number of perfumes, the production of which is described as follows:

*odoramentis cum aliis abundant, tum praecipue mosco (cuius nullam apud Latinos Graecosve scriptores mentionem invenio) e feris quibusdam, vulpecularum effigie, crebro verbere enectis, dein putrefactis.*²²

Though they abound in other perfumes in particular they do in musk (of which I find no mention in Latin or Greek writers), being made from certain wild animals with the appearance of foxes, being taunted to death by repeated blow and then being let rotten.

There are few late antique attestations of the notion of both the animal and the perfume produced from it²³ of which Maffei probably was unaware, yet his pointing to a non-mention in ancient writers serves the purpose of concluding the long list of products being available (for export) in China, on top of which unknown (or rarely known) ones in the traditional West are presented (similarly, for instance, tea and porcelain are mentioned before).²⁴ This abundance of products is immediately contrasted with the alleged self-sufficiency of the Chinese regarding imports from outside their territory, and contributes to creating the image of a paradise being nearly, but not fully, untouched by desire for luxury and, consequently, being less prone yet not completely immune to moral decline:

*Denique, nihil aliunde, non ad victum modo cultumque sed ne ad delicias quidem ac voluptates requirunt. Ac proinde nulla sub Sole gens est, apud quam aliarum gentium opes aequae consistent, quippe vendentibus cuncta Sinis, nihil invicem redimentibus, nisi forte in usum tectorii cuiusdam odorati, piper ex India. Neque erat externo commercio locus; ni Sinam infinita quaedam teneret argenti cupiditas. Id praeferunt auro; et, cum indidem effossum, tum e remotis regionibus illatum, avidissime accumulunt.*²⁵

22 Maffei (1588) 110.

23 See *TLL* VIII s.v. *muscus*.

24 Tea: Maffei (1588) 109: *Caeterum ex herba quadam expressus liquor admodum salutaris, nomine Chia, calidus hauritur, ut apud Iaponios [. . .]* (“Furthermore, a highly healthy liquor being pressed out of a certain herb is drunken hot, as among the Japanese [. . .]”). Porcelain: Maffei (1588) 110: *Margaritas, et praecipuae nobilitatis vasa fictilia, quae vulgo porcellana dicuntur, pretiosas pelles ad frigus arcendum, item gossipii, lini, lanae, bombycisque et serici fila, vestemque omnis generis mittunt innumerabilem* (“Pearls, and fictile vessels of foremost nobility, which are commonly called porcelain; precious furs to protect against cold; also cotton, linen, wool, different silk fabrics, and uncountable cloths of all kind they send abroad”).

25 Maffei (1588) 110.

Actually, they request nothing from elsewhere, not only for physical and cultural livelihoods; but also not even for pleasures and enjoyments. And hence, there is no people under the sun among whom goods of other peoples have equal standing. For while the Chinese sell everything, nothing they buy in return, unless by chance pepper from India to use for a certain perfumed makeup. And there would be no place for external trade; if not a certain and infinite cupidity for silver tied up China. This [silver] they prefer to gold; and they accumulate it in a very greedy way, as on the one hand it is unearthed there, on the other hand it is imported from remote regions.

Third, money is a topic which especially appears in several other moral-laden passages throughout the book. The economic issue of price calculation, for instance, contains another reference to the ancient Western past:

*Pretia rerum (ut quondam in Latio) non moneta nummisve, sed, ne locus adulterio pateat, concisi maxime argenti pondere metiuntur: atque in id ipsum, forfices, et habilem trutinam ligneolae inclusam thecae, in sinu circumferunt. Ad maiora vero pondera, cum lancibus libram, publice probatam obsignatamque habent domi. Teruntios duntaxat ex aere publica forma percutiunt, gestantque pertusos in linea, suppleendis argenti pretiis vel etiam ad quisquilias coemendas.*²⁶

The prices of things (as once in Latium) they measure not with money or coins; but that no place for fraud stands open, with the weight of silver (bars) being cut as much as possible: and to this end, they carry around tongs and a suitable pair of scales being enclosed in a wooden box in their hand. However, for greater weights they have a scale with pans, being publicly approved and certified at home. Only small change [= *teruncius*; literally: three *unciae*] they cut out of copper with a public imprint, and they carry those pierced pieces on a line for supplementing the prices in silver, or also for buying trivia.

In pointing to the use of silver tax ingots (so-called *sycee*) for the handling of higher prices on the one hand and small bronze (so-called cash coins) on the other for daily transaction,²⁷ Maffei explicitly states that the former was not coined money (*non moneta nummisve*) and compares it with the former situation in Latium. This is very likely to be a reference to the early money systems especially seen in North and Central Italy with the use of *aes rude* and *aes signatum* ingots (as well as further bronze coinage such as *aes grave*) before the Roman currency system, being composed of an interrelated system of silver and *aes* denominations, gradually became dominant.²⁸ Reading it again within a moral framework, such a system as described by Maffei would facilitate necessary trade in the real (weight-based) value of precious metal as commodity money and stand against any possible fraud and speculation linked

²⁶ Maffei (1588) 114.

²⁷ On the monetary system and the emergence of silver, particularly through foreign trade, see Atwell (1998).

²⁸ On the Roman/Italian currency development see Burnett (2012).

with nominal value of representative money – a common topic of the so-called metallism-nominalism discourse in Christian and philosophical thought.²⁹

To this we can add two further passages, the first comparing the wealth of the Chinese State treasury to the wealth of the Roman State treasury at the end of the life of Emperor Vespasian:

*Iam de thesauris, et coacervatis auri et argenti laminis, admiranda narrantur. Nec desunt qui ad nostrae monetae supputationem aureorum annua millies ferme ac ducenties centena millia Regem capere pro certo perhibeant: quantum vix moriens Imperator Vespasianus, et quidem pecuniae diligentissimus, in aerario Romano reliquit. Ingens omnino summa: et in cuius contemplatione haud immerito laboret fides.*³⁰

However, about the treasuries and accumulated plats of gold and silver admirable things are told. And there are some people who state that with certainty in calculation of our money the Chinese Emperor catches annually nearly 120 million *aurei*: how much hardly the dying Emperor Vespasian, also being very diligent regarding money, left in the Roman aerarium. Indeed, a vast amount: not without reason one can hardly believe it.

Though the concrete sum of money left in the public treasury (*aerarium Saturni*) at the death of Vespasian (r. 69–79) is unknown,³¹ the comparison points to a general reading of Suetonius’ *Life of Vespasian* (rather than Cassius Dio) by Maffei, or his contemporary references, in which the emperor’s thrifty behavior and aim to increase tax revenues is related.³² While this passage is part of the section about “revenues of the emperor” that is still overall framed in a positive way, the second

²⁹ Being based on the interpretation of the origin of money in Aristotle’s works. See Wittreck (2016) for the medieval philosophy and scholastic thoughts (with further literature).

³⁰ Maffei (1588) 118.

³¹ The detailed account by Frank (1959) 44–55 offers no cogent source evidence for the overall imperial income during Vespasian’s reign; however, it provides some possible calculation.

³² Suet. *Vesp.* 16.1; 3: *Sola est, in qua merito culpetur, pecuniae cupiditas. Non enim contentus omissa sub Galba vectigalia revocasse, nova et gravia addidisse, auxisse tributa provinciis, nonnullis et duplicasse, negotiationes quoque vel privato pudendas propalam exercuit [. . .]. Sunt contra qui opinentur ad manubias et rapinas necessitate compulsam summa aerarii fiscique inopia; de qua testificatus sit initio statim principatus, professus quadringenties milies opus esse, ut res publica stare posset* (“It is only the cupidity for money for which he could be rightly blamed. For not being content to having recalled *vectigalia*-abolishments under Galba, having added new and heavy ones, having increased the *tributa* being laid on the provinces, having in some also doubled them, he exercised also publicly businesses that should shame even a private person [. . .]. On the contrary, there are those who believe that he was pushed by necessity to spoliation and robberies due to the highest shortage in the public treasury and imperial fisc; to which he testified immediately at the beginning of his principate, declaring that forty billion were necessary to keep the State upright”). Cf. Cass. Dio 65(66).8.3–4. On the frequent use of Suetonius’ *De Vita Caesarum* in these times, also with close relation to coins and/or “forgeries” such as the Paduan medals by Giovanni Cavino, see Günther (2015).

reference belongs to the section about the alleged tyrannic behavior of the Chinese, forming one of the main points of criticism of the Chinese system and our fourth frame of reference for linking Chinese customs with the Western classical past.³³

*Rex, barbara et stulta quadam arrogantia, sese dominum mundi, caeli filium appellat. Privatorem fortunas, et partam sudore et vigilantia rem, per publicanos et exactores durissimos atterit: ex ipsis etiam capturis impudicarum, quod a Caligula olim factum legimus, foedissimo vectigali instituto.*³⁴

The Chinese Emperor, in a barbarous and certain stupid arrogance, calls himself master of the world, son of heaven. He shatters the fortune of private persons, and anything acquired by sweat and care, through very harsh tax-collectors and -controllers: even a very nefarious tax from the wages of the unchaste has been established, which we have read to have been once done so by Caligula.

Caligula's (r. 37–41) ill-famed prostitute tax, that is also reported, among others, by Suetonius,³⁵ is clearly employed by Maffei to further darken the negative picture painted of the Chinese royal counterpart.

Yet some behaviors of the Chinese people are also viewed negatively, as one episode in a rather mixed list of observations might illustrate:

*Ungues enormem in longitudinem excrescere patiuntur: quasi vero id (quemadmodum apud Graecos olim et crepidis uti, et comam alere) ingenui hominis, et sordidis operibus nequam occupati indicium sit.*³⁶

33 Starting from Maffei (1588) 119: *Haec ferme Sinarum bona laudesque: quas tamen easdem gravioribus malis vitisque superari non dubium est* ("These are almost the goods and advantages of the Chinese: however, there is no doubt that these same are outmatched by greater evils and vices").

34 Maffei (1588) 121.

35 Suet. *Cal.* 40: *Vectigalia nova atque inaudita primum per publicanos, deinde, quia lucrum exuberabat, per centuriones tribunisque praetorianos exercuit, nullo rerum aut hominum genere omisso, cui non tributum aliquid imponeret. [. . .] ex capturis prostituerum quantum quaeque uno concubitu mereret; additumque ad caput legis, ut tenerentur publico et quae meretricium quive lenocinium fecissent, nec non et matrimonia obnoxia essent.* ("New and unheard taxes he first enforced through the publicans, then, because profit was abounding, through centurions, tribunes and praetorians, leaving no kind of things or men out, on which he could not impose any kind of tribute. [. . .] from the wages of prostitutes he demanded how much one earned in one cohabitation; while to the chapter of the tax law was added that also those should be held liable to the public tax who had been conducting the business of a harlot or pimp, and even wives were held liable"). On this passage see Günther (2008) 19 (on the intentional use of the two main tax terms, *vectigal* and *tributum*, to frame the emperor in a negative way) and 155–160 (on the tax measures allegedly taken by Caligula).

36 Maffei (1588) 120.

They [*scil.* the Chinese] allow the fingernails to grow to enormous length: as if indeed this (as once among the Greeks to use leather shoes as well as to nurture hair) might be a sign of a man, being gentle/freeborn and in no way occupied with dirty works.

The custom of having long fingernails is also mentioned in Odoric of Pordenone’s (1286–1331) travel report about China,³⁷ and here such an “extravagance” is linked to the supposed Greek customs of wearing the κρηπίς/*crepida* and to nourishing the hair. The former may point to the luxurious form of these shoes³⁸ while the latter, being interpreted as wearing long hair, is attested in several sources, for instance in Aristotle regarding the Spartans.³⁹ Both ancient frames of reference are narrowed by Maffei to be an actual statement of social and moral distinction for noble/freeborn Chinese, with a further link to the distance from morally sordid works; however, this is actually a common discourse in Western (ancient) sources also.⁴⁰

Among the points of criticism, naturally for the Jesuit Maffei, there are also the non-Christian religious thoughts, practices, and superstitions of the Chinese.⁴¹ At the time of Maffei’s writing the Nestorian Stele attesting to the Church of the East had not yet been discovered, so Maffei, also in light of the Portuguese misconduct (see above, with n. 3), could not fully establish the narrative of the thrice introduced Christianity in China, the Jesuits being the third and – of course – most successful one.⁴² We do find, however, thoughts about potential points of missionary contact:

37 Yule and Cordier (1913) 256.

38 The evidence is provided by Bieber (1922).

39 Aristot. *Rhet.* 1367a 29–31: [. . .] οἷον ἐν Λακεδαίμονι κομᾶν καλόν· ἐλευθέρου γάρ σημεῖον· οὐ γάρ ἐστιν κομῶντα ῥάδιον οὐδὲν ποιεῖν ἔργον θητικόν. (“[. . .] such as in Lacedaemon it is noble to let the hair grow long: for it is the sign of a free gentleman: for it is not easy that a man wearing long hair performs a servile work”). On Sparta and hair see esp. David (1992) (ns. 20 and 22 for further references and sources). In general on the link between social status and hair in antiquity see Stewart (2019). On the alleged purpose of the Chinese nutrition of hair see Maffei (1588) 119: *Capillum tam diligenter iccirco nutriunt, quod credant ea se tamquam ansa in caelum aliquando sublatum iri* (“So they nurture hair so diligent on which as by a handle they believe that they are taken once to heaven”).

40 On this discourse that was common in Greco-Roman times see the paradigm formulated in Cic. *Off.* 1.42.150–151. Cf. Plat. *Rep.* 2.11f. 371a–d. See Fellmeth (2008) 14–18 for an overview.

41 Maffei (1588) 119–120. Cf. the Indians: Maffei (1588) 25; I thank Caterina Fregosi for this reference.

42 On the Nestorian Stele in Xi’an, probably discovered in 1625, see Ruboud (2001) 3–4 and 12–15, in particular. On the emerging propaganda of the third, finally successful arrival of Christianity in China through the Jesuits, see, for instance, the bilingual grave-inscription of Matteo Ricci (1552–1610) in Beijing (here the Latin text only): [. . .] *ubi prim(us), cum Chr(ist)i fides tertio iam invehetur, sociorum domicilia erexit* (“[. . .] where he was the first, when the Christian faith was carried into [the country] already the third time, to build houses for the confreres”). On this

*Sane Evangelium accepisse olim ab Apostolo Thoma creduntur, ut supra dictum est: et imago testatur id ipsum procerae mulieris, puerulum in sinu foventis, cui ardentibus hodieque lychnuchos more nostro suspendunt. Sed nec Apostoli vlla iam ibi mentio: et cuiusnam ea sit effigies, prorsus ignorant. Adeo, vel ipsa regionum longinquitate, vel diuturno cultorum desiderio, in ea terra semen omne Christianae pietatis interiit. Qui sapientiores habentur, ii arcanis et quae non temere vulgent decretis, Pythagorae ferme somnia de transmigratione animorum sequuntur: et pro meritis actae vitae, sua cuique praemia et supplicia, ex communi omnium gentium opinione constituunt; sedesque fingunt refertas cunctis iis, quae vulgo vel ad felicitatem prima, vel ad miseriam extrema ducuntur.*⁴³

Indeed, they are believed to have once accepted the Gospel by the Apostle Thomas, as was said above: and the image of a slim woman, holding a small child in her lap, for which they hang up burning lights up to now according to our custom, testifies to this. However, there is not any mention of the Apostle there anymore: and whose effigy this is, they totally ignore. To this extent, either due to the distance of the regions, or due to the long-term desire of the inhabitants, in this land every seed of Christian faith has perished. Those who are held rather wise follow, by arcane and not thoughtless published decrees, the nearly-Pythagorean illusion of a transmigration of souls: and for the merits of an acted life they decide on each one's suitable rewards and punishments, based on the common opinion of all clans; and they imagine seats filled with all those things that are commonly held first either to be sign of fortune or, on the extreme contrary, to be sign of misfortune.

It is not just the legendary and first Christian mission by the Apostle Thomas which is brought forward; there is also the Buddhist Child-giving Guanyin which was equated with the Holy Madonna by Jesuit missionaries.⁴⁴ The beliefs and practices of the Chinese intellectual elite in particular are framed as similar to

(and other inscriptions) see Leeb (2018) 48–51. Cf. the inscription by Adam Schall von Bell at the Jesuit's church in Beijing, set up in 1650, quoted in Kircher (1667) 107: *Post fidem a D. Thoma Apostolo primum advectam, postque eandem a Syriis tempore imperii Tam, iterum et latius propagatam; tertio rursus sub imperio Mim post eandem ducibus S. Francisco Xaverio, ac P. Matthaeo Riccio per Societatis Jesu homines, et verbo, et libris Sinice editis divulgatam* ("After Christian faith has been first brought by the saint apostle Thomas, and after the same [sic] has been propagated again and wider by the Syrians [scil. Nestorians] in the time of the Tang Dynasty; after again the third time under the Ming Dynasty the same [sic] was really widespread under the leadership of saint Francis Xavier and pater Matteo Ricci through the men of the Societas Jesu, by word as well as by books edited in Chinese"). On a detailed discussion of both inscription and church structure during Adam Schall von Bell's time see Wang (2014) 46–57.

⁴³ Maffei (1588) 119.

⁴⁴ For a wooden artifact as an example see <https://gettysburg.contentdm.oclc.org/digital/collection/p4016coll6/id/447> (accessed January 24, 2023). On the iconographic framework cf. Chen (2018). Cf. the finding of a metal crucifix in Goa (Maffei [1588] 88) and the discovery of the tomb and remains of Apostle Thomas (Maffei [1588] 159 and ff.); thanks again to Caterina Fregosi for these two references.

Pythagorean thoughts,⁴⁵ and thus evaluated as implicitly manageable for a future Christian mission; this indeed later became one marked characteristic of the Jesuits’ missionizing strategy.⁴⁶

Yet, this critical review of the first contact between Chinese and Portuguese, related at the end of Maffei’s account of China,⁴⁷ clearly shows that Maffei did not intend to merely assess the far-distant country. To put it in a nutshell, Maffei built China as a counter-world to mirror Europe’s state, in two ways: on the one hand, he painted China as a utopian paradise that had an abundance of all resources and enjoyed a perfectly organized system; on the other hand, already in the part regarding China’s pros Maffei inserted references to potentially dangerous elements that could lead to (moral) decline and were explicitly linked to exposure to the world outside, namely, trade and the cupidity of silver. This mushroomed into open criticism in the second part which pointed out the previously unmentioned weaknesses of the Chinese system, mainly in respect of their hierarchical society, their religion, and their absolute ruler. That in all these instances, references to the Western classical past (and sometimes contemporary issues) were employed by our author is a sign of intentionally directing his erudite readership in the West to reflect on structures and development in their own, European environment, the alleged disorder and morally rotten state of which could even hinder a successful “globalization”. Hence, primarily, it was not an issue of economy and imperial power but one of Christian faith which was always in the center of Maffei’s thoughts.

⁴⁵ On the supposed links between Greek and Indian thought that were already discussed in ancient times see Stoneman (2019), esp. chapters 11 (“The Indian Philosophers and the Greeks”) and 12 (“Two Hundred Years of Debate: Greek and Indian Thought”).

⁴⁶ On this strategy of accommodation see Collani (2001) 310–311.

⁴⁷ See above n. 3.

Michele Castelnovi

***Clausa recludo*: Martino Martini and the Dissemination in Europe of Cartographic Knowledge about China**

1 Cartographic Knowledge About Extra-European Peoples: a Secret to be Jealously Guarded

In the warlike Europe of the seventeenth century, Machiavellian stratagems between rival states and factions (often considered heretical and therefore unworthy of any pity) had heightened the perception of cartography as a valuable asset to be jealously guarded in order to maintain a strategic and tactical advantage – not only over enemies but also over allies and vassals, and even other religious orders perceived as adversaries: for the Jesuits in China, the Spanish-sponsored Mendicant Orders, Dominicans, and Franciscans.

For several decades, the Jesuits had collected geographical information about China without allowing much of this to become public knowledge. Maps and descriptions were written in Latin, but only to facilitate internal communication within the network¹ of the Jesuit community, composed of fathers from different and distant linguistic cultures. Only almost accidentally and fortuitously did some information become disseminated, albeit in an incomplete way.

The first map of China, printed by Ortelius in 1570, was based on the information provided by the Portuguese Jesuit Luis Jorge de Barbuda, mentioned in the cartouche simply as *Ludovicus Georgius*:² it appears very inaccurate, especially in the regions far from the seacoasts. Except for that one map, no other attempts by him to spread his knowledge are known, yet Barbuda would have had many opportunities. The only certain information about him is that in 1596 King Philip II of Spain hired him as a master of nautical maps and cosmography, *de facto* preventing him from spreading further news about a strategic area so close to the Philippine Islands, which still bear this name in honor of the King who had sent there his *conquistadores*, soldiers who acted in the name of evangelization, through the legal fiction of *Requerimiento* already applied in the Americas.

1 Caboara (2020).

2 Dorofeeva-Lichtmann (2018) 141; Caboara (2022) 170.

Other Jesuits had gathered geographical information, either by their travels, by collecting documents as a gift from converted Chinese officials,³ or by buying “comprehensive gazetteers” called *zongzhi*⁴ or single maps for sale on the Chinese market.⁵

At the end of the sixteenth century, the Jesuit Michele Ruggieri had compiled a manuscript atlas with a general map of China and individual maps for each province,⁶ and had also developed his own method⁷ to adapt Chinese data. But we also know that Ruggieri returned to Italy and lived for many years without ever entrusting a printer with the publication of his geographical knowledge, to share the manuscript atlas with intellectuals throughout Europe.

Similarly, Matteo Ricci’s manuscript chronicle remained secret for years, until the Jesuit Nicolas Trigault made a Latin summary of it (1615). At the height of notoriety, Trigault publicly announced⁸ his intention to compose an atlas of China, but it was never published – perhaps because of a deliberate choice of the author or his superiors.

The Jesuit Michal Boym also drew some handwritten maps, destined to be kept in secret archives and only for the eyes of Popes, Fathers General, Kings, and maybe Geographers of the King on special missions, such as perhaps Sanson. Boym made a different decision from Martini,⁹ only publishing a treatise on botany, *Flora Sinensis* (1656), whose title consciously echoes the great success in the book markets of Martini’s *Novus Atlas Sinensis* (1655).¹⁰ Boym decided not to print, despite the availability of printers (in Venice, Rome, and Paris) and much time; he had returned from China almost a year before Martini and would only leave in 1656 after a fruitful meeting with Pope Alexander VII.

3 Castelnovi (2021) 71.

4 Cams (2020) 974.

5 Cams (2020) 979.

6 Lo Sardo (1993).

7 Lin (2022) 126.

8 Cams (2020) 984.

9 Following a proper publication program, Martini printed three books: a chronicle of recent years, *De bello Tartarico historia* (Antwerp, Moretus, 1654); a treatise on geography with 17 maps, *Novus Atlas Sinensis* (Amsterdam, Joan Blaeu, 1655); and a history of ancient China, *Sinicae historiae decas prima* (Munich, Straub, 1658).

10 Martini (1654) 10 announced to readers that the other two books would be composed using *Sinicae mappae* and *Sinensis Historiae pervetusta exemplaria*. Martini chose for his books two titles with the same adjectives, but reversed: *Atlas Sinensis* and *Sinica Historia*, avoiding the genitive *Sinae/Sinarum* (typical of mainstream Western cartographers and even in Blaeu’s translations) to emphasize the local origin of his information: Castelnovi (2012) 21.

The *Padroado* interfered with Father Boym's travels both to and from Asia. Despite his dual role as a missionary and as a diplomat for the last defeated Ming, Boym was first detained in Macao, and only the threat of excommunication convinced the governor to let him set sail. He then risked being stuck in the port of Goa for the whole of 1651 due to Portuguese opposition against his embassy,¹¹ although officially commissioned by the Pope. Boym was thus forced to travel the *iter terrestre* to avoid being slowed down by any pro-Lusitanian subjects and when he managed to reach Venice from the Turkish city of Smyrna in 1652, he asked for and obtained the protection of the French Ambassador René de Voyer de Paulmy, second comte d'Argenson, provoking negative reactions¹² from the Portuguese and Pope Innocent X who sided with them. On his next journey from Goa to the last Ming, Boym was impeded by the Portuguese: the *Padroado* proved to be a double-edged sword.

Most active in opposing the *Padroado's* monopoly was perhaps the French Jesuit Alexandre de Rhodes, born in Avignon in 1591, who went on missions at least four times to China and Tonkin and was openly opposed to this dependence on the Portuguese. De Rhodes held back his protests as long as the pontificate of Innocent X lasted, and his opponents obtained that he be sent far away from Rome, on a mission to Persia, in November 1654. After the Pope died in January 1655, the pro-French faction succeeded in electing Cardinal Fabio Chigi, who became Pope Alexander VII. With the papal bull *Super cathedram principis apostolorum*, signed on September 9, 1659, he established three new Apostolic Vicariates *in partibus infidelium*, which were no longer subject to the *Padroado* and were assigned to three French bishops, neglecting all Spanish and Portuguese missionaries who already knew the languages of East Asia.

There existed within the high clergy a faction openly opposed to the *Padroado*: this included the theologian Francesco Ingoli and Cardinal Antonio Barberini, younger brother of Cardinal Francesco Barberini to whom Martini wrote in 1656. Antonio Barberini was an important figure in Martini's biography; he was the Prefect of the *Congregatio de Propaganda Fide* in charge¹³ when the examination of the Chinese Rites controversy was decided with a solution that approved the Jesuit approach in Martini's formulation.¹⁴ Born in 1607, the nephew of Pope Urban VIII became cardinal in 1627, Prefect of *Propaganda Fide* from 1632 to 1671, and *legatus* in Avignon from 1633 to 1644. In 1645 he was removed from his role as *legatus* by Pope Innocent X, who belonged to the opposite faction, and

11 Miazek-Męczyńska (2011b) 107.

12 Miazek-Męczyńska (2011a) 44.

13 Bertuccioli (1998a) 367.

14 Criveller (2016) 204.

found refuge in France with Mazarin. When Innocent X died, Antonio Barberini supported the French faction by pressing Alexander VII for geopolitics aimed in every way at taking power away from the Portuguese and assigning as much influence as possible to the Kingdom of France.

Belonging to the “pro-French” faction also was the theologian Francesco Ingoli, another member of *Propaganda Fide*, best known for opposing the ideas of Copernicus and Galileo, but active also in reducing in every possible way the influence of the Portuguese *Padroado*¹⁵ (although he did not live to see the successes, having died in 1649).

Many of Alexander VII’s initiatives could be interpreted as an attack against the *Padroado*, including the approval of Martini’s solution to the Question of Rites and the creation of the three new Apostolic Vicariates in China, which effectively reduced the diocesan competence of Macao to the island alone, assigning the neighboring Guangdong and Fujian to the Bishop of Cochinchina and the other maritime provinces to the Bishop of Nanjing, as well as entrusting both bishoprics to members of the *Séminaire des Missions étrangères* of Paris.¹⁶

Theoretically, the pope would have had other experienced Orders at his disposal. But Dominicans and Franciscans were manoeuvred by the geopolitical needs of Spain;¹⁷ Martini was still alive but had already been traveling for months. These decisions by an experienced negotiator such as Fabio Chigi, who had performed a leading role in the treaties of the Peace of Westphalia, were important regardless of their actual realization on the spot, the reactions of the native populations, and the inevitable inertia given by the remoteness. They certified a choice; Alexander VII preferred to entrust the Far East to a strong France rather than a weak Portugal.

In the following years, many French initiatives in the direction of extreme Asia were based on that papal bull of 1659. Returned to independence after decades of Spanish control (1580–1640), the Portuguese struggled more and more to maintain control over their small settlements in Asia, which were constantly threatened by both the natives and the Dutch privateers who, as Protestants, did not recognize any validity to the papal bulls on the possession of colonies. On the other hand, the catholic king Louis XIV appeared stronger and more prestigious in every move on the geopolitical chessboard: from Louisiana to the Caribbean, from the islands of the Indian Ocean to the coast closest to China.

¹⁵ Pizzorusso (2004) 22.

¹⁶ Capristo (2017) 102.

¹⁷ Menegon (1998a).

Lisbon could only oppose an abstract primogeniture, based only on documents, powerless to control an overly vast and dispersive colonial empire. Instead, Paris appeared as a powerful counterpart with effectiveness and agency, with the Monarch often imposing his arbitrary Will with the impact of musketeers rather than the subtlety of ambassadors.

In 1660, a *Compagnie de Chine* was founded in Paris, later incorporated into a *Compagnie des Indes Orientales* created by the First Minister of State, Jean-Baptiste Colbert.¹⁸ Neither would have been conceivable previously; the hemisphere assigned to the Portuguese was completely taboo for the French, until 1659.

Meanwhile, the Portuguese reacted by stirring up a heated debate within the Society of Jesus. In 1664 the Jesuit missionary Giovanni Filippo De Marini even had to seek the support of Catherine of Braganza in London to mitigate the threats of her brother, King Afonso VI, while the Congregation debated whether to prefer the *iter terrestre* already experimented by some fathers or to continue with the *carreira das Indias* or other solutions. De Marini himself preferred to set sail from Lisbon with six Italian, one Flemish, and six Portuguese missionaries.¹⁹

France continued to follow its agenda. In 1666, Colbert established the *Académie des Sciences* in Paris; theoretically conceived to deal with physics and chemistry, it had also precise geographical and cartographic tasks, illustrated by the well-known painting by Henri Testelin which has a globe on the left (with France colored dark blue) and a large wall map on the right with a river flowing into the Mediterranean in the foreground.

From Beijing, on August 25, 1678, the Flemish Jesuit Ferdinand Verbiest printed a circular letter (in Latin) to all Jesuits, summoning them to evangelize China;²⁰ the heartfelt appeal was translated into French and spread by the affordable Parisian pocket periodical *Mercure Galant* in September 1681,²¹ at the instance of Louis XIV and Colbert. Three years later, in 1684, the *Académie des Sciences* formulated several questions considered of vital strategic importance to be asked to Jesuit Philippe Couplet, who had just returned from China, including whether he had continued Martini's work,²² an indication of how much resonance the books printed 30 years earlier as part of Martini's "publication program"²³ still had at the time.

¹⁸ Ames (1996).

¹⁹ Bertuccioli (1990).

²⁰ Golvers (2003) 183.

²¹ *Extrait d'une lettre très curieuse écrite de la Chine*, 194–211. Cf. Quaini and Castelnovi (2007) 151.

²² Standaert (2016) 1.

²³ Golvers (2016) 121.

Soon after, in 1685, Louis XIV sent six Jesuit scientists, the *Mathématiciens du Roy*, on a religious and scientific mission to China: “a French Jesuit mission was set up, supported by the French Crown. One of its prime objectives was to strengthen knowledge on China’s geography.”²⁴ In the meantime, the King financed the expeditions of numerous French explorers and navigators not only to the Americas but also to Extreme Asia. In time, those ventures led to the creation of real colonies in the territories we now call Cambodia and Vietnam, *via* Île de la Reunion (from 1665) and Pondicherry (from 1674). All this could only happen because the Portuguese *Padroado* had been called into question: it was increasingly seen as a medieval remnant from the mid-fifteenth century that barely survived in a general rush towards modernity that anticipated the Enlightenment.²⁵

I do not claim that this was all thanks to Martini’s three books. The causes were profound, structural, and far-reaching: the end of the Thirty Years’ War with the new geopolitics sanctioned by the Peace of Westphalia, a different style of international relations, a new approach from the Pope,²⁶ a different balance between Catholics and Protestants, the emergence of France as an absolute protagonist led by Louis XIV, in conjunction with an increasingly weakened Portugal focused only on Brazil and unable to resist the ruthless Dutch aggression on every possible shoreline, in the West as in the Far East. Perhaps Martini had merely²⁷ the humble merit of disseminating his own knowledge that he had obtained from accurate Chinese geographers, choosing the printing press and the Latin language.

2 *Clausa recludo*: Making Visible What Was Hitherto Hidden

The number of maps and re-editions of maps on China saw a remarkable rise after Martini’s arrival in Europe,²⁸ as did the number of books dedicated to the Far East.²⁹ From Antiquity and throughout the Middle Ages, Westerners continued to nourish a dreamlike imagination, in which China could assume the role of

24 Cams (2020) 985; see Cams (2017).

25 Zoli (1978) 125.

26 Demarchi (1995) 426.

27 Demarchi (1995) 428: “Martino Martini, in view of his works, must be acknowledged the considerable merit of having raised problems of enormous importance.”

28 Caboara (2022) 22–26.

29 Demarchi (1995) 428.

an idyllic dream or menacing nightmare: from Eden to Gog and Magog, from the serene silk worn by almost Stoic wise men to the massacres carried out by the Mongols.³⁰

The Portuguese presence had always remained demographically scarce, and information from places so far away was fragmentary and contradictory. Trigault's text published in 1615, with its programmatic exaltation of Matteo Ricci as a protagonist with almost legendary and infallible powers, had achieved considerable success with daydreaming bookworms in lavish libraries and comfortable schoolrooms for seminarians. But that miraculous conversion of the Ming Court, which seemed so close at hand to Ricci, was slow to come true. Trigault returned to China in 1618, and the beginning of the Thirty Years' War nightmares distracted both readers and publishers (of those cities that were not sacked and burned) from dreaming about things too far away.

After the Peace of Westphalia in 1646, the audience in Europe regained time and desire to fantasize again. News of the sudden fall of the world's most powerful dynasty aroused curiosity. Perhaps the Manchu Qing could have been converted more quickly than the Ming, or so many young missionaries hoped. Martini himself wrote that, wherever he went in Europe, he always met a crowd of curious people asking him anything about China.³¹

In the second half of the seventeenth century, a fascination with *chinoiserie* spread, replacing the "Turkish" fashion in clothes, costumes, and luxury objects (also, but more slowly, as an allegory of Asia in the cartouches of planispheres). This was especially of interest in France but also in the Netherlands and in German-speaking areas, far from Portugal. At first, it involved only the upper apex of the elites, but then it spread to other sections of the European population – from the simple porcelain teapot to the more daring lucubrations about a meritocratic selection of officials by competition (instead of having the offices assigned to the nobility) or the construction of long artificial canals, as well as the diatribes on the dating of the Great Flood, of which Martini was well aware from the first edition of his first book.³²

Among other innovative ideas, the fascination with *chinoiserie* sparked even the first project of making a map of a European kingdom based on geodetic triangulations, which in time would lead French cartographers to the production of Cassini's map of 1744, entitled *Nouvelle carte qui comprend les principaux triangles qui servent de fondement à la Description géométrique de la France*.³³ It was a technique

³⁰ Bibliography in Castelnovi (2014).

³¹ Martini (1654) 8.

³² Martini (1654) 10; Demarchi (1995) 428.

³³ Cams (2017) 31; Cams (2022) 146.

known since Roman antiquity, which suddenly came back into trend after the examples of its use in China provided by Martini's books. Cassini's project was born immediately after Martini's lecture tour between Brussels and northern France³⁴ using "Magic Lantern" projections (a sort of ancestor of slides).³⁵ To make a comparison from the same period: only one lecture in front of an audience is remembered of Boym, given on the periphery of Christendom, in the church of Smyrna in Turkey.³⁶

Martini contributed to the fashion for *chinoiserie*, both with his lectures and with letters and books, which allowed settled compilers like Kircher or travelers like Nieuwhof to spread the same concepts with further illustrations: "such works had led to a China craze among European intellectuals."³⁷ The Italian historian Sergio Zoli declared that these first two works by Martini laid the decisive groundwork "for the passage from a narrow medieval conception to a modern and planetary vision of the role of mankind in space and time."³⁸ The frontispiece of the *Novus Atlas Sinensis* depicts an allegory, with a mythological figure (the titan Atlas,³⁹ formerly Hercules' interlocutor in mythology) opening a large door in a great and huge Wall while saying the words *Clausa recludo*, meaning "I open things that were previously closed" or "I make visible what was hitherto hidden."⁴⁰ The gap between the walls drawn in the frontispiece resembles the one that still has to be crossed on the Meiling Pass,⁴¹ a grandiose human artifact that made the mountains between Guangdong and Jianxi provinces easy to cross in a single, easily controllable point, as described by Martini in 1655.⁴²

34 Castelnovi (2016b) 109.

35 Golvers (1995) 467.

36 Miazek-Męczyńska (2011a) 43.

37 Cams (2022) 139.

38 Zoli (1978) 125.

39 The Jesuit Ferdinand Verbiest, who reached China with him on the 1659 sea voyage, described Martini as "tall and strong, even more towering because of his heavy beard [. . .] his cheerful personality, his open laughter and the courage he inspired in the ruins of battles, his wandering around the decks of the ship semi-naked, became a legend that reached as far as Hangzhou [. . .] his friends nicknamed him *The Admiral*: he knew how to combine both severity in directing crews, skill in negotiating with corsairs, and great mercy towards antagonists in times of need" (Demarchi [1996] 21): "semi-naked" like the image of Titan Atlas, who in the first person singular states "*Clausa recludo*." Perhaps another portrait of Martini together with his assistant Domenicus in the map of the Ninth Province: Castelnovi (2012) 41.

40 Castelnovi (2012) 19.

41 Castelnovi (2021) 74, figs. 5 and 6.

42 Martini (1655) 136, with reference to the Mandarin Zhang Jiuling (ca. 673–740), promoter of the excavations around year 736.

For Martini, sharing and spreading knowledge was almost like a mission, analogous and symmetrical to the one he carried out by evangelizing the Chinese: “Just as I had once abandoned Europe to show the way of truth to the Chinese, who lacked that light by which we by the grace of God have been enlightened, so now, after returning to Europe by order of my Superiors, I did not want to deny Europeans the much-desired knowledge of that great Empire.”⁴³

The European audience was eager and avid for information. Wherever he went, Martini was peppered with questions. However, unlike others, like Boym, who kept everything to themselves, Martini did not hesitate to give interviews or public lectures, open to very different audiences: a group of enthusiastic seminarians who would ask to leave for China,⁴⁴ the Calvinist-majority Amsterdam municipal assembly,⁴⁵ a King (either in Makassar or Brussels⁴⁶), a Governor (in Manila, Batavia, or Cape Town), or a nobleman (like Landgrave Ernest I of Hesse-Rheinfels⁴⁷) whom he asked to give funds for a church consecrated to the Immaculate Conception to be built in Hangzhou.

Martini’s information removed previous conceptions about China (and the alleged omnipotence of the Ming dynasty), but above all denied any privilege in the relationship between Beijing and Lisbon – a fact which the *Heeren XVII* of the *Verenigde Oostindische Compagnie* had been aware of since December 1652. Some might have believed that the change in approach stemmed from the change of dynasty, but the fact remained; once the idea was established that any European state could trade with the Qing (always within the Tribute System), Martini triggered in every strategic decision-making center the desire to replace the Portuguese. For Calvinists, the medieval Bulls were wastepaper issued by some heretical simoniac; but for French Catholics, a change blessed by the pontiff was perceived as necessary.

We know that Martini hesitated for a long time before coming to Rome to discuss the Chinese Rites controversy. He stalled strategically, well aware that the pro-Portuguese faction controlled the current pope’s decisions; however, Innocent X fell seriously ill in August 1654. In October Martini arrived in Rome, but the audience was only held after the election of Alexander VII who sided with the pro-French Barberini faction (not coincidentally, the copy of the Chinese comprehen-

⁴³ Martini (1658), *Ad lectorem* (Masini and Paternicò [2010], 50).

⁴⁴ Golvers (1995).

⁴⁵ Cams (2020) 972.

⁴⁶ Masini et al. (2020) 119 and 147.

⁴⁷ Masini et al. (2020) xix.

sive gazetteer annotated by Martini is today kept in the Vatican Library, Barberini Orientali Fund⁴⁸).

3 Breaking Free from the Portuguese Monopoly: Words and Actions Against the *Padroado*

Martini's detractors (such as the Dominicans) claimed that he was an "opportunist,"⁴⁹ but we must contextualize. In the seventeenth century everyone changed faction, from small mercenary bands to sovereigns like the Savoy – and not only in Europe. In China, Zheng Zhilong (also known as Nicholas Iquan Gaspard, 1604–1661), the father of the well-known admiral and pirate Koxinga (Zheng Chenggong, 1624–1662), after fighting for the Ming dynasty, switched to the service of the Manchus in 1646, just as Martini did.⁵⁰ It is possible to enumerate these occasions of so-called "opportunism" and ponder how different the knowledge of China in Europe would have been had Martini remained faithful to his original choice each time.

Martini was disappointed with the methods used by the Portuguese pilots as early as 1639 and wrote in his letters that they had slowed down his mission and risked his death by shipwreck or illness. He was then stranded in Goa for 15 months and had to choose whether to embark on an English vessel, contravening his obligations to the Portuguese. He disembarked in Makassar (the southern port of the Celebes/Sulawesi island), found no ship willing to transport him to Macao, and decided to write a letter directly to Anton van Diemen,⁵¹ the Governor of Batavia, the capital of Dutch colonialism in the Moluccas through the Dutch East India Company (*Verenigde Oostindische Compagnie*). The gesture of writing to the Dutch Governor was already a serious matter, even if it was not necessary to wait for a reply: a Portuguese ship brought Martini to Macao on August 4, 1642. But it is important to understand that Martini, then just 27 years old and relatively inex-

48 Paternicò (2016) 289; Lin (2022) 134.

49 Longo (2010) 83.

50 Hamel (1920) 129.

51 Hamel (1920) 129; a comment in Cams (2020) 962. Incidentally, van Diemen's wife was Anna Maria van Aelst; this is the same quite rare surname of the Antwerp Jesuit Wilhelm van Aelst, who exchanged letters with Martini at Olaus Wormius in Denmark in 1654: Golvers (1995) 471–474.

perienced, was already ready for any Machiavellian action to achieve his goals: *finis justificat modo*.⁵²

Once he landed in Macao, Martini had to decide whether to remain a preacher or accept the pressing invitations of the Ming military and lend them his knowledge in ballistics and artillery. As the Ming had lost many battles, he had to decide whether to stay with the losing dynasty, or negotiate not as a prisoner but as a respected interlocutor; this way, Martini went into the Qing army literally changing the uniform he wore on that day and allowing the new allied captain to shave off his hair in a Manchu ponytail style.⁵³ Later, when sent to Beijing by the Portuguese Jesuit Dias to reprimand the German Jesuit Schall von Bell, he again had to decide which faction to side with.

After a few months, two Portuguese superiors, Manuel Dias and Francisco Furtado, appointed Martini to return to Rome for the Chinese Rites controversy: “It was decided to have him leave in great haste, almost secretly, and from a location other than the traditional one of Macao, raising the suspicions of the Portuguese authorities.”⁵⁴ According to Gao, “the reason why Martini decided not to leave from Macao was mainly to avoid the controls of the Portuguese religious authorities.”⁵⁵ Martini had with him a heavy luggage of over 50 Chinese maps and geographical treaties, and there was a strong risk that the Portuguese would have requisitioned them to prevent the spreading of strategic information. Other scholars prefer to state that the reason why he did not leave from Macao was that in the winter between 1650 and 1651 the Manchus were besieging Canton, as Martini himself reported.⁵⁶ But the two cities were more than a hundred kilometers apart, and Canton had already surrendered⁵⁷ on November 25, 1650 (even though the Jesuits in Fujian may not yet have had confirmation).

The only certain fact is that, regardless of the reasons, Martini left imperial territory from the port of Anhai in Fujian. A Franciscan source read: *Martini mense Jan(uario) 1651 in Anhai pervenit, Romam per viam Philippinarum petitu-*

52 Both in his actions and in his writings Martini showed familiarity with the thinking of the Florentine Secretary, e.g. the precept “be both Fox and Lion” (*esser Golpe, et Leone*) in Martini (1654) 69.

53 Martini (1654) 100. Like the Renaissance dissimulator described by Castiglione or Gracián, Martini was capable of theatrical gestures to impress interlocutors from a selected milieu, for instance by reading in Chinese in front of Joan Blaeu. The publisher was so fascinated that he described this gesture in his preface to the Dutch edition of the *Novus Atlas Sinensis*: Golvers (2016) 125.

54 Bertuccioli (1998b) 519.

55 Gao (1996) 43.

56 Martini (1654) 136–137.

57 Miazek-Męczyńska (2011a) 43.

rus,⁵⁸ which could be translated as “Martini arrived in Anhai in January 1651, and he would sail for Rome via the Philippines route,” which literally would mean from Manila to the Pacific ocean. Undoubtedly, his stay in the Spanish colonial capital of Manila also offered him the opportunity to deal with the compensation of large quantities of musk deer owned by the Jesuits⁵⁹ and to gather geographical information from Spanish navigators, but one cannot disregard the hypothesis that Martini was considering avoiding Portuguese control by traveling to the Spanish hemisphere.

In fact, the *Padroado* was expressed in many ways, including on the timing and pace of departures. From a material and economic point of view, it was enforced through strict control over the *Via Lusitana*, i.e. the nautical route that circumnavigated Africa, unilaterally deciding the time and manner of the missionaries’ journeys. This maritime route, called *Carreira das Indias*, had a bound port of departure (Lisbon) and some fixed stops (Goa, Macao). Due to the Portuguese pilots’ excessive dependence (concrete, or pretextual) on seasonal winds and sea currents, the missionaries often remained stationary in one of the ports for months at a time. From a communicative point of view, the *Padroado* required the missionaries to keep secret any data that should not be divulged, so as not to weaken the Crown’s strategic advantage over other European countries – in particular the geo-cartographic data, but also any kind of political indiscretion about an alleged trade monopoly agreement between Lisbon and the Emperor, which would have confirmed and reinforced even against the Protestants the assignment of the hemisphere established by the Bulls of the late fifteenth century.

Noël Golvers recognized at least six nautical routes and two land routes active in the period after Martini’s lifetime. The first two were consistent with the assignment of the hemispheres at Tordesillas: a *Via Lusitana* (Lisbon-Goa-Macao) and a *Via Mexicana* (Seville-Veracruz-Acapulco-Manila), to which an alternative *Via Batavica* (Holland-Cape of Good Hope-Jakarta) was being added at the time;⁶⁰ only later would the *Via Gallica* (Brest-Pondicherry-Cambodia), the *Via Anglica* (from London), and the *Via Ostendana* (from Ostend in Belgium) also become frequent. At least two continental routes were then added to the nautical routes, the *Via Moscovita* much further north than the *Via Serica* (Silk Road) which Martini in a letter called *iter terrestre*, “a path within the landmass.”⁶¹ In the auspices of those who, like Martini, had seen so many missionaries die on ships, the *iter terrestre* was as far away as possible from ports and ships, even if some segments of

58 Quoted in Bertuccioli (1998b) 519.

59 Bertuccioli (1998b) 519.

60 Golvers (1996) 158; Golvers (2012c) 24; Magnani (2019) 30; Cams (2020) 970.

61 Letter signed April 23, 1655, in Bertuccioli (1998a) 288 and 293.

the journey could have been sailed on the sea, e.g. from Venice to Smyrna, or from Hormuz to the huge Bengali entrepôt of Chittagong.

Martini lived at a time when only few options were available, and it cannot be ruled out that during his time in Manila he pondered the possibility of undertaking the *Via Mexicana*. The Philippines were considered part of the Spanish area despite being west of the Japanese archipelago, regardless of the exact measurement of longitude. In this hemisphere, from the Philippines to the borders with Brazil, the *Padroado* was replaced by the Spanish vicariates, the bishops depended on Mexico City, and the missionaries had the right, and the duty, to rely on the protection of the Catholic King. The route would have been much longer, but Martini was in no hurry: Innocent X, an ally of the Portuguese against the French, still reigned on the papal throne, and a one-year delay would have allowed Martini to easily compose his books. The route from Manila to Acapulco in Mexico was traveled by large Spanish galleons (hence the name: *Galeón de Manila* or *Nao de China*) that took about four months to cross the Pacific; a land route (*Camino Real*) would take the traveler to Veracruz via Mexico City. From the port of Veracruz, many ships left for Seville.

In a letter to Father General Goswin Nickel, sent from Brussels on February 20, 1654,⁶² Martini wrote that if he had known that Boym had already left for Rome, he would have immediately returned to the mission field, sailing at his own expense from Manila to China on a Chinese junk boat. Martini also stated that he immediately applied for his trip to be canceled, but the Superiors (two Jesuits, both Portuguese: Father vice Provincial Álvaro Semedo and the *de facto* Visitor Sebastião De Maya⁶³) ordered Martini by letter to continue, stating that Boym had already been called back. Maybe they ignored that the Polish father would continue his journey despite the refusal to sail from Goa imposed on him by the Portuguese local Superiors.⁶⁴

Martini's three books and his epistolary, as well as his actions during his travels between Manila, Makassar, and Batavia, show us that his "Publication Program"⁶⁵ was part of a strategy aimed at weakening the Portuguese monopoly. As early as 1652, internal dispatches from the *Verenigde Oostindische Compagnie*, between colonial officials and the *Heeren XVII*, show that the information considered most valuable by Dutch merchants was that Martini testified that the Qing would agree to trade with anyone and not just the Portuguese.

62 Bertuccioli (1998a) 240.

63 Criveller (2016) 206.

64 Miazek-Męczyńska (2011a) 43.

65 Golvers (2016) 121.

Another witness, the Portuguese Francisco Vieira de Figueiredo, wrote to the Viceroy of Goa on July 2, 1662 that “he must report the anti-Portuguese activities of some of the French and Italian Fathers in the China Mission, including Martino Martini [. . .] All the foreign Jesuits seem to be very anti-Portuguese, and they are trying to obtain complete control of the mission-fields of China and Japan, to the discredit of the Crown of Portugal and the Portuguese Jesuits.”⁶⁶ Apparently, rather than a clash of civilizations, an internal clash between Catholic factions was taking place, paradoxically favored by the Dutch Calvinists.

4 Latin and the Press: Sharing “Secret” Information in the Seventeenth Century

Marc Bloch warned young enthusiasts to avoid primogeniture research, as it could lead to unwanted and misleading surprises.⁶⁷ Many scholars (including myself) wrote that Martini was the first Jesuit to take the unprecedented step of having his own book printed by the Calvinist heretics of Amsterdam. However, Joan Blaeu’s father, Willem, had already printed the works of numerous Jesuits, starting with a book on theology by the Jesuit Drexel in 1622, followed by Bellarmine, Rosweyde, and finally Kircher’s *De Magnete*.⁶⁸ The difference was that, before Martini, the other Jesuits had pretended to publish in the Catholic city of Cologne (seat of a Grand Elector Archbishop), “all with a false *impressum* of editors in Cologne.”⁶⁹ Thus, in the publishing sphere, Martini’s merit appears reduced to being the first Jesuit to print openly in collaboration with Calvinist heretics, albeit with a double *imprimatur* of Catholic authorities.

A small note on a further chameleonic move by Martini is that he left China with the conviction that the best publishing house in the world was still the *Officina Plantiniana*, founded in Catholic Antwerp by the legendary Christophe Plantin who for decades supplied books, maps, and other geographical aids to the Jesuits in Macao.⁷⁰ But time changed everything: many great cartographers had moved from Antwerp to Calvinist Holland⁷¹ and Amsterdam had become the center of excellence for printed cartography.

⁶⁶ Letter signed July 2, 1662, quoted from Boxer (1967) 103.

⁶⁷ Bloch (1949) 53.

⁶⁸ Begheyn (2012) 220; Cams (2020) 981.

⁶⁹ Begheyn (2012) 220.

⁷⁰ Golvers (2018).

⁷¹ Cams (2020) 954.

In 1653 Martini had proposed both the *De bello Tartarico historia* and the *Novus Atlas Sinensis* to Plantin's heirs, perhaps as he was not yet satisfied with his still unfinished *Sinicae historiae decas prima* (later, he delivered a partial manuscript to a printer, only after three years). Plantin's heir Balthasar II Moretus accepted the first manuscript, which was short and needed only one very small general map,⁷² but not the second one,⁷³ perhaps because he did not want to invest in the debut work of an author who, apart from his reputation as a lecturer, was not yet famous, or as he was concerned about the 17 large maps that the atlas would require, perhaps a little too innovative for audiences accustomed to the traditional cartographic image. The short chronicle of the Ming catastrophe was interesting, curious, and exotic; a long treatise on geography risked seeming boring.

Fortunately for us, Martini quickly changed his mind, perhaps influenced by the Jesuit father Jean Bolland,⁷⁴ the famous philologist whom Martini praised in the *Praefatio* of the *Novus Atlas Sinensis*.⁷⁵ His affinity with Bolland and admiration for his philological approach suggests that Martini shared the same demands for rigor and truthfulness, albeit uncomfortably at times (for Bolland, doubting legends about a person considered venerable; for Martini, the Flood, the Ming's failure to convert, the alleged Portuguese monopoly). This might advise today's historians not to attribute all of Martini's publishing exploits to a generic "climate of that era," a sort of Hegelian *Zeitgeist*. In the same years in which Martini published so much truthful (and easy to verify) information, Boym published almost nothing, and Kircher printed mixtures of hearsay news, medieval reminiscences, hallucinated lucubrations, and inferences without evidence such as the supposed common origin of Egyptian hieroglyphs and Chinese ideograms, or bizarre theories about the shape and characteristics of planet Earth. It is possible that Martini also wrote or drew some things wrong, but these were details within books that were on the whole correct.

Martini was not satisfied with Blaeu: in two Letters written from Rome to Golius⁷⁶ in May and June 1655, Martini complained precisely about the distribution,⁷⁷ which at least in theory should have been one of the best features of the Amsterdam publisher. One certain fact, however, is that for the printing of his third book (the first part of the *Sinica historia*, without maps, in 1658) Martini decided

72 Caboara (2022) 257.

73 Golvers (2012c) 27; Cams (2020) 981.

74 Golvers (2016) 123; Golvers (2020a) 19.

75 Martini (1655) 4, quoted in Bertuccioli (2002) 23.

76 Paternicò (2018).

77 Letters signed May 20, 1655 and June 26, 1655: Masini et al. (2020) 157–162.

to change publisher and entrust the manuscript to Lukas Straub in Catholic Munich.⁷⁸ Undoubtedly, the *Officina Blaviana* helped to make the atlas beautiful and comprehensible,⁷⁹ mitigating the gnoseological shock that would hit European readers when faced with an unmediated Chinese map. But the publisher's role should not be exaggerated: between 1665 and 1672, Joan Blaeu continued to print out and sell some outdated maps of East Asia by reusing his father Willem's erroneous information.⁸⁰

If we examine the small map printed by Moretus in *De bello Tartarico historia* (1654), we see only China, almost completely without any other countries around it: a rudimentary peninsula of Korea, a drawing of Japan unworthy of a novice apprentice, a total absence of the Philippines, and even of Tonkin. On the outer frame, there are only the cardinal points but a lack of latitudes and longitudes. We recognize that it is China, but it could almost be an island in the middle of the ocean.

Joan Blaeu and his staff were able to fit Martini's information and the drawings (*delineavi*⁸¹) into a mature cartographic knowledge, at least as far as the coastal profile from Cambodia to Japan was concerned. Blaeu's staff placed Martini's grid of latitude and longitude, albeit with all the errors and inaccuracies recently found,⁸² within a broader geographical work. Ever since Johan Nieuhof's embassy,⁸³ with Martini's atlas in their (material) luggage, subsequent travellers would have been able to verify latitude and longitude contradicting shared numerical values.

Furthermore, the Dutch knew much more about the Japanese archipelago than the Italian missionary, as can also be deduced from the brevity of the text, and it is plausible that Martini's drafts did not include the map of Japan, in which numerous place names of Dutch origin can be recognized.⁸⁴ The scale at which Martini represented each province also changed by a factor of two, seen with Guangdong and Queicheu,⁸⁵ which would not have prevented a professional geographer or erudite reader from juxtaposing and comparing different provinces using a cartographic compass.

78 In the meantime, perhaps due to mistreatment by French pirates in 1656, Dominicus Siqin, the Chinese convert who accompanied Martini and helped him with the translations, had died: letter signed April 1, 1656 in Masini et al. (2020) 197.

79 Cams (2020).

80 De Peuter (2011) 11.

81 Martini (1654) 10.

82 Cams (2020); Lin (2022).

83 Blussé and Falkenburg (1987); Sun (2013); Castelnovi (2016c).

84 De Peuter (2011) 9; Castelnovi (2016c) 79; Cams (2020) 983.

85 Castelnovi (2012) 35; Cams (2020).

I consider that Martini's main merit lay in his decision to share his knowledge with the widest possible audience: Catholics and Protestants, Portuguese and French, religious and secular alike; it is no coincidence that some of his writings would go on to influence thinkers seemingly far away, such as Voltaire or Darwin.⁸⁶ Sometimes Martini was an eye-opener for the geography, the administrative subdivisions, the size of the population, or the agricultural production of a province. At other times, Martini would surprise his readers with some event from antiquity that cast doubt on the dating of the age of our Planet and lay the foundations for modern geological sciences.

I conclude with a comparison with a map printed in a French language atlas by king Louis XIV's official geographer, Nicolas I Sanson. Some believe that the duty of every cartographer is to provide accurate, up-to-date, and truthful information, as soon as possible and objectively,⁸⁷ but the seventeenth century was the age of dissimulation. Cartographers did not seek truth; they sought victory for their own faction, which was achieved by defeating their enemies, both religious and political. Any means were suitable, as taught by Machiavelli or the Jesuit Baltasar Gracián (also present in the catalogue of books printed by Joan Blaeu⁸⁸).

Nicolas I Sanson was not an underdog. He was the official geographer to the King of France and ran an important book market, in a city avid for news like Paris, with many volumes in his catalogue to sell to his loyal customers. In 1652, Sanson had printed his own general map of China, with deep and serious errors (shapes and names of provinces, outlines of rivers, island form attributed to Korea⁸⁹), but French buyers still bought it and business proceeded apace.

In 1653, rumours began to be heard in Paris of the arrival of a Jesuit whose voice challenged the entire Republic of Letters: from Bergen to Rome, everyone⁹⁰ was talking about Martini, a perfect stranger who had come from faraway Asia with the "mission" of enlightening⁹¹ Europeans, explaining that what they believed to be true was wrong – both about the cartographic image and about many other topics, from the legendary tales of Marco Polo⁹² to the fruitful trade in perfume obtained from the musk deer.⁹³ But the most important argument, as appears from the missives sent by the officials of the *Verenigde Oostindische Compagnie* to the

⁸⁶ Castelnovi (2016b) 95.

⁸⁷ Among them, even a famous philosopher like Wittgenstein: Castelnovi (2018) 103.

⁸⁸ Begheyn (2014) 133; Castelnovi (2016c) 79.

⁸⁹ Caboara (2022) 252.

⁹⁰ Cams (2020) 956.

⁹¹ Martini (1658) A2v; cf. Masini and Paternicò (2010), vol. 1, 50.

⁹² Castelnovi (2016a).

⁹³ Castelnovi (2022).

Heeren XVII, concerned the Empire's willingness to trade with anyone who asked for it, contradicting almost two centuries of Portugal's alleged monopoly on international relations between Europe and the Emperor of China, whose dynasty had coincidentally just changed.

Even if, hypothetically, the Ming had really entered into bilateral pacts with only the Portuguese (but Martini testified that Chinese ports were swarming with "western" merchants, albeit Islamic), that was the moment of greatest crisis, of which any other European state should have taken advantage. The *Verenigde Oostindische Compagnie* would immediately take advantage of this, as early as 1655, by sending an embassy directly to Beijing, without recognising any importance to any Portuguese monopolies. The France of Louis XIV (still under the regency of his mother, Anne) would try to take advantage of this very soon, but Sanson could not know it yet.

Martini's books had highlighted in words what had in fact been hidden for decades; the supposed privileged relationship between Lisbon and the Chinese Empire was only a fiction. It was only true that the Portuguese were allowed to trade, like so many other merchants from the far west, from Hormuz and Malindi. The Portuguese had been allowed to rent a small island, but the new maps, beyond all rhetoric, showed Macau to be not a giant colony but a tiny peninsula. But Sanson decided to make an arbitrary move. In 1656, he published in a collection of maps his own general map of China entitled *La Chine Royaume*, which he contrasted with Martini's.⁹⁴ Sanson wrote in the text that he had had the opportunity to see the maps of three Jesuit missionaries, Ruggieri, Boym (only manuscripts), and Martini, but found many contradictions between them; recent analysis by Lin Hong explains that some differences resulted from the use of different methods to adapt the Chinese data.⁹⁵

Arbitrarily, Sanson decided that the best of the three was Ruggieri's and printed only that one, without taking into account that its information had not been updated for 50 years, and that Ruggieri was the only one of the three who had no news of the Manchu invasion. It was only in 1670 that his son Guillaume Sanson published a small print also of the maps of Martini and Boym,⁹⁶ when French readers, in addition to the expensive Blavian editions,⁹⁷ could already read the translation of the atlas text printed by Melchisédech Thévénot in 1666, with Martini's general map of the Empire but without the provincial maps.⁹⁸ The

⁹⁴ Caboara (2022) 288; for a detailed comparison I refer to a forthcoming article of mine.

⁹⁵ Lin (2022).

⁹⁶ Caboara (2022) 346–351.

⁹⁷ van der Krogt (2000) 305–307.

⁹⁸ Caboara (2022) 327.

market chose Martini; the map printed by Nicolas I Sanson in 1656, despite nine subsequent reprints, had no impact on western culture and remained a curiosity for collectors, with other French cartographers, such as Pierre Duval, preferring to copy Sanson's 1652 maps with an insular Korea, rather than recur to that vaguely Ruggieri-inspired map.

Even when a huge fire destroyed the Blavian workshop in 1672,⁹⁹ pirate editions and imitations were already so widespread¹⁰⁰ that Martini's reputation was unshakeable. Until the publication of great cartographic work realized by Jean Baptiste Bourguignon d'Anville, *Carte la plus generale et qui comprend la Chine . . .*, as part of Jesuit Jean-Baptiste Du Halde's *Description géographique, historique, chronologique, politique et physique de l'empire de la Chine et de la Tartarie chinoise* (Paris 1735),¹⁰¹ Martini's general map of China (together with the maps dedicated to each province) continued to be the main reference for European readers.

99 Begheyn (2012) 220.

100 Caboara (2022) 23–24.

101 Cams (2022) 139.

Claudia von Collani

Astronomy East and West: Johann Adam Schall von Bell 湯若望 and the Chinese Calendar

1 The Jesuit Mission in China: Introduction

The China mission of early modern times started with three Jesuits, namely the Jesuit visitor Alessandro Valignano (1539–1606), followed by the two Jesuits Michele Ruggieri (1543–1607) and Matteo Ricci (1552–1610). Together, they developed a special method for missionary work, the so-called method of accommodation. Besides the learning of the language this method included indirect mission by modern European science.¹

2 Views of the Cosmos in China and Europe

The first ideas about China were often full of misunderstandings and prejudice. After some time in China, Matteo Ricci noticed that the Chinese had “absurd” ideas about the world: “They think that the earth is flat and square and that there is only one single heaven . . .”. This heaven was considered to be empty and not made of crystal, with the stars moving in the void and not attached to solid crystal spheres,² while the heaven canopied the flat and square earth and the stars orbited in the void, unlimited space. During long evolutions, new worlds came into existence and then disappeared by condensation or dissolution of the omnipresent energy of the universe, the *qi* 氣.³

In China, the cosmos is called *Yuzhou* 宇宙 = space + time. *Yu* 宇 means the space under a roof, protection, or the world, whereas *Zhou* 宙 means the time. These are the two components of the cosmos: orientation in space and time. The Greek word *κόσμος* means the cosmic system, including its law and harmony, the divine order of the cosmos, and the arrangement of parts into a regular, beautiful entirety. In the Holy Scripture, cosmos means the world, the universe, the ecume-

1 Collani (2001) 310–311.

2 Bernard (1935) 44; Needham (1958) 2; D’Arelli (1990) 91–92.

3 Bernard (1935) 48; Gernet (1983) 387; Gernet (1984) 73.

nicity, mankind, but also the temporal component; it can also be the aeon, the current era, which will be replaced by a future, eschatological time.⁴

2.1 Cosmos and World View in China

The Chinese cosmology was never as fixed as the European one, with no doctrine nor Christian dogma, just different traditions. The three important components within the universe are heaven, earth, and the human being (*tiandiren* 天堤人), the *Sancai* 三才, which are connected to each other and which move the universe. The creative, living, and changing universe, the source of all good things, is called *Dao* 道, the way. It is. The different models and interpretations of the world were based on this concept.

Since the Shang Dynasty (1765–1122 BC), the view of the world was the following: the earth is female, its symbol is the dark, cold, humid *Yin*, and it is shaped like a square, flat disc. Heaven, meanwhile, is male, its symbol is the light, warm *Yang*, and it extends like a round canopy over the world. The water runs in all four directions and constitutes the four seas around the inhabited world, while the heaven rests on four columns. This model of the “vaulted heaven” (*gaitian* 蓋天) remained the same from the Shang Dynasty to the early Han Dynasty (206 BC–220 AD) and even longer. The alternative was the cosmology of the “spheric heaven” (*huntian* 渾天), according to which the earth swims in the infinite universe like an egg-yolk in the white of an egg.⁵

2.2 Cosmos and World View in Europe

The guiding principle from antiquity until early modern times were the scriptures of the Greek philosopher Aristotle (384–322 BC). In his opinion the cosmos was geocentric, whereas the celestial bodies surrounded the earth in uniform circles.⁶ This system was perfected by the Greek astronomer and scientist Claudius Ptolemy (ca. AD 100–160). Ptolemy, who did research in Alexandria, was well-known for his systematic handbook of mathematical astronomy, the *Almagest*, which was used through the Middle Ages until Nicolaus Copernicus.⁷ In this world view, the fixed earth was the centre of the universe, the most remote place from the heaven, sur-

4 Mühling-Schlapkohl (2001).

5 Granet (1985) 264; Chu (1999) 389.

6 Krafft (2004) 26–31.

7 Krafft (2004) 348–351.

rounded by the visible seven planets, among them the sun and moon, all orbiting along the solid crystalline spheres, with the fixed stars attached to the eighth sphere. The whole system was kept going by the ninth heaven, the *primum mobile*, where spiritual beings, such as angels, who kept the whole system running resided. All things below the moon, the sublunar area, were changeable, whereas the spheres of the planets, being of crystal, were unchangeable and, as Aristotle thought, eternal.⁸

From at least 400 BC it was known that the earth was a globe. For Plato, the seven planets were the Sun, the Moon, Venus, Mercury, Mars, Jupiter, and Saturn.⁹ The idea that the earth might move was considered downright absurd, although Aristarchus of Samos (ca. 300–230 BC) had already maintained that the earth orbited around the sun and at the same time rotated about its axis,¹⁰ an assumption also shared by the mediaeval mathematician and astronomer Nicole Oresme (1320/25–1382) who was convinced that the earth rotated around an axis.¹¹

The English monk, scholar, and astronomer John of Holywood (Johannes de Sacrobosco) (ca. 1195–1256) lived in Paris in the thirteenth century and received his knowledge about Ptolemy from Arab books. He left two books, one about astronomy (*Sphaera*) and the other one called *Computus ecclesiasticus* (1232, about the computation of Christian feasts, especially Easter), which became the textbooks for generations of students. The *Sphaera* was especially important because the students used it as a basis for astronomical knowledge which was part of the *quadrivium* at the faculty of arts.¹²

Between 1543 and 1611, the concept of the cosmology of the Middle Ages changed due to the theories of the astronomers and scientists Nicolaus Copernicus, Tycho Brahe, Johannes Kepler, and Galileo Galilei, who changed the old geocentric world view of Aristotle and Ptolemy into the heliocentric world view.¹³

The German-Polish astronomer and canon Nicolaus Copernicus (1473–1543) wanted to simplify and ameliorate Ptolemy's system in his main opus *De revolutionibus orbium coelestium libri sex* (Nürnberg 1543). He ended up abandoning the geocentric world view in favour of the heliocentric world view; however, he was

⁸ Mudry (1987) 16; Binggeli (2006) 113.

⁹ Zinner (1988) 4, 7.

¹⁰ Zinner (1988) 9.

¹¹ Grant (2003) 130.

¹² Krafft (2007) 56–57; Jami (2001) 690.

¹³ Zinner (1988) 76.

not successful among the contemporary astronomers in Europe because its theory could not be proven.¹⁴

The Danish astronomer Tycho Brahe (1546–1601) conducted research on the small island of Hven, where he built the observatory Uraniborg patronized by the Danish king Frederick II (1559–1588). Besides his official task of providing the royal family with their annual horoscopes, he collected proofs for the Copernican astronomy between 1576 and 1597.¹⁵ When his patron died, he followed the invitation of Emperor Rudolph II (1576–1612) to serve as his official mathematician at the imperial court in Prague from 1599 until his death two years later.¹⁶ Brahe's astronomical world view was a modification of the geocentric one with the earth fixed in the center of the universe and the sun, the moon, and the stars orbiting around it, while the five other planets and the comets circled the sun, and therefore also the earth. This semi-heliocentric system permitted a relatively simple and exact calculation of the course of the planets. For practical calculations, the heliocentric world view was also permitted by the Church.¹⁷ It was this Tychonic semi-heliocentric world view that the Jesuits brought to China,¹⁸ while Brahe's observations of comets and novae also challenged the thesis of the unchangeability of the cosmos.

After Brahe's death his assistant Johannes Kepler (1571–1630) became his successor in the office of imperial astronomer, completing Brahe's astronomical data to solve the weaknesses of Copernicus' and Brahe's astronomy. Kepler described Copernicus' theory in his books *Mysterium Cosmographicum* (Tübingen 1597), *Epitome Astronomiae Copernicanae* (in three volumes, Linz, 1618–1621), and *Harmonices Mundi libri V* (Linz, 1619).¹⁹

In particular, the astronomer and scientist Galileo Galilei (1564–1642) caused the downfall of the old geocentric world view given by Ptolemy and Aristotle, as he perfected the telescope, which had been invented in 1608, and used it in a new, revolutionary way.²⁰ In his *Sidereus Nuncius* (1610), Galilei published his observations with the telescope up to March 1610, and in 1610/11 detected one of the satellites of Jupiter and observed the sunspots.²¹ However, because these observations

14 Krafft (2004) 100.

15 Zinner (1988) 290–305.

16 Zinner (1988) 306–308.

17 Zinner (1988) 304–305.

18 Zinner (1988) 290–308; Halsberghe and Hashimoto (2001) 714–717; Krafft (2004) 73–75.

19 Krafft (2004) 97–104; Zinner (1988) 318.

20 Collani (1992) 27.

21 Krafft (2007) 107–110. At the same time, the sunspots were also observed by the Jesuit astronomer Christoph Scheiner (1573–1650): Granet (1985) 73.

stood in contradiction to the immobility of the universe, they were denied. As a theological solution, it was therefore proposed that these phenomena had been caused by supernatural power, or to accept the theory that the celestial bodies moved in a liquid instead of a solid matter. But in 1616, the Catholic Church decided to prohibit the Copernican theory because it seemed to contradict the Bible, having Galilei subsequently condemned in 1633 and placed under house arrest.²² But the new heliocentric world view was not generally accepted even in secular and scientific circles, with many astronomers preferring the semi-heliocentric world view where the earth was still considered to be the center of the cosmos, surrounded by the sun with the planets. This model provided good results in calculating the orbits of the planets and was permitted by the Catholic Church.²³

3 The Calendars

3.1 The Chinese Calendar

Since the time of the legendary emperor Huangdi 黄帝 (2697 BC), astronomy had played an important role in imperial China, as can be seen from the *Shujing* 書經, where one reads that an Imperial Bureau for Astronomy then existed with the task of observing the stars and making records. The calendar was important because China as an agrarian society was dependent on nature, with the effectiveness of government therefore relying on the calendar. The emperor as the high priest was mediator between heaven and earth and responsible for keeping human life in harmony with nature, for which a correct calendar was necessary; the regular dates of the year (solstices and equinoxes) had to be calculated, the stars had to be observed, all the extraordinary heavenly phenomena such as eclipses, comets, and meteors had to be taken into account, so that they could be interpreted and dealt with in the right way. The calendar was the symbol of imperial rule, for the emperor was master over the cosmos. He alone was permitted to arrange time and space; each new ruler proclaimed a new calendar, and each usurper to the throne immediately tried to publish his own calendar as the foundation of his rule. Each of the emperor's actions had to be done at the right time and in the right way, dealing with all regular and irregular events so that human life remained in harmony with the cosmos.²⁴ Therefore, the correctness of the cal-

²² D'Elia (1960) 29–32.

²³ Halsberghe and Hashimoto (2001) 714.

²⁴ Collani (1993) 88.

endar had a political meaning, with each failure bringing disorder and undermining the Imperial prestige. Each year, the new calendar was given to the emperor in a solemn ceremony, who then transmitted it to the magnates of the empire and to the vassals to demonstrate that he was master of space and time. But the everyday life of the people was also regulated by the calendar, and it was important to fulfil certain rites at a certain time. By obeying this calendar, the people demonstrated their loyalty towards the ruler: the calendar was a symbol of the government, and not respecting it was equal to rebellion.²⁵

After the end of the Mongol Yuan dynasty (1279–1368), the Ming dynasty closed the empire hermetically; as a consequence, astronomical knowledge diminished, and the calendar no longer complied with reality. The last calendar revision took place during the Yuan dynasty at the end of the thirteenth century,²⁶ under the Wanli Emperor 萬曆 (1572–1620), when the Jesuits arrived in China, the defects of the calendar concerning eclipses had become so grave that a reform of the calendar could not be delayed any longer.²⁷

3.2 The Calendar Reform in Europe

Since the Middle Ages European scientists, such as the Franciscan Roger Bacon (c. 1219–1292), had noticed that the calendar which was so important for the Christian feasts and especially the computation of Easter was not correct. However, only the Council of Trent decided that a reform was necessary, with Pope Gregory XIII (1572–1585) ordering the computation of a new Christian calendar and Christopherus Clavius SJ (1537–1612) becoming the leader responsible for the project. At first glance it is astonishing that the Pope and not one of the European rulers (the German Emperor, the French or English king) initiated the project; he did so as the head of the Catholic Church in Rome, a position combined with direct political power within the Papal States, as well as titular power over some worldly rulers of Europe. The Pope initiated the calendar reform in his capacity as *Pontifex Maximus* (“Highest Pontiff”), a title originating from the time of the ancient Romans, also including the responsibility of time-reckoning. It was in this capacity that Gaius Julius Caesar (100–44 BCE), who held the office from 63 BCE, initiated the Julian calendar in 46 BCE.²⁸ Pope Gregory XIII, as *Pontifex Maximus*, started the calendar reform in 1580; the new calendar, known as Gregorian calen-

25 Bernard (1938) 39 n. 6; Collani (2013) 422–423.

26 Collani (1993) 89.

27 D’Elia (1960) 20–21.

28 Stepper (1993) 27–39; Feeney (2007).

dar, replaced the Julian Calendar and is still valid worldwide today. It became valid by the bull *Inter gravissimas* (February 24, 1582), with October 5, 1582 becoming October 15. Most Catholic countries accepted the calendar, because it was important for the computation of Easter and other ecclesiastical feasts, whereas the Protestant and Greek-Orthodox at first refused the reform of the calendar as an inadmissible intervention into the divine order of the universe. Only in the second half of the eighteenth century did the Protestant countries accept the Gregorian calendar.²⁹ The calendar reform had also other effects, namely the new and rich field of research on chronology, often in comparison with the annual computations and chronologies of other nations and cultures, including the Chinese.

4 The Jesuits and the Chinese Calendar

4.1 The Jesuits and Science

In this context, the Jesuits had two roles: as representatives of the transition from the Aristotelian world view of the Middle Ages into the heliocentric world view of Modern Times, and as mediators and translators between Europe and China. The Society of Jesus was founded in 1540, three years before the publication of Copernicus' *De revolutionibus orbium coelestium* (1543).

Education, pastoral care, and missionary work were some of the most important tasks of the Jesuit Order. Everywhere in Europe the Jesuits founded Colleges; in 1600 they ran 245 Colleges while in 1710 they ran 770 Colleges. The most important of these education houses was the Collegio Romano in Rome (nowadays the Pontificia Università Gregoriana), with a kind of mathematical academy. Before starting their education in theology, the Jesuits studied philosophy, which included fields which would nowadays be called science or technology, such as nautical science, geography, astronomy, and mathematics. Mathematics was based on the cosmology of Ptolemy and comprised four disciplines: arithmetic, geometry, music, and astronomy.³⁰

In 1565, the Jesuit Christophorus Clavius from Bamberg was appointed professor at the Collegio Romano, where he taught philosophy for 47 years, which allowed him to dominate an entire epoch. Clavius made the Collegio a scientific

²⁹ Caraman (1981) 18–19; Wendorff (1993) 79–92.

³⁰ Baldini (2003).

center at the turn to the seventeenth century³¹ by giving mathematics an important place in the Jesuit education, as defined in the *Ratio Studiorum*.³² Two of his books in particular were brought to China by his disciple Matteo Ricci and translated into Chinese, namely his edition of Euclid (*Euclidis Elementorum libri XV* [1574], translated as *Jihe yuanben* 幾何原本), and his commentary on the mediaeval astronomer John of Holywood, alias Johannes de Sacrobosco (*In Sphaeram Ioannis de Sacro Bosco Commentarius* [1570], translated as *Qiankun tiyi* 乾坤體義).³³ The latter, which had six editions in the sixteenth century, clearly shows the world view of the Middle Ages with the fixed earth in the center, surrounded by the spheres with the planets.³⁴

On the other hand, the Jesuits in Rome initially had good contacts with Galileo Galilei, whose discoveries they had watched with great enthusiasm. Like Galilei, Christophorus Clavius, in his seventies and together with his students, made observations with a telescope in Rome in 1610/1611. In 1611, when Galilei was given a triumphant reception at the Jesuits' Collegio Romano, a young student attended the event, Johann Adam Schall von Bell 湯若望 (1592–1666), who obtained part of his scientific education at the Collegio Romano under Clavius' successor Christoph Grienberger (1580–1636).³⁵

4.2 Matteo Ricci: a Call for Astronomers

In the meantime, the first Jesuits had entered China, only one year after the new Gregorian Calendar, developed under the guidance of Clavius, had become valid. Matteo Ricci, the pioneer of the China mission of early modern times, had received a special education in mathematics at the Collegio Romano under the guidance of Clavius, but he was no expert in astronomy himself. As a theologian, however, he clearly noticed the deficiencies of the Chinese calendar concerning the calculations for ecclesiastical feasts; he wrote several times to Europe that the China mission urgently needed good Jesuit astronomers and books on science. However, Ricci's wish for astronomers did not become true during his lifetime.³⁶

Besides Matteo Ricci, Chinese officials were also aware of the urgent need of calendar reform. This prompted the beginning of the calendar revision. One high

31 Caraman (1981) 18–19.

32 Jami (2001) 690.

33 Krafft (2007) 56–57.

34 Grant (2003) 127.

35 Våth (1933) 27; Collani (1992) 28; Jami (2001) 690–691.

36 D'Elia (1960) 4–7.

official in particular, the Christian scholar and friend of the Jesuits Paul Xu Guangqi 徐光啟 (1562–1633), considered the calendar to be a good opportunity for the Jesuits to prove their knowledge and to achieve a firm standing in China. Xu Guangqi planned that the calendar reform should be carried out by a team of Chinese and Western experts,³⁷ for which the Jesuits in China needed not only experts on astronomy, but also the newest scientific books.

The first attempts towards a reform had already started soon after Ricci's death, when the eclipse of December 15, 1610 was wrongly predicted. In 1611, the director of the Astronomical Bureau Zhou Ziyu 周子愚 proposed that Sabatino de Ursis (1575–1620) and Niccolò Longobardo (1559–1654) should help him, together with the Christian scholars Paul Xu Guangqi and Leo Li Zhizao 李之藻 (1571–1630), with the translation of Western astronomical books into Chinese. Sabatino de Ursis and Diego de Pantoja (1571–1618) later wrote a long astronomical treatise which was translated into Chinese as a sample, but in vain.³⁸ In 1613, when the Imperial astronomers again made wrong calculations concerning an eclipse, Leo Zhizao proposed that three Jesuits should carry out the calendar reform.³⁹

In 1613 Ricci's successor as mission superior, Niccolò Longobardo, sent the Flemish Jesuit and missionary Nicolas Trigault (1577–1628) as procurator from China to Europe; Trigault was to bring Jesuits from Europe trained in mathematics and astronomy together with scientific literature and instruments. In this way Longobardo created the basis for the long-lasting activity of the Jesuits in China.⁴⁰

4.3 Nicolas Trigault's Legation to Europe

The Jesuit procurator Nicolas Trigault reached Rome on October 11, 1614 and obtained several privileges for the Jesuit mission in China. In spring 1616 Trigault started his famous "tour de propaganda" through the courts of Europe, via Florence and Parma, to Madrid to King Philip II, and then again to Rome, Florence, Parma, Mantua, and Milan, where he met the famous German physician Johannes Schreck SJ (Johannes Terrentius, 1578–1630), a friend of Galileo Galilei who entered the Society of Jesus in 1611 and joined Trigault on his journey.⁴¹ On their way through Lyon, Munich, Augsburg, Dillingen, Neuburg, Ingolstadt, Würzburg,

³⁷ Halsberghe and Hashimoto (2001) 713–714.

³⁸ Collani (1992) 29.

³⁹ Halsberghe and Hashimoto (2001) 713.

⁴⁰ Collani (2009) 95.

⁴¹ Collani (2016a) 113–117.

and Cologne, they received donations and presents for the China mission. They bought a whole set of scientific books at the book fair in Frankfurt am Main, which became the core of the famous Jesuit libraries in China.⁴²

At the Jesuits' house in Rome Trigault met Johann Adam Schall von Bell, who wanted to join Trigault's *tour de propagande* but first had to finish his studies, which he did in summer 1617. After Trigault had finished his journey through Europe, Schall travelled immediately to Portugal, from where Trigault and the other Jesuits were to set sail for the East. The fleet with a group of 22 Jesuits left Lisbon on April 16, 1618; five of them, namely Wenzel Pantaleon Kirwitzer (1588/90–1626), Francisco Furtado 傅汎際 (1589–1653), Giacomo Rho 羅雅谷 (1592–1638), Johannes Schreck, and Johann Adam Schall von Bell, debarked in Macau in July 1619, while other well-known Jesuit scientists had been denied permission to leave for China.⁴³

5 The Start of the Calendar Reform in China

5.1 Under the Ming Dynasty

When Trigault and his companions arrived in China they had to wait until a local persecution of Christians ended. In the meantime, the Wanli Emperor 萬曆 (r. 1572–1620), who had postponed all necessary reforms, including that of the calendar, died, but his successors, the Taichang Emperor 泰昌, who ruled only one month, and the Tianqi Emperor 天啓 (1620–1627), were also disinterested. Their successor, the Chongzhen Emperor 崇禎 (1627–1644), proved to be a better, but weak ruler. Shortly after his ascension to the throne Xu Guangqi was called to Beijing as Senior Vice-President of the *Libu* 禮部 in 1629. A short time later, two branches of the Astronomical Bureau, which was part of the *Libu*, made a wrong calculation of the sun eclipse on June 21, 1629, whereas Xu Guangqi with the help of Terrentius submitted a more correct calculation.⁴⁴ This became the turning point. Later, the Jesuits used this event as an edifying story, a kind of divine ordeal to prove the superiority of not only European astronomy, but also the Western religion, Christianity.⁴⁵

In the meantime, in 1623/24 Xu Guangqi provided the printing of a treatise on eclipses in 7 *juan*, the *Jiaoshi lizhi* 交食曆指, which had been written by Johann

⁴² Collani (2009) 95–96.

⁴³ Collani (2016a) 125–126.

⁴⁴ Richter (2016) 225.

⁴⁵ Collani (2016b) 243.

Adam Schall von Bell and Giacomo Rho,⁴⁶ whereas Schreck had already prepared a program for the calendar reform which was submitted with a memorial to the throne by Xu Guangqi on August 30, 1629. Not only were the ten main mistakes to be corrected, but new kinds of astronomical instruments were to be constructed, while several texts on arithmetic, geometry, hydraulic, music, and optics were to be translated; the necessary collaborators were, if possible, to be Christians who would be prepared in a sort of academy.⁴⁷ On September 27, 1629 Xu Guangqi was officially entrusted as head of the project of the calendar reform and chose Schreck-Terrentius and Longobardo as his assistants, whereas Schall only joined them later when he returned from Xi'an in 1630. On September 6, 1629, the new Calendar Office opened, the *Liju* 曆局, founded by Xu Guangqi for the purpose of the reform.⁴⁸

The star of the Jesuit Astronomers, who was to become the European leader of the astronomical enterprise, was Johannes Schreck. When he left for China in 1618, he was already a well-known physician and botanist, with many friends among European scientists like François Viète (1540–1603), Galilei, and Kepler.⁴⁹ Before travelling to China, he had prepared himself for his future task as astronomer; in 1611, a short time before he joined the Jesuits, Schreck was admitted to the famous Accademia dei Lincei after Galilei.⁵⁰

Therefore, soon after his arrival in China he wrote to his friend Galilei for help, but he did not reply,⁵¹ which caused Schreck to use his other contacts. He wrote from Hangzhou to his Jesuit brethren, the “mathematicians of Ingolstadt,” in 1623 asking them to provide him with material for the prediction of eclipses.⁵² However, it took nearly four years for this letter to reach the German Jesuits, who passed it on to Johannes Kepler as an expert in November 1627. Kepler, in turn, responded by December 1627, giving advice and later sending two volumes of his just printed *Tabulae Rudolphinae* (Ulm 1627) to China in 1630.⁵³ However, Schreck had already died in 1630. Schall became member of the calendar team under Xu

46 Halsberghe and Hashimoto (2001) 713–714.

47 Bernard (1938) 72.

48 Halsberghe and Hashimoto (2001) 713–714.

49 Golvers (2020b).

50 Iannaccone (2016) 93–96.

51 D’Elia (1960) 29–32; Collani (1992) 29; Iannaccone (2016) 99–101.

52 Iannaccone (2016) 101.

53 It seems that the complete copy of the *Tabulae Rudolphinae* only arrived in China with Michal Boym SJ (1612–1659) in 1646. Kepler was so proud to have been asked for advice from China that he provided the printing of Schreck’s and his letter as *R.P. Ioannis Terrentii e Societate Iesu Epistolium ex regno Sinarum ad mathematicos Europaeos missum; cum commentatiuncula Joannis Kepleri mathematici* (Sagani Silesiae, 1630).

Guangqi, and after Xu Guangqi's death in 1633 he became the leader of the team.⁵⁴

Schall's education had prepared him well for the task in the Calendar Office. Born in Cologne into a patrician family as the younger son, he was sent to Rome in 1608 where, having been educated by the Jesuits, he joined the Society in 1611 (the same year as Schreck). After finishing his special scientific education under Grienberger, part of his studies in philosophy (worldly science and practical things), and theology in 1617, he was permitted to accompany Trigault to China, chosen because of his special education.⁵⁵

Xu Guangqi and Schreck had developed a program on how to proceed with the reform. Parallel to the reform as such, the team of more than 12 Chinese scientists and several Jesuits wrote, translated, and published a collection of booklets on astronomy within five years. Between 1631 and 1635 a collection consisting of 137 booklets (*juan* 卷) on astronomy was prepared and submitted to the Throne, the *Chongzhen lishu* 崇禎曆書 (*Astronomical Treatises of the Chongzhen Era*) which also included star maps.⁵⁶ Later, it became known as the "astronomical encyclopedia of Fr. Schall," because Schall wrote most of it; however, the new calendar as such did not yet become valid at that time.⁵⁷

The Jesuits' work at the Astronomical Office was not without contrasts by the Chinese, who disliked the fact that such an important office was in the hand of foreigners. While the Jesuits were able to convince the Chongzhen Emperor, Xu Guangqi's death in 1633 was a disaster for the mission, because he had been an influential friend. His successor in the Astronomical Bureau, Petrus Li Tianjing 李天經 (1579–1659), was not such a strong personality like Xu Guangqi.⁵⁸

5.2 The Qing Dynasty and the New Calendar

Despite the cannons which Schall had to cast in 1642 for the defense of China,⁵⁹ the year 1644 brought the end to the Ming dynasty by the conquest of the Manchus. The rebel Li Zicheng 李自成 (1605–1645) conquered Beijing, which caused the suicide of the Chongzhen Emperor. Li Zicheng ruled for a short time and was soon followed by the Manchus who established their rule in China from 1644,

54 Richter (2016) 228.

55 Vāth (1933) 30–31.

56 Martzloff (2009) 370–371. *Li* 曆 means a translation of non-Chinese texts.

57 Bernard (1938); see also Chu (2007).

58 Vāth (1933) 111–115.

59 Stary (2001) 771–772.

with some members of the Society of Jesus staying in Beijing, while others moved to the court of the Southern Ming pretenders. Two Jesuits, Gabriel de Magalhães (1610–1677) and Lodovico Buglio (1606–1682), worked as missionaries in Sichuan, where they were captured by the rebel Zhang Xianzhong 張獻忠 (1601–1647)⁶⁰ and had to cast astronomical instruments for him. In January 1647 Zhang was killed by the conquering Manchus, while the two Jesuits were spared because the Manchu commander, prince Haoge (豪格, also known as prince Su, 1609–1648), knew Schall.⁶¹ They were brought to Beijing, where they had to live under house arrest for a certain time.⁶²

Schall and the Christian mission had survived in Beijing because the new masters also needed a calendar to legitimize their rule. Schall initially felt unsure if he should continue to work as astronomer rather than only as a missionary, but when Beijing burnt in 1644, the astronomical wooden printing tables in the neighbouring house survived, and Schall considered this as an omen sent by Heaven.⁶³

Schall's technical skill and his personal esteem for China led him to be accepted by the Chinese and Manchu authorities. The *Libu* proposed that the new regime should continue the unfulfilled policy of the Chongzhen Emperor and accept the new calendar made by Schall⁶⁴ and, thus, after Schall's prompt petition to the invaders, the Manchu prince Dorgon (Amawang) 多爾袞 (1612–1650), uncle and regent of the young Shunzhi Emperor 順治帝 (1644–1662), entrusted Schall with the office of director of the Astronomical Bureau, the *Qintianjian* 欽天監. Schall at first resisted because the Jesuits were forbidden to accept any political or other influential position outside the order. However, his superior in China, Francisco Furtado, gave his permission and Schall had to obey for the best of the mission.⁶⁵

Schall's position at the Astronomical Office tightened his bonds to the Court, as well as to influential courtiers and scholars, and bound the Jesuits into the networks of the Ministries. It was the best possible position at that time to make converts among Chinese and Manchu and have a firm position in China. Only one year after the beginning of the Qing dynasty, the reformed calendar became valid and the collection of the *Chongzhen lishu* from the former dynasty was published by the imperial order as *Xiyang xinfu lishu* 西洋新法曆書 (*Astronomical Treatises in*

60 Zürcher (2002) 357.

61 Vāth (1933) 153.

62 Zürcher (2002) 362, 372.

63 Vāth (1933) 145.

64 Chu (2007) 164.

65 Collani (1992) 32. The *Qintianjian* was part of the *Libu* 禮部, the Ministry of Rites.

Accordance with the New Western Methods, 1646), because the new Qing dynasty also urgently needed a correct calendar to consolidate its rule and demonstrate its legitimacy.⁶⁶

Schall's position as director of the Bureau, however, was not without conflicts. At first Buglio and Magalhães, who had survived thanks to Schall, were not grateful to him; he was the honored director of the Astronomical Bureau, whereas they were under house arrest. They saw him as responsible for the “superstitious” popular calendar, accusing him of having accepted a high position and the dignity of a Mandarinate – both of which were forbidden to Jesuits. The case was dealt with in China and in Rome but by 1655, a commission of Jesuits decided that Schall could keep his office because of the advantage for the mission. Pope Alexander VII confirmed in 1664 that Schall and the Jesuits could accept high offices in China for the best of the mission.⁶⁷

5.3 The Calendar Case

As one can imagine, not all Chinese were glad about the new Western astronomy. Many preferred the traditional Chinese astronomy, felt offended in their national or cultural pride, and thought that all important things had already been invented in China. The great adversary of Schall, Yang Guangxian, was convinced that the foreigners were crazy to think that the world was like a ball. Who could walk on a round earth? People would walk headlong, which was nonsense.⁶⁸

After the early death of the Shunzhi Emperor, with whom Schall had some form of friendship, another calendar case started, during the minority of the Kangxi Emperor 康熙 (1662–1722), when four Manchu princes reigned for him. After 1660 Schall was accused several times by the Confucian scholar Yang Guangxian 楊光先 (1597–1669), concerned about such an important office being in the hand of a foreigner.⁶⁹ The accusation concerned Schall's Christian religion (attacked as foreign), but also another point, namely that Schall had deliberately chosen a wrong date for the burial of the young son of the Shunzhi Emperor in 1658; according to Yang Guangxian, this had caused the premature death of empress Xiaoxian 孝獻 (1639–1660) and of the Shunzhi Emperor himself in 1662. Yang Guangxian succeeded in bringing the case to court in 1664,⁷⁰ but during the

⁶⁶ Sivin (1973) 89–90.

⁶⁷ Collani (1992) 33.

⁶⁸ Collani (1993) 96.

⁶⁹ Menegon (1998b).

⁷⁰ Chu (1997); Halsberghe and Hashimoto (2001) 718; Gimm (2021).

trial Schall suffered a stroke and could not defend himself; his confrere Ferdinand Verbiest (1623–1688, in Beijing since 1660) helped Schall by overtaking his defense. Several Christian members of the Office were condemned to death and executed. However, the Jesuits were saved by several omens believed to be sent by Heaven as a warning for the dynasty, including an eclipse, an earthquake in Beijing, fire in the Palace, and a meteor. Finally, in May 1665, Schall and the other Jesuits were released, and Schall died in the Jesuits' residence on August 15, 1666.⁷¹

Yang Guangxian became Schall's successor at the Astronomical Bureau, and with the help of the Muslim astronomer Wu Mingxuan 吳明炫 he calculated the calendars from 1665 up to 1668. The Kangxi Emperor, however, doubted Yang's calculations and sent a copy of the calendar to Verbiest, whose methods proved to be correct in contrast to the other calculations. Verbiest succeeded in having Schall's case re-examined, and as a result, Yang Guangxian was banished for his false accusations against Schall, whereas Schall was rehabilitated posthumously⁷² and buried with official honors given by the Emperor. Verbiest succeeded Schall in the office *Qintianjian*, with the young emperor using the corrected calendar made by Verbiest to claim his proper rule against his four regents and remove them.⁷³

6 The Chongzhen Lishu

The *Chongzhen lishu* (*Astronomical Treatises of the Chongzhen Era*) was started in cooperation by Jesuits and Chinese scientists in 1631 and completed in 1635. It was the largest scientific project in seventeenth-century China translating European science into the Chinese language – a monumental compendium of the mathematical and astronomical science of the time, comprising 44 books in 137 chapters (*juan*) and two star maps.⁷⁴ At least 75 Chinese literati collaborated, including officials from the Astronomical Bureau (*Qintianjian*). The Jesuits involved were Johannes Schreck (Terrentius), Johann Adam Schall von Bell, Niccolò Longobardo, Giacomo Rho, and, to a small extent, Giulio Aleni (1582–1649).⁷⁵ The team started under the guidance of Paul Xu Guangqi and Johannes Schreck; after their

⁷¹ Vāth (1933) 313–314, 320.

⁷² Halsberghe and Hashimoto (2001) 718.

⁷³ Kessler (1976).

⁷⁴ The work only survived in fragments in various libraries. Chu (2007) 161.

⁷⁵ Bernard (1938) 506–512 (names), 514–526 (titles).

deaths Schall von Bell became the leader of the project.⁷⁶ European trigonometrical and astronomical tables, especially the Rudolphine Tables (*Tabulae Rudolphinae*), were helpful instruments.⁷⁷

One third of the treatises of the *Chongzhen lishu* dealt with astronomical theories. Emphasis was placed on the works of Ptolemy, Copernicus, and Tycho Brahe, the latter being the most frequently mentioned Western author, for the new calendar was based on the Tychonic semi-heliocentric system, which was considered the correct one, whereas Copernicus' heliocentric system was only shortly described. Kepler's ideas on the mechanism of the astronomical motions were also introduced, but not the first and second laws of planetary motion.⁷⁸ Among the texts we can find also Schall's *Yuanjing shuo* 遠鏡說 (*Explanation of the Telescope*) of 1626, with the first account of the Tychonic world system in Chinese.

When the dynasty changed from the Ming to the Qing, Schall tried to save the mission by offering his knowledge to the new rulers. The Manchus needed the calendar to prove the legitimacy of the new dynasty. The new calendar was given the name *Xiyang xinfa lishu* 西洋新法曆書 (*Astronomical Treatises in Accordance with the New Western Methods*).⁷⁹

7 Conclusion

Schall's life in the service of three emperors had highs and lows. In 1653 he received the title *Tongxuan jiaoshi* 通玄教師 from the Shunzhi Emperor, while in 1665 he nearly was executed during the Kangxi Emperor's minority. In 1669, however, Schall was officially posthumously rehabilitated by the Kangxi Emperor and granted a funeral corresponding to his high official rank as "Grand Master for Splendid Happiness" (光祿大夫 *Guanglu dafu*).⁸⁰ His tombstone in three languages (Chinese, Latin and Manchu) is still existent in the old cemetery of Zhalan in Beijing, dated December 8, 1669; here one can find his title as *Religious Teacher who Comprehends the Mysterious*.⁸¹

⁷⁶ Collani (2013) 452–453.

⁷⁷ Chu (2007) 162–163.

⁷⁸ Hu (2005) 12.

⁷⁹ Chu (2007) 164.

⁸⁰ Standaert (2008) 190–191. The quotation is Standaert's translation from a Ministry of Rites memorial.

⁸¹ Malatesta and Gao (1995) 133.

The Jesuit Johann Adam Schall von Bell from Cologne was the first Westerner to serve as director of the Astronomical Bureau *Qintianjian*, with the office remaining in the hands of Jesuits until the abolition of the Society of Jesus in China in 1776. Schall's successors were well-known Jesuits such as Ferdinand Verbiest, Claudio Filippo Grimaldi (1638–1712), Gaspar Castner (1665–1709), Kilian Stumpf (1655–1720), Ignaz Kögler (1680–1746), Augustin von Hallerstein (1703–1774), and others, all of whom were permitted by the Catholic Church to work for and with Chinese astronomy, sometimes including astrology and superstition, which was tolerated for the best of the mission.⁸² In Schall we can clearly see the close connection between astronomy and Christian religion, because he practiced astronomy out of religious purposes. As Chu Pingyi stated: “he succeeded in transforming the Astronomical Bureau into a church where the officials took on the identities of Christians and subjugated themselves to his religious authority. He was the high priest of both science and religion.”⁸³

The Jesuits of the early China mission were well-known for their use of modern European science as a method to spread their faith. Often, they are reproached for having brought the old medieval astronomy to China, but they stood at the transition between the medieval world view and the new heliocentric world view of Copernicus and Kepler. However, science was used for missionary purposes, and therefore they had to be cautious and obey the rules of the Catholic Church. Nevertheless, modern astronomy too found its way into China during the eighteenth century.⁸⁴ The Jesuits were in some respect modern people, but in other respect they were children of their times. They used the predictions of heavenly phenomena such as eclipses to prove the rationality of Christianity, and if there were unjust accusations, they never forgot to mention that the prosecutors would be punished afterwards by Heaven with illness, death, and the like. Everywhere they found hints sent by God which served as omens to find the right way; astronomy was not only a science, but also represented Heavenly wisdom, for God used the stars in the sky like the letters in a book to educate people and to teach them how to live.⁸⁵

⁸² Huang and Chang (1993) 102.

⁸³ Chu (2007) 167.

⁸⁴ Halsberghe and Hashimoto (2001) 713–714.

⁸⁵ Collani (2013).

Arianna Magnani

The Human Body “Translated” Across Geographical and Cultural Borders: Medical Knowledge Circulating Between China and Europe from Late Ming to Early Qing

1 Introduction

Artis medicae praecepta non parum a nostratibus discrepant; verum non aliter ac nostri venae pulsus explorant. Et sane sunt in medendo non infelices. Pharmacis porro utuntur simplicibus, herbis, radicibus, aliisque huiusmodi. Itaque ars tota Sinensis medica herbariae fere nostrae praeceptis continetur. [Trigault (1639) 69–70]

The precepts of their art of medicine are rather different from ours; however, they check the pulse of the veins as our medics do, and truly, they are not unsuccessful in treatment. They also make use of simple remedies, herbs, roots, and other such things. Therefore, the whole art of Chinese medicine is almost totally contained in the precepts of our herbal medicine.¹

In medica arte, si praxim spectes, nos omnino superant [. . .] Antiquissimos de herbarum, lapidum, atque arborum natura habent libros in unum corpus redactos, suisque figuris, ad modum nostri Dioscoridis, exornatos; praeterea morborum signa, effectus, causas, aliasque proprietates continent recentiores illorum ac veteres libri. [Martini (1655) 7]

In the art of medicine, if you consider how it is carried out, they completely surpass us [. . .] They have very ancient books on the nature of herbs, stones, and trees, all collected together in one work and embellished with their specific illustrations, in the manner of our Dioscorides; moreover, some ancient and more recent books of theirs contain the signs, effects, causes, and other characteristics of the diseases.

utpote quae, cum doctrina eorum de pulsibus, non anatomicis fundamentis, a quibus semper abhorrent, sed soli longiori usui seu experientiae, ac codici cuidam antiquissimo innititur. [Acta (1682) 302]

since this [i.e., the Chinese doctrine on blood circulation], like their doctrine on the pulse, is based not on anatomical principles, which they always abhor, but only on longer familiarity or rather experience, as well as on a very ancient book.

¹ Unless otherwise indicated, the translations are my own. In this article, the choice was made to keep the Chinese writing in simplified form for consistency in style.

By allowing the Latin texts cited above to speak for themselves, it is clear from these seventeenth-century sources how Chinese medicine was perceived by the European public at the time: as a medical art with a long tradition, passed down through ancient and illustrated texts, partly comparable to Greek physics but distinct in practice and pulse diagnosis.

Sometimes I also asked for a few of the books he [i.e., Matteo Ricci] had translated, and read them carefully. There were many more books that he had brought with him from his country, but they remained in his trunks, untranslated, and so I could not read them. [*Ba er shi wu yan* 跋二十五言 (*Postscript to Twenty-Five Sayings*) by Xu Guangqi 徐光啟, c. 1604. Translation: Cheung and Neather (2017) 27]

The parts of the body that were discussed in the book, though not exhaustive, were dealt with clearly and in great detail. Among these, the section on the skin and the one on bones were especially interesting. As for the ideas that fat fuels the vital energy, that some four hundred muscles execute our movements, that the fine tendons are responsible for our awareness of touch and that the ribs have their functions, did not our best medical doctors say something similar? [*Taixi renshen shuogai xu* 泰西人身说概序 (*Preface to An Abbreviated Extract from the West on the Human Body*) by Li Zhizao 李之藻, c. 1643. Translation: Cheung and Neather (2017) 106]

见有新到西洋人，若无学问只传教者，暂留广东，不必往别省去。许他去的时节另有旨意。若西洋人内有技艺巧思，或系内、外科大夫者，急速著督抚差家人送来。

If you see newcomers from the West who seem to be uneducated and just do proselytism, let them stay in Guangdong temporarily, and don't let them leave the province. I will tell you another time when they can leave. However, if you spot someone with creative and technical skills, or a surgeon who is also board-certified in internal medicine, let the governor-general know right away and accompany that person [*scil.* to the imperial palace]. (The Kangxi Emperor 康熙 to the Guangdong official, 1706)²

The Chinese sources chosen here highlight how the information about European medicine came to the missionaries via the books they owned and their efforts to translate them. The foreign art of medicine appears to have had big differences, such as the surgical practice and extreme realism for anatomical detail, but also some analogies when comparing the ancient sources.

From these few different testimonies between Ming (1368–1644) and early Qing (1644–1911) dynasties, it is possible to note a mutual interest in finding analogies and divergences, sometimes showing criticism and even refusal. In this scientific exchange from East to West and *vice versa*, the intermediary work promoted by the religious missionaries located in China was fundamental, as was the Latin language, often the main tool for translating medical texts into Chinese. Translation,

² The Chinese text is quoted from Dong (2004) 443.

the circulation of texts, visions of the human body, and imperial “exclusive ownership” over medical knowledge – all aspects that can be guessed from these few quotations – are the subject of this chapter. They will be analyzed from a twofold point of view, European and Chinese, before concluding with the analysis of a translation case study.

2 The History of Anatomical Studies: A Comparative Overview Between China and Europe

The human body and its study are a fundamental part of medical knowledge, which is common to all cultures; in the first descriptive approaches, the body was often imaged as the mirror of the universe, a sort of microcosm whose shape was modeled in different ways according to the philosophical, religious, and spiritual context in which it was generated. This “mediated” representation is noticeable in both Western and Eastern cultures.³

Over time more scientific firsthand observation of bodies, based on dissections, has made it possible to give an ever more precise shape to the internal organs. However, anatomical dissection clashed with the ethical and religious principles within which the human body had taken its shape, making this practice difficult to accept.

In the Chinese context, the earliest written evidence of dissections (*jiēpou* 解剖) dates back to the reign of Emperor Wang Mang (王莽, c. 45 BCE–23 CE), during which, according to the *Han Shu* 汉书 (*History of Han*), the emperor “had the grand physician, a person from the Office for the Arts and Crafts and a skillful butcher dissect and flay” the body of Wang Sunqing, a rebel from the opposite political faction.⁴ Other textual evidence suggests that the opening of bodies, the measurement of organs and bones, and the study of the circulation in blood vessels were not unusual practices during the Han dynasty. The *Huangdi Neijing*, 黄帝内经 (*Inner Canon of Medicine of the Yellow Emperor*) stressed the measurements of

³ See Matuk (2006).

⁴ Translation: May and Tomoda (2002). The dissection is reported inside the *Han Shu*, attributed to Ban Gu 班固 (32–92 CE) in the section of the Biography of Wang Mang (*Wang Mang Zhuan* 王莽传). Wang Sunqing 王孙庆 was a political enemy from the faction of Zhai Yi 翟义, opposed to Wang Mang, captured around 16 CE and then executed as a rebel, with the additional dishonor of being dissected. See also Yamada (1991) 39.

the organs and their connection to each other; however, as Keiji Yamada emphasized, these studies were not conducted with an anatomical approach, but were (to borrow Yamada's term) "anatometrics" for the purpose of making physiological conclusions.⁵ The results collected in the Han period were reaffirmed in the following centuries, which demonstrates that the practice of dissection was carried out only in that specific period of the past and then abandoned.⁶ The idea of a rare use of autopsies in the long history of China was also common in Europe;⁷ this taboo was due to the Confucian prescription to preserve the bodies intact because, as stated in the *Xiaojing* 孝经 (*The Classic of Filial Piety*), "body, hair and skin are gifts from parents, let no one damage them."⁸

However, although it is true that dissections on corpses were seen in China as a serious punishment and a great disgrace, and as such rarely performed under legal authorization, investigations conducted on corpses for forensic analysis continued to be perpetuated over time, improving the study of the human body: from the Song dynasty (960–1279) onwards, there were autopsy specialists, *wuzuo* 仵作, specifically appointed to write down the legal corpse examination in the cases of suspicious deaths. Using the data collected through these observations, several texts were compiled, such as *Xiyuan lu* 洗冤录 (*Annals of the Reparation of Injustices*), written in 1247 and later reprinted in a different edition with commentaries and corrections. Here the human body was drawn from the front (*yangmian* 仰面) and from the back (*hemian* 合面). In both text and images, a lack of attention towards an "internal" view of the organs can be observed, while the focus is more on the external examination of the body and the bones to determine the causes of death.⁹ This aspect is still visible in the *Yizong jinjian* 医宗金鉴 (*Golden Mirror of Medicine*), a medical encyclopedia published in 1742 by the Imperial Academy of Medicine, and in another extract on forensic medicine, *Jiangu tuge* 检骨图格 (*Illustrated Investigations of Human Remains*), written in 1770 under the suggestion of a certain Zengfu 增福, a Manchu bannerman.

In addition to dissections and forensic anatomy, in China there was another way to analyze the human body: the Buddhist contemplation of the corpse. This meditative practice, which came from Buddhist scriptures imported and trans-

5 Yamada (1991) 42.

6 According to Yamada (1991), all the data on the organs was collected under the reign of Wang Mang, and therefore linked to the dissection of Wang Sunqing.

7 Haller (1774) 9: *Unicam a rerum memoria anatomen in China administratam fuisse lego, et eam crudelitatem unanimes abhorrent* ("I read that, as far as there are records, only one dissection was performed in China, and that such cruelty is unanimously abhorred").

8 Translation: Luesink (2019) 410.

9 See Despeux (2007) 639.

lated in medieval China, was called *bujing guan* 不净观, “meditations on impurity” (in Sanskrit, *Aśubha bhāvanā*). It focused on acknowledging the unpleasant nature of the body’s contents – through firsthand observation or mental imagery of dead bodies and their decomposition stages – to overcome attachment and desire.¹⁰ Volker Scheid has underlined how, particularly in the period of transition from the Ming to Qing dynasty, many medical authors and Ming loyalists found refuge in Buddhism: the syncretism between Neo-Confucianism, Buddhism, and Daoism also influenced the medical knowledge and practice of that time.¹¹

In Europe, on the other hand, the basis of medical knowledge was Greek medicine, represented especially by the clinical medicine of Hippocrates (c. 460–375 BCE) and the evidence-based logic of Aristotle (384–322 BCE). The birth of a systematic use of dissection for the study of the human body is connected to the anatomical investigations of Herophilus (c. 335–280 BCE) and Erasistratus of Ceos (fl. c. 250 BCE) who suggested, for example, considering the brain as the “engine” of the body, in opposition to Aristotle’s cardiocentric hypothesis. However, after their deaths, anatomy studies started to decay until their revival in the thirteenth century. Through anatomical observation and dissections of animals, especially monkeys, Claudius Galenus (129–c. 200) explained the function and anatomy of the human body; he became the most prominent physician of antiquity, with his theories lasting in Europe until the sixteenth century.¹²

A great contribution in the development of medical studies was made by Italian universities: first with the foundation of the *Schola medica Salernitana* in Salerno, institutionalized in the eleventh century,¹³ that imported and translated Arabic medical literature and then, at the beginning of the fourteenth century, with the addition of human anatomy to the teaching curriculum of the University of Bologna. This practice was then followed by other Italian and European medical schools.¹⁴

Although anatomical dissections were allowed from the twelfth century, they still clashed with ethical and religious principles. Dissections were permitted only once in certain periods of the year (firstly in winter, then during Carnival) and

10 For an example of Buddhist text connected with the meditation on the body in the Chinese translation, see Kritzer (2020). In Japan, this meditative practice created the *kusōzu* 九相図, a painting genre focused in depicting the nine stages of decomposition (especially of women’s bodies).

11 Scheid (2020). The present paper focuses on the period of medical exchanges between China and Europe in which Latin was used as a medium, i.e., down to the first half of the eighteenth century, leaving out the subsequent phases, although fundamental in the structuring of Chinese medical science. For more information on the nineteenth century see Chiang (2019).

12 See Papa et al. (2019).

13 Interest in medicine was already thriving in Salerno in the Early Middle Ages. For a more detailed analysis of the origin of the School, see Vitolo (2004).

14 Ferrari (1987) 53, 55.

only on selected executed criminals (foreigners of low birth rank, sentenced to hanging, with no parents reclaiming the corpse). However, in the sixteenth century the human body had become an important part of both medical and artistic research and somehow this need was generally accepted or, at least, “tolerated,” with the lessons which had been only for students now open to citizens. This meant there was a need for bigger public places to conduct dissections and so permanent anatomy theatres were constructed and opened, with the first at the University of Padua. However, a higher number of dissections resulted in an increased demand for bodies, which consequently led people to ignore previous restrictions on “dissectible” persons and resort to conducting dissections out of the allowed public time frame by doing private autopsies. A true “corpse fever” resulted, with artists and doctors struggling to grab bodies, requesting them from hospitals or charitable institutions, and even resorting to grave robbery or the clandestine market.¹⁵ This led to the establishment of *ad hoc* punishments and sanctions.

The possibility of observing the body firsthand led to the production of more detailed texts and images. Anatomic illustrations had already appeared in the fifteenth century (for example *De arte physicali et de cirugia*, 1412; *Fasciculus medicinae*, 1491); but it was in the sixteenth century, thanks to the flourishing of anatomy studies, that the internal organs of the human body began to be the subject of greater visibility and research, as with the first anatomical flap prints, produced in 1538 by Heinrich Vogtherr, and, most importantly, the milestone work of Andreas Vesalius (1514–1564), *De humani corporis fabrica*, published in 1543. This was a manifest detachment from the teachings of Galenus and a new impetus for a more advanced and in-depth study of the human body; the great scientific fervor that characterized the sixteenth and seventeenth century, and the rapid transformation in medical theory and practice, particularly in northern Europe, is well represented by Rembrandt’s oil painting *The Anatomy Lesson of Dr. Nicolaes Tulp* (1632).

It is precisely in the application of dissection in medical teaching that the divergence between European and Chinese medicine is usually identified. In fact, while the ban on dissection partially began to decline in medieval Europe, it remained ever-present in China, leading to a different direction in medical studies (anatomy by dissection in one case and by physiology in the other) and in their representation of the body (towards more realism in one case and more symbolism in the other).¹⁶

¹⁵ See Park (1994) 17.

¹⁶ For a history of the evolution of the human body’s conception, in the West and in China, see Matuk (2006).

This difference in methods has led to the misconception that anatomy did not exist in China. However, it is only a matter of difference in the methodology adopted to study the body, which among other things evolved according to time and space. Such changes are also present within Chinese medicine itself, contrary to the idea of its immutability over time. Since knowledge of the organs was fundamental to better understand the physical location of a disease and proceed with its treatment, Chinese medical literature shows internal debates, contrasting opinions and updated changes, and points out the problem of corruption in the handing down of ancient texts. This was a particularly sensitive issue in the transition period between the Ming and Qing dynasty, in which authors started to show the desire of distancing themselves from the data of ancient sources and rely more on the direct inspection of bodies.¹⁷

3 Moving Texts, Moving Knowledge: The Movement of Books from Europe to China and *vice versa*

With the arrival of the first Portuguese ships in China in the sixteenth century and, consequently, the intensification of relations with Europe, scientific exchanges and the search of information on one another began to be increasingly frequent and direct. In this transfer of scientific knowledge, Christian missionaries played a key role because they acted as cultural intermediaries, spokesmen, translators, and physical carriers of books containing the sought-after *sapientia*.

Golvers' studies show how, through the network of the European *res publica litterarum*, missionaries in the Far East stayed in touch with intellectual circles and remained scholarly updated, bringing with them from Europe the texts most useful for their training and work, or having them sent to China. As far as medicine is concerned, in the Jesuits' pre-1773 libraries in Beijing and in their other places of residence in China (housed today inside the Beitang 北堂 collection in the National Library of China, Beijing), it is possible to find 281 medical and pharmaceutical books.¹⁸ According to the list written by the Jesuit Ferdinand Verbiest (1623–1688) in 1685, among the books which arrived in China before that date were, for example, Petrus Forestus's *Observationes medicinales* (1602), Jacques Fontaine's *Opera* (1612), Caspar Bauhin's *Theatrum anatomicum* (1605), and Mat-

¹⁷ See Wu (2015) 92.

¹⁸ See Golvers (2011).

tias De Lobel's *Plantarum historia* (1576). The earliest acquisitions of medical literature show Latin as the predominant language, but later between the seventeenth and eighteenth century it was gradually replaced by vernaculars.¹⁹

In the other direction, from East to West, some information on the earliest arrivals of Chinese books in Europe was given by Juan González de Mendoza (1545–1618) in his *History of China*,²⁰ first published in Spanish in 1585. He stated that a large quantity of Chinese books (*muchos cuerpos de diversas materias*) were purchased by the Spanish Augustinian Martín de Rada (also known as Herrada, 1533–1578) via the Philippines. In addition to listing the various topics covered in these texts, Mendoza claimed that at the end of the sixteenth century many of Herrada's books were already available in India, Spain, and Italy.²¹ Thanks to the widespread Latin translation of Mendoza's book, Thomas Hyde (1636–1703), the author of the 1674 catalogue of the Bodleian Library in Oxford, claimed to recognize there one of the Chinese books brought to Europe by Herrada.²²

From this list compiled by Mendoza it is possible not only to document the rapid diffusion of Chinese books in Europe, but also to certify the early arrival of Chinese medical texts, in particular “many books on medicinal herbs, and the way to use them to alleviate suffering and heal the sick. There are many other medical books written by ancient and contemporary authors of that Kingdom, and the recipes that must be followed to recover and stay healthy.”²³ In fact, between the sixteenth and seventeenth century it was possible to find in several European collections Chinese medical texts which had been distributed, brought by

19 Golvers tracked down and analyzed the first books collected in Jesuits libraries, identified by him as the “Trigault-Terrentius” layer, referring to the collection of books acquired by Johann Schreck Terrentius (1576–1630) and Nicolas Trigault (1577–1628) through their tours in Europe, respectively 1600–1618 and 1616–1618; Trigault's books arrived in Macao in 1619, and then in Beijing in 1623. This layer includes the books mentioned in the Verbiest's letter of 1685. For the study of this layer and the languages of the books, seen in percentage terms, consult Golvers (2011) 45.

20 *Historia de las cosas más notables, ritos y costumbres del gran reyno de la China*, translated in English with the title *The History of the Great and Mighty Kingdom of China and the Situation Thereof*, hereinafter abbreviated as *History of China*.

21 González de Mendoza (1591) 9, 219.

22 See Hyde (1694) 277. Hyde knew Mendoza's work in the Latin translation made by Marcus Henning.

23 Translated by the author from the Latin text of González de Mendoza (1591) 223.

missionaries, or acquired through merchants, or small encyclopedias that also contained chapters on herbology and some medical rudiments.²⁴

It is not strange then that in the early seventeenth century European intellectuals were already fascinated by Chinese anatomical and botanical books which were the subject of debates and exchanges, such as the *Wan bing hui chun* 万病回春 (*Cure for all the illnesses*)²⁵ written by Gong Tingxian 龚廷贤 (active 1577–1593), first possessed by the diplomat Jacques Bongars (1554–1612)²⁶ and then analyzed by the surgeon Fabry Wilhelm (better known as Fabricius Hildanus, 1560–1634),²⁷ who discussed through letters and drawings the anatomical plates with his doctor friend Johannes Burgauer (1600–1635).²⁸ The book was then again brought to attention in 1774 by the Swiss anatomist Albrecht von Haller (1708–1777), who mentioned it in the first volume of his encyclopedia *Bibliotheca anatomica* as an example of Chinese *iconae anatomicae*.²⁹

The images of medical tables and medicines described in Chinese and Latin soon began circulating among intellectuals and doctors. These naturally aroused their curiosity and prompted the request for translations, which did not take long to appear.

24 For example, the encyclopedic text *Gewu bu qiu ren* 格物不求人 (*Everything you must know in order to not ask help from others*) brought by missionaries to the Jesuit College of Genoa, has a chapter on basic medical knowledge (Genova, Biblioteca Universitaria, RARI.I.VII.15). In the *Ke xin ban bu tianxia bianyong wenlin miao jin wanbao quanshu* 刻新板補天下便用文林妙錦萬寶全書 (Città del Vaticano, Biblioteca Apostolica Vaticana, Barb. or. 139), published in 1611, it is possible to see some handwritten marginalia: at Barb. or. 139/6 (卷 22–25) on Sphygmia art and at Barb. or. 139/7 (卷26–31) on some remedies and prescriptions, as well as the evolution of the fetus. For a brief introduction to the Chinese Encyclopedic texts collected in European libraries, see Magnani (2020).

25 Bern, Burgerbibliothek, Cod. 350; catalogue entry: <https://katalog.burgerbib.ch/detail.aspx?ID=129417>. See the complete study of Hintzsche (1960). The Bern exemplar contains the first book of the text, incomplete; the second, third, and fifth books (incomplete) from the same edition are now in the Bibliothèque nationale de France and were already catalogued in Fourmont's list in 1742; see Hintzsche (1960).

26 Jacques Bongars (1554–1612) was a French diplomat, bibliophile, and scholar, who served under King Henry IV. His library was characterized by different topics and areas of interests, such as linguistics, history, science, as well as the Far East. His library (*Bibliotheca Bongarsiana*) ended up in Bern in 1632.

27 German surgeon who helped to reform surgery by creating new instruments and methods, put into practice by himself. During his career he carried out amputations of limbs and treatments of gunshot wounds; he was also an obstetrician and the author of 20 medical books, in which he illustrated the conclusions drawn from his operations.

28 A surgeon who studied in Basel, coming from a family of physicians from Schaffhausen.

29 Haller (1774) 9.

4 Translations of Medical Texts and Their Circulation

In the 1650s, the Polish Jesuit Michał Piotr Boym (1612–1659) started a project of translating Chinese *materia medica* into Latin. His *Flora Sinensis* was published in Vienna in 1656, and in 1654 he announced his intention to publish a book on medicine entitled *Medicus Sinicus*.³⁰

Before Boym's anticipated book was published, a French translation, *Les secrets de la Medecine des Chinois*, by an unknown French author from Canton was published in 1671 in Grenoble; the same text was then reused by Pietro Francesco D'Amphous in the Italian edition published in 1676 under the title *Secreti svelati della medicina de' Chinesi*.³¹

Specimen medicinae Sinicae by Andreas Cleyer was published in Frankfurt in 1682, with the only indication that the translation of the text came *ab erudito Europaeo*, probably referring to Boym's long-awaited work.³² Haller summarized the text as follows:

Anatomen Sinicam ex Nuy King antiquissimo libro suntam citavi. Subtilitatem non desideres, quam in sanguinis circulation et viis, inque pulsibus horumque figura adhibuerunt. Ea reperias in Andreae Cleyer medicina Sinica, indigesto opere, cujus primus de pulsibus tractatus ab erudito Europaeo ex eo libro Nuy King collectus est. [Haller (1774) 137].

A few years later, in 1686, another book appeared under the editorship of Andreas Cleyer, *Clavis medica ad Chinarum doctrinam de pulsibus*, this time with the clear indication of Michał Piotr Boym as the author and Philippe Couplet (1622–1692) as the intermediary and revisor.³³

After these main publications, during the eighteenth century many other books on Chinese sphygmia were published in different languages and circulated in Europe. The topic was the subject of a large debate and appeared in several medical texts until the nineteenth century: for example, Sir John Floyer's

³⁰ Boym (1654) 73: *Medicus sinicus, seu singularis ars explorandi pulsum et praedicendi et futura symptomata et affectiones aegrotantium, a multis ante Christum saeculis tradita, et apud Sinas conseruata; quae quidem ars omnino est admirabilis et ab Europaea diversa.*

³¹ *Secreti svelati della medicina de' Chinesi, cioè della cognitione de' Polsi, de' Prognostici di morte, ed altre utili curiosità, tramandati dalla China in Italia da un Francese, Uomo di molto stima*, printed in Milan by Francesco Vigone.

³² This omission of the translator's name has given rise to several hypotheses, including plagiarism. For this problem and more detailed research on Boym's works see Marié (2022); Kajdański (1987).

³³ For the debate about the authorship of *Specimen medicinae Sinicae*, *Clavis medica*, and *Les secrets du pols* see Cook (2011).

work *The Physicians’ Pulse-Watch* (1707–1710), partially quoting Andreas Cleyer’s text; or the French *Description de la Chine* (1735), containing a section entitled *Secret du Pouls*, a partial and new translation of the *Tuzhu maijue bianzhen* 图注脉诀辨真 (also translated by Boym) prepared by the French Jesuit Julien-Placide Hervieu (1671–1746). In Italian, *Gli elementi dell’arte sfigmica, o sia la dottrina del polso, ricavata dall’antica e moderna storia della medicina cinese ed europea, indi combinata e ridotta a regole non meno sicure che facili* by Carlo Gandini was published first in Genoa in 1769 and then in Naples in 1776.

In addition to these partial translations of Chinese texts, general information on Chinese medicine also began circulating, in which the antiquity of the practice and the ancient Chinese book production were often emphasized. The main areas of interest were sphygmia art, acupuncture, moxibustion, and the different ways of conceiving the circulation and the interior of the human body.

In the meantime, medical information travelled in the opposite direction, from Europe to China, also through the mediation of missionaries. Matteo Ricci (1552–1610) was one of the first Jesuits to introduce some Western concepts and ideas, including on physiology and medical information, for example in his *Xiguo jifa* 西国记法 (*Western Mnemotechnic*), published in 1596. In this book he discussed the memory system, a concept that also appeared in the less popular *Minglitian* 名理探 (*De logica*), a translation of Aristotle’s *Categories* from Latin into Chinese written by Francisco Furtado (1587–1653) and Li Zhizao 李之藻 (1565–1630) between 1623 and 1630.

Western Anatomy was introduced first by the Jesuits, specifically with the work *Renshen tushuo* 人身图说 (*Illustrated Explanation on the Human Body*), written between 1615 and 1630. This manuscript on anatomy was attributed to the Jesuit Giacomo Rho (1593–1638) in collaboration with Niccolò Longobardo (1565–1655) and Johann Schreck Terrentius (1576–1630); the possible source behind their translation was Ambroise Paré’s *Anatomie*. However, as Nicolas Standaert demonstrates, this is a “selective translation” that chose some images and passages from various Western books which discussed human body anatomy, organs, and bone structure.³⁴

Schreck, with the help of Li Zhizao, started a work on anatomy entitled *Renshen shuogai* 人身说概 (*General Presentation of the Human Body*), but it was not completed; Adam Schall (1591–1666) passed the manuscripts onto Bi Gongchen 毕拱辰 (?–1644, *jinshi* 进士 in 1616), who edited the work with the title *Taixi renshen shuogai* 泰西人身说概 (*An Outline of the Human Body from the West*) in

³⁴ Standaert (1999b) 13, also for a more detailed attempt to identify the original European source behind the Chinese manuscript.

1635 ca. and then published it in 1643. In this book, it is stated that human intellect, memory, and the perception of things are controlled by the brain, a concept that started to influence seventeenth-century Chinese intellectuals such as Jin Sheng 金声 (1598–1644), Fang Yizhi 方以智 (1611–1671), and Wang Fuzhi 王夫之 (1619–1692),³⁵ allowing them to re-think the traditional idea of the heart as the center of cognition. Many scholars have identified Andrea Vesalius’s *De humani corporis fabrica* (1543)³⁶ or, for the last part focused on sensorial perceptions, a selection from the *Anatomiae* by Costanzo Varolio (1543–1575) as possible European sources behind this translation.³⁷

It was in those years, during the reign of the Kangxi Emperor 康熙 (1654–1722) of the Qing dynasty, that medical exchange between the West and East improved.

In 1685, Kangxi specifically requested the Flemish Jesuit Ferdinand Verbiest to summon European physicians to court.³⁸ Following the positive outcome of the treatment with the “Jesuit’s powder” (bark containing quinine) to treat his malaria, the Emperor issued an edict in 1692 prohibiting the persecution of Christians in the light of their scientific contributions to the kingdom. It was in fact through the missionaries’ commitments that different kinds of Western medical knowledge were imported and translated into Chinese and Manchu languages in China, including information on medicines, herbs, therapies, and anatomy.

In the first case, for example, between 1685 and 1688 Verbiest introduced the therapeutical use of *Lapis Serpentinus* in Manchu. Elsewhere, Jean-François Gerbillon (1654–1707) and Dominique Parrenin (1665–1741) wrote a *vademecum* in Manchu on Western medicine, including the *China Chinae* used as an antidote to treat malaria.³⁹

In 1697, an introductory work on Western *materia medica* entitled *Bencao bu* 本草補 (“*Materia medica* Supplement”) was published by the Franciscan missionary Pedro de la Piñuela (1650–1704), together with the Chinese Christian convert Liu Ning 刘凝 (1620–1715).⁴⁰

The Jesuits undertook an activity of translation of anatomical knowledge into Manchu at the end of the seventeenth century. Between 1710 and 1722, Western medical knowledge began to circulate, inspired by Pierre Dionis’s literature on

35 See Bai (2019) 80.

36 For more information on the debate about the sources used for the first part of *Taixi Renshen Shuogai*, see Hong (2013).

37 See Standaert (2014).

38 See Barnes (2005) 108.

39 See Hanson (2007); Furth (2007).

40 See Hanson and Pomata (2017).

anatomy, with illustrations based on Thomas Bartholin’s anatomical plates.⁴¹ Known as *The Manchu Anatomy*, its full original title is *Dergici toktobuha Ge ti ciowan lu bithe (Imperially Commissioned Complete Record on the Body)*.⁴²

Despite the great efforts to translate medical texts and export herbal or anatomical knowledge, it is difficult to say how much Western knowledge really influenced medical practice, especially during the Ming dynasty, with most of the “orthodox” doctors generally ignoring these foreign ideas. However, in the Qing dynasty, doctors were more skeptical about some Chinese traditional thinking and open to adopting concepts from Western medicine. Therefore, to better understand why, despite the translations, the anatomy studies imported by the Jesuits did not have an immediate circulation, it is necessary to analyze the structure of the Chinese Imperial Academy of Medicine. China established a medical organization within the government composed of court physicians to provide medical service both to the palace and to the state as supervisors of public health activities, creating a network in medical education and drug distribution. Over time the public role of the Academy began to fade, and its structure changed; during the Ming dynasty, the Mongol emperors’ medical network between the capital and the districts was still used to summon the best physicians from local areas to the court, whereas during the Qing dynasty, there was no longer control over local medical examinations and more restrictions on the interactions between Academy members and courtiers.⁴³ The Emperor kept the best doctors close to him, not allowing them to treat anyone other than himself or his family, except on rare occasions. Kangxi used to look for talented doctors even among Europeans, often putting pressure on the Guangdong official for this reason: “西洋来人内,若有各样学问或行医者,必着速送至京中” (“If there are people on arrival from the West who seem to be scholars or medical practitioners, they must be sent to Beijing as soon as possible”).⁴⁴ This exclusive imperial use of the doctors and the Academy limited the interactions between this medical institution and a wider audience. Consequently, the translations provided by Jesuits reached the circle of Kangxi and high officials, but there is no information on a more extended influence.⁴⁵

41 Hanson and Pomata (2017).

42 On the spread of Chinese medicine in Europe through the Manchu medium, see Hanson (2003).

43 See the reconstruction of the Institution of the Imperial Academy of Medicine by Chang (2015).

44 The Kangxi Emperor to the governor of Guangdong, 1718; see Bai (2003) 16.

45 Hanson (2007) 7.

However, in the eighteenth century some books on Western anatomy inspired by Vesalius's *De humani corporis fabrica* (1543), such as the illustrations in *Renshen tushuo*, seem to have reached the Chinese painter Luo Ping (1733–1799), who reused the skeleton plates in his work *Guiqu tu* 鬼趣图 (*The Pleasure of Ghosts*), published in 1772.⁴⁶ It is also possible to find references to Western medicine in the famous eighteenth-century novel *Hong lou meng* 红楼梦 (*Dream of the Red Chamber*): for example, the *yangyan* 洋烟, the “foreign smoke,” indicating a bitter substance obtained from opium and used in medicine; or the *Yifona* 依弗哪, possibly derived from the Latin *emplastrum* (“plaster”) or from the French *éphédrine*, which is obtained from the plants of the Ephedra genus used in the West to treat colds and headaches. These are evidence of a more widespread use of western medicine within the circle of wealthy and powerful families.⁴⁷

However, it was only in the nineteenth century that the influence of Western medical and anatomical knowledge began to have a stronger and more widespread impact, as witnessed by the publication of the *Yilin gaicuo* 医林改错 (*Corrections to Errors in Chinese Medical Writings*) by Wang Qingren 王清任 (1768–1831).

5 Behind a Chinese-Latin Medical Translation: the Case of *De indicibus morborum ex linguae coloribus et affectionibus*

As previously underlined, most European translations and publications on Chinese medicine focused on herbal knowledge, acupuncture, and sphygmia art. Another aspect often noted was the ability of Chinese doctors to cure the internal condition of the patients through an observation of their external traits, an aspect that reflected the different ways of conceiving the body and how it functions. An example of this diagnostic system is explained to the European audience in the sixth chapter of the 1682 *Specimen medicinae Sinicae*, which introduces the Chinese diagnostic and prognostic method based on the examination of the tongue. This chapter is entitled *De indicibus morborum ex linguae coloribus et affectionibus* (*On the signs of the diseases noticeable from the color of the tongue and symptoms*).

The tongue and its relationship with bodily organs are mentioned in the *Huangdi Neijing* and in *Shang han lun* 伤寒论 (*Treatise on Cold Damage*) in the second century

⁴⁶ Standaert (1999b) 28–32.

⁴⁷ See Dou (2009) 20; Li (2004) 53.

CE,⁴⁸ but the first theories on the tongue method are found in *Jinjing lu* 金鏡錄 (*Golden Mirror Record*), written between the Jin (1115–1234) and Yuan Dynasties (1271–1368) by Scholar Ao, who illustrated 12 cases of tongue. The text survived only through a later version, *Ao Shi Shang Han Jin Jing Lu* 敖氏伤寒金鏡錄 (*Scholar Ao’s Golden Mirror Records for Cold Damage*)⁴⁹ published in 1341 by Du Qingbi 杜清碧, who increased the number of tongues to be examined to 36. Xue Ji 薛己 (1487–1559), a Ming dynasty physician, claimed to have acquired two manuscripts of Scholar Ao’s texts and included them first in his *Xueshi yi’an* 薛氏医案 (*Scholar Xue’s Medical Case Records*) in 1528 and then printed them in another version in 1556,⁵⁰ making this text more widely available; its popularity is made clear from the many published and handwritten copies circulating from the fourteenth century until the Qing dynasty. Therefore, the text had several versions, with additions or reductions, and was also cited in various medical compendiums.

Unfortunately, without further evidence, it is difficult to understand which edition the Latin translation comes from; the text could also have been created by summarizing different sources. The only information available from the *Specimen medicinae Sinicae* is as follows:

Tractatus hic excerptus est ex libro cuiusdam Mandarinum medicorum Christiani (Mandarinum titulo insigniuntur hic praecipuae notae medici), qui asserebat non semel sese, non explorato ullo pulsus, ex solis indicibus quae in lingua se produnt, dignoscere posse morborum, praecipue vero malignae febris, vim ac qualitates.

This treatise has been extracted from the book written by a certain Christian Mandarin who was one of the doctors (the title of Mandarin is bestowed here on doctors of particular note), who asserted that not only once, without analyzing the pulse at all, he was able to distinguish the extent and nature of the diseases, especially severe fever, from the mere marks appearing on the tongue.

It is interesting to note that, in the Archivum Romanum Societatis Iesu (ARSI) in Rome, there is a manuscript version of the extract on the tongue (Jap-Sin II, 85.2).⁵¹ The author of the Chinese manuscript in its introduction said:

余每察脉用藥觉有疑滯,幸承先師之誨,故撮其要領,以告後人。

Every time I checked the pulse and prescribed medicine, I was doubtful of my work and felt insecure, but luckily I had received the instruction of my previous teachers, so I summarized here their key points and passed them down onto future generations.

⁴⁸ For a textual history see Holroyde-Downing (2018).

⁴⁹ See Chan (2002).

⁵⁰ See Solos (2013) 21.

⁵¹ See Chan (2002).

The manuscript belongs to the school of Xue; its author shows all his uncertainty in using the pulse diagnosis system, and finds the tongue diagnosis much more precise.⁵² The most intriguing feature is a final inscription that reads 天学罪人吴玛竈录 (“transcribed by Wu Madou, a Christian sinner”), i.e. Matthaëus Wu, possibly a Chinese assistant who helped Michał Boym to translate the Xi’an Nestorian stele.⁵³ This presents another possible connection to the sources behind Cleyer’s text. However, upon detailed investigation, the similarities are not consistent throughout the comparison of the two texts. The Latin author expressly excludes the Chinese drugs prescribed for treatment while including other information; he explains how the appearance of a specific color on the tongue is linked to a specific organ affected by disease, but this information was omitted in the Chinese text Jap-Sin II, 85.2. However, it was available in some introductions to Xue’s editions, such as the preface written by Xue Lizhai and Mao Congru (1529).⁵⁴ Yet, these texts are not entirely identical either because the Latin version includes some clarifications targeted to the European reader, such as an explanation of the term *tai* 胎 (“fur,” “layer,” “coat”). Although the number of tongues described in both the Latin and the Chinese texts is 36, the selection and order are slightly different, and the texts do not perfectly match. According to the Latin introduction, *Tractatulus hic ad verbum e Sinico est translatus* (“This short treatise has been translated word for word from Chinese”), so somewhere there must be a more trustworthy source for these different tongues that were examined.

Here are some comparisons:

Latin text:

*Lingua cum ad latus sinistrum habet colorem album, indicat spiritus⁵⁵ habere defectum vi-
rium, ex ore sputum semper exit, humidi sudor per se prodit, oritur non raro ex nimia defati-
gatione et labore indiscreto.*

(When the tongue has a white color on the left side, it indicates that the vital spirits “spiritus” are weak; sputum always comes out of the mouth; moist sweat emerges by itself; it occurs frequently as a result of excessive exhaustion and indiscriminate labor.)

Jap-Sin II, 85.2:

二十二舌: 舌左白胎, 而自汗者, 不可下。宜白虎汤加(人)参三钱服之。

52 The manuscript is a selection from Scholar Ao’s text 敖氏(撰) revised by 杜本(订) in 1350. 伤寒金镜录。

53 For the problematic identification of Wu Madou, and the bibliography connected to this problem, see Zhuo (2001) 495–496.

54 See the English translation in Solos (2013).

55 Maybe the text is trying to translate the concept of *qi* 气?

(Tongue 22: When there is a white coat on the left side of the tongue, there will be spontaneous sweating, so the purge method cannot be used. Use *Baihu Decoction* with 3 *qian* units of Ginseng.)

Latin text:

Lingua cum ad latus dextrum habet album colorem denotat malum ortum ex frigido vento; frigus regit vomitum, tussim; frigidum phlegma alligatum est in pectore, morbus intra carnes est, aqua et phlegma exundant.

(When the tongue has a white color on the right side, it denotes a disease due to cold wind; the cold causes vomiting and coughing; cold mucus builds up in the chest; the disease is in the flesh; water and mucus exude.)

Jap-Sin II, 85.2.:

二十三舌:舌右白胎滑者,病在肌肉,为邪在半表半里,必往来寒热,宜小柴胡汤和解之。

(Tongue 23: When there is a white coat on the right side of the tongue and it is slippery, the disease lies in the flesh and muscles; the *xieqi* 邪气 [“evil air,” or pathogenic factors that harm the human body] lies half externally and half internally. Chills without fever and fever without chills will occur in alternating succession; this could be balanced and relieved with *Xiao Chaihu* Decoction.)

6 Conclusion

Spreading books and knowledge involves crossing not only geographical boundaries, but also cultural borders, as in the case study illustrated. Chinese medicine derives from a long textual tradition, and many of the concepts expressed here belong to the readers’ cultural background. In the original context, it is not necessary to explain common knowledge: for example, the Chinese manuscript analyzed above does not explain which exterior color each organ is associated with, while the Latin one needs to add this information. Then, in order to transfer the concepts into another context, the main means of translation in the late Ming and early Qing dynasties proceeded in the same way (both West to East and East to West), by adapting the concepts to the needs of the local reader and combining more sources (including oral ones) partially translated and adjusted. For example, in the case study examined here, even if the translators do not provide the name of the drug suggested for the treatment, they are adding more detailed symptomatic features, all those that are normally associated with the use of the Chinese drug mentioned.

Another point in common between the translations from Chinese to Latin and *vice versa* is the mediators. They were Christian missionaries who evangelized through scientific research, demonstrating the complexity of the divine creation, an aspect that emerges from their texts:

Alas, we humans try so hard to understand things, but we are still dim and muddled about our own nature, because we have been looking outside and not inside [. . .] If the light of the sages is still not strong enough, then we must call to the Lord high up for his unfailing light to shine upon our nature, and all mysteries will be revealed. [Giulio Aleni S.J., foreword (*zixu* 自叙) to *Xingxue cushu* 性学粗述 (*The Study of Human Nature*), ca. 1624; transl. Cheung and Neather (2017) 75]

However, the close relationship between medicine, religion, and philosophical tradition visible in their publications, as underlined by Nicolas Standaert,⁵⁶ is also found in many texts that circulated in the seventeenth century in both Europe and China.

Another interesting aspect to consider in this scientific and philosophical exchange is the visual representation of the human body. In the West, anatomical observation of the body in all its elements (skin, organs, muscles, bones) leads to a celebration of the beauty of the human being shaping the bodies depicted in statues and paintings with greater realism. In China, on the other hand, particularly in Buddhist culture, the deeper knowledge of the body and of its internal aspects serves as a warning to move away from celebration and flattery, as taught through the practice of observation of the decomposition of a human body (also graphically commented) – a perspective similar to the Western theme of *Vanitas*, *memento* of the transience of life.

Furthermore, images of corpses were used in Chinese infernal and ghost imagery, a context in which the skeletons copied by the Jesuit anatomical plates were also used by the painter Luo Ping. Chinese medical and forensic tables were less inclined towards a “realistic” depiction of the body, which was considered too disrespectful and found more suitable in strange and infernal representations. Instead, they were more focused on expressing the body and its organs as a system. Even the skeleton is rendered only sketchily in the Ming and early Qing periods, although in the Song period works such as *Kulou huanxi tu* 骷髅幻戏图 (*The Skeleton Puppet Show*) by Li Song 李嵩 (1166–1243) showed greater attention to detail.

The difference, therefore, remains in the divergent conception of the human body and the approach to anatomical studies in China and Europe. The easier access to bodies in the West entailed the possibility of using anatomical knowledge for medical and artistic rendering, while in China dissections were rare events with extremely restricted access. The European devotional dioramas called “Little Theatres of Death,”⁵⁷ populated by human corpses or people in suffering, may be somehow conceptually similar to the sculptural representations of the tribula-

⁵⁶ Standaert (1999b).

⁵⁷ In Italian, *Teatrini della morte*.

tions of hell in the Chinese Buddhist visions; however, they completely differ from Chinese representations by the late seventeenth century. It was in this period that waxworks such as those of the artist Gaetano Giulio Zumbo (1656–1701)⁵⁸ were leading to the fusion of art and science, showcasing meticulous anatomical precision derived from firsthand medical studies, thus achieving an unprecedented level of realism and a certain “obsessive” scientific accuracy in macabre details.

⁵⁸ An artist who lived and worked at the end of the seventeenth century between Florence, Genoa, and France and perfectly combined the apex of anatomical studies and art. His works mark the start of wax-making workshops, which created anatomical models from the eighteenth century to the second half of the nineteenth century. On wax modeling in the Baroque age connected to the artistic rendering of the Four Last Things, *Quattor Novissima* (Death, Judgment, Heaven, and Hell), see Sanguineti (2012).

Tiziana Lippiello

The Language of Wisdom Between Chinese and Latin: Prospero Intorcetta and the *Doctrine of the Mean*

The *Doctrine of the Mean* (*Zhongyong* 中庸) is a short philosophical treatise probably dating from a period between the end of the Warring States (453–221 BCE) and the first half of the Han dynasty (206 BCE–CE 220). It analyzes the relationship of individuals with themselves and with society, showing the sovereign the way to good governance, from taking care of people to building a balanced relationship within one's family, with nature, and the cosmos. It was studied and analyzed by Chinese philologists over the centuries until it became one of the most studied *Four Books* (*sishu* 四書) in the imperial era since the Song 宋 era (960–1279), due to the exegesis and promotion by Master Zhu Xi 朱熹 (1130–1200).

Chinese canonical texts would have been unintelligible without a guide, given that they were written in classical Chinese and full of frequent references to historical characters, events, quotations, and allegories. For this reason, since the Han dynasty, they have been supplemented by commentaries that helped the reader to understand individual phrases or sentences. Notes interrupted the text: they could be either simple phonetic or philological glosses or paraphrases of an entire passage. This way, the reader was gradually guided through the reading of the text, and the commentary became part and parcel of the text. The reader would read a sentence from the classical text and then immediately its commentary, before continuing with the reading of the classic. Thus, the commentary became inseparable from the original text and only the size of Chinese characters (generally smaller for commentaries) marked the distinction between the classical text and its commentary. This peculiarity of Chinese classics helps us understand how Jesuit missionaries used their commentaries and especially Zhu Xi's commentary in translating and interpreting these texts.

In the second century AD, philologist Zheng Xuan 鄭玄 (127–200) explained the meaning of the title: “What is meant by *Zhongyong* is to establish the right (commonly referred to as ‘golden’ in the West) mean (*zhong* 中) and harmony (*he* 和) and to practise them.”¹ The first character, *zhong*, indicated the middle, the golden mean that varies according to circumstances. The second character, *yong* 庸, has a

1 Sima (1963) 1946; Lippiello (2010) 18–21.

range of meanings, including “constant,” “invariable,” “everyday,” and “ordinary,” referring to the constant seeking of the golden mean both in human relationships and in the management of day-to-day life and government. The title of the book refers to a privileged condition of inner balance that is achieved through constant practice, leading to an ordinary, simple life which, disciplined by habits and repetitive actions, stimulates a vital energy that lets us communicate with the outer world, both perceivable and unperceivable, and to be in harmony with ourselves and nature. Those who achieve a golden mean do not run the risk of “going too far” or “not reaching the ideal balance point,” because they are able to control their temperament and moderate their emotions. Zhu Xi remarked that *zhong* means “neither on one side nor on the other,” and “to go no further, nor to fail,” while *yong* means “normal, constant.” To quote the Cheng Masters, the two brothers Cheng Hao 程顥 (1032–1085), and Cheng Yi 程頤 (1033–1107), perfect balance and consistency are the principles of the universe.²

For the Chinese, the golden mean was the center of their existence, constantly changing and adapting to different situations, seasons and the cyclic flow of time. *Zhong* conveys the idea of centrality as a point of balance between two extreme poles, an idea that recalls the Aristotelian concept of the golden mean. It is a goal that is not easily achieved, because a person of value often surpasses it, goes beyond it, while a person of little value does not achieve it.

The book is divided into two parts; the first part is dedicated to human nature and the relationship with others and with the environment, with the cosmos, while the second part is about good governance, the path to inner refinement, and attaining wisdom.

Why did the Jesuits choose to translate the *Four Books* (*sishu* 四書) instead of the older, more authoritative *Five Classics* (*wujing* 五經) of the Chinese tradition? Prospero Intorcetta (1626–1696) and Philippe Couplet (1623–1693) explain the reason in the preface (*Prooemialis Declaratio*) to the *Confucius Sinarum Philosophus*; in dealing with the main contents of the *Five Classics*, they recognized the prestige and effectiveness of these texts as primary sources of Chinese political and moral science. The *Five Classics* were followed by the *Four Books*, written by Confucius and Mencius. Although the Interpreters of the *Five Classics* considered them the most authoritative texts and often quoted them, the *Four Books* were much more widely used, while in China, those aspiring to a doctorate had to know the *Five Classics* as well as the *Four Books*. The reasons why it was so important to read the *Four Books* were set out as follows: firstly, the two philosophers, Confucius and Mencius, had selected the most interesting passages from the classics and had

2 Zhu (1983) 17–18.

added much of their own thought to them; they had also illustrated the contents of the classics simply and clearly, in an elegant style, without conceit and lofty tones. These reasons led the Jesuits, as they claimed, to translate the *Four Books*, rather than the *Five Classics*, from Chinese into Latin, referring to the *Five Classics* from time to time. This way, Europeans would have been able to judge Chinese philosophy through these translations. In describing the *Four Books* (*Tetrabiblii*), the Jesuits emphasized how the second (after the *Daxue* 大學, *Magna scientia*), entitled *Chum Yum* (*Zhongyong*), taught perseverance in the practice of the golden mean, *aurae mediocritatis constantia*; this was the work of Zisi 子思, the grandson of Confucius and disciple of Zengzi 曾子, author of the *Great Learning* and Master of Mencius. It is a text that looks more like a collection of excerpts than a book, an obscure and difficult text, so Zhu Xi introduced it in the last part of the *curriculum studiorum*.

Confucius was committed to teaching and transmitting the values of integrity, peace, communality, and humanity. As highlighted by Prospero Intorcetta (and later repeated by Philippe Couplet):

The whole effort and teaching of the Philosopher was first directed towards having nature, obscured by the darkness of ignorance and corrupted by vices, return to its original brightness and vigor, becoming intact again, as it had been when it was created by heaven. Thus a moderate, fair and fruitful government, and above all, peace for the country could follow. To reach the aim more surely, he wanted everyone to obey, to fear and to cherish heaven, to love their neighbors as themselves, to vanquish themselves, to master desires through reason, to do, say or think about nothing else. He taught this by writing, speech and, more importantly, by his own morals and life [. . .].³

These reasons led the Jesuits, as they claimed, to translate the *Four Books* from Chinese into Latin, referring to the *Five Classics* from time to time. This way, Europeans would have been able to learn and judge Chinese philosophy through these translations.

The study of the *Four Books* was thus posited in this order in the Song era: *Great Learning*, *Analects*, *Mencius*, and *Doctrine of the Mean*. The importance of this sequence was illustrated by Zhu Xi as follows: *Great Learning* served to cap-

3 *Omne studium ac doctrina Philosophi eo collimabat in primis, ut naturam ignorantiae tenebris offusam, vitisque depravatam revocaret ad pristinam lucem atque integritatem, cum qua ab ipso coelo conditam asserebat: ex quo deinde clemens et aequa rerum administratio, adeoque felix et maxime pacatus Imperii status consequeretur; quo autem certius attingeretur hic scopus, volebat omnes obsequi coelo, ipsumque timere et colere, amare proximum sicut seipsum, vincere se, atque appetitus suos subdere rationi, nec quidpiam agere, dicere, vel etiam cogitare, quod ab hac esset alienum. Porro quae scripto verboque praecipiebat, primus ipse moribus exprimebat ac vita [. . .].* See Meynard (2011) 238, 323–324, for the translation and the Latin text.

ture the model of the ancients, *Dialogues* to establish the fundamentals, *Mencius* to observe their evolution, and *Doctrine of the Mean* to discover the mysteries of the ancients.⁴

The translation of the *Four Books* by Jesuit missionaries followed a different path. As we know, Matteo Ricci's letters explicitly refer to the first Latin translation of the *Four Books* (*Tetrabiblion Sinense de moribus* or *Tessarabiblion*). Later, works translated and commented by Prospero Intorcetta and other Jesuits appeared in the following order: 1. *Sapientia Sinica*, a translation of the *Daxue* and part of the *Analects* (1662); 2. *Sinarum Scientia Politico-Moralis*, a translation of *Zhongyong* and *Confucii Vita* (1669); and 3. *Confucius Sinarum Philosophus*, published in Paris in 1687 and edited by Intorcetta, Herdtrich, Rougemont, and Couplet.⁵

The third of the *Four Books*, the *Analects*, according to Intorcetta, is much easier and clearer than the second, i.e. the *Magna Scientia (et hoc secundo libro multo facilior, magisque perspicuus est tertius)*.⁶

Prospero Intorcetta had begun studying the *Four Books* under Master Inácio Da Costa (1559–1666) in Jianchang, Jiangxi Province.⁷ He translated the *Analects* and published *Sapientia Sinica* in Jianchang on April 13, 1662. *Sapientia Sinica* includes the biography of Confucius (4 pages, 2 folios), the complete translation of the *Daxue* (28 pages, 14 folios), and the complete translation of the first five chapters of the *Lunyu* (76 pages, 38 folios), with the text revised by five Jesuits and approved by Jacques Le Faure. Intorcetta's second translation is the *Sinarum Scientia Politico-Moralis*, a literal translation of the *Zhongyong* (*Chum Yum*, in the Jesuit transcription), accompanied by a more exhaustive biography of Confucius. The text was revised by 16 Jesuits; the first part was printed in Guangzhou in 1667 and the second part in Goa in 1669. Both texts are a literary translation, with no commentaries and with parallel Latin text facing the Chinese text, accompanied by the transliteration of Chinese characters. Each Chinese character and the cor-

4 Li (1995) 249; Gardner (2007) xxv–xxvi.

5 For an Italian translation of the *Sapientia Sinica* and the *Liber Secundus* of the *Sinarum Scientia Politico-Moralis* see Beonio-Brocchieri (2017). For a recent reprint of the Chinese and Latin text and an Italian and English translation see Lokaj and Tosco (2021).

6 Meynard (2011) 104–105, 258.

7 Inácio Da Costa was born in 1599 at Fayal, in the Azzorre islands, he became novice in 1617, and reached China in 1634. Prospero Intorcetta, born in Piazza Armerina in 1626, went to China in 1656; he stayed in Macao three years before going to China. He worked under the guidance of Da Costa, who was his superior, and stayed 20 years longer in East Asia. The text was presented by Father Ferra on October 25, 1660, with the introduction by Father Intorcetta dated April 13, 1662.

responding Latin word are marked with a number to enable the reader to read the text and memorise the characters.

After the Chinese Rites Controversy, the *Sapientia Sinica* was used to prove that Confucius' teachings were marked by superstition and idolatry. As a result, Jesuit policy changed, and Prospero Intorcetta, assisted by a team, embarked on a new translation, to introduce missionaries to Confucian thought, which was presented as a rational philosophy, devoid of superstition, unlike Buddhism and Taoism, which were idolatrous and atheistic.

The *Confucius Sinarum Philosophus*, by Prospero Intorcetta, Christian Herdtrich, François de Rougemont, and Philippe Couplet, was published in Paris in 1687, accompanied by a long preface (*Proëmialis Declaratio*).⁸ It is presented as the *summa* of Confucius' thought, including the biography of Confucius and the translation of the *Daxue*, the *Zhongyong*, and the *Lunyu* (the latter was only partially translated in the *Sapientia Sinica*). The *Four Books* were presented as a unified work that contained the *daoxue* 道學 (the line of transmission of the *dao*), from Master Confucius to Zhu Xi; as highlighted by Thierry Meynard, the Jesuits studied and transmitted to Europe the Chinese *Four Books* together with their hermeneutics, from the philosophical glosses of Zhu Xi to the political and didactic approach of Zhang Juzheng 張居正 (1525–1582) to the historical hermeneutics of Qiu Jun 邱濬 or Qiu Zhongshan 邱璟山 (1420–1495).⁹

Why did the Jesuits choose these three interpreters of the *Four Books*? What were the contents that attracted the Jesuits' attention? The Jesuits were attracted to the *Four Books* because of their authoritativeness, simplicity, brevity, and above all their profound social and political message. They were able to present European readers with a version of Chinese culture that was at once rational and full of contents deeply close to Christianity.

After carefully describing the genesis of the *Five Classics* and the *Four Books*, the preface examines the scholars who interpreted the Classics, stating that the Song dynasty, the nineteenth dynasty of Chinese history, had the most renowned and outstanding scholars: "The Song imperial dynasty, being much more devoted to scholarship and education than all previous dynasties, and also being very productive, had some interpreters quite outstanding in talent and authority."¹⁰

8 The title reads as follows: *Confucius Sinarum Philosophus, sive Scientia Sinensis Latine exposita, Studio & Opera Prosperi Intorcetta, Christiani Herdtrich, Francisci Rougemont, Philippi Couplet, Patrum Societatis Jesu* (Parisiis, Apud Danielem Horthemels, 1687).

9 For a more detailed discussion on the genesis of the *Confucius Sinarum Philosophus* see Meynard (2011) 29–76.

10 Meynard (2011) 130, 268.

The *Proëmialis Declaratio* continues by mentioning the Modern Interpreters, starting with Zhou Dunyi 周敦頤 and the Cheng brothers, i.e. Cheng Hao 程顥 (1032–1085) and Cheng Yi 程頤 (1033–1107) to Zhu Xi 朱熹 (1130–1200), “who surpassed them in reputation”: “This interpreter also filled very high positions in the Empire and gained so much credit because of his works that he had been honored with the title of Wen Gong 文公, the foremost among the literati.” After centuries of darkness, fierce civil wars, treasons, plots, assassinations, and parricides, during which the dynasties were obscured by various sects of idols, no one but the Interpreters of the Song dynasty could explain the meaning of the ancient books in a satisfactory and simple way. Therefore, after the Masters Confucius, Zengzi, Zisi, and Mencius, only the Song scholars emerged to revive the teachings of the Ancients, after so many centuries of darkness.¹¹

Intorcetta did not explain that the *Four Books* were an “invention” by the Neo-Confucians, nor did he reveal that the *Daxue* and the *Zhongyong* originally were texts that were incorporated in the *Liji* 禮記. The Jesuits adopted Zhu Xi’s Canon but claimed that they did not follow the Song and Ming interpretations; instead, they said that they went back to the original texts.

The choice of the commentaries to be adopted for the translation was an important issue for the Jesuits. They aimed at going back to the original texts, as we can read in Chapter 11 of the *Proëmialis Declaratio* entitled “Evidence drawn, not from the Modern Interpreters, but, as much as possible, from the original texts” (*De Secta Litteratorum, seu Philosophorum propria, quod illius fundamentum aut principium veteres, quod moderni Interpretes constituerint*). They acknowledged that the Modern Interpreters (*Neoterici*) “came up with their own new and chimerical interpretations, and are therefore regarded as suspect by the European missionaries” (*tandem ipsi prodierunt scilicet cum novis suis et chymericis commentis, adeoque ab Europaeo praecone merito suspecti censendi sunt*).¹²

The Jesuits claimed that they did not trust the Song and Ming interpreters as they deviated from the original teachings of the Masters; however, they were aware that, in order to understand the Chinese classics, they had to rely on their works. They wrote:

But how can we expect these people to disappear from the crowd of Chinese literati? Indeed, since we are only foreigners, they accuse us of pride and impudence, of neglecting their own works and commentaries, and of attempting to understand by ourselves the secret meaning and every mystery of the Ancients. Are we now also to correct mistakes and teach those from whom we are learning? If any of them wanted to study Greek and Latin

¹¹ Ibid.

¹² Meynard (2011) 217, 312.

texts, then we would become their teachers in China, but the Chinese classics must be dealt with by the Chinese themselves, and any doubtful or obscure passage should be explained by them. Why, then, do we reject as false and incorrect the interpretations of these legitimate sons [i.e., the Modern Interpreters] who strove to elucidate the work of their Fathers? How can we arrogantly and blandly put forward our opinions when we are so lately immersed in the Ocean of Chinese Literature, unfamiliar and ignorant of their teaching which has been accepted in the whole empire for centuries?¹³

This was only rhetorical discourse. In fact, we read further in the text that this marvelous speech could persuade some Europeans (perhaps Franciscan and Dominican friars?), but the authors of the *Proëmilis Declaratio* declare that the Modern Interpreters were depraved and lost, full of greed and ambition, trickery and fraud, and many other sins:

The Chinese must listen to the Europeans. Why would they not listen? [. . .] Students should listen to their teachers, the fools to the wise, those who have no notions of philosophy to the philosophers, the gentiles and atheists to the Christians, the sinners to the Saints [. . .] The Chinese Atheists should listen to the European Saints. Indeed, where in the world, in China or in any other land, is there such a harmony of opinions, such as a stable philosophy, a philosophy unchanged from the beginning of the world, a truly divine wisdom which conforms to the light of the true reason?¹⁴

The authors conclude with a statement, that is “the claim that Europeans in China should listen to those who would listen to them if they came to Europe seems altogether unjust.” As remarked by Meynard, “this passage reflects a strong Eurocentrism. Couplet rejects the temptation of relativism according to which the Europeans

13 Meynard (2011) 312: *At numquid etiam defuturus existimamus ex Sinicae gentis litteratis, qui nos temeritatis ac superbiae insimulent qui, exteri homines cum simus, neglectis suorum lucubrationibus et commentis, per nos ipsi reconditos Priscorum sensus, et arcana quaeque velimus assequi: iamque adeo eos, a quibus discere nos oportebat, erroris arguere quodammodo et docere? At enim si Latinis Graecisque litteris dare operam vellent ipsi, Magistros eorum nos agere vel in China posse; Sinicas vero litteras a Sinis utique tradi oportere, et quidquid in hisce dubii latet obscurive, a Sinis explanari. Cur ergo nos uti falsas et adulteras repudiemus interpretationes eas, quibus Patrum suorum monumenta legitimi filii conati sint illustrare? Ea vero quae nos ipsi excogitavimus homines alieni ignotique, et Oceanum litterarum Sinicarum tam sero ingressi, doctrinae ipsorum tanto iam tempore totoque Imperio tam acceptae, non minus temere, quam arroganter anteponamus?*

14 Meynard (2011) 219, 313: *Audirent Europaeos ipsi. Quidni audirent? Discipuli Magistros; Doctos indocti, Philosophos ii, qui nec rudimenta quidem Philosophiae norunt; Gentiles et Athei Christianos; improbi Sanctos; [. . .] Athei Sinae Sanctos Europaeos. Ubinam, vel in Sinis, vel usquam terrarum, illa quae in Orbe Christiano tantopere semper viguit sententiarum animorumque concordia? Ubi illa tam constans, et ab ipsis mundi exordiis tam immutata Sanctorum Philosophia, sapientiaque vere caelestis, lumini rectae rationis adeo conformis?*

could not judge the Chinese intellectual tradition and the Chinese could not judge the European intellectual tradition.”¹⁵

The authors of the *Proëmialis Declaratio* remarked on their conviction of the superiority of their wisdom and philosophy, however they were aware that they could not dismiss all the interpreters. Therefore, they affirmed that the first interpreters that should be considered were the Masters themselves, starting with Confucius and Mengzi, who faithfully interpreted the books, then Zengzi who explained the *Daxue* of the Master Confucius, and Zisi, grandson of Confucius, who interpreted a particular book of his grandfather, a book on how to constantly keep the mean (*opus de medio constanter tenendo est*). These were undoubtedly the most authoritative interpreters of the Chinese ancient books; however, some Modern Interpreters could be considered for their reputation and authority, such as the well-known scholars and politicians Zhang Juzheng 張居正 (1421–1495) and Qiu Jun 邱君 (1421–1495).¹⁶ Although they might be influenced by atheistic principles, when they explained the texts of the Ancients, “they could do nothing else but clearly and frankly explain a thing which was clearer than midday light.”¹⁷

Zhang Juzheng was the most influential statesman of the late Ming dynasty, being Chief Grand Secretary and Imperial Instructor of the young Wanli Emperor 萬曆 (r. 1572–1619). He ruled China as minister for ten years, from 1572 to his death in 1582, and wrote the *Sishu jijie* 四書集解 (*Colloquial Commentary on the Four Books*) for the young emperor.¹⁸ His commentary was written in a clear, simple, and colloquial language, as it was meant as a handbook for the ten-year-old emperor, a moral guide towards self-cultivation and the reform of the society. This commentary was mentioned in the *ratio studiorum* for the training of the Jesuits in China.

Intorcetta quotes three Confucian principles which are the prerequisites for a good government in Chinese tradition: *jing tian* 敬天 (*obsequi coelo, ipsumque timere, et colere*); *ai ren* 愛人 (*amare proximum sicut seipsum*); *ke ji* 克己 (*vincere se, atque appetitus suos subdere rationi*).¹⁹ These were guidelines for the art of government, which should be followed and practiced constantly.

15 Ibid.: *Haudquaquam igitur aequa postulatio videri potest, ut eos audiamus et sequamur Europaei in China, qui in Europa si degant audite nos velint ac sequi.*

16 Meynard (2011) 220, 313.

17 Meynard (2011) 220, 313. Zhang Juzheng's commentary was mentioned in the *Ratio studiorum* for the training of the Jesuits in China.

18 Shengxi (2007) 1–7.

19 *Confucii Vita*, in Beonio-Brocchieri (2017) 209, 211.

The Main Teachings of the *Zhongyong*

In the following pages, we will refer to the *Chum Yum* 中庸 (*Medium constantem tenendum*) of the *Sinarum Scientia Politico-Moralis*, specifically its Vatican Library edition (Stamp. Ross. 3482), studied and translated into Italian by Paolo Beonio-Brocchieri.²⁰

The Jesuits displayed great cultural openness in their policies in China, paving the way for a concrete dialogue. As Alessandro Valignano said, China seemed impenetrable, like a rock. In particular, the Italian Jesuits brought to China not only a cultural message but also scientific innovation, with Matteo Ricci, Alessandro Valignano, Giulio Aleni, Adam Schall von Bell, and Ferdinand Verbiest conveying the achievements of European science as well as European humanism and values in China.

Thus, thanks to their work of dialogue and dissemination of European knowledge in China, as well as the transmission of Chinese culture and thought to Europe, particularly through the translation of the Confucian classics into Chinese, China became a model to follow, especially in the artistic realm, and, vice versa, Europe became a source of inspiration and interest for the Chinese. Europeans were attracted by the system of recruitment of officials through the examination system, also based on the knowledge of classical literature. Chinese thought at that time influenced European scholars and thinkers, albeit they kept a critical approach. The most affected field was that of moral and political philosophy, as shown by figures like Leibniz who were fascinated by Chinese thought.

The *Zhongyong* teaches that each of us is endowed with a heaven-given nature (*xing* 性): when we receive it, we make a first gesture of union with the cosmos. To be in accordance with such a nature is the rule (*dao* 道); we should cherish our nature and nurture it day by day: this is what we call “moral education” (*jiao* 教), i.e. progressive knowledge of ourselves and then of others. Human nature conforms to the *dao*, the Way, and we must preserve this union through a moral journey that moves from introspection, *shendu* 身獨 (to be vigilant when alone with oneself), peering deep into our souls when we are free from external influences. Then, feelings such as delight, anger, sorrow, and joy will be contained in the right balance, manifesting themselves as natural expressions of an inner equilibrium. Those who have achieved this condition will also have balanced relationships with their fellow human beings, thereby contributing to the achievement of harmony (*he* 和). Intorcetta chooses to render *xing* as *natura rationalis*,

²⁰ This edition, described by Cordier (1904–1907), vol. 2, 1387, corresponds to the edition kept in the Biblioteca Centrale della Regione Siciliana A. Bombace, Palermo. See Lackner (2022).

dao as *regula*, and *jiao* as *institutio*, translated by Beonio-Brocchieri as “disciplina” (discipline).²¹ Michael Lackner highlights that in Thomas Aquinas’ *natura rationalis* the highest human capacity can be close to the lowest angels’ capacity (*natura intellectualis*).²²

There is another achievement that comes from the relentless work of individual refinement: the recognition of genuineness, inner authenticity, and sincerity (*cheng* 誠). The text emphasizes how inner authenticity leads to deep knowledge of ourselves, others, the surrounding world, and heaven (*tian* 天). Some of us were born with this virtue, while others can acquire it through study and continuous practice. Those who find inner balance will also find it in their relationships with their fellow human beings and with the world around them in all its manifestations: they will feel at ease in any situation and find within themselves the strength to overcome any difficulties. They will look for the causes of an error in themselves, not in others.

Only those who have rediscovered their own authenticity will be able to fully fulfil their nature and, having fulfilled their own nature, will be able to help others fulfil theirs; only then can the nature of all beings be fully expressed. They will be able to take part in the transformative process of the entire cosmos and be one with heaven and earth according to Prospero Intorcetta’s Latin translation: *poterit cum coelo et terra ternarium principium (constituere)*.²³

These are followed by those who, starting from partial authenticity (*qu* 曲), seek in every way to attain integral authenticity and restore the fragments of their good nature; once their benevolent nature has been restored, they will be able to attain total perfection (*solida perfectio*), which will become manifest and, when so apparent, will enlighten and produce movement and change. In the world, only those who achieve the highest level of authenticity will be able to bring about change.²⁴

Change has an inherent value that goes beyond the power of action and speech, which are intentional. Change and transformation are spontaneous, natural, and permeate nature and society.

The way of authenticity, once it has reached its supreme stage, enables one to have foresight (*xianzhi* 先知); therefore, if a state or dynasty are going to be suc-

21 Beonio-Brocchieri (2017) 96–97: *Quod a coelo inditum est dicitur natura rationalis: quod conformatur huic naturae, dicitur regula: restaurare hanc regulam dicitur institutio. Regula non potest momento temporis abesse: si potest abesse, non esset regula* 天命之謂性。率性之為道。修道之謂教。道也者不可須臾離也。可離非道也。

22 Lackner (2022) 33.

23 Beonio-Brocchieri (2017) 158–159.

24 Lippiello (2010) 107; Zhu (1983) 32–33; Beonio-Brocchieri (2017) 158–159.

cessful, auspicious signs will surely manifest through yarrows or tortoises, whereas if they are going to decline, ominous signs will manifest. The text reads:

至誠之道可以前知。國家將興必有禎祥。國家將亡必有妖孽。見乎蓍龜動乎四體。

Beonio-Brocchieri rendered Intorcetta's Latin translation as follows:

La virtù perfettissima è tale che può prevedere il futuro. Quando una famiglia reale sta per costituirsi senza dubbio si danno ripetutamente fausti presagi e quando è prossimo il tramonto di una famiglia regale senza dubbio si danno presagi infausti che si manifestano nell'erba chiamata *Shih* (Achillea) e nelle tartarughe e il corpo umano è scosso da certi movimenti.

The most perfect virtue is such that it can foresee the future. When a royal family is about to be established no doubt good omens will be repeatedly given, and when the sunset of a royal family is near no doubt bad omens will be repeatedly given, manifesting in the herb called *Shih* (Yarrow) and in tortoises, and the human body will be shaken by certain movements.²⁵

What does “the human body will be shaken by certain movements” mean? The Chinese text reads: “Good and bad omens manifest in the yarrow and the movement of the limbs” (*jian hu zhu gui, dong hu siti* 見乎蓍龜, 動乎四體).

Zhu Xi comments that the body begins to move with light, sublime movements, as in a ritual dance, and the bearing becomes elegant and austere,²⁶ with the individual coming into harmony with nature and capturing its rhythms with the body. Thus, those who attain the highest level of authenticity are comparable to a spirit (*gu zhicheng ru shen* 故至誠如神); Intorcetta translates the Chinese text as follows: “In short, the perfect man is like a spirit” (*Ideo summe perfectus (est) instar spiritus*).²⁷

The next passage describes the process of perfecting one's self and the attainment of authenticity as a necessary condition for expressing benevolence and wisdom towards others: “Inner authenticity,” the text reads, “is not only self-perfection, but is above all perfecting others.”²⁸ “To strive for individual perfection is part of the sense of humanity, to strive for the perfection of others is a sign of wisdom.” Intorcetta interpreted this as follows: “The perfect individual (*vere perfectus*) is not content with bringing himself to perfection, but consequently brings other things to perfection. Perfecting oneself comes from love, perfecting things from providence. These are natural virtues; establishing and applying

²⁵ Beonio-Brocchieri (2017) 160.

²⁶ Zhu (1983) 32–33.

²⁷ Beonio-Brocchieri (2017) 160.

²⁸ 誠者非自誠己而已也, 所以成物也. *Zhongyong* 25; Lippiello (2010) 108.

them internally and externally is the task of the rule; exercising them in due time is the work of discernment.”²⁹

The paragraph concludes by emphasizing that this is the moral force of human nature, the way that unites the inner and outer dimensions. Therefore, it is right to practise them in due time.³⁰

Intorcetta interprets perfecting the self as the fruit of love and perfecting others as the fruit of providence, natural virtues applied internally and externally by “rule” (*dao* 道) and exercised in due time by discernment (*yi* 宜). He introduces elements of Western rational thought such as *regula* and *convenientia*³¹ while incorporating Christian terms such as *providentia* to explain to readers how the beneficial effect of morally upright behaviour is reflected in society. On a human level, as François Jullien remarks, the conduct of the sage contaminates others and gradually leads them to imitate them, without them realising it. Action is perceived as the effect of a beneficial influence, shining a light on a virtuous process, where relationship and transformation are the unifying aspect and the determining element. In the Chinese vision, neither heaven nor the sage act: they transform. Heaven bestows human nature and the sages transform it through moral conduct, which they extend to others gradually, almost imperceptibly. According to Jullien, “la transformation, au contraire, est inconsciente, traverse de part en part le réel, est incessamment reconduite, ne s’épuise jamais. C’est elle qui, du point de vue de la société comme de la nature, et par son seul procès continu, fait advenir toute réalité.”³²

The sages thus participate in the transformation process that involves them along with heaven and earth, with which they form a trinity (*san* 參), in the Latin translation of Intorcetta *poterit cum coelo (et) terra ternarium principium constituere*.³³

The main virtue of the noble spirit is humility, modesty, and the ability not to overstep the boundaries of one’s role in society:

The noble spirit acts in accordance with the condition that belongs to them, he does not aspire to go beyond. If he lives in wealth and honours, he behaves as befits a rich individual of high rank; if he lives in poverty and humility, he behaves as befits a poor and humble

29 Beonio-Brocchieri (2017) 162–163: *perficere seipsum, amoris (est) perficere res, providentiae (est). Et hae quidem nativae virtutes (sunt; has autem) unire applicando externis (et) internis; regulae (est) adeoque suis temporis exercere, convenientiae (est).*

30 *Zhongyong* 25; Lippiello (2010) 109.

31 Beonio-Brocchieri (2017) 162–163.

32 Jullien (1993) 104.

33 可以贊天地之化育，則可以與天地參矣。 *Zhongyong*, 25, Lippiello (2010) 159; Beonio-Brocchieri (2017) 158–159.

individual; if he lives among barbarian peoples, he behaves according to their customs; if he lives in adversity, he acts as is most appropriate in such circumstances. In short, there is no situation in which the noble spirit does not feel at ease.³⁴

Intorcetta's text reads:

The perfect individual acts as is fitting, within the logic of his condition, nor does he desire anything foreign to it. If he is rich and honoured, he acts as a rich and honoured man; if he is poor and humble, he acts as a poor and humble man; if he lives among foreigners, he acts as a foreigner; if he is in trouble, he acts as befits a troubled condition. In fact, there is no situation where the perfect individual is not satisfied with his fate.³⁵

To conclude, Intorcetta regarded *The Doctrine of the Mean* as an enigmatic and difficult book, but one that was extremely useful, especially to those who wish to evangelize. In his words: "It is at the same time of great use to the missionary of the Gospel (as we said before) in that it is an eminent life mentor and with its natural light it illuminates the darkness of vice like a dawn and provides that light of truth that anticipates the Gospel sun and opens the way for it."³⁶

34 君子素其位而行，不願乎其外。素富貴，行乎富貴；素貧賤，行乎貧賤；素夷狄，行乎夷狄；素患難，行乎患難。君子無入而不自得焉。“L'uomo nobile d'animo agisce conformemente alla condizione che gli appartiene, non aspira ad andare oltre. Se vive nell'agio e negli onori, si comporta come si conviene a un uomo ricco e d'alto rango; se vive nella povertà e nell'umiltà, si comporta come si conviene a un uomo povero e umile; se si trova in mezzo alle popolazioni barbare, si comporta secondo i loro costumi; se vive nelle avversità agisce come è più opportuno agire in tali circostanze. Insomma, non vi è situazione in cui l'uomo nobile d'animo non ritrovi se stesso.” *Zhongyong* 14, Lippiello (2010) 73.

35 Beonio-Brocchieri (2017) 117: *Perfectus vir pro ratione sui status agit, nec cupit quidquam ab hoc alienum. Si existat ut dives et honoratus, agit ut dives et honoratus; si existat pauper et ignobilis, agit ut pauper et ignobilis; si existat alienigena, agit ut alienigena; si versetur inter aerumnas, agit pro ratione status aerumnosi. Perfectus vir numquam intrat, ubi non sit sua forte contentus.*

36 Beonio-Brocchieri (2017) 92–93: *Ob hanc causam, et quia doctrinae quae traditur sublimitas, quandoque ipsius naturae limites videtur excedere, hunc librum Sinenses magistri tanquam subobscurum captuque difficilem, cum numero secundus sit, postremo tamen loco in scholis exponunt: est interim praeconi evangelico (uti supra dicebam) sane utilis, quatenus et morum egregius magister est, et naturali lumini vitiorum tenebris offuso, ceu aurorae benefico, eam veritatis lucem subministrat quae Soli evangelico praeluceat, viamque pandat.*

Li Hui 李慧

***Sanctissimus magister: On the Vita Confusii* (1739) by Carlo Orazi da Castorano**

Ever since their arrival in China, Western missionaries had recognized the importance of Confucius. They presented his biography and teachings to Europeans, and used the *Four Books* as materials for learning the Chinese language. Several biographies of Confucius appeared in the preface of Latin versions of the *Four Books*, including the prefaces of *Sapientia Sinica*,¹ *Sinarum scientia politico-moralis*,² and *Confucius Sinarum Philosophus, sive scientia Sinensis*,³ the last being highly influential as a biography written by a missionary. Although these versions vary slightly, they share similar content and thoughts, all attempting to portray Confucius as a pure philosopher, in order to support the Jesuit view, consistent with their “accommodation strategy,” that the Confucian rites were not religious in nature.⁴

In 1739, the Italian Franciscan missionary Carlo Orazi da Castorano (1673–1755) wrote another Latin biography of Confucius, entitled *Vita Confusii philosophi apud Sinenses sapientissimi ac sanctissimi magistri* (hereinafter referred to as *Vita Confusii*) and included in his manuscript *Parva elucidratio*.⁵ This work of 82 pages is much more detailed than the Jesuit versions; it is one of the most detailed Western biographies of Confucius written before the nineteenth century, and the first Western biography of Confucius of considerable length written by a Franciscan. Its content and thoughts differ significantly from those of the Jesuit Confucius biographies, reflecting Castorano’s opposition to the “accommodation strategy” in the Chinese Rites Controversy and his position in maintaining the Roman Catholic Church’s ban on Christians performing Confucian rites.

1 Costa and Intorcetta (1662).

2 Intorcetta (1669). The first half of the book was printed in 1667 in Guangzhou, China, the second in Goa, India.

3 Intorcetta et al. (1687). The biography of Confucius was titled *Philosophorum Sinensium principis Confucii vita* (cxvii–cxxiv). For the Chinese translation see Meynard and Zhang (2021).

4 On the composition, contents, and relationship between the three biographies on Confucius by Jesuits see Meynard (2013) 111–121.

5 For more detailed information on the manuscript see § 2.

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This document was partially transcribed and published by Western scholars a hundred years ago,⁶ but it has not yet been studied comprehensively. This chapter will introduce the background, status, and sources of Castorano's *Vita Confusii*, summarize the main content of the text, and explore how Castorano constructed and conveyed his view of Confucius and his stance in the Rites Controversy by translation through an analysis of the Chinese 圣 and the Latin *sanctus*. In today's world exchanges and collisions between civilizations are becoming more frequent, and the study of this document can provide a reference for the problems encountered in today's Chinese-Western cultural exchanges.

1 Castorano and the *Vita Confusii* Against the Background of the Chinese Rites Controversy

Carlo Orazi da Castorano, originally Antonio Orazi, was born in Castorano, Italy, in 1673, and joined the Franciscan Order in 1690. He was sent to China along with four other missionaries by the *Sacra Congregatio de Propaganda Fide* in April 1698 and arrived in Xiamen on September 1, 1700.⁷ In the spring of 1702, Castorano arrived in Linqing, Shandong, where he assisted Bernardino Della Chiesa (1644–1721) in managing the affairs of the Beijing diocese and preaching in the surrounding areas. In 1707, Castorano was appointed *vicarius generalis* and, along with Bernardino Della Chiesa, went to Beijing to receive the *Piao* to continue their mission work in China. This implies that in 1707 Castorano agreed with or at least publicly endorsed the Matteo Ricci line, so how did he become involved in the Chinese Rites Controversy?

In 1715, Pope Clement XI issued the bull *Ex illa die*, reaffirming the absolute prohibition of Chinese rituals for Chinese Catholics as ordered in 1704 and requiring all missionaries to swear obedience. Della Chiesa received the papal bull in October 1716 and sent Castorano to Beijing to promulgate and collect signatures from the missionary community. However, Castorano's actions were soon noticed by the Kangxi Emperor, who believed he was distributing a false decree, and Castorano was imprisoned for five days before being questioned and punished by the emperor in person. Castorano believed that the Jesuits had framed him and from

⁶ Civezza (1895).

⁷ On his route to China, see Castorano's *Brevis narratio itineris ex Italia usque ad Chinam*, BAV, Vat. Lat. 12849.

then on had an uneasy relationship with the Jesuits in Beijing; he later submitted a report to the pope and the Propaganda Fide, accusing the Jesuits of disobeying papal orders and allowing Chinese Catholic converts to engage in Chinese rites,⁸ with the two sides subsequently attacking each other in the ideological war.⁹

In 1721, Pope's envoy Carlo Ambrogio Mezzabarba (1685–1741) came to China and attached eight alternative measures to ease the conflict, known as *otto permissioni*, which allowed Christians to worship their ancestors at home but only by using their names on the ancestral tablets and adding annotations of filial piety in Catholicism on either side. In 1722, the Yongzheng Emperor came to power and began expelling missionaries from China; in order to stay in China, Castorano volunteered to make sundials and was allowed to move to Beijing and live in Haidian. The Qing court never summoned him to work, so he compiled the *Dictionarium Latino-Italico-Sinicum* (1732) in his spare time.

In 1733, the newly appointed Bishop of Beijing, Francisco da Purificação da Rocha (1675–1731), published two *lettere pastorali* ordering Catholics to comply with the *otto permissioni*. Francesco Saraceni da Conca (1679–1742), the Apostolic Vicar of Shaanxi and Shanxi provinces, requested Castorano, the best Chinese speaker in the mission, to return to Rome, explain the situation of the Chinese Church, and persuade the Holy See to repeal the *otto permissioni*. Castorano secretly traveled south to Guangzhou and returned to Europe on a French merchant ship in January 1734¹⁰ and, after arriving in Europe in November 1734, continuously visited the Minister of Propaganda Fide, S. Officio, Pope Clement XII, Benedict XIV, and other bishops, explaining the situation of the Chinese Church and tirelessly urging them to revoke the *otto permissioni*.¹¹ Eventually, on July 11, 1742, Pope Benedict XIV issued the papal bull *Ex quo singulari*, which reaffirmed the prohibition of the Chinese Rites in the 1715 *Ex illa die* and brought the long-standing Chinese Rites Controversy to an end.

During his stay in China for 33 years, Castorano became proficient in Chinese and extensively read Chinese books, leaving behind a large collection of manuscripts. The head of *Propaganda Fide* considered him “the most knowledgeable person in Chinese language and Chinese books among all the staff of Propaganda

⁸ Castorano (1717).

⁹ The history was recorded in detail in Castorano's autobiography, see Castorano (1759) 15–34, in which he gave negative descriptions of Jesuits and presented himself as a fighter for purity of faith, was published posthumously by opponents of Jesuits.

¹⁰ Castorano (1759) 47–60.

¹¹ Castorano recorded each of his visit in his diary, the original now stored in Biblioteca Nazionale Vittorio Emanuele di Napoli (BNVEN), Ms. XI B 73, ff. 178r–198r. For the transcribed manuscript see Di Fiore (1989) 131–139.

Fide.”¹² His Chinese studies and *Vita Confusii* were closely related to his firm support of the ban on Chinese rites.

On December 27, 1737, the Franciscan missionary Giovanni Francesco Nicolai da Leonessa (1656–1737) passed away in Rome, and Pope Clement XII and Bishop Antonio Saverio Gentili (1681–1753) entrusted Castorano with organizing the Chinese literature carried back by Nicolai and compiling a catalog and summary of their contents. From 1739 to 1741, Castorano completed the manuscript *Parva elucubratio*,¹³ his most important work in Chinese studies after the *Dictionarium Latino-Italico-Sinicum*. The book contains five parts: *Libri Sinenses*, *Vita Confusii*, *Additio ad supram positam Parvam elucubrationem*, *Brevi notitie della Cina*, and *Versio monumenti seu lapidis Sinici*.¹⁴

Vita Confusii was completed on January 6, 1739, but its conception and composition can be traced back to before Castorano compiled the *Parva elucubratio*. In his diary, he wrote:

In Dicembre 1737 [. . .] approssimandosi le feste della Natività di Nostro Signore Gesù Christo, feci un estratto della Natività di Confusio, cavata dalla sua vita relata nel libro *Kung zu kiaiu*, dove si raccontano varii prodigii e miracoli occorsi nella di lui Natività: quale estratto comincia *Prodigia seu miracula quaedam ecc., dat. Romae Aracoeli die 16.a Decembris 1737*, per il che consta che in concetto et opinione de' Cinesi il detto Confusio è Santo anco della sua Natività. Andai a' piedi di Sua Santità, e gli legei io medesimo il detto estratto: e dicendo a Sua Santità che da ciò constava apertamente il gran Concetto che li Cinesi hanno verso Confucio. E Sua Santità godé della notitia e mi dimandò a qual Congregatione volevo che rimettesse il detto Estratto.¹⁵

This text shows that Castorano had as early as 1737 submitted to the pope an explanation of the unusual phenomena during Confucius' birth, which may have been the precursor to *Vita Confusii* in 1739, the content of which was derived from 《孔子家语》 (*The School Sayings of Confucius*) that he brought back from China. It can be seen that Castorano knew that the understanding of Confucius was critical to the Chinese Rites Controversy. Later, he clearly stated his writing purpose in the introduction to *Vita Confusii* in *Parva elucubratio*:

12 De Vincentiis (1904) 126.

13 For the reasons of compiling *Parva elucubratio* see Di Fiore (1989) 25. For how Castorano compiled Nicolai's collection and the current status of the collection at Vatican Library see D'Arelli (1997b).

14 *Additio ad supram positam Parvam elucubrationem* is the contents and summary of the 49 Chinese books that Castorano brought back himself, similar to *Parva elucubratio* in form and contents. *Brevi notitie della Cina* is a brief history of how Christianity spread to China. *Versio monumenti seu lapidis sinici* is the translation of inscriptions on the Nestorian Stele.

15 BNVEN, Ms. XI B 73, ff. 20–21; Di Fiore (1989) 433.

Fama etiam his ultimis temporibus de Confusio late vulgata per mundum Europeum postulat, ut aliquid saltem latius et diffusius de eo demonstretur. Et licet aliqui missionarii Europei, mundo Confusium proposuerint solummodo tanquam philosophum, ac magistrum; ego tamen clariorem et sinceriolem notitiam de Confusio Sanctae Sedi, ac emin(enti)ae: vestrae propono atque offero. Non ex meo privato iudicio aut voluntate adaptatam et concinnatam, sed ob veritatis zelum, Deus mihi testis sit, ex ipsis libris Sinicis veridice de promptam et ordinatam.

[. . .] *Etenim quidam Pater missionarius Europeus ex iis, qui permiserunt suis Christianis Sinsibus venerari Confusium, eique oblationes aut sacrificia facere, ad suum beneplacitum scribendo et concinnando vitam Confusii, nedum reticuit multa de gestis eius, quae causae suae officere posse videbat, sed nimis audacter asseruit: "Confusii vitam ab omni idololatriae specie fuisse immunem".*¹⁶

When Castorano returned to Italy, Confucius was already widely known to Europeans, but only as the pure philosopher and educator depicted by the Jesuits. Castorano was to refute these views of the missionaries, reveal their hidden deeds, criticize their bold statements, and convey the truth he knew.

2 The Versions and References of the *Vita Confusii*

The original manuscript of the *Vita Confusii* is now kept in the Archivio della Provincia Toscana dei Frati Minori.¹⁷ Castorano had six copies made after completing the manuscript in 1739, and three more made before returning home in 1742. He personally reviewed all the copies and added Latinized pronunciations and tones for the Chinese characters, recording detailed information regarding the whereabouts of each copy.¹⁸ The information on the nine copies, according to D'Arelli, is shown in Table 1.

¹⁶ *Vat. Lat.* 12871, pp. 445 and 491.

¹⁷ Archivio della Provincia Toscana dei Frati Minori (APTOFM), Serie VI, *Missioni* (già II Y 11). On the composition, contents, and circulation of manuscripts of the *Parva elucubratio* see D'Arelli (1997a).

¹⁸ Three sources illustrated the distribution of the copies: 1. *Notae* of the original manuscript in Florence; 2. Castorano (1759) 71–72, where only the first six copies were mentioned; and 3. *Diario* (1735–1742) BNVEN, Ms. XI B 73, where eight copies were mentioned. See D'Arelli (1997a) 216–217.

Table 1: Dates and whereabouts of the nine copies of Castorano's *Vita Confusii*.

No.	Date	Given to
1	1739	Propaganda Fide
2	1739	Cardinal Corsini
3	1739	S. Officio
4	1739	Bishop Gentile Bellini
5	1739	Missionary to China
6	1739	Giuseppe Maria d'Evora, or Biblioteca Aracoeli
7	Mailed to Venice Nov. 11, 1740	Guglielmo Porzia, brother of Bishop Leander Porzia O.S.B.
8	January 2, 1741	Pope Benedict XIV
9	After 1740	Biblioteca Casanatense

D'Arelli has found five of these copies, as listed in Table 2:

Table 2: The five copies of Castorano's *Vita Confusii* listed by D'Arelli 1997a.

No.	Manuscript Information	Pages of <i>Vita Confusii</i>
1	Città del Vaticano, Biblioteca Apostolica Vaticana, ms. Borg. lat. 538 (from the library of the <i>Sacra Congregatio de Propaganda Fide</i>)	422–501
2	Roma, Biblioteca dell'Accademia Nazionale dei Lincei e Corsiniana, ms. 40 F. 5 (from the personal collection of Neri Maria Corsini [1685–1770])	449–528
3	Roma, Archivio Storico Generale dell'Ordine dei Frati Minori, ms. M87 (from the library of Santa Maria in Aracoeli)	unknown
4	Città del Vaticano, Biblioteca Apostolica Vaticana, ms. Vat. lat. 12871 (from the personal collection of Pope Benedict XIV)	445–527
5	London, British Library, ms. Add. 26815	unknown

In addition to these five, I have found a separately bound manuscript of the *Vita Confusii* in the Biblioteca dell'Accademia Nazionale dei Lincei e Corsiniana, which has the collection number 41-A-14 and consists of 83 pages of documents of unknown provenance. The *Vat. Lat.* 12871 is the copy that Castorano gave to Pope Benedict XIV in 1741 (Table 1, no. 8). One year later, Benedict XIV issued the bull *Ex quo singulari* prohibiting discussions on the Chinese Rites Controversy, possibly influenced by the information in his copy of the *Parva elucubratio*. The current study is based on this copy, the contents of which, according to D'Arelli, are identical to the original manuscript.

The Franciscan scholar Marcellino da Civezza (1822–1906) transcribed the *Vita Confusii* and published it in 1895, but did not mention which manuscript or

copy was his basis. I compared this publication and the *Vat. Lat.* 12871 manuscript and found that the Civezza version was generally faithful to the manuscript, except that this version omitted the term “most sacred” (*sanctissimi*) in the title and left out the Preface as well as chapters 10 to 12,¹⁹ possibly because these parts were discussions of the religious aspects of Confucius and the Rites Controversy. As Civezza did not understand Chinese, his transcription contained some errors, such as how *Zu-Su* (子思) in the manuscript was transcribed as *Iu-Su*.²⁰

Castorano did not explicitly mention any Western references he consulted. I compared the biography of Confucius in the Jesuitic *Confucius Sinarum Philosophus* with that in the *Vita Confusii*, and found no similarities in terms of structure, style, rhetoric, quotations, viewpoints, and conclusions. However, Castorano’s focused refutations of the Jesuits indicates his familiarity with their writings. For example, in chapter 11 he wrote: *Ac proinde ille supradictus Pater Soc(ietatis) Iesu, aliter quam fuerit Confusius, Confusium mundo representavit.*²¹ And in chapter 12: *Ex quibus omnibus aperte constat, missionarios Sinenses antiquos (vel etiam modernos), presertim p(atres) Soc(ietatis) Iesu, non vere informasse (aut informare) sanctam sedem.*²²

Castorano provided detailed information regarding the titles, chapters, and page numbers of his Chinese references. He referred most frequently to *The School Sayings of Confucius*, which he read in two versions. One was the 11-volume edition named 《孔圣家语图》 (*The Pictured School Sayings of Confucius*), which Castorano numbered as “Tt” in *Parva elucubratio* and described in detail; it was collected and edited by 吴嘉谟 (Wu Jiamo) in 1589 during the Ming dynasty, and volume 1 contained illustrations on one side of each page and texts of Confucius’ biography and comments on the other, totaling 40 illustrations. I found that Castorano’s *Vita Confusii* mostly referred to the arrangement and content of Confucius’ life events in this manuscript but, regrettably, this edition is no longer in the Vatican Library.²³ The other edition was Castorano’s own collection, a 10-volume edition of *The School Sayings of Confucius*, which is now kept in the Vatican Library, which did not have the illustrations, biography and annotations in volume one of the former edition.²⁴

19 Civezza (1895).

20 Civezza (1895) 526; BAV. *Vat. Lat.* 12871, p. 477.

21 BAV. *Vat. Lat.* 12871, p. 501.

22 BAV. *Vat. Lat.* 12871, p. 511.

23 For the introduction Castorano wrote for *The Pictured School Sayings of Confucius*, see BAV. *Vat. Lat.* 12871, pp. 268–295. Professor D’Arelli has found out the current inventory numbers of this collection, see D’Arelli (1997b).

24 Inv. No. *R.G.Oriente*. III. 261. For a detailed description of this book and its journey in Europe, see Xie (2023).

Castorano also frequently referred to other Chinese books, such as 《学统》 (*Xue Tong, The Collection of Learning*), 《性理大全》 (*The Great Compendium of Doctrine*), 《论语》 (*The Analects of Confucius*), 《大学》 (*The Great Learning*), 《孟子》 (*The Mencius*), 《礼记》 (*The Book of Rites*), and 《易经》 (*The Book of Changes*). These books were also brought back from China by either Castorano or Nicolai and are currently mostly in the Vatican Library. In addition to his references to Chinese classics, Castorano also included his personal experience in China, such as the fire at the Confucian temple in Qufu in 1724,²⁵ the earthquake in Beijing in 1730,²⁶ and the locals attending 三教堂 (“the Three Churches”).²⁷ With detailed reference to Chinese books as well as his personal experiences, Castorano attempted to make his writing well-supported and credible.

3 Synopsis of the *Vita Confusii*

The *Vita Confusii* is divided into 12 chapters with a short preface on the first page. The contents can be divided into two parts, the first consisting of chapters 1–10 on Confucius’ life and teachings, totaling 59 pages, the second consisting of chapters 11–12 on Confucius’ religious beliefs and the Chinese worship of Confucius, totaling 33 pages.

Table 3 provides an overview of the chapter titles and content of chapters 1–10.

Table 3: Summary of chapters 1–10 of Castorano’s *Vita Confusii*.

Titles and Summary	Correspondence with <i>The Pictured School Sayings of Confucius</i>
<p>I. <i>De progenie, conceptione, ac nativitate Confusii</i> (pp. 446–451) Confucius’ ancestry, his parents’ marriage, the miracle of his mother’s conception, and the auspicious signs present at his birth. These miracles are well known to the Chinese, and Castorano believed they bear similarity to the conception and miracles of Jesus.</p>	<p>禱嗣尼丘 Praying for son at Ni Hill 麟吐玉书 The Qilin brought jade slips 诞圣降祥 Auspicious omens at birth 天乐文符 Heavenly music and born tattoo</p>

²⁵ BAV. *Vat. Lat.* 12871, p. 518.

²⁶ BAV. *Vat. Lat.* 12871, p. 519.

²⁷ BAV. *Vat. Lat.* 12871, p. 524–525.

Table 3 (continued)

Titles and Summary	Correspondence with <i>The Pictured School Sayings of Confucius</i>
<p>II. <i>De pueritia ac iuventute Confusii deque exercitatione eius</i> (pp. 451–454) Confucius performed ritual sacrifices at the age of six. He attended school between the ages of seven and 19. At 19, he married the daughter of the Qi official. At 20, he began to serve in the government and asked about everything when assisting with sacrificial ceremonies in the ancestral temple, and also divided land for animals to be used in sacrifices. At 21, he had a son and named him Li, and his mother died.</p>	<p>戏陈俎豆 Playing with ritual vessels 筮仕委吏 First appointment as Granary Officer 载官乘田 Second appointment as Flock Officer 赐鲤名儿 Naming his son “Li”</p>
<p>III. <i>Quomodo Confusius incepit exire ex proprio regno in alia regna Sinica et cur hoc faciebat</i> (pp. 454–458) Confucius went to the state of Jin to study music, and to the Zhou court to study rites. He visited Laozi in Hu Guang. The worship of Laozi and Taoism in China. He went to the Zhou court to ask about rites, and discussed with Changhong about music, before going to the state of Qi and staying there for three months without tasting meat in order to study music. He had an encounter with Duke Jing of state of Qi but failed to get a position, then returning to his own state of Lu.</p>	<p>学琴师襄 Learning Qin with Shixiang 问礼老聃 Asking Laozi about rites 访乐苾弘 Asking Changhong about music 在齐闻韶 Hearing ancient music in Qi 婴沮齐封 Reward in Qi thwarted by Jing</p>
<p>IV. <i>Quomodo Confusius ad docendum discipulos se totum dedit et deinde magistratum obtinuit et quomodo in eo administrando se gesserit</i> (pp. 458–463) At 42 years of age, Confucius devoted himself to teaching his disciples in the study of the ancient classics, gaining widespread fame. During his time as an official in Lu, he was able to quickly change customs. He devoutly worshipped ancestors and gods, fasted intently and solemnly before conducting sacrifices, and also ordered the execution of Shao Zhengmao. Later, the state of Qi sent women players to corrupt the customs of the state of Lu, prompting Confucius to abandon his position and leave.</p>	<p>退修授业 Retired to teach 为宰中都 Position as Governor of Zhongdu 诛乱两观 Executing corrupt officer under the turrets 受乐適行 Quickly left after Lu accepted corrupting music</p>

Table 3 (continued)

Titles and Summary	Correspondence with <i>The Pictured School Sayings of Confucius</i>
<p>V. <i>Confusius deserto regno Lu voluntarie peregrinatur per varia regna Sinica, et quid illi acciderit aut profecerit</i> (pp. 463–469) When Confucius went to the state of Wei, he was mistaken as Yang Hu and besieged; while here, he also acceded to meet Queen Nanzi, causing doubt among his students. He then left and went to the states of Cao and Song, where he was chased by Huan Tui and deprecated himself as a “discarded dog.” He later visited the states of Zheng, Chen, and Wei, where he was ridiculed for learning a musical instrument with his students and had a conversation with Duke Ling of Wei before returning to the state of Chen and then his own state of Lu; however, he still failed to receive a position. Here he conducted a divination ceremony when honoring his ancestors.</p>	<p>围匡自信 Confidence under siege at Kuang 次乘卫灵 Riding with Duke Ling of Wei 习礼宋郊 Practicing rituals in the country of Song 东门贻诮 Being ridiculed at East Gate 寄心击磬 Playing the Qin to express his heart 礼衰去卫 Left Wei with the decline of rites</p>
<p>VI. <i>Quomodo Confusius aliam peregrinationem fecerit, quid ei in ea contigerit et quomodo in proprium Regnum revocatus fuerit</i> (pp. 469–473) While passing through the states of Chen and Cai, Confucius was besieged but rescued by the King of Chu. Ran You recommended Confucius to Ji Kang, who invited him back to Lu. However, Confucius was still unable to gain a position due to the opposition of the ministers. Castorano comments on such efforts to travel and change customs.</p>	<p>厄陈绝粮 Adversity in Chen without food 楚封见沮 Enfeoffment from Chu thwarted 季康币迎 Welcomed by Ji Kang with tributes</p>
<p>VII. <i>Confusius, abiecto cogitatu aut privatus spe obtinendi Magistratum aut Dignitatem, totum se dedit ad Scripturas Sinicas corrigendum et ordinandum</i> (pp. 473–477) Confucius gave up on politics and devoted himself to the compiling of classics, such as the <i>Book of Documents</i>, <i>Book of Songs</i>, <i>Classic of Music</i>, <i>Book of Changes</i>, and <i>Spring and Autumn Annals</i>. His disciples such as Zigong, Zilu, and Yanyuan. After completing the revision and compilation of these classics, Confucius made offerings to the North Star and saw the omen of a red rainbow falling and becoming a yellow stone; Chinese authors interpret this as signifying that Confucius’ virtue equaled that of heaven and earth.</p>	<p>删述六经 Editing and compiling the Six Classics 著作告成 Accomplishing the Writing</p>

Table 3 (continued)

Titles and Summary	Correspondence with <i>The Pictured School Sayings of Confucius</i>
<p>VIII. <i>De iis quae occurrerunt Confusio in ultima senectute et de morte eius</i> (pp. 477–483) Confucius lost his son when he was 69 years old, and was saddened by the death of Yan Hui and the capture of Qilin. Also noted are the span of <i>Spring and Autumn Annals</i>, the dream of being commemorated between two pillars, Confucius' death, mourning, and Zigong's request for funeral ritual. The disciples compiled <i>The Analects</i> and <i>The Family Sayings</i>, with Confucius' tomb becoming a holy site, receiving solemn worship from Confucian scholars and emperors of all generations. The conflagration of the “Kiu-Li” Confucius Temple occurred in 1724 after the expulsion of missionaries during the reign of the Yongzheng Emperor.</p>	<p>西郊泣麟 Weeping for the Qilin caught in the West Hunt 梦奠两楹 Dreaming of being commemorated between two pillars 葬鲁泗上 Buried by the Si river in Lu 汉高崇祀 Worshipped by Emperor Gaozu</p>
<p>IX. <i>Breviter datur aliqua idea de Doctrina aut Instituto Confusii</i> (pp. 483–490) Confucius said that his philosophy came from ancient emperors and mainly focused on morality, ethics, and the monarchy. Also noted are the interpretation of some key words of Confucius' doctrine, the “Eight Entries” of the <i>Great Learning</i>, etc.</p>	
<p>X. <i>De reliquis post Confusii mortem et de duobus quaesitis aut dubiis erga ipsum Confusium</i> (pp. 490–494) The author relates the disagreements regarding the presence of idolatry in Confucius' teachings and the worship of Confucius by the following generations. The two questions are discussed in the following chapters. Also noted are the titles bestowed upon him by emperors, the title of 圣人, the honor of the Confucius family, the title of “Yansheng Duke,” and Confucius' rituals.</p>	

Compared with the *Philosophorum Sinensium principis Confucii vita in Confucius Sinarum Philosophus*, Castorano's *Vita Confusii* is much more comprehensive and detailed. Nearly all major events in Confucius' life are narrated, following the order of the annotations of the 40 pictures in *The Pictured School Sayings of Confucius*.²⁸ In fact, the content is almost literally translated, as shown in Table 4.

Table 4: An example of comparison between Castorano's *Vita Confusii* and its Chinese source.

BAV, Vat. lat. 12871, p. 448	Translation	The Pictured School Sayings of Confucius, vol. 1, no. 5
<p><i>Dicunt in ipsa vesperi aut nocte in qua natus fuit Confusius, supra cubiculum parientis matris Ien sci auditam fuisse sonoram musicam, admirabiliter factam a caelo. In aere autem auditam fuisse vocem dicentem: Caelum generat, aut nasci facit, Sanctum Filium (圣子 Scing-zu), ideo descendere facit musicam, et armoniam sonoram. Praeterea dicunt, in nativitate Confusii adfuisse quadraginta novem huiusmodi portenta aut miracula. Dicunt, Confusio iam nato, in eius pectore inscriptos visos fuisse hos quinque sinicos characteres seu litteras 制作定世符 ci zo ting sci fu.</i></p>	<p>They say that in the very evening or night in which Confucius was born, above the bed of his mother Yan Shi a sound of music was heard, admirably made by heaven. A voice, then, was heard in the air saying: "Heaven generates, or causes to be born, the Holy Son (圣子 Scing-zu), and therefore causes music and harmonious sounds to descend." Moreover, they say that forty-nine such wonders or miracles accompanied Confucius' birth. They say that five Chinese characters or letters were seen inscribed in his breast after he was born, namely 制作定世符 ci zo ting sci fu.</p>	<p>孔子诞生之夕，颜氏之房闻钧天之乐，空中有声云：“天感生圣子降以和乐之音。”故孔子生有异质，凡四十九表，曾文曰：“制作定世符”。</p>

Chapters 11–12 form the second part of the book, titled *An Confucius docuerit commiserit idololatriam?*²⁹ and *An Sinenses Confusium aestimaverint aut aestiment, coluerint, venerentur et colant solum tanquam sapientem, ac magistrum, vel potius tanquam sanctum, imo sanctissimum, et supra omnes alios homines ex quo caelum*

²⁸ However, several annotations among the 40 were not included: 观周欹器 (Observing the Tilt-ing Vessel of Zhou), 夹谷会盟 (Meeting of Alliance at Jiagu), 请墮三都 (Entreating to Curtail Entfeoffment), 陈庭辩矢 (Recognizing the Arrow from the Court of Chen), 反蔡问津 (Asking for the Port on Way Back to Cai), 临河伤类 (Grieving for the like by the River), and 观台释戮 (Prompting Pardon for the Death-bound on the Tower).

²⁹ BAV. Vat. Lat. 12871, pp. 494–502.

*ac terra extiterunt?*³⁰ These two chapters account for one-third of the entire book and are the focus of the work. At the beginning of each chapter, Castorano provided an affirmative answer and afterwards tried to prove his point, frequently citing contents from the first part to support his arguments.

Regarding the first question, Castorano provided three arguments. Firstly, many “religious superstitions” such as sacrifice, rituals, and divination are present in Confucius’ works. He approved the divinations in *The Book of Changes*, as well as worship of ancestors, stars, and spirits in other classical texts. Secondly, Confucius himself performed idol worship, imitating sacrificial behavior during his childhood, learning rituals in the Zhou dynasty, participating in ceremonies, and respecting ghosts and spirits. Thirdly, Castorano personally asked new Christian converts baptized by the Jesuits to prove that Confucius worshipped the true God, Jesus Christ, followed the Ten Commandments, or never taught or practiced superstition and idol worship until his death; they were unable to prove any of them.

On the second question, Castorano reasons as follows: first, no one after Confucius and Mencius has been called 圣 (*sheng*, translated by Castorano as *sanctus*). Confucius’ students and Mencius called him a 圣人 (*sheng ren*, translated by Castorano as *sanctus vir*), and the emperor gave him titles that included the word *sheng*; when people refer to *sheng ren*, the Chinese know they are talking about Confucius, like the Saint in Padua is St. Anthony. Secondly, Confucius could have been a pure atheist (*atheus*), given that when students asked about ghosts and spirits, he either gave no answer, responded cunningly, or replied in an atheistic way. Thirdly, Confucianism became the pursuit of all Chinese literati from ancient times to the present day, who built huge temples to worship him and prayed to him for help to fulfill their wishes. Fourthly, besides literati, Confucius was also an idol worshiped by ordinary people along with Buddha and Laojun (老君) in the three religions temples.

After examining both questions, Castorano concludes that:

1°. Confusium sanctum ab ipsa nativitate a Sinensibus aestimari, ac sanctum per varia prodigia celitus demonstratum praedicant. 2°. Confusii sanctitatem non ordinariam a Sinensibus aestimari, sed extraordinariam ac eminentem, et supra omnes alios sanctos Sinenses a principio mundi usque ad ipsum Confusium. [. . .] 3°. E contra autem constat Confusium in vita sua fuisse idololatram et sortilegum sicut alii idololatrae et sortilegi Sinenses, licet caeteris paribus honestius prae aliis vixerit. Imo et non levia fundamenta occurrunt ad credendum aut probandum, ipsum Confusium interius aut in corde atheum fuisse. 4°. Et tamen his non obstantibus a Sinensibus lege publica, in omni civitate Sinici imperii, sive magna, sive parva, indispensabiliter eidem Confusio aedificantur publica 庙Miao templa aut fana, et altaria, et quidem Confusii fana non sunt minora sed meliora, et aliqua sunt sumptuosissima. Et eidem Confusio

30 BAV. Vat. Lat. 12871, pp. 502–527.

sine alia relatione ad aliud superius numen, immediate dicata. 5°. Similiter temporibus suis lege publica imperii eidem Confusio offeruntur solemnissima sacrificia [. . .] 6°. Eidem Confusio a Sinensibus tribuitur potestas supra humana, bonum videlicet intellectum tribuendi, et hominibus auxiliandi, illosque felicitandi. De rigore igitur Confusius prout a Sinensibus, maxime a literatis, concipitur, aestimatur, et colitur, est verum et proprium idolum. 7°. [. . .] Confusius etiam apud plebes et apud omnes evasit iam communale idolum, et quidem inter alia duo famosa idola Fo et Lao-kiun veneratur et colitur.

Igitur ex pluribus capitibus constat, nullum cultum a Christi fidelibus Confusio exhiberi posse: esset enim vera et propria idololatria.³¹

In summary, the structure of the *Vita Confusii* can be divided into two parts: the first part introduced Confucius' life and teachings, emphasizing his role as a wise person, politician, philosopher, and teacher, and the second part listed Confucius' religious beliefs and people's worshipping of him, proving that he was both an idol worshipper and the object of idol worship. The final conclusion of the book is that Christians should not worship Confucius in any way.

4 圣 = *Sanctus*? The Shaping and Transmission of Confucius' Figure in Castorano's Work

The two parts of the *Vita Confusii* correspond to the modifiers *sapiens* and *sanctus* in the title.

For Confucius as *sapiens*, Castorano provided a detailed account of Confucius' travels and reform of customs and praised Confucius' efforts:

Confusius laudem mereri videtur, quod zelum et amorem habuerit de reformatione, ac profectu plurium populorum, licet de facto parvum fructum ex suis peregrinationibus consequutus fuerit, et aliquando etiam vitae periculum incurrerit, sive propter zelotipiam, aut invidiam, vel timorem damni, ut supra in eius peregrinationibus visum est; aut denique propter eius minorem habilitatem vel certe ob nimium zelum aut iustitiae rigorem.³²

Castorano also repeatedly mentioned Confucius' establishment of education, recruitment of students, and compilation of ancient texts, which led to his widespread reputation:

³¹ BAV. Vat. Lat. 12871, pp. 525–527.

³² BAV. Vat. Lat. 12871, pp. 472–473.

Cum igitur Confusius in proprium regnum Lu pervenisset, et vidisset in eo similiter mores hominum esse valde turbatos, neque gubernii leges custodirentur, ipse a regia recessit, et se totum dedit ad docendum discipulos. [. . .] Propterea cum Confusii fama late per Sinam spargeretur, etiam a longinquis Sinae regionibus et regnis quotidie discipuli ad eum ibant et in dies augebantur.³³

In addition, in Chapters 8 and 9, Castorano introduced Confucius' students and their respect and remembrance for him, as well as the *Four Books*, the concepts of 仁 (*ren*), 义 (*yi*), 礼 (*li*), 智 (*zhi*), and 信 (*xin*), and particularly the 《大学》 (*Great Learning*), expounding on the concept of “the way of the great learning” and its meaning. Through these contents, Castorano presented Confucius' image as *sapiens* and *magister*.

However, the biography of Confucius and the introduction of him as *sapiens* were only the prelude, as the true aim of the *Vita Confusii* was discussing Confucius' religious views and the Chinese worship of Confucius.

Castorano particularly emphasized Confucius' attention to sacrificial rites and ceremonies. In Chapter 2 and 3, he mentioned Confucius performing rituals with sacred vessels, assisting with preparations and conductions of rites in the Ancestral Temple,³⁴ adding that *Confusius avide studuit ut probe addisceret ritus Sinicos, unde ivit ad videndum ritus imperatorum familiae 周 Ceu, and Deinde adiit etiam philosophum 老聃 Lao-tan (provinciae Hu-kuang), et ab eo similiter ritus ac caeremonias sciscitatus fuit.*³⁵ Castorano also underscored the religious aspect of Laozi:

Hoc tamen non obstante ille philosophus Lao-tan, evasit in Sina famosum idolum sub nomine 老君 Lao Kiun. Habet enim sectam particularem, et religiosos speciales in Sina, qui illum depraedicent, venerentur et colant.³⁶

and the seriousness with which Confucius conducted offerings and sacrificial rites:

Quando enim Coufusius oblationes et sacrificia faciebat, sive in templo proavorum, proavis defunctis, sive in aliis templis spirituum spiritibus aut numinibus (ratione officii seu magistratus quem agebat), id faciebat cum omni attentione, maiestate ac reverentia. Et ita pariter suos discipulos facere docebat.³⁷

³³ BAV. *Vat. Lat.* 12871, p. 459.

³⁴ BAV. *Vat. Lat.* 12871, p. 452.

³⁵ BAV. *Vat. Lat.* 12871, p. 455.

³⁶ BAV. *Vat. Lat.* 12871, p. 456.

³⁷ BAV. *Vat. Lat.* 12871, p. 460.

In Chapter 11, he specifically pointed out that:

*unum ex factis egregiis Confusii fuisse emendationem, correctionem, et ordinationem ac approbationem librorum antiquorum classicorum Sinensium, videlicet 易经 I-king, 书经 Sciuking, 诗经 Sci-king et 礼记 Li-ki. At in dictis libris continentur omnia quae spectant ad Sincam religionem, de ritibus, caeremoniis, oblationibus et sacrificiis erga omnis generis Spiritus seu Numina, quae omnia Confusius approbavit.*³⁸

The question of how the Chinese perceive Confucius more directly determined the nature of worshipping Confucius and was crucial to answering whether Christians could perform sacrificial rites for Confucius. Therefore, Castorano sought to prove that in the eyes of the Chinese people, Confucius was supernatural and “divine,” and that his worship was pure idolatry.

He first explained the concept of 圣人:

*Sinenses in quatuor classes distinguere homines, sive in literis sive in sanctitate precellentes aut eminentes, scilicet 1° in magistros, 2° sapientes, 3° heroes, et 4° sanctos. Primi vocantur 夫子 fu zu, secundi vocantur 哲 ce, tertii dicuntur 贤 hien et quarti appellantur 圣 Scing. Per duo prima nomina exprimunt “homines doctos” aut scientia praeditos, sed praeeminentia primi aut secundi. Per alia duo nomina indicant “homines et in scientia et in perfectione aut in Sanctitate” aliis hominibus prestantiores, sed cum debita praeeminentia. Itaut 圣 Scing significet hominem supra alios homines doctrina ac perfectione aut virtute fulgentem.*³⁹

Then, he provided Confucius’ definition of 圣:

*Confusius ipse in libro Kia-iu tom(o) 1° libro 2° pag(ina) 22 ita definit sanctum: “Sanctus ille dicitur, cuius virtus unitur seu aequatur cum caelo ac terra; mutatur et penetrat ubique; unitur seu sequitur rerum omnium naturales ordines; intelligit negotiorum omnium fines et principia. Cuius claritas eadem est cum sole, et luna. Cuius conversio aut operatio est sicut spirituum aut numinum. Et populi ignorant seu non percipiunt eius virtutem, et intuentes non noscunt eius terminum. Huius modi est sanctus vir.”*⁴⁰

He also differentiated between 圣 (sheng) and 亚圣 (ya sheng), quoting Mencius’ praise of Confucius⁴¹ to prove the latter as the “most sacred” or *sanctissimus*, instead of the ordinary “sacred.” In addition, emperors and commoners alike affirmed that Confucius was the “most sacred”:

Et in scripturis aut catalogo publicorum sacrificiorum referentur: titulo honorifico Confusium decoravit, et primo Confusii tabellam fecit, et in ea scribi iussit, 至圣先师孔子 Ci-scng-sien-ci

³⁸ BAV. Vat. Lat. 12871, p. 495.

³⁹ BAV. Vat. Lat. 12871, p. 503.

⁴⁰ BAV. Vat. Lat. 12871, pp. 504.

⁴¹ BAV. Vat. Lat. 12871, pp. 505–506.

*-kung-zu, idest “Sanctissimus Protomagister Confusius”. Et ita usque nunc semper cum nomine “Sanctissimi” inscribitur tabella Confusii. At nedum hoc, sed universaliter Confusius in toto imperio Sinico per antonomasiam “Vir Sanctus” appellatur, ita ut quauo in Sina dicitur 圣人 scing gin, “Sanctus Vir”, Confusius per antonomasiam intelligitur. Non secus ac quando v. g. Patavii dicitur il Santo, o pure La Chiesa del Santo, Sanctus Antonius intelligitur.*⁴²

Castorano emphasized that these pieces of evidence were based on Chinese history and literature. However, when translating and recounting them, Castorano directly translated *sheng* or *sheng ren* as the Latin *sanctus*, *sanctus vir*, and Confucius as the superlative of *sanctus*, i.e. *sanctissimus*, meaning “most divine” or “most sacred.” Can Westerners accurately understand the meaning of the Chinese character *sheng* when reading *sanctus*?

The ancient Chinese character 圣 was listed under radical 耳 (“ear”) of *Shuowen Jiezi* (《说文解字》), with the meaning of 通 (“understand”).⁴³ The *Gudai Hanyu Cidian* (《古代汉语词典》, *Dictionary of Ancient Chinese*) explained 圣 as 1) 通达事理 (“to thoroughly understand the principle of things”); 2) 具有最高智慧和道德的人 (“a person with the highest wisdom and morality”); 3) 旧称学问技能达到极高水平的人 (*obs.* “a person with high-level knowledge and skills”); 4) 古人对当代皇帝的尊称 (“an old term for the contemporary emperor”); 5) 刁钻, 精灵 (“cunning,” “clever”); 6) 清酒的代称 (“clear liquor”).⁴⁴ In the *Kangxi Dictionary* that Castorano was able to consult, 圣 is explained as such: 《易·干卦》: 圣人作而万物覩 (“*Book of Changes*: the *sheng* man stirs, and everything watches”); 《书·洪范》: 睿作圣 (“*Shang Shu, Hong Fan*: the clever makes *sheng*”); 《传》: 于事无不通之谓圣 (“*Notes on Records of the Historian*: one is said to be 圣 when nothing is not understood about”); 《礼·礼运·三代之英疏》: 万人曰杰, 倍杰曰圣 (“*Book of Rites, Li Yun, Notes*: one out of one thousand is called hero, and doubling the hero is called *sheng*”); 《孟子》: 大而化之之谓圣 (“*Mencius*: to spread the great is called *sheng*”); 《风俗通》: 圣者, 声也。闻声知情, 故曰圣也 (“*Fengsu Tong*: *sheng* is voice. Knowing the voice is knowing the mind, so it is called *sheng*”); 又《溢法》: 称善赋籥曰圣, 敬宾厚礼曰圣 (“Also, *Shi Fa*: if the emperor followed good deeds and collected few taxes, the posthumous title can be *sheng*. If the emperor were hospitable and gave generous gifts, the posthumous title can be *sheng*”); 又木名。《山海经》: 开明北有圣木。注: 食之令人智圣也 (“Also, the name of a type of timber. *Shan Hai Jing*: there is a *sheng* tree in the north. Note: when consumed, it makes people’s wisdom *sheng*”).⁴⁵

42 BAV. Vat. Lat. 12871, pp. 493, 506.

43 Xu (1963) 250.

44 Chen (2003) 1398.

45 Zhang (2002) 933.

On the other hand, the meaning of *sheng* as the Christian “saint,” “holy spirit” or “Holy Mother” only emerged in Chinese after the introduction of Christianity; 圣徒 (*sheng tu*, “Saint Spirit”) came from 《西字奇迹》 by Matteo Ricci in 1606, 圣灵 (*sheng ling*, “Saint Apostle”) came from 《教要序论》 by Ferdinand Verbiest in 1670 and 圣殿 (*sheng dian*, “holy temple”), while 圣母玛利亚 (*sheng mu ma li ya*, “Holy Maria”) came from 《职方外纪》 by Giulio Alenio in 1623.⁴⁶

Of note is that the Latin word *sanctus*, which appears in the *Vita Confusii* 132 times, originally came from the participle of the verb *sancire* and can be used as an adjective or nominalized as *sanctus -i*. This word in classical Latin had religious and legal meanings, and later absorbed the meaning of the ancient Greek word ἅγιος (dedicated to God) which had absorbed the meaning of Hebrew *Qōdāš* (“appointed by ritual,” “established,” “consolidated”) and thus “morally respected.” In ecclesiastical Latin, the adjective *sanctus* means “divine” and “elevated,” while the noun *sanctus -i* means “saint,” which later evolved into “saint” in modern languages.⁴⁷

From the above review, it can be seen that the Chinese character 圣 did not carry the religious meaning of the secular-sacred dichotomy in nature. A person who understands principles of things, is highly educated, and has a high status can achieve *sheng* by completing self-improvement. It is not necessary to go through the grace of a Creator to become *sheng*. However, the Latin word *sanctus* means “divine” and refers to “saints” in Christianity, emphasizing that men can achieve holiness by doing things that conform to the will of the one true God (Creator) through faith, transcending the secular world and enjoying the grace of God. Although the two words have similarities in the concepts of “supreme goodness” and “understanding the world,” it can be imagined that a Western reader who does not know Chinese culture may understand *sanctus* as the image of a Christian saint, not to mention that Castorano explicitly compared St. Anthony of Christianity with Confucius.

Castorano did not explore the original meaning of *sheng* and did not provide other translations or annotations, assuming that *sheng* and *sanctus* were completely equivalent and may be seen as a rejection of the possibility of dialogue and communication. This method also applies to other sensitive words, such as translating 礼 (*li*) into *ritus* (“religious ceremonies,” “rituals”); through this method, he implanted in readers the viewpoint that the worship of Confucius was purely a religious behavior.

In addition to subjective intentions, his stubbornness, his solitude (while Jesuits often work collaboratively), and his years of preaching among the people might have deprived him of the patience and conditions to explore Chinese thoughts and

46 See Huang (2020) 1369, 1374.

47 Ernout and Meillet (1959) 587.

culture more deeply. He could only adhere to his preaching position, read as widely as possible, and find evidence for his views based on the literal meaning of words. Such a method and attitude can be seen not only in the *Vita Confusii* but also in his other works.

Meanwhile, were the learned, open-minded Jesuits truly impartial? In fact, like Castorano, they also translated prudently, rendering 礼 as *plane honores ac ritus civiles* (“purely secular honors and etiquette”) and 孔庙 (*Kong miao*, temple of Confucius) as *gymnasium* (“school”), thus weakening their religiousness.⁴⁸ Both sides were able to seize certain evidence from the complex Confucian culture to serve their narrative and promote their preaching ideas.

5 Conclusion

In the Chinese Rites Controversy, the Franciscan Castorano firmly supported the ban on Chinese Rites in *Ex Illa Die*, and by writing the *Vita Confusii* attempted to deconstruct the image of Confucius as a “pure philosopher” created by the Jesuits, and to present him instead as a superstitious, religiously idolized image among the Chinese. The *Vita Confusii* is divided into two parts: a detailed biography of Confucius, with annotations from *The Pictured School Sayings of Confucius* as the major reference, showing Confucius as a wise sage; and a discussion of Confucius’ religiousness, arguing that the Chinese worshipped Confucius as 至圣 (*sanctissimus* in a religious sense), as attested by examples from Chinese literature of Confucius himself teaching or practicing idol worship. This leads to the conclusion that Chinese Christians cannot participate in the Confucian sacrificial rituals in any sense.

Although Castorano’s text had limited influence on European intellectuals due to its unpublished status, it directly influenced decision-makers such as the Pope, the Minister of Propaganda Fide, and bishops of S. Officio during his decades in Rome, such as when Pope Benedict XIV closed the Chinese Rites Controversy in 1742.

From a cultural exchange perspective, Castorano directly equated the Chinese character *sheng* with the Latin word *sanctus*, proving that Confucius is *sanctissimus*, a practice that, as Professor Yang Huilin pointed out when commenting on Pierre Ryckmans’ (1935–2014) translation of 圣人 as “saint,” is “meaningless for

⁴⁸ See Intorcetta et al. (1687) cxxi: *Etenim plane civiles sunt honores ac ritus illi Confuciani; qui adeo non in Templo, fanove idolorum (quod lege Imperatoria vetitum est) sed in gymnasio, qui locus tantum litteratis patet, exercentur, a litterariae facultatis praefectis.*

true Confucian-Christian dialogue.”⁴⁹ An attempt at meaningful dialogue would be like when James Legge (1815–1897) annotated 圣 with 从耳、从口、从壬 (“ear,” “mouth,” and “good”), translated 圣人 as “sage,” and examined the meaning of *sheng* in different contexts and word combinations, establishing a diverse relationship between Confucian and Christian texts.

Confucian culture is ancient and inclusive, and the interpretation of classics and culture of Confucius worship has undergone 2,000 years of development. The significant difference in the concept of “religion” between Chinese and Western cultures must be first addressed in order to discuss Confucius’ religious views. The complexity of this difference posed great challenges for missionaries to understand Chinese culture; in the midst of identity and cultural turbulence, they could either be a bridge to communication and understanding or easily block the path of dialogue. To promote true communication between civilizations, one must avoid simplistic annotations and ambiguous concept exchanges, strengthen dialogue, and maintain a tolerant and open-minded attitude.

49 Yang (2020) 7.

Kim Kihoon 김기훈

A Short Introduction to the Codices of Matteo Ricci's *Jiaoyoulun* 交友論

Matteo Ricci's *Jiaoyoulun* 交友論 is well-known as an early example of Jesuit accommodation in Late Ming China. Filled with maxims or precepts on friendship, *Jiaoyoulun* seems to have influenced Confucian literati in East Asia since the end of the sixteenth century, introducing Western thought on social relationships into China as well as Korea where Christianity and *xixue* 西學 (“Western Learning”) had already spread. Research on the reception of *Jiaoyoulun* has showed that this work was deeply influential on the intellectuals under the Joseon Dynasty since the seventeenth century, particularly those of the Realist or Pragmatic School of Confucianism 實學 (*Silhak* in Korean). As a result, sentences or maxims like “A friend is another self” and “A friend is a half of me” (cf. *Jiaoyoulun* 1) sound familiar to modern Koreans without reminding them of the names of Aristotle, Cicero or Matteo Ricci. Some ideas on friendship of, or coming from, Western civilization have become a part of tradition or have been moderately adjusted since the beginning of exchanges between Eastern and Western culture, and thus it is difficult to distinguish precisely which friendship discourse is proper to East Asian culture or which ideas came from Western learning. But the detailed study on such a reception history shall provide some clues to identify specific aspects, of which Matteo Ricci's *Jiaoyoulun* could be one.

In short, the publishing of *Jiaoyoulun* underwent three phases: first, Matteo Ricci's own manuscript or draft as an answer to Prince Jian'an (建安王) in Nanchang (c. 1595–1599); second, the official publication in Beijing (c. 1601–1606); and finally, the version incorporated into the *Tianxue chuhan* 天學初函 (1629) by Li Zhizao (李之藻, 1564/5–1630). Among these, the *Tianxue chuhan* edition has attracted exclusive attention from researchers in Koreanology or Korean Studies on *xixue*. In this chapter, the textual history of *Jiaoyoulun*, which has been relatively neglected, shall be examined briefly by comparing the titles and publication forms of its codices and editions.

1) **BL**: London, British Library, Add. MS 8803.

This is the first version of the work, drafted as a response to Prince Jian'an in Nanchang 南昌 (1595). It must have been copied within a circle of Chinese ac-

Note: This paper presents some provisional remarks originating from the reading and study of Matteo Ricci's *Jiaoyoulun* 交友論 and Martino Martini's *Qiyuyopian* 逮友篇 (1647), as part of the Korean research project “The Reception of Aristotle's Philosophy in East Asia” started in 2019.

quaintances before the end of the century, as Matteo Ricci's letter to Girolamo Costa on August 15, 1599 suggests. It contains 76 *sentenze* or maxims with a short introduction (*proemio*) by Matteo Ricci and a brief epilogue as a colophon, meaning this version of *Jiaoyoulun* is published by modern editors with 78 sentence numbers. Most importantly, the codex BL has a handwritten Italian translation by Matteo Ricci which had been unknown for a long time and was discovered only some decades ago. This manuscript might have been enveloped within the letter to Girolamo Costa.

2) **BNC**: Roma, Biblioteca Nazionale Centrale, 72C467.

This is the official edition published in Beijing 北京 (1601–1606), including a preface by Feng Yingjing (憑應京, 1555–1606). It seems to have been published initially without the permission of Matteo Ricci, but soon (at least since 1606) the publication received the approval of the Jesuit with a stamp at the end of the book. Before publishing, Matteo Ricci expanded the first draft of *Jiaoyoulun*, i.e. the codex BL, meaning this edition has a total of 100 *sentenze* (after 24 *sentenze* were added) with an introduction and an epilogue. Other codices (BAV and BNF¹) seem to be almost identical to BNC in terms of the Chinese text, with only slight printing errors.

3) The incorporated edition in the **TXCH**: *Tianxue chuhan* 天學初函 (1629).

Li Zhizao edited and published the works of *xixue* 西學 as a single collection, under the title *Tianxue chuhan* 天學初函 (*First Collection of the Learning from Heaven*). *Jiaoyoulun* also became a part of it, 19 years after the death of Matteo Ricci, including the prefaces by Feng Yingjing and Qu Taisu (瞿太素, 1549–1611?). The structure of the work was not changed but the text itself seems to have been partly amended by Li Zhizao. Interestingly, because of the greater accessibility of *Tianxue chuhan*, most later readers knew *Jiaoyoulun* through this edition. The *Tianxue chuhan* has considerable authority in the study of *xixue* and has primarily provided the opportunity to present *Jiaoyoulun* to Korean intellectuals since the seventeenth century.

The differences between the main versions mentioned above in the title of the work and the publication form are as follows (Table 1):

¹ **BAV**: Biblioteca Apostolica Vaticana, R.G. Oriente III. 233; **BNF**: Bibliotheque nationale de France, Paris, Chinois 3371. These two are a kind of “bootlegs” or leaked copies of the BNC edition made without Matteo Ricci's consent, which seem to have been used as sources for the TXCH.

Table 1: Differences between the main versions of Matteo Ricci's *Jiaoyoulun* 交友論.

	BL	BNC	TXCH
Title and heading	答 建安王 乾齋子 友論引	答建安王 即乾齋子 友論 大西洋耶蘇會 士利瑪竇述	交友論 歐邏巴人利 瑪竇譯
Number of <i>sentenze</i>	76 (78)	100	100
Italian translation	Yes	No	No

First of all, BL and BNC preserve the expression 答 建安王 (*Response to Prince Jian'an*), but the TXCH edition has no indication of this. Although the readers soon acknowledge the motive and the purpose of the work by reading the introduction of *Jiaoyoulun*, the title and heading written by Matteo Ricci should be retained as in the original versions. Next, only the TXCH edition has an additional character 交 in the title with which the *Jiaoyoulun* 交友論 is now generally known to readers; the original title *Youlun* 友論 might have been changed into *Jiaoyoulun* 交友論 during the reception of the work, the reason for which remains a problem to be solved by detailed study. Above all, it is important to note that there are some changes in the text, which was expanded or slightly revised by the author himself: strictly speaking, the version of BNC can thus be used as reference to critically edit the text of *Jiaoyoulun*. Therefore, the critical edition of *Jiaoyoulun* will allow readers to distinguish the three *strata* of its authoriality and authenticity:

- 1) Matteo Ricci's first collection of maxims on friendship (1595): comparison of the codex BL's Chinese text and the Italian translation by the author himself; review of the original 76 *sentenze*.
- 2) Matteo Ricci's afterthought on the first draft and the supplement for publishing (1601): analysis of the 24 added *sentenze* and comparison of the revised Chinese text by the author himself with the text of the codex BL.
- 3) Li Zhizao's slight (?) revision (1629) after Matteo Ricci's death: comparison of the text of TXCH with BNC; analysis of the change of the title and heading of the work.

A critical edition of *Jiaoyoulun* will be of great significance for researchers, as it will provide a text that is closer to the original idea and purpose of Matteo Ricci, the author himself. Through the *collatio et recensio* of the codices and the editions, one could recover the forgotten or neglected history of *Jiaoyoulun*. Recently in Korea, several Koreanologists have published academic works on the *Jiaoyoulun*, but most of them are focused on the history of its reception in the Joseon

Dynasty;² only a couple of them mentioned the different versions,³ but did not treat the problem in detail. Cautiously speaking, several scholars are still studying *Jiaoyoulun* based on the *Tianxue chuhan*, with even Korean translations taking the original texts from the *Tianxue chuhan*.⁴

However, studies on the *Jiaoyoulun* must take into consideration two groundbreaking academic works published in Italy by D'Elia and Mignini, in 1952 and 2005 respectively.⁵ D'Elia's monumental work focused on the sources of *Jiaoyoulun*, showing that many *sentenze* written by Matteo Ricci from his memory in *Jiaoyoulun* could be borrowed from a digest or commonplace book written by Andreas Eborensis (André de Resende, 1498–1573) which seems to have been popular in his days.⁶ As D'Elia shows, most of Matteo Ricci's ideas and precepts might have been taken from this work, which included various topics and maxims from the ancient classical authors.

However, D'Elia might have not worked on Matteo Ricci's original translation. Since the nineteenth century, a letter preserved in the Archivio della Pontificia Università Gregoriana has been considered as Ricci's handwritten translation, before the rediscovery of the codex BL.⁷ In fact, this letter is an apograph of the autograph preserved in the codex BL, corrected in order to translate the text into more idiomatic Italian and remove the awkwardness due to the Chinese language. This document is thus quite distant from the original maxims, whose transmission can be reconstructed as follows: 1) ancient authors => 2) Andreas Eborensis => 3) the Chinese text of the BL => 4) Matteo Ricci's Italian translation of the BL => 5) anonymous correction of Ricci's translation.

Mignini's edition is the most comprehensive achievement of the studies on *Jiaoyoulun*. Together with Bingkui Li, he translated the BNC version into Italian, and together with Laura Nuvoloni, he edited Matteo Ricci's BL translation and its apograph. In addition, in the same volume Sofia Mattei provided an important study on the sources including Andreas Eborensis, with Mignini's edition often referred to as a standard. Nevertheless, it does not digitalize the Chinese text, nor contains an *apparatus criticus* and, therefore, it is not, strictly speaking, a critical

2 See Lee (2010), Kim (2011), Bae (2016), Noh (2017a), and Bae (2020).

3 Bae (2016) 123, Bae (2020), and Noh (2017a) 87–88 n. 3.

4 Song (2000), Noh (2017b) Even the most recently published one, *pace* Jung (2023), is based on the BAV copy, not on the BNC edition.

5 D'Elia (1952), Mignini (2005).

6 Andreas Eborensis (1590).

7 [A]PUG: Archivio della Pontificia Università Gregoriana Ms. 292, pp. 189–200.

edition, but still functions as a foundation for follow-up studies on *Jiaoyoulun*.⁸ The first complete English translation by Timothy Billings is based on a textual examination similar to that discussed in this chapter,⁹ with a kind of *appendix critica*, instead of *apparatus criticus*. Billings edited the text based on the BNC version, mainly comparing the BL and the TXCH edition. His work a steppingstone to readers and researchers of Matteo Ricci for a decade. The present paper also aims to contribute to a better understanding of *Jiaoyoulun*.

In conclusion, it is time to prepare a new *Jiaoyoulun* edition, at least in the field of Koreanology or Korean Studies on *xixue* 西學, as the rediscovery of the codex BL, as discussed above, changed the history of transmission of this work. The critical edition of *Jiaoyoulun*, which will be achieved by close cross-reading and diligent recension, will be necessary not only to review the reception and influence of Matteo Ricci, but also to assess if there have been subtle misreadings or misunderstandings in the past centuries;¹⁰ a bilingual edition with *apparatus criticus* and *apparatus fontium* or *loci similes* seems to be most worthwhile to readers and researchers in order to understand the complicated history of the text.¹¹ In this field, the contribution of Koreanology, coming from a borderland nation between civilizations, can offer a privileged point of view towards a better understanding of the cultural processes of knowledge transfer between West and East.

8 It is the basis of a German translation of Matteo Ricci's BL Italian translation (cf. Jocher [2005]), and might be the reference of a French translation (cf. Che [2006], with the introduction of Michel Cartier).

9 Billings (2009).

10 A kind of Neo-Confucianistic eclectic movement, the so-called 東學 (*Donghak* in Korean) arose as a reaction to the Christianity and the *xixue* 西學 in the end of nineteenth century. Interestingly, the devotees of 甑山道 (Jeungsanism), one of the newly risen religions which have been derived from *Donghak*, rather honor Matteo Ricci as 大聖師 *Daeseongsa* (Great Saint Master) of their precepts. Maybe his *Tianzhu shiyi* 天主實義 has significantly influenced it.

11 In addition, such an edition could provide some preliminary clues on studying the reception of *Jiaoyoulun* and the evaluation of a significant figure, as well as Li Zhizao's interpretation or intervention in the course of the propagation of the *xixue*.

Antonio De Caro

Teaching Jesuit Spirituality in Nineteenth-century Zi-ka-wei: The *Dissertationes Theologicae* (1849–1856) and the *Ascetica Nomenclatio* (1877) by Fr. Angelo A. Zottoli S.J.

Introduction

In 1914, 12 years after the death of Fr. Angelo A. Zottoli S.J. (Chao Deli 晁德蒞, 1826–1902),¹ Miguel de Unamuno (1864–1936) published the first edition of his famous novel *Niebla* (*Mist*). In this experimental work, Unamuno narrated the intricate story of Augusto Perez, a disappointed and lost man and, as John Macklin suggests, “an unformed personality wandering through the mist of his existence, which he frequently doubts.”² At the very beginning of Unamuno’s novel, Augusto expresses his profound feelings:

‘It’s a shame to have to make use of things’, thought Augusto, ‘to have to use them, for use ruins them, and it even destroys all vestige of beauty. The noblest function of objects is to be looked at. How beautiful an orange is before it is eaten! This will change in heaven when all that is required of us is reduced to, or expanded to, contemplating God and everything in Him. Here, in this wretched life, we only worry about serving God; we use him, like an umbrella, to protect us from harm.’³

In opposition to this “contemplative” approach to the world, the early works written by Zottoli, and his constant efforts to teach Catholic theology in both Latin and Chinese afterwards, were both purposefully designed to serve various Catholic communities in nineteenth-century China. Zottoli had been making use of spiritual terms re-framing these Catholic theological notions in different contexts; as a result, he did not delve just into the contemplation of these theological ideas but was also interested in making them useful for various Catholic communities.

Angelo Zottoli was an Italian Jesuit missionary who lived and preached in China for more than 50 years. He was an erudite scholar who had been teaching

1 For an account on Zottoli’s works and his biography refer to De Caro (2020), (2022), (2023); Williams (2015); Ahn and Moon (2020).

2 Unamuno (2014) 1.

3 Unamuno (2014) 67.

Chinese language to European missionaries and Latin to Chinese students. He reached the village of Xujiahui 徐家匯, known also as Zi-ka-wei, now a district of the city of Shanghai, in the late months of 1848.⁴ Immediately after his arrival, he was assigned to teach theology there. During these years, between 1849 and 1856, Zottoli produced his *Dissertationes theologicae ad recentiorum praesertim haereticorum conditionem* (*Theological Dissertations Facing the Situation of Modern Heretics*), a two-volume manuscript on Catholic theology preserved at the Bibliotheca Zi-ka-wei, in Shanghai. Later on, after he reached a remarkable level of proficiency in Chinese, he produced multiple works aimed to teach Catholic theological ideas to young Chinese students. In 1877, he wrote also a preparatory bilingual Latin/Chinese manuscript entitled *Ascetica nomenclatio* (*Ascetic Nomenclature*) encompassing a list of Latin terms on Catholic spirituality. He translated these terms into Chinese characters also providing his own Romanization.

The overarching goal of this article is to provide a concise account of these two works, in an effort to stimulate the curiosity of scholars from different backgrounds. This article aims to make these two works more accessible to a wider scholarly community. It is my sincere hope that this article could be a stepping-stone for future studies on Zottoli's linguistic, religious and intellectual unedited sources preserved in Zi-ka-wei.

1 A Theological Clash Between “Modern Heretics” and Jesuit Missionaries? A Concise Analysis of the *Dissertationes theologicae*

1.1 The Structure of the *Dissertationes theologicae*

According to Zottoli, his journey to reach the community of Zi-ka-wei and the French-led Jesuit mission there was extremely challenging. Traveling in very poor conditions, Zottoli and his religious brothers oftentimes confronted hunger and other difficulties, yet, once he arrived in Zi-ka-wei in September 1848, Zottoli was immediately asked to serve as a teacher of theology for students there. Even though we are not fully aware of further details concerning his students or the actual content of his

⁴ For an account of the French-led Jesuit mission in Zi-ka-wei during the nineteenth century and the Jiangnan area refer to Sica (1884); La Servièrè (1914); Tai (2017); Cañizares-Esguerra (2018); Cañizares-Esguerra et al. (2018); Mo (2021); and Xiong (2022). For a recent survey on the Jesuit rhetoric and linguistic studies in Zi-ka-wei, see Mo (2022).

lectures, a manuscript preserved at the Bibliotheca Zi-ka-wei sheds light on his initial teaching of Catholic theology there, entitled *Dissertationes theologicae ad recentiorum praesertim haereticorum conditionem* (*Theological Dissertations Facing the Situation of Modern Heretics*), a two-volume book written between 1849 and 1856.⁵ This is the earliest known manuscript written by Zottoli in Xujiahui and preserved at the Bibliotheca Zi-ka-wei, with the first volume discussing theological notions related to God and the second one examining mainly issues related to the Catholic Church. Each volume is divided into four treatises, with the first volume divided as follows:

- *Tractatus de vera Dei religione* (Treatise on the real religion of God)
- *Tractatus de Deo Uno* (Treatise of God, the One)
- *Tractatus de Deo Trino* (Treatise on the Trinitarian God)
- *Tractatus de Deo Creatore* (Treatise on God, the Creator)

The second volume is divided as follows:

- *Tractatus de Incarnatione Verbi* (Treatise on the Incarnate Word)
- *Tractatus de Gratia Christi* (Treatise on the Grace of Christ)
- *Tractatus de Ecclesia Christi* (Treatise on the Church of Christ)
- *Tractatus de Sacramentis Christi* (Treatise on the Sacraments of Christ)

The manuscript contains various theological *dissertationes* written in several languages, including French, Italian and Hebrew, even though they are mainly written in Latin. From a quick glance at the book, it is already possible to surmise that Zottoli had been gathering various materials related to Catholic theology for his lessons in Zi-ka-wei, with the useful references sometimes directly copied by Zottoli without mentioning their original source. Given the very nature of the manuscript, it is difficult to comprehend whether this manuscript was drafted for an eventual publication, or if it could have served merely as a personal reference for Zottoli's lessons or his future theological works. In many different instances, Zottoli was mainly inspired by the theological lessons by Fr. Giovanni Perrone S.J. (1794–1876)⁶ in the mid-1800s and especially his *Praelectiones Theologicae*;⁷ in some cases, Zottoli had been directly copying the work by Perrone while in other cases he paraphrased several passages from his text. In all these instances, the works by Perrone, or other references, had not been duly acknowledged by Zottoli; generally, the manuscript authored by Zottoli followed a conventional struc-

5 Angelo Zottoli, *Dissertationes theologicae ad recentiorum praesertim haereticorum conditionem*, 1849–1856, 2 vols. Shanghai, Bibliotheca Zi-ka-wei, mss. WH46-1022 and WH46-1023. For a partial discussion of this work see De Caro (2023).

6 For his biography, refer to Malusa (2015).

7 Perrone (1835–1842). For an account Perrone's works, refer to Shea (2013), (2014).

ture and contained only rarely original annotations by the author on specific theological issues. This was also the case of the *Prooemium* (Preface) of the first volume of the book (to be analyzed later in detail), which combined both original insights and other unacknowledged references.

Given the overarching goal of this article it will not be possible to provide a detailed account of each treatise. Still, in order to give to the reader a general understanding of this work, I decided to describe as an example the structure of Zottoli's treatise *On God, the Creator (Tractatus de Deo Creatore)*. In this case, Zottoli divided his *tractatus* into three *dissertationes* (dissertations): 1) *De Angelis (On Angels)*; 2) *De Mundo (On the World)*; and 3) *De Homine (On Human Beings)*. Each *dissertatio* was then divided by Zottoli into various chapters, and each chapter was then subdivided into different articles. Similarly, other *tractatus* discussed various topics following a similar division in various chapters and articles related to the main *dissertatio*.

In the case of the *Tractatus de Deo Creatore*, Zottoli followed a very similar structure to Perrone's *dissertationes* but provided different titles for each chapter. For instance, Perrone divided his treatise *De Angelis*⁸ into five chapters: 1) *De Angelorum existentia*;⁹ 2) *De Natura Angelorum*;¹⁰ 3) *De Angelorum officiis*;¹¹ 4) *De Angelorum gratia, lapsu et poena*;¹² and 5) *De daemonum cum hominibus commercio*.¹³ Contrarywise, Zottoli divided his treatise *De Angelis* into three main chapters: 1) *De Angelis generatim*; 2) *De Angelis bonis*; and 3) *De Angelis malis*. At the same time, the topics discussed are the same as the ones by Perrone and, in several instances, they were directly transposed *verbatim* from Perrone's *Praelectioniones* without any acknowledgment. Besides, since there are many similarities between Perrone's work and Zottoli's one, it is possible to suppose that Zottoli was able to consult Perrone's work directly and had a great familiarity with it. At the same time, this makes the comprehension of the text even more problematic since it is difficult for the reader to discern between the "original" text by Zottoli and the unacknowledged "references" to Perrone's works.

Even though Zottoli collated several materials and provided his personal comments on only a few occasions, his preface to the two-volume book displays important insights concerning his initial theological approach. Nevertheless, even in the preface, the influence of Perrone's works is clear, as is the problematic nature of this manuscript.

8 Perrone (1835–1842), vol. 1, 621–666.

9 Perrone (1835–1842), vol. 1, 622.

10 Perrone (1835–1842), vol. 1, 627.

11 Perrone (1835–1842), vol. 1, 636.

12 Perrone (1835–1842), vol. 1, 643.

13 Perrone (1835–1842), vol. 1, 646.

1.2 The Preface of the Book

PREFACE¹⁴

I. The object of the work (*Operis obiectum*)¹⁵

Looking at its etymology, the term ‘theology’ means the Discourse on God (*Sermo de Deo*), and it is defined as the Science on God (*Scientia de Deo*) and the divine things.

It is divided into dogmatic [theology] and moral [theology], natural [theology] and supernatural [theology], positive [theology] and Scholastic [theology].

Since it is a science, the doubt arises as to what degree of certainty the conclusions of theology claim for themselves. From this, a threefold question can be asked: a) whether the conclusions of theology are more certain than the propositions of faith; b) whether the conclusions of theology are more certain than those of other sciences; c) whether the conclusions of theology are more certain than the first principles of our understanding.¹⁶ We can reflect about this issue in the following way: The certainty of faith is greater than natural certainty; not because it excludes doubt more completely, but on the contrary because the foundation of that certainty, namely divine authority, is stronger than [the foundation] of the other, namely evidence of reason. But, in truth, the conclusions of theology lean upon the evidence of reason. Therefore, the foundation of the certainty of these conclusions is the consequentiality indubitably observed between the truth of faith (*veritatem fidei*) and that specific conclusion. As a result 1) the conclusions of theology are less certain than the truths of faith, for the certainty of faith is greater than natural certainty, 2) the conclusions of theology are sometimes more certain than the conclusions of other sciences, for two reasons: because sometimes the principles of other sciences are nothing but reasonable hypotheses (*coniecturae*), and because in some cases the consequentiality between the principles and their conclusions is not as evident [*scil.* as in theology]. But this is not always the case, since scientific conclusions are sometimes equally based on a consequentiality indubitably observed between between a firm principle and those same conclusions. 3) Theological

¹⁴ I am sincerely in debt with Professor Andrea Balbo for his generous support both in the transcription of the Latin text and in its translation into English. I am also immensely grateful to Dr. Fabio Guidetti for his further suggestions.

¹⁵ Even though the headings of the text have been written by Zottoli in the margins, I believe they can be useful to highlight the three main chapters of the preface.

¹⁶ I slightly modified this section of the text, adding a numeric order following the indexing of the term *utrum*, to make the text clearer in its English translation.

conclusions are not more certain than the principles of other sciences, for the principles of our own reason are equally based upon evidence.

II. The structure [of the book] (*Divisio*)

When we start to discuss on theological issues, as is evident, it is necessary first of all to expound the discussion *De Vera Religione* (On True Religion). In fact, true religion embraces two subjects: God and Christ (John 17.3).¹⁷ God can be considered in Himself and in His works: [if we consider Him] in Himself, He is One and Threefold; [if we consider Him according to] His works, He is the Creator. In the same way, Christ can be considered in Himself and in His works: in Himself as the Incarnate Word (*Verbum Incarnatum*); according to His works, that is, in those of the Grace, the Church and the Sacraments.

Hence the structure of the work flows naturally.

III. Method (*Methodus*)

The task of the theologian can be chiefly considered in three ways:

- a) Either he is making an effort in correctly expounding the dogmas of the Catholic faith, in confirming them with their specific arguments, and in legitimately drawing conclusions from them.
- b) Or he strives to investigate and explain their own profound connections and intrinsic reasons, as far as has been granted to the possibilities of the human mind.
- c) Or, finally, he descends into the battleground defending the same dogmas against everyone who is attacking them, and destroying any opinion which is against the right faith.¹⁸

The first task of the theologian can be defined as strictly dogmatic (*dogmaticum*); the other one as speculative (*speculativum*) and the third one as polemical (*polemicum*). On many occasions, the theologian unifies these three approaches simultaneously. And surely the third task, in which he must engage in combat with the adversaries of the Catholic truth, he must carry it out in different ways according to the different kinds of enemies, since the enemies (*adversarii*) are either unbelievers (*infideles*) or heretics (*haeretici*), or even Catholics following a new reasoning (*neologismum*) and new ideas. This being the case, we have been following a

¹⁷ *Haec est autem vita aeterna: ut cognoscant te solum verum Deum et quem misisti Iesum Christum* ("And this is eternal life, that they know thee the only true God, and Jesus Christ whom thou hast sent") [translation: Revised Standard Version, Catholic Edition]. The Latin quotation was added by Zottoli himself as a footnote to his original text.

¹⁸ This part has been slightly modified in order to facilitate the reading of the text in English.

method with which the theologian will be easily able to carry out this diverse task. And for this reason, abandoning all these Scholastic issues, within which there is no great benefit, we dedicated ourselves to developing in more detail the arguments of the Sacred Scriptures. For, as the heretics (*haeretici*) have been dedicating themselves to the study of the Holy Scriptures with great attention, it is highly important for the Catholic theologian to dedicate himself to them at least with the same diligence and to explain them with an accurate exegesis, so that the interpretation of the Church is clear in all its evidence.

Therefore, it is our goal to derive from the texts of the Scriptures a great benefit for our argument, without leaving aside the great proof given from tradition, and also from reason, depending on where the topic leads us. And we will discuss all these things with a synthetic method, as is fit, even though we are not refuting an analysis in some specific topic.

Zi-ka-wei, 1849 and 1850,
Angelo Zottoli S.J.¹⁹

19 PROOEMIUM. Operis obiectum. I. Theologia, quae, si vocis etymon spectes, est Sermo de Deo, definitur Scientia de Deo et de rebus divinis. Dividitur in dogmaticam et moralem, naturalem et supernaturalem, positivam et scholasticam. Cum sit scientia, exurgit dubium quemnam sibi vindicent certitudinis gradum conclusiones theologicae. Ast heic triplex quaestio moveri potest: utrum conclusiones theologicae sint certiores propositionibus fidei; utrum sint certiores conclusionibus aliarum scientiarum; utrum sint certiores primis principiis nostrae cognitionis. Qua in re sic ratiocinamur: Certitudo fidei est maior certitudine naturali, non quod magis dubium excludat, sed quod motivum illius certitudinis, nempe auctoritas divina, est firmitus quam alterius, nempe evidentia rationis. At vero conclusiones theologicae innituntur evidentia rationis. Nam motivum certitudinis illarum conclusionum est connexio evidenter percepta inter veritatem fidei et conclusionem illam. Ergo 1° conclusiones theologicae sunt minus certae ac veritates fidei. Nam certitudo fidei est maior certitudine naturali. 2° Conclusiones theologicae sunt aliquando certiores conclusionibus aliarum scientiarum ex duplici ratione, tum quia aliquando principia aliarum scientiarum non sunt nisi coniecturae, tum quia aliquando connexio inter principia et conclusiones non est tam evidens. At non semper, quia conclusiones scientiarum aliquando innituntur aequae connexione evidenter percepta inter principium certum et conclusiones ipsas. 3° conclusiones theologicae non sunt certiores principiis aliarum scientiarum; nam principia nostrae cognitionis aequae evidentia innituntur. Divisio. II. De rebus theologicis tractationem aggressuri, ante omnes, uti patet, tractatum De Vera Religione proponamus necesse est. At enim vera religio complectitur duo obiecta, Deum nempe et Christum (Io. XVII.3). Deus considerari potest et in se et in suis operibus: in se est unus et trinus; in suis operibus est creator. Item Christus potest considerari in se et in suis operibus: in se, scilicet Verbum Incarnatum; in operibus, scilicet Gratiae, Ecclesiae et Sacramentorum. Hinc sponte totius operis fluit divisio. Methodus. III. Munus theologi triplici praesertim ratione spectari potest: aut enim ipse in catholicae fidei dogmatibus rite exponendis, propriisque illorum argumentis firmandis, atque conclusionibus ex iis legitime eruendis operam ponit; aut intimos illorum nexum ac intrinsecas rationes, quantum humanae mentis capacitati datum est, inquirere atque illustrare

In his preface, Zottoli analyzed very briefly various topics related to his two-volume book. Interestingly, he adopted a terminology on various “antagonists” of the Catholic faith that would be less frequent in his future theological works, especially the ones in Chinese. For instance, in multiple occasions he referred to the role of the Catholic theologian as in direct contrast to his theological antagonists, often simply named as “adversaries” (*adversarii*) but also “heretics” (*haeretici*) and “unbelievers” (*infideles*). This terminology could refer directly, once again, to Perrone’s *Praelectiones Theologicae*; for instance, Perrone used the expression *rectae rationi adversari* (“to be in contrast with the correct opinion”)²⁰ multiple times and defined the adversaries of the Catholic faith *infideles*²¹ or, often, *haeretici*.²² Another category of “adversaries” are the *increduli* (“unbelievers”) that are present in Perrone’s work but absent in Zottoli’s preface.²³

On several occasions, Zottoli adopted ideas that were part of a well-known Medieval theological discourse. For instance, the definition of theology as *sermo de Deo* and *scientia de Deo* may have been derived from various Medieval intellectuals, stemming from the ideas of Isidore of Seville (560–636), who intended theology both as *sermo de Deo* and as *scientia de Deo*.²⁴ The same idea, in a different way, was present in Thomas Aquinas’ *Summa Theologiae*²⁵ while, at the same time, it is clear that Zottoli’s main theological reference was Perrone’s *Praelec-*

adnititur; aut demum in aciem descendens eadem dogmata adversus impugnatores omnes tuetur, contrariasque rectae fidei opiniones quascumque evertit. Primum dici potest theologi munus stricte dogmaticum; alterum speculativum; tertium denique polemicum. Plerumque vero theologus triplex istiusmodi munus simul coniungit: et quidem tertium officium, quo manus conserere debet cum catholicae veritatis impugnatoribus, pro diversa adversariorum specie diversa item ratione expleat necesse est; hi siquidem adversarii sunt aut infideles aut haeretici aut etiam catholici neologismum ac novitates consecrantes. Quae cum ita sint, talem sectati sumus methodum, qua varium hoc munus theologus facile valeat explere. Atque hac quidem de causa scholasticas eas omnes quaestiones dimittentes, quibus haud magnum inest emolumentum, potius in scripturarum argumentis magis evolvendis institimus. Ex eo enim quo haeretici ad sacras litteras sese magno visu converterunt, catholicum theologum summopere decet eas pari saltem diligentia inquirere, et accurata exegesi enucleare, quo ecclesiae sensus toto lumine pateat. Nostrum igitur institutum est magnum ex textibus scripturarum in rem nostram emolumentum derivare; quin tamen vel minimum negligamus solemne traditionis argumentum, et etiam rationis, prout res feret. Et haec omnia methodo synthetica, uti par est, pertractabimus, licet analysim in aliqua re singulari non respiciamus. Zikawei, ann. 1849 et 1850 Angelus Zottoli S. I.

20 Perrone (1835–1842), vol. 1, 463, 490.

21 Perrone (1835–1842), vol. 1, 39, 40, 121, 217, 283, 294.

22 For a few limited examples refer to Perrone (1835–1842), vol. 1, 21, 29, 56, 73, 79, 82, 87, 91, 360, 361.

23 For one example, see Perrone (1835–1842), vol. 1, 13.

24 Refer to Biffi (2008) 56.

25 *Summa Theologiae* I, 1.7. Refer also to Leget (1997) 9–17.

tiones Theologicae: for Perrone, like for Zottoli, etymologically “Theologia [. . .] est *Sermo de Deo*.”²⁶

As in countless other occasions within Zottoli’s two-volume book, many sentences had been taken *verbatim* from Perrone’s *Praelectiones*. Here are two examples:

*Munus theologi triplici praesertim ratione spectari potest [. . .] Plerumque vero theologus triplex istius modi munus simul coniungit.*²⁷ (Perrone)

*Munus theologi triplici praesertim ratione spectari potest [. . .] Plerumque vero theologus triplex istius modi munus simul coniungit [. . .].*²⁸ (Zottoli)

*Hi porro adversarii sunt aut infideles, aut haeretici, aut etiam catholici neologismum ac novitates consecrantes quibus sincera catholica doctrina labefactari quoquomodo possit.*²⁹ (Perrone)

[. . .] *hi siquidem adversarii sunt aut infideles aut haeretici aut etiam catholici neologismum ac novitates consecrantes.* (Zottoli)

To conclude, Zottoli’s preface did provide important insights concerning his own theological methodology, where he illustrated the structure of his book and the main ideas discussed there. At the same time, it is clear that Zottoli had been mostly collating Perrone’s materials, while merely adding a few personal modifications.

1.3 Possible Future Studies on the *Dissertationes theologicae*

Despite its problematic nature, the *Dissertationes theologicae* is key to comprehend the theological training of the Jesuit missionaries in nineteenth-century Zi-ka-wei. For instance, it shows how Perrone’s works became crucial theological references in Zi-ka-wei. Oftentimes young Jesuit teachers like Zottoli used them as handy references for their lessons on Catholic theology and, as a result, the *Dissertationes theologicae* could provide a unique insight into the theological texts that were available to Zottoli in Zi-ka-wei between 1849 and 1856. In addition, it

²⁶ Perrone (1835–1842), vol. 1, 7.

²⁷ Perrone (1835–1842), vol. 3, 594.

²⁸ This very long quotation has been taken *verbatim* by Zottoli from Perrone’s works in its entirety. For the sake of brevity, I decided to mention here only the initial and the final part of the quote.

²⁹ Perrone (1835–1842), vol 8, 594.

could serve as a reference for the study of many other scientific texts that were often mentioned by Zottoli.

Future studies could be conducted on the terminology adopted by Zottoli, especially in relation to various groups of “unbelievers.” These terminological choices were in continuity with other theological works, especially Perrone’s ones, but were also adopted in a very complex religious and political environment and thus it is crucial to understand which groups of *infideles* Zottoli refers to in his *Dissertationes*. In fact, although these terms are very general and might have referred solely to Protestant theologians and believers, in the context of Zi-ka-wei they could have been referring also to the Taiping rebels that were present in the Jiangnan area during that time.³⁰ This is currently only a hypothesis, but further studies on this manuscript might reveal more clearly if Zottoli’s terminology had also been chosen against contemporary challenges faced by the Jesuit missionaries in mid-nineteenth century Shanghai.

2 The *Ascetica nomenclatio*: Translating Catholic Spirituality into Chinese

2.1 The *Ascetica nomenclatio* and Ignatian Spirituality

During his stay in Zi-ka-wei, Zottoli had become proficient in Chinese and had been interested in supporting European missionaries to learn both Chinese language and culture. In the same years, he had been teaching Latin and theology to Chinese students. This twofold pedagogical endeavor is reflected in many texts authored by Zottoli written either in Latin or in Chinese, and sometimes combining both languages. A clear example of his efforts is a manuscript preserved at the Bibliotheca Zi-ka-wei entitled *Ascetica nomenclatio* (“Ascetic Nomenclature”), a twelve-folio bilingual Chinese/Latin manuscript providing Chinese translations of Latin terms, including both Chinese characters and Zottoli’s Romanization. The text was written in 1877 and it is unclear whether Zottoli planned to publish it.³¹

The content is divided into four main categories: 1) *res spirituales* (“spiritual things”); 2) *Liber exercitiorum* (“the Book of the Exercises,” i.e. the Spiritual Exercises); 3) *res Societatis* (“Affairs of the Society” [*scil.* of Jesus]); and 4) *perfectio reli-*

³⁰ For a general account on the Taiping rebels refer to Bernhardt (1984); Bernhardt (1987); Spence (1996); DuBois (2011); and Chin and Fogel (2015).

³¹ Angelo Zottoli, *Ascetica nomenclatio*, 1877. Shanghai, Bibliotheca Zi-ka-wei, ms. M56/01161. For a concise analysis of this text see De Caro (2022) 77–80.

giosa (“religious perfection”).³² Unfortunately, Zottoli does not provide any specific commentary on the choice of these Latin Catholic terms. Similarly, he does not offer any explanation or commentary referring directly to those terms.

Henri Cordier (1849–1925) mentions the *Ascetica nomenclatio* as a text authored by Zottoli but, unfortunately, he did not provide personal insights of his own on the manuscript, nor a complete summary of the booklet.³³ In 1877, Zottoli was part of the religious residence of Zi-ka-wei, as confirmed by Joseph de La Servièrè,³⁴ while also supporting the Catholic mission in Nanjing between 1876 and 1877.³⁵ Naturally, Ignatian spirituality played a crucial role in the Jesuit mission in Zi-ka-wei from its inception; in 1849, at the very beginning of Zottoli’s mission in Shanghai, the practice of “religious exercises” was officially authorized by the local ecclesiastical authorities. At first they were practiced in the chapel of the religious residence in Zi-ka-wei where the young Angelo Zottoli dwelled,³⁶ while, after 1852, this practice was further encouraged in all the parishes in the area.³⁷ According to La Servièrè, the Father Superior General of the Society of Jesus from 1829 until his death, Fr. Jan Philipp Roothaan S.J. (1785–1853) strongly encouraged the practice of the *Spiritual Exercises*, and they were seen by the Jesuits, together with their strict rules, as a means to maintain the high reputation that the former Jesuits had in China during the early modern era.³⁸

Interestingly, according to La Servièrè, at the end of 1870 Zottoli supervised the two novitiates of the *sœurs auxiliatrices*³⁹ and the *sœurs présentandines* (also known as *sœurs de la Présentation*)⁴⁰ in practicing the *Spiritual Exercises* of St. Ignatius of Loyola.⁴¹ Among the novices of the *sœurs auxiliatrices* there were also 11 young Chinese sisters who took their vows on November 15 of the same year;⁴² as a result, seven years prior to the writing of the *Ascetica nomenclatio*, Zottoli supervised and supported the female Chinese Catholic religious community of Zi-ka-wei in practicing Ignatian exercises. The practice of Ignatian spirituality sometimes entailed a cross-cultural encounter between various Christian denominations, as narrated by La Servièrè:

32 De Caro (2022) 77.

33 Cordier (1902); Cordier (1904–1907), vol. 2, 1105.

34 La Servièrè (1914), vol. 2, 279.

35 La Servièrè (1914), vol. 2, 320.

36 Riancey (1857) 687.

37 Riancey (1857) 687.

38 La Servièrè (1914), vol. 1, 62.

39 Tiedemann (2009) 60–61. The term *Auxiliatrices* does also appear in the *Ascetica nomenclatio*.

40 Tiedemann (2009) 95.

41 La Servièrè (1914), vol. 2, 285.

42 La Servièrè (1914), vol. 2, 285.

From the very first year, the students engaged in performing in both musical and literary sessions; the success exceeded all expectations.

In February 1874, seventy ladies, almost all of them Protestants, came to see the debut of about fifteen children and declared themselves fully satisfied. The next day, a Protestant missionary lady, who had attended the session, gave a most glowing account of it in the English newspaper of Shanghai; close relations with the nuns followed, and the preacher asked them to teach her how to meditate according to the methods of the Exercises of Saint Ignatius.⁴³

This also attracted the curiosity of people who travelled to Shanghai but were not directly involved in any Christian mission. For instance, in 1871, Alexander Graf von Hübner (1811–1892) described the practice of the *Spiritual Exercises* in Shanghai as follows:

This mission consists of upwards of eighty fathers; but the greater portion are spread over the different provinces of Kiangsu and Nganwhei. Twice a year they meet here for a retreat, and to go through the spiritual exercises; after which a few days are given to rest, to the exchange of ideas, and the enjoyment of the moderate European comfort which the college has to offer to these devoted men, whose whole lives are a series of labours, perils, and privations of every kind.⁴⁴

Especially at the very beginning of the mission, the Jesuit missionaries were burdened by various tasks. Nevertheless, they sought to continue the practice of the *Spiritual Exercises*, as narrated by Fr. François Estève S.J. (1807–1848), one of the first pioneers of the French-led Jesuit mission in Zi-ka-wei:

Every day before mass [. . .] I teach catechism to the children. During the mass, I preach to the Christians, and after Mass I confess [them]. During the day, I only have time to do my spiritual exercises. Then I have to listen to the affairs of the Christians, visit the sick, and look for those who do not seem to be willing to attend on their own.⁴⁵

43 La Servière (1914), vol. 2, 290: “Dès la première année, on osa produire les élèves dans des séances musicales et littéraires; le succès dépassa les espérances. En février 1874, 70 dames, presque toutes protestantes, vinrent assister aux débuts d’une quinzaine d’enfants, et se déclarèrent pleinement satisfaites. Le lendemain, une dame missionnaire protestante, qui avait assisté à la séance, en fit le compte-rendu le plus élogieux dans le journal anglais de Chang-hai; des relations intimes avec les religieuses s’ensuivirent, et la prédicante finit par les prier de lui apprendre à méditer suivant les méthodes des Exercices de Saint Ignace.”

44 Hübner (1874) 455.

45 La Servière (1914), vol. 1, 125: “Tous les jours avant la messe [. . .] je fais le catéchisme aux enfants. Pendant la messe, je prêche aux chrétiens, et après la messe je confesse. Je n’ai, dans la journée, que le temps de faire mes exercices spirituels. Puis, il me faut entendre les affaires des chrétiens, visiter les malades, chercher ceux qui ne paraissent pas disposés à venir d’eux-mêmes.”

Moreover, the *Spiritual Exercises* had been conducted in the same years in various other parts of the world. In India, Fr. Julian Charles Lehodey (1808–1867)⁴⁶ expressed in a letter dated January 31, 1856, how beneficial the *Spiritual Exercises* had been to him in order to pursue his mission.⁴⁷

Since the manuscript is not easily accessible and has not been analyzed in detail before, I decided to provide here a transcription of the booklet in its entirety. The table below includes the Latin terms, their Chinese translation by Zottoli, and Zottoli's Romanization (Table 1). In addition, I provide a translation into English of the Latin terms following mostly a literal translation.

Table 1: A complete Transcription of the Ascetica nomenclatio.⁴⁸

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
I. Res Spirituales			
<i>Res spirituales</i>	神業	<i>Zen gné</i>	Spiritual things
<i>Oratio mentalis</i>	默禱	<i>Me tao</i>	Mental prayer
<i>Oratio vocalis</i>	誦禱	<i>Song tao</i>	Vocal prayer
<i>Sublimis oratio</i>	越禱	<i>Yeu tao</i>	Sublime prayer
<i>Meditatio</i>	默想	<i>Me siang</i>	Meditation
<i>Meditationis praeparatio</i>	默想備工	<i>Me siang pei kong</i>	Preparation of the meditation
<i>Praeparatio remota</i>	默想遠備	<i>Me siang yeu pei</i>	Remote preparation [to the meditation]
<i>Praeparatio proxima</i>	默想近備	<i>Me siang kin pei</i>	Close preparation [to the meditation]
<i>Oratio praeparatoria</i>	豫經	<i>Yu king</i>	Preparatory prayer
<i>Praeludia</i>	前導	<i>Zie dao</i>	Preludes
<i>Compositio loci</i>	定像	<i>Ting siang</i>	Composition of the space
<i>Specialis petitio</i>	特求	<i>Te kieū</i>	Special request
<i>Colloquium</i>	祝言	<i>Tsō yé</i>	Conversation

⁴⁶ For very concise information on Fr. Lehodey refer to Thumma (2005) 226.

⁴⁷ Lehodey (1857).

⁴⁸ I am immensely grateful to Zhenxu Fan for her precious suggestions and revisions of the Chinese transcription.

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Proposita</i>	定志	<i>Ting tse</i>	Purposes
<i>Revelationes</i>	默照	<i>Me tsao</i>	Revelations
<i>Inspirationes</i>	默啟	<i>Me ki</i>	Inspirations
<i>Mentis illustrationes</i>	聖牖	<i>Seng yeū</i>	Illustrations of the mind
<i>Animi sensa</i>	聖感	<i>Seng ké</i>	The senses of the mind
<i>Interni affectus</i>	心中之情	<i>Sin tsong tse zing</i>	Inner feelings
<i>Excitare affectus</i>	激發表情	<i>Kie fà tsong zing</i>	Evoking feelings
<i>Examen meditationis</i>	考察默工	<i>Kào tsè me kong</i>	The examination of the meditation
<i>Meditationis argumentum</i>	默想題目	<i>Me siang ti mao</i>	The subject of the meditation
<i>Distributio punctorum</i>	默想分端	<i>Me siang fen teu</i>	The distribution of the points
<i>Gustus spiritualis</i>	神味	<i>Zen vi</i>	Spiritual taste
<i>Ariditas spiritualis</i>	神枯	<i>Zen kòu</i>	Spiritual aridity
<i>Consolatio spiritualis</i>	神慰	<i>Zen wei</i>	Spiritual consolation
<i>Extasis</i>	神舉化境	<i>Zen jiu hoūō king</i>	Ecstasy
<i>Exercitium trium potentiarum</i>	三司默想	<i>Sè se me siang</i>	The exercise of the three powers
<i>Applicatio sensuum</i>	五官默想	<i>Ou koé me siang</i>	Application of the senses
<i>Contemplatio</i>	注望默想	<i>Tsu wāng me siang</i>	Contemplation
<i>considerando personas</i>	思想其人	<i>Se siang ki zen</i>	[Contemplation] in regard to people
<i>considerando verba</i>	思想其言	<i>Se siang ki yé</i>	[Contemplation] in regard to words
<i>considerando actiones</i>	思想其行	<i>Se siang ki yeng</i>	[Contemplation] in regard to actions
<i>Iteratio exercitii</i>	重復默想	<i>Zong vo me siang</i>	The repetition of the exercise
<i>Repetitio</i>	尋繹默想	<i>Zin i me siang</i>	Repetition
<i>Resumptio</i>	玩味默想	<i>Ve vi me siang</i>	Resumption
<i>Mysteria vitae Iesu Christi</i>	耶穌行蹟	<i>Ia sou yeng tsie</i>	The mysteries of the life of Jesus Christ
<i>Oratio iaculatoria</i>	誦句	<i>Song kiu</i>	Ejaculatory prayer

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Recitatio precum</i>	誦經	<i>Song king</i>	Recitation of prayers
<i>Brevis oratio</i>	短經	<i>Teu king</i>	Brief prayer
<i>Lectio spiritualis</i>	念聖書	<i>Gne se zu</i>	Spiritual reading
<i>Examen generale</i>	公省察	<i>Kong sing tsè</i>	General examination
<i>Examen particulare</i>	私省察	<i>Se sing tsè</i>	Particular examination
II. Liber Exercitiorum			
<i>Via purgativa</i>	煉路, 潔靈之路	<i>Lie lou, kie ling tse lou</i>	The way of purification
<i>Via illuminativa</i>	明路, 照靈之路	<i>Ming lou, tsao ling tse lou</i>	The way of illumination
<i>Via unitiva</i>	合路, 契主之路	<i>Hé lou, ki tsu tse lou</i>	The way of unity
<i>Exercitia spiritualia</i>	避靜神工	<i>Pi zing zen kong</i>	Spiritual exercises
<i>Exercitiorum additiones</i>	避靜增規	<i>Pi zing tseng koei</i>	Additions of the exercises
<i>Silentium</i>	默靜, 緘默	<i>Me zing, kie me</i>	Silence
<i>Recollectio</i>	斂心, 收心	<i>Lié sin, seū sin</i>	Recollection
<i>Exercitiorum fundamentum</i>	避靜根基	<i>Pi zing ken ki</i>	The foundation of the Exercises
<i>Electio status</i>	簡選地位	<i>Ké sié ti wei</i>	The choice of a way of life
<i>Tres gradus humilitatis</i>	謙德三級	<i>Kié te sè kie</i>	Three degrees of humility
<i>Tres modi orandi</i>	簡禱三式	<i>Kie tao sè se</i>	Three ways of praying
<i>Tres classes</i>	三等人	<i>Sè teng zen</i>	Three classes
<i>Duo vexilla</i>	兩種旗	<i>Leang tsong ki</i>	Two banners
<i>Parabola</i>	譬喻	<i>Pi yu</i>	Parable
<i>Aequabilis animus</i>	平心	<i>Ping sin</i>	Well-balanced mind
<i>Indifferentia</i>	心意均平	<i>Sin i kiun ping</i>	Indifference
<i>Cor sicut bilanx</i>	心如天平	<i>Sin zu tié ping</i>	The heart as a balance
<i>Mens sine inordinata tendentia</i>	意無偏向	<i>I vou pié hiang</i>	A mind without disorderly tendencies

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Regulae ad victum temperandum</i>	節飲食之規	<i>Tsi yn ze tse koei</i>	Rules on how to be moderate regarding food
<i>Regulae ad motus animae discernendos</i>	辨神感之規	<i>Pié ze ké tse koei</i>	Rules on how to discern the motions of the soul
<i>Regulae ad spirituum discretionem</i>	辨善神惡神之規	<i>Pié zé zen o zen tse koei</i>	Rules on the discernment of good and evil
<i>Regulae ad sentiendum cum Ecclesia</i>	與聖會同意之規	<i>Yu seng wei tong i tse koei</i>	Rules on how to be of the same opinion as the Church
<i>Regulae ad dignoscendos scrupulos</i>	辨妄懼妄疑之規	<i>Pie wāng kiu wāng gni tse koei</i>	Rules on how to distinguish subtleties
<i>Regulae in distribuendis eleemosynis</i>	施濟之規	<i>Se tsi tse koei</i>	Rules on how to distribute the alms
III. Res Societatis			
<i>Superior generalis</i>	總會長	<i>Tsong wei tsang</i>	Superior General
<i>Visitor</i>	鑒會鐸	<i>Kiè wei to</i>	Visitor
<i>Provincialis</i>	省會長	<i>Sang wei tsang</i>	Provincial
<i>Assistens</i>	侍議	<i>Ze gni</i>	Assistant
<i>Congregatio generalis</i>	公會	<i>Kong wei</i>	General Congregation
<i>Superior</i>	會長	<i>Wei tsang</i>	Superior
<i>Rector</i>	院長	<i>Yeu tsang</i>	Rector
<i>Minister</i>	理家	<i>Li kia</i>	Minister
<i>Procurator</i>	管帳	<i>Koè tsang</i>	Procurator
<i>Pater spiritualis</i>	神師	<i>Zen se</i>	Spiritual Father
<i>Noviciatus</i>	初學	<i>Tsou ya</i>	Novitiate
<i>Prima probatio</i>	初試, 第一試	<i>Tsou se, ti i se</i>	First probation
<i>Secunda probatio</i>	繼試, 第二試	<i>Ki se, ti eurl se</i>	Second probation
<i>Tertia probatio</i>	卒試, 第三試	<i>Tsè sem, ti sè se</i>	Third probation
<i>Magister novitiorum</i>	初學神師	<i>Tsou ya zen se</i>	Teacher of the novices
<i>Coadiutor spiritualis</i>	助理神父	<i>Zou li zen vou</i>	Spiritual Assistant

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Coadiutor temporalis</i>	助理相公	<i>Zou li siang kong</i>	Secular Assistant
<i>Pater graduatus</i>	顯顯神父	<i>Hiè gneu zen vou</i>	Graduated Father
<i>Scholasticus</i>	讀書相公	<i>To su siang kong</i>	Scholastic
<i>Philosophus</i>	格物士子	<i>Ke vi ze tse</i>	Philosopher
<i>Theologus</i>	超性學士	<i>Tsao sing ya ze</i>	Theologian
<i>Vota</i>	聖願	<i>Seng gneu</i>	Vows
<i>Emittere vota</i>	發願	<i>Fè gneu</i>	Emission of the vows
<i>Renovatio votorum</i>	復願	<i>Vo gneu</i>	Renewal of the vows
<i>Violatio voti</i>	犯願	<i>Vè gneu</i>	Violation of the vow
<i>Casus reservatus</i>	留罪	<i>Lieû zu</i>	Reserved case
<i>Votum paupertatis</i>	神貧願	<i>Zen pin gneu</i>	Vow of poverty
<i>Votum castitatis</i>	貞潔願	<i>Tseng kié gneu</i>	Vow of chastity
<i>Votum obedientiae</i>	聽命願	<i>Ting ming gneu</i>	Vow of obedience
<i>Vota simplicia</i>	初願	<i>Tsou gneu</i>	Simple vows
<i>Ultima vota</i>	大願	<i>Ta gneu</i>	Last vows
<i>Professio</i>	獻四大願	<i>Hie se ta gneu</i>	Profession of faith
<i>Paupertas</i>	神貧，絕財	<i>Zen pin, zé zé</i>	Poverty
<i>Castitas</i>	貞潔，絕色	<i>Tseng kiè, zé se</i>	Chastity
<i>Obedientia</i>	聽命，絕意	<i>Ting ming, zé i</i>	Obedience
<i>Virtus paupertatis</i>	神貧之德	<i>Zen pin tse te</i>	Virtue of poverty
<i>Virtus castitatis</i>	貞潔之德	<i>Tseng kié tse te</i>	Virtue of chastity
<i>Virtus obedientiae</i>	聽命之德	<i>Ting ming tse te</i>	Virtue of obedience
<i>Obedientia executionis</i>	行事裏聽命	<i>Ang ze li ting ming</i>	Obedience of the execution
<i>Obedientia voluntatis</i>	愛欲裏聽命	<i>Ai yô li ting ming</i>	Obedience of the will
<i>Obedientia iudicii</i>	明悟裏聽命	<i>Ming ngou li ting ming</i>	Obedience of the judgment
<i>Obedientia caeca</i>	瞎眼个聽命	<i>He nge ke ting ming</i>	Blind obedience

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Finis societatis</i>	耶穌會宗向	<i>Ya sou wei tsong hiang</i>	The scope of the Society of Jesus
<i>Ingredi societatem</i>	進會	<i>Tsin wei</i>	Entering the Society of Jesus
<i>Exire e societate</i>	出會	<i>Tsé wei</i>	Leaving the Society of Jesus
<i>Scribere defectus</i>	書過	<i>Su kou</i>	Writing down sins
<i>Dicere culpam</i>	訟過	<i>Song kou</i>	Confessing a fault
<i>Ratio conscientiae</i>	訴心	<i>Sou sin</i>	The account of conscience
<i>Conferentia religiosa</i>	修院訓道	<i>Sieü yeu hiun dao</i>	Religious conference
<i>Exhortatio domestica</i>	本院家訓	<i>Pen yeu kia hiun</i>	Domestic exhortation
<i>Culpa in refectorio</i>	飯廳自訟	<i>Vè ting ze song</i>	A sin in the refectory
<i>Poenitentia in refectorio</i>	飯廳補贖	<i>Ve ting pou zô</i>	Penance in the refectory
<i>Regulae modestiae</i>	端正規矩	<i>Teu tseng koei kiu</i>	The rules of modesty
<i>Opus supererogationis</i>	分外善功	<i>Ven nga ze kong</i>	The act of supererogation
<i>Obligatio, officium</i>	本分, 本職	<i>Pen ven, pen tse</i>	Obligation, Service
<i>Paenitentiae</i>	苦工, 補贖	<i>Kou kong, pou zô</i>	Penances
<i>Abnegatio</i>	克己	<i>Ke ki</i>	Abnegation
<i>Mortificatio</i>	刻苦	<i>Ke kou</i>	Mortification
<i>Mortificatio interna</i>	內刻苦	<i>Nei ke kou</i>	Inner mortification
<i>Mortificatio externa</i>	外刻苦	<i>Vai ke kou</i>	External mortification
<i>Servare silentium</i>	守靜默	<i>Seü zing me</i>	Keeping silence
<i>Passiones</i>	私慾偏情	<i>Se yô pié zing</i>	Passions
<i>Domare passiones</i>	壓服情慾	<i>È vō zing yô</i>	Dominating passions
<i>Cilicium</i>	苦衣	<i>Kou i</i>	Cilice
<i>Disciplina</i>	苦鞭	<i>Kou pié</i>	Discipline
<i>Catena</i>	苦帶	<i>Kou ta</i>	Chain
<i>Vestire cilicium</i>	穿苦衣	<i>Tsé kou i</i>	Wearing the cilice
<i>Sumere disciplinam</i>	打苦鞭	<i>Tang kou pié</i>	Taking up discipline

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Cingere catenam</i>	束苦帶	<i>Sô kou ta</i>	Wearing the chain
IV. Perfectio religiosa			
<i>Ordo religiosus</i>	修道會	<i>Sieû dao wei</i>	Religious Order
<i>Religiosus</i>	修道人	<i>Sieû dao ren</i>	Religious person
<i>Religionis status</i>	修道地位	<i>Sieû dao ti koei</i>	Religious status
<i>Regulae religionis</i>	修道會規	<i>Sieû dao wei koei</i>	Religious rules
<i>Vocatio religiosa</i>	修道聖召	<i>Sieû dao seng zao</i>	Religious vocation
<i>Examinare vocationem</i>	查考聖召	<i>Zoûo kao seng zao</i>	Examining a vocation
<i>Directio spiritualis</i>	引導神業	<i>Yn dao zen gné</i>	Spiritual direction
<i>Discretio spiritualis</i>	善別神業	<i>Zé pié zen gné</i>	Spiritual discernment
<i>Discretio spirituum</i>	善別神感	<i>Zé pié zen ki</i>	Discernment of the Spirits [i.e., of good and evil]
<i>Amor rerum spiritualium</i>	愛慕神業	<i>Ai mou zen gné</i>	Love of spiritual things
<i>Studium virtutis</i>	專務修德	<i>Tsi vou sieû te</i>	Assiduity in virtue
<i>Studium orationis</i>	專務祈禱, 專禱	<i>Tsé vou ki tao, tsé tao</i>	Assiduity in prayer
<i>Amor solitudinis</i>	喜歡靜密, 愛靜	<i>Ki hoei zing mi, ai zing</i>	Love of loneliness
<i>Magnifacere virtutem</i>	看重德行, 貴德	<i>Kiu zong te ying, koei te</i>	Magnifying virtue
<i>Servire Deo</i>	服事天主	<i>Vo ze tié tsu</i>	Serving God
<i>Fugere hominum laudes</i>	避人稱譽	<i>Pi zen tseng yu</i>	Escaping the praises of people
<i>Imitari sanctos</i>	效法聖人	<i>Yao fe seng zen</i>	Imitating the saints
<i>In rebus spiritualibus profectus</i>	神業進境, 前進	<i>Zen gne tsin king, zié tsin</i>	Advance in spiritual things
<i>Charitas fraterna</i>	弟兄相愛, 親愛	<i>Ti hong siang ai, tsin ai</i>	Brotherly Charity
<i>Conformitas cum Dei voluntate</i>	翕合天主聖意	<i>Hi hé tié tsu seng i</i>	Conformity with the Will of God

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Amor</i>	愛德	<i>Ai te</i>	Love
<i>Amor amicitiae</i>	友愛	<i>Yeû ai</i>	Love of friendship
<i>Amor benevolentiae</i>	恩愛	<i>En ai</i>	Love of benevolence
<i>Privatus amor</i>	私愛	<i>Se ai</i>	Private love
<i>Amor proximi</i>	愛人	<i>Ai zen</i>	Love of one's neighbor
<i>Perfectio</i>	修成	<i>Sieû zeng</i>	Perfection
<i>Dura intentio</i>	純意	<i>Zen i</i>	Strong intention
<i>Recta intentio</i>	誠意, 正意	<i>Zen i, tseng i</i>	Right intention
<i>Unio fraterna</i>	和愛, 誼契	<i>Ou ai, gni ki</i>	Brotherly union
<i>Fervor</i>	熱心	<i>Gne sin</i>	Fervor
<i>Perseverantia</i>	常心	<i>Zang sin</i>	Perseverance
<i>Modestia</i>	端正	<i>Teu tseng</i>	Modesty
<i>Humilitas</i>	謙遜	<i>Kié sen</i>	Humbleness
<i>Voluntas</i>	愛欲	<i>Ai yô</i>	Will
<i>Prudentia</i>	見識	<i>Kié se</i>	Prudence
<i>Temperantia</i>	節制	<i>Tsi tse</i>	Temperance
<i>Defectus capitalis</i>	首惡	<i>Seû o</i>	Capital sin
<i>Tres inimici</i>	三仇	<i>Sè zeû</i>	Three Enemies
<i>Diabolus</i>	魔鬼	<i>Mô kiu</i>	Devil
<i>Caro</i>	肉身	<i>Gnô sen</i>	Flesh
<i>Mundus</i>	世俗	<i>Se zô</i>	World
<i>Malitia</i>	惡心	<i>O sin</i>	Malice
<i>Temerarium iudicium</i>	妄斷	<i>Vâng teu</i>	Imprudent judgment
<i>Cupiditas</i>	貪心	<i>Té sin</i>	Cupidity
<i>Bonum, utilitas</i>	好處	<i>Hao tsu</i>	Goodness, Utility
<i>Consuetudo</i>	習慣	<i>Zi koi</i>	Consuetude

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Pactum</i>	結約	<i>Kie ya</i>	Pact
<i>Necessitas</i>	緊要	<i>Kin yao</i>	Necessity
<i>Labor, poena</i>	勞苦	<i>Lao kou</i>	Toil, Punishment
<i>Tristitia</i>	憂悶	<i>Yeū mun</i>	Sadness
<i>Desolatio</i>	憂苦	<i>Yeū kou</i>	Desolation
<i>Tentatio</i>	引誘	<i>Yn yeū</i>	Temptation
<i>Experimentum</i>	試驗	<i>Se gne</i>	Experiment
<i>Animi satisfactio</i>	稱心	<i>Tseng sin</i>	Satisfaction of the soul
<i>Pax</i>	平安	<i>Ping eu</i>	Peace
<i>Solitarius vir</i>	靜人	<i>Zing zen</i>	Lonely man
<i>Iusti</i>	義人	<i>Gni zen</i>	The righteous
<i>Peccatores</i>	罪人	<i>Zu zen</i>	The sinners
<i>Modicae virtutis homo</i>	寡德之人	<i>Kouô te tse zen</i>	A man of modest virtue
<i>Perfectus vir</i>	成德之人	<i>Zong te tse zen</i>	A perfect man
<i>Magnanimus</i>	志大之人	<i>Tse ta tse zen</i>	A magnanimous person
<i>Altos gerens spiritus</i>	志向大, 志氣高	<i>Tse hiang tou, tse ki kao</i>	Someone who keeps their spirit high
<i>Generosus</i>	大量, 寬宏大量	<i>Tou leang, koè ong ta leang</i>	A generous person
<i>Monita superioris</i>	長上之囑	<i>Tsang zang tse tsô</i>	Admonitions of the Father Superior
<i>Liberum arbitrium</i>	自主之權	<i>Ze tsu tse kieu</i>	Free will
<i>Arbitrium, voluntas</i>	主張, 主意	<i>Tsu tsang, tsu i</i>	Decision, Will
<i>Lex</i>	律法, 律例	<i>Li fê, li li</i>	Law
<i>Spiritualis viae illusiones</i>	神途之迷惑	<i>Zen tout se mi o</i>	Illusions of the Spiritual Way
<i>Zelus animarum</i>	救靈之熱衷	<i>Keiû ling tse ze tsong</i>	Zeal for souls
<i>Zelus</i>	神火	<i>Zen hou</i>	Zeal

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Spiritualis effectus</i>	神效	<i>Zen yao</i>	Spiritual accomplishments
<i>Tentationes carnis</i>	肉情个誘惑	<i>Zô zing ke yeû kè</i>	Temptations of the flesh
<i>Periculum peccandi</i>	犯罪个危險	<i>Vè zu ke vei hiè</i>	Peril of sinning
<i>Occasio peccandi</i>	犯罪个機會	<i>Vè zu ke ki wei</i>	Occasion of sinning
<i>Praxis</i>	行事, 行法	<i>Ang ze, ang fè</i>	Practice
<i>Speculatio</i>	脫想, 懸想	<i>Teu siang, yeu siang</i>	Speculation
<i>Obiectio</i>	駁問, 辯駁	<i>Pô ven, piè pô</i>	Objection
<i>Se devorere, impendere vires</i>	服勞, 效力	<i>Vo lao, yao lié</i>	Consuming oneself, Expending one's strength
<i>Cultus, devotio</i>	敬禮, 熱心	<i>King li, zè sin</i>	Cult, Devotion
<i>Defectus</i>	毛病, 過失	<i>Mo ping, kou sè</i>	Sin
<i>Difficultates</i>	難處, 礙難	<i>Nè tsu, ngi nè</i>	Difficulties
<i>Imperfectiones</i>	短處, 欠缺	<i>Teu tsu, kiè kieu</i>	Imperfections
<i>Perfectum</i>	成全	<i>Zeng ziè</i>	Something perfect
<i>Mancum</i>	缺少	<i>Kieu sao</i>	Something imperfect
<i>Meritum</i>	功勞	<i>Kong lao</i>	Merit
<i>Divinum auxilium</i>	聖祐	<i>Seng yeû</i>	Divine Aid
<i>Gratia actualis</i>	經者聖寵	<i>King tsé seng tsong</i>	Actual Grace
<i>Gratia habitualis</i>	留者聖寵	<i>Lieû tsé seng tsong</i>	Habitual Grace
<i>Orationis donum</i>	勤禱之恩	<i>Kin tao tse en</i>	The gift of prayer
<i>Gratia sanctificans</i>	成聖之寵	<i>Zeng seng tse tsong</i>	Sanctifying Grace
<i>Caelestis regni haeres</i>	天國嗣子	<i>Tié kô ze tse</i>	Heir to the Kingdom of God
<i>Mercēs</i>	報賞	<i>Pao sàng</i>	Rewards
<i>Damnatio</i>	永罰	<i>Yong vè</i>	Damnation
<i>Vita aeterna</i>	常生	<i>Zang seng</i>	Eternal Life
<i>Reprobatio</i>	天主棄絕	<i>Tiè tsu ki zé</i>	Rejection
<i>Conscientiae stimulus</i>	良心不安	<i>Leang sin pe eu</i>	Impulse of the conscience

Table 1 (continued)

Latin terms	Chinese characters	Chinese Romanization	Translation into English of the Latin terms
<i>Cura minimorum</i>	留心少事	<i>Lieû sin siao ze</i>	Care of the little things
<i>Exercitium praesentiae Dei</i>	思主在鑒	<i>Se tsu zai kiè</i>	Exercise of the Presence of God
<i>Nimia familiaritas</i>	過分親熱	<i>Kou ven tsin zé</i>	Excessive familiarity
<i>Familiaritas inordinata</i>	違理之親熱	<i>Wei li tse tsin zé</i>	Disordered familiarity
<i>Familiaritas cum Deo</i>	同天主親熱	<i>Tong tié tsu tsin zé</i>	Familiarity with God
<i>Vana gloria mundi</i>	幻榮, 假光榮	<i>Wè yong, ka koâng yong</i>	Vane glory of the world
<i>Vita eremitica</i>	隱修	<i>Yin sieû</i>	Eremitic life
<i>Vita clericalis</i>	顯修	<i>Hiè sieû</i>	Clerical life
<i>Poenitentes</i>	苦修	<i>Kou sieû</i>	Repenting persons
<i>Monachi</i>	獨修	<i>Tô sieû</i>	Monks
<i>Regulares</i>	精修	<i>Tsing sieû</i>	Regular clergymen
<i>Sanctus</i>	聖人	<i>Seng zen</i>	Saint
<i>Beatus</i>	真福者	<i>Tsen fo tsé</i>	Blessed
<i>Venerabilis</i>	可敬者	<i>Ko king tsé</i>	Venerable
<i>Canonizatio</i>	列聖品	<i>Li seng pin</i>	Canonization
<i>Beatificatio</i>	列真福品	<i>Li tsen fo pin</i>	Beatification
<i>Bulla summi Pontificis</i>	教皇聖諭	<i>Kiao wâng seng yu</i>	Papal Bull
<i>Archiepiscopus</i>	總主教, 總牧	<i>Tsong tsu kiao, hong mo</i>	Archbishop
<i>Auxiliatrices</i>	拯亡會修女	<i>Tseng wang wei sieû gnu</i>	Sisters of Marie-Auxiliatrice
<i>Carmelitanae</i>	聖衣會修女	<i>Seng i wei sieû gnu</i>	Carmelite Sisters
<i>Visitatio domus</i>	巡查修院, 閱院	<i>Sin zouô sieû yeu, yeu yeu</i>	Visitation of the religious residence
<i>Visitatio templi</i>	巡查聖堂, 閱堂	<i>Sin zouô seng dâng, yeu dâng</i>	Visitation of the church

2.2 The Relevance of the *Ascetica nomenclatio*: a Few Suggestions for Future Studies

Nicolas Standaert has explored the relevance of promoting Ignatian exercises in China between the seventeenth and the eighteenth century.⁴⁹ According to Standaert, “in the reports that the missionaries sent back to Europe, hardly any systematic description of their practice of the spiritual exercises can be found.”⁵⁰ As a result, Standaert has shown how Jesuit missionaries like Fr. Giulio Aleni S.J. (Ai Rulue 艾儒略, 1582–1649) adopted various methods in order to popularize the *Spiritual Exercises* among Chinese individuals, including illustrated books closely related to Ignatian exercises.⁵¹

Zottoli was in continuity with these earlier important attempts. As a result, this “nomenclature” can shed light on the terminology adopted by Zottoli in Zi-kawei during the nineteenth century and his efforts to translate key spiritual terms into Chinese. Furthermore, the *Ascetica nomenclatio* also covered terms that are not strictly related to Ignatian spirituality, including terms on Catholic spirituality and Catholicism more generally. In the fourth section of the booklet, for example, Zottoli translated into Chinese both terms related to sinful actions (*malitia, cupiditas, damnatio*, etc.) and terms related to Catholic virtues (*modestia, humilitas*, etc.). In addition, just nine years prior to the writing of the *Ascetica nomenclatio*, a text related to the *Spiritual Exercises* had been re-published for a local publishing house (Imprimerie de T’ou-se’we).⁵² Known as *Yijian daoyi* 易簡禱藝 (*An Easy and Short Explanation of the Art of Prayer*, 1758),⁵³ this booklet was authored by the Chinese Jesuit Fr. Shen Dongxing S.J. (沈東行, 1709–1766, known also as Joseph Saravia) and presented important notions related to Ignatian spirituality. As explained by Standaert, this work discussed the Ignatian exercises as “practiced in meditations in daily life,”⁵⁴ while there was also a partial translation of the section “Particular and daily examen” of the *Spiritual Exercises*.⁵⁵ This important spiritual legacy would continue more symbolically even in the twentieth century; as shown by Amanda Clark, Fr. Charles J. McCarthy S.J. (1911–1991) practiced the

49 Standaert (2012); see also Van Hee (1920).

50 Standaert (2012) 74.

51 Standaert (2012) 76–81.

52 Chinese Christian Texts Database, identifier: 000002864

(https://libis.be/pa_cct/index.php/Detail/objects/10765, accessed October 5, 2023). See also Streit and Dindinger (1958) 359, no. 1619.

53 For an analysis of the text refer to Standaert (2012) 119–121.

54 Standaert (2012) 119.

55 Standaert (2012) 120.

Ignatian exercises in Washington prior to his arrival in Zi-ka-wei in 1941, and was fully aware of the relevance of the *Spiritual Exercises* for the Catholic community of Zi-ka-wei.⁵⁶

At the same time, the *Ascetica nomenclatio* offers a unique opportunity to delve into a more in-depth linguistic account of Zottoli's Romanization of Chinese Catholic spiritual terms, which could be extremely useful for scholars interested in the linguistic formation of the Jesuit missionaries. In addition, it could be studied, for example, together with another key work by Zottoli, the *Catechismi ad usum Vicariatus Nankinensis versio Latina* (*Nanjing Catechism*, 1882).⁵⁷ The *Nanjing Catechism*, in fact, provides the Romanization and the Latin translation by Zottoli of an anonymous Chinese catechism; thus, comparative studies on both works might show the differences between the distinctive terms adopted by Zottoli and their relevance within the Zi-ka-wei community and the Nanjing community respectively. Stemming from local Chinese Catholic communities, Zottoli eased the cross-cultural encounters between more peripheral groups and the international Catholic community located in Zi-ka-wei.

In addition, the manuscript could be seen as having a twofold function: one the one hand, it served as a handy reference for European missionaries in Shanghai but, on the other, it could have served also for Chinese novices and students who sought to learn Catholic terminology in Latin. Given the interest among Chinese religious communities for the practice of the *Spiritual Exercises*, it cannot be discounted that this manuscript could have also been drafted by Zottoli as a useful reference for Chinese Christians interested in Ignatian spirituality.

Conclusion

The *Dissertationes theologicae* (1849–1856) and the *Ascetica nomenclatio* (1877) are two important manuscripts authored by Fr. Angelo Zottoli and preserved at the Bibliotheca Zi-ka-wei, in Shanghai. These two manuscripts were produced in two very different stages of Zottoli's religious and educational path but nevertheless are both relevant in order to comprehend Zottoli's theological ideas, in particular, and the Jesuit mission in Shanghai during the nineteenth century, more generally.

Produced at the very beginning of Zottoli's mission in Zi-ka-wei, the *Dissertationes theologicae* present various challenges to the reader. For instance, Zottoli oftentimes does not acknowledge his references and collates various sources

⁵⁶ Clark (2017) 13; Lefevvre (1956) 73–75.

⁵⁷ Tola (2020); De Caro (2022) 74–77.

without any specific personal comment. Furthermore, the function of this manuscript is uncertain; it might be possible that this text was used as a handy reference by Zottoli during his lessons of theology since he became a *theologiae professor* in 1850⁵⁸ but, given the specific nature of the text, it is also difficult to decipher the possible readers of the manuscript. Were Zottoli's students only European missionaries, or were there also Chinese ones among them? How often did Zottoli teach these courses on Catholic theology and to what degree did these courses mirror his previous studies, first in Salerno and later in Naples? Did Zottoli intend to publish this manuscript, or did it serve merely as a handy reference for his classes? Was this manuscript intended also as a theological reaction to the Taiping rebels or was its terminology merely a repetition of previous works on the same topics? All these questions could be answered by further studies on this important two-volume book and these answers might reveal interesting details on the teaching of theology in Shanghai during the mid-nineteenth century.

The *Ascetica nomenclatio* was written by Zottoli in 1877, when Zottoli reached an impressive fluency in Chinese and, as a result, became more interested in translating Catholic theological ideas into Chinese. The *Ascetica nomenclatio* is an example of Zottoli's interest in providing translations into Chinese of Catholic terms, especially those related to Ignatian spirituality. This operation was carried out by Zottoli against a very specific background, in which the Catholic clergy encouraged the study and practice of the *Spiritual Exercises* among both European Jesuit missionaries and the local Chinese religious community. As a result, the *Ascetica nomenclatio* offers a unique insight on Zottoli's linguistic efforts to render Catholic terms into Chinese, accommodating them to the Catholic community of nineteenth-century Zi-ka-wei. I suggested that this booklet could have a twofold aim; on the one hand, it served as a handy reference for Zottoli and for other European Jesuit missionaries, and on the other, it might have been used also by Chinese Catholics who were interested in Ignatian spirituality. Further studies on this manuscript might reveal more insights on the potential readership of this important booklet. As for the *Dissertationes theologicae*, it is difficult to know whether Zottoli planned to eventually publish this manuscript. Captivatingly, the *Ascetica nomenclatio* reveals Zottoli's Romanization of Chinese characters; as a result, it would be possible in future studies to contrast this booklet with other works produced by Zottoli, like the *Catechismi ad usum Vicariatus Nankinensis versio Latina* (1882), in order to have further details on the different Romanization methods adopted therein.

58 Sica (1884) 28.

There are more manuscripts held in the bookshelves of the marvelous Bibliotheca Zi-ka-wei, as Jesuit missionaries in the nineteenth century produced a large quantity of documents that would deserve further studies. In a limited way the *Dissertationes theologicae* and the *Ascetica nomenclatio* exemplify the quality of the documents present there that wait to be further analyzed; far from offering a comprehensive account on these two works, I sought to provide a few insights on these documents discussing their relevance and their problematic aspects.

These documents had been produced in a cross-cultural environment and served as useful references for an interlinguistic and interfaith community. As a result, I hope international scholars will be interested in studying them at the Bibliotheca Zi-ka-wei, giving new life to these works by Zottoli that do not deserve to remain untouched in the old stacks of the Bibliotheca.

Raissa De Gruttola

Franciscans and Latin Language in China: An Introduction to the Missionary Periodical *Apostolicum*

The presence of Christian missionaries in China has always been closely connected to the production of written texts to support the circulation of the doctrine and reach a wider audience of locals. At the same time, the missionaries themselves were authors of detailed reports, diaries, and writings of various types to communicate with their superiors and families in the homelands and transmit news about China and their activities there. However, despite the wide research on the books written or translated by Catholic missionaries in China, few studies address the issue of Catholic missionary periodicals in China to date. The publication of periodicals had been a distinctive activity of the Protestant missionaries in China since their arrival in the nineteenth century, while it was a secondary issue among the Catholic ones, whose permanent presence in China dated back to the sixteenth century. In the twentieth century, however, many Catholic periodicals spread around China and opened a new chapter of the Catholic missions there. The Franciscan friars, together with the Jesuits, were the most active in launching their own periodicals and for many years published monthly or bimonthly issues of contents directed to local converts, foreign missionaries in China, and order members and families in their countries. The purpose of this chapter is to explore the context of publication and the main features of the periodical *Apostolicum*, a monthly journal published in Shandong from 1930 to 1943 and the only Franciscan publication on religious and mission news in two languages, as it was published in Latin and Chinese. The analysis of the extracts of some issues will shed light on the contents of this periodical, the languages used in it, and the intended audience, outlining the possibilities of its circulation and distribution in China or abroad.

1 Franciscan Missionaries and Periodicals in China

Over three hundred years after the arrival of the first group of Franciscans at the end of the thirteenth century, the missionaries of the order of St. Francis of Assisi in China came to have a constant presence after the arrival in Fujian of F. Antonio

a Santa Maria Caballero (Li Andang 利安當 1602–1669) in 1633; he also established missionary stations in other provinces such as Shandong, Jiangxi, and Guangdong, with many other Franciscans arriving in China in the following years.¹ Their presence in these provinces remained stable in the following centuries and in the first half of the twentieth century they were in charge of 27 missions, with more than 600 friars in China as missionary staff.² The main activity of the Franciscans in China during the first centuries did not involve a massive publication program, although they printed and circulated grammars, dictionaries, or texts on the main issues of Catholic doctrine or Chinese thought.³ Differently, the Jesuits in China had based the relevance of their presence and the close contacts with the imperial officials on the wide printing and distribution of books and volumes of different types, though rarely including formal biblical translations.⁴ Despite this extensive activity in the publication and circulation of a wide variety of texts with the arrival of the Jesuits in China in the seventeenth century, the start of the Catholic periodical press is determined by the release of the first issue of the *Bulletin des Observations Météorologiques*, a French scientific journal published from 1872 by the Jesuits in Zikawei (Xujiahui 徐家匯),⁵ representing the beginning of a new tradition in the Catholic press in China.

On the contrary, Protestant missionaries had promoted their doctrine through the publication of books and periodicals since their arrival in China and, by the end of the nineteenth century, there were more than 200 periodicals issued and circulated by the Protestants.⁶ Furthermore, Katz underlines that this activity also influenced the publication of periodicals by other religious groups in China:

The development of religious publishing in modern China was in large part because of the influence of the Christian missionaries who worked in China during the eighteenth and nineteenth centuries. [. . .] Overall, *The Religious Periodical Press* identified 400 religious periodicals still in circulation by 1939, including 211 Protestant, 74 Catholic, 61 Buddhist, 39 Islamic, 17 Daoist, and 2 Confucian (both founded after 1936). China's religious press was distributed throughout 21 provinces and 103 cities. However, the authors of this survey data also noted that these periodicals had a limited impact because of that era's poor literacy

1 The features of the Franciscan presence in China are given in Camps and McCloskey (1995).

2 Löwenthal (1940) 36.

3 See, for example, the works by Carlo da Castorano (Kang Hezi 康和子, 1673–1755) in Doniselli Eramo (2017) or Basilio Brollo da Gemona (Ye Zunxiao 叶尊孝, 1648–1704) in Polmonari (2009) and De Gruttola (2021a); (2021b).

4 On the texts published by Catholic missionaries in China see: De Gruttola (2021b); Standaert (1999a); Dudink and Standaert (2001) 600.

5 Löwenthal (1940) 5.

6 On the Protestant periodical press see: Jensz (2013); Jensz and Acke (2013); Scheiding and Bassimir (2022).

rates, unreliable communications networks, and low purchasing power of the populace. They also pointed out that the existence of many publications depended on the efforts of individual elites. If one key figure were to die or move away, the periodical's continuity could be at risk.⁷

If the conversion of Chinese people represented the core of the Protestant missionary periodicals, the main character in the Catholic ones seems to have been the European missionary. While the Protestant missionaries tended to identify the success of their mission in the quantity of conversions, seen as a “political and social act,”⁸ the Catholics tended to regard conversions as “a social and communal experience, one embedded within communities and structures,”⁹ so that the missionaries continued to have more importance than the local converts. Nevertheless, despite being different in these aspects, as in the layout, the presence of images, and some other contents, both Protestant and Catholic missionary periodicals shared the same purpose and the same vision of China:

Even though the missionary periodicals differed in form, their fundamental view of China, and their vision for China, was the same. Both Protestant and Catholic periodicals characterized the world in sets of binaries – a state of spiritual warfare existed between Christians and non-Christians. The forces of the world were divided into light and dark, good and evil. Catholic and Protestant missionary periodicals both presented China as a backward place. [. . .] Thus, even though Protestant and Catholic missionary periodicals looked dramatically different in form, they served similar functions. Protestant and Catholic missionaries both used their periodicals to promote their visions of how to construct a new and modern China. Both Protestant and Catholic missionary periodicals advanced the central belief that China needed its version of Christianity to serve as the foundation for a new and modern China. Even though different individuals stood at the heart of their narratives, individual sacrifice was ultimately needed for the promulgation and success of the Gospel in China. These stories of individual sacrifice were meant to mobilize and motivate their faithful European readers, who themselves had to sacrifice some of their time and money to support. [. . .] While the agents of change differed, both Catholic and Protestant missionaries shared the same eschatological vision – a Christian China, sanctified through the blood and sacrifice of Chinese and European Christians.¹⁰

Another common feature shared by Catholic and Protestant periodicals concerned the attitude toward crucial historical events that were commonly used to underline the importance of the presence of the missionaries in the foreign land

⁷ Katz (2014) 71, 78. *The Religious Periodical Press* mentioned by Katz is the volume here indicated as Löwenthal (1940).

⁸ Wu (2013) 396.

⁹ Wu (2013) 396.

¹⁰ Wu (2013) 397–398.

and praise their courage and commitment to martyrdom. For example, the hardship experienced by the missionaries during the Chinese Civil War from 1927 and the Second Sino-Japanese War from 1937, together with the hostilities showed by the Communists towards Western or Christian people, increased the necessity to report what happened in China and fostered the importance of the periodicals to be read abroad, both to ask for support and to show the faith of the missionaries and the local Christians. This situation mirrored what had already happened in the years of the Boxer revolt, when Christian periodicals circulated information and also represented relevant sources for the foreign press:

As the Boxer crisis went from bad to worse, martyrdom remained a focal point for the missionary periodicals. As a discursive figure, it connected the loss of missionary and Chinese Christian lives in China to the death toll of the church in the past and to salvation history. It also justified continuation of the mission field, so that those who had perished would not have died in vain. The discourse on martyrdom thus also contained a script for the future of Christian missions in China.¹¹

The element that would surely differentiate the Catholic periodicals from the Protestant ones was the presence of Latin language in the former. The use of Latin, in fact, was a distinctive feature in the Catholic Church since the first centuries of its existence, when it replaced the *koine* Greek; between the fourth and the sixth century, Latin became the liturgical language in the Catholic Church, which was closely connected to the role of Rome as the center of Christianity in that period.¹² Missionaries always used the Latin language to transmit the contents of the Catholic faith in the countries they reached, often making a difference between formal or liturgical occasions, where only Latin could be used, and informal or daily occasions when the doctrine could also be explained in the local languages.¹³ It is interesting to consider what Löwenthal wrote in 1940 on the use of the Latin language in the Catholic Church in China:

The Catholic Church alone keeps this old language alive, and – outside of the Vatican State – Latin is probably used to a larger extent in China than in any other country. This applies to the written as well as to the spoken language. The reason lies in the fact that the large body of missionaries in China belong to an extraordinary variety of nationalities. The individual missionaries frequently cannot understand each other's language and often speak different Chinese dialects, hence they have to fall back on Latin, the traditional medium of communication of the Catholic Church.¹⁴

¹¹ Klein (2013) 403.

¹² On this topic see Sajovic (2023).

¹³ This was the case in China too: see Ferrero (2023).

¹⁴ Löwenthal (1940) 14.

Löwenthal also identified five phases in the circulation of the Catholic periodicals in China.¹⁵ The first phase went up to the establishment of the first Republic in 1911 and only included 14 journals. The second and the third phase covered the years 1911–1921 and 1922–1927 respectively, underlining the establishment of the Apostolic Delegation to China in 1922. The fourth period included the years from 1928 to 1933, when Celso Costantini left China,¹⁶ and the last phase went from the arrival of Mario Zanin in 1933 to 1939.¹⁷ He added: “The rapid growth of the Catholic press since 1922 is largely due to the multiplication of mission societies under Pope Pius XI and to the favorable attitude of the Apostolic Delegation towards it.”¹⁸

These two elements support the evidence that the orientations of the Catholic missionaries were always closely connected to the indications given by the Pope, and that even this increase in the circulation of Catholic periodicals in China, mostly in Chinese language and addressed to the locals, can be included among the activities established to support the indigenization of the local Church.¹⁹ Löwenthal noticed that the years with the higher increase in the circulation of Catholic periodicals corresponded to those during which the Apostolic Delegate was present in China and underlined the remarkable proliferation of the journals providing relevant data:

During the past two decades [1920–1940] the number of Catholic periodicals increased by almost 700%: from 22 to 152. While in 1917 papers were published in 10 cities and towns, in 1939 the number had increased to 61. These facts manifest the activity of the Catholic press and the intensity with which its promotion has been stressed.²⁰

He continued reporting that, among the missionaries stationed in China, 83% published periodicals and 56% of their staff was Chinese. There were 17 organizations issuing periodicals, including the secular clergy; however, four of them published

15 On the Catholic press see also Peng (2014).

16 Celso Costantini (Gang Hengyi 剛恆毅, 1876–1958) was the first Apostolic Delegate to China, where he arrived in 1922 sent by the Pope Pius XI. He would foster the complicated process of the indigenization of the local Church and convened the First Plenary Council of Shanghai in 1924. In 1933 he went back to Italy and from 1935 to 1953 he was appointed as Secretary of the Sacred Congregation for the Propagation of the Faith (*Propaganda Fide*). In 1953 he was nominated Cardinal. On Costantini and the 1924 Council of Shanghai see: Giovagnoli, Giunipero (2005); Lam (2008); Ticozzi (2008); Capristo (2010); Wang (2010); Giunipero (2012); Gabrieli (2015); and Wu (2021). The Acts of the Council were published with the title *Primum Concilium Sinense* (1930).

17 Löwenthal (1940) 10. Mario Zanin (Cai Ning 蔡寧, 1890–1958) was the Apostolic Delegate to China from 1933 to 1946, when the Delegation became an Internunciature.

18 Löwenthal (1940) 10.

19 Chu (2017).

20 Löwenthal (1940) 8.

more than ten magazines each, covering more than half of the total number of periodicals (85 out of 152).²¹ Among the first four missionaries publishing periodicals were the Franciscans, who were administering 27 missions and had opened eight printing plants employing 137 workmen. The Franciscans had established their press venues in Hubei (4), Shandong (2), and Shanxi (2), publishing 20 magazines: eight in Chinese, ten in foreign languages, and only two bilingual. Of these, only five addressed non-religious issues.²²

The activity of the Franciscans in the field of periodical publications was mainly connected to the initiative of the Canadian Franciscan Father Bonaventure Péloquin, OFM (Wen Zhenhua 文振華, 1882–1959), who established the periodical *Apostolicum* in 1930 and founded two other periodicals in China. In the *Necrologium* compiled by Father Van Damme in 1978, in Latin language, he is remembered as follows:

*13 Januarii 1959 Marianopoli in Canada obiit P. fr. Bonaventura Péloquin 文振華, natus Ste.-Anne-de-Sorel (Canada) d. 14 jul. 1882, addictus patriae provinciae S. Joseph d. 10 jul. 1910, missionarius a d. 4 sept. 1915, primum in missione Chefoo, Shantung 山東, 烟台, postea missus est ad Taiyuan, Shansi 山西, 太原 anno 1929, et deinde ad Tsinan, ubi a. 1930 publicavit "Apostolicum". Anno 1934 ivit in missionem Wuchang, Hupei 湖北, 武昌, ubi publicavit "Kuang Hua Pao" 光華報. Bene meruit de proelo Catholico promovendo. Deinde a. 1936 patriam repetiit.*²³

On January 13, 1959, at Marianopolis in Canada Father Bonaventure Péloquin 文振華 passed away. He was born in Sainte-Anne-de-Sorel (Canada) on July 14, 1882 and entered the local province [of the Friars Minor] on July 10, 1910. He was a missionary from September 4, 1915, firstly in Chefoo, 烟台, Shandong 山東, then in 1929 he was sent to Taiyuan 太原, Shansi 山西, and then to Ji'nan, where in 1930 he published *Apostolicum*. In 1934 he went to the mission of Wuchang, 武昌, Hubei 湖北, where he published *Guang hua bao* 光華報. He achieved great merit in promoting the Catholic press. Then in 1936 he went back to his homeland.

In fact, Péloquin established *China Light* (*Guang hua bao* 光華報), a weekly newspaper in Chinese language addressing non-religious issues and with an English language supplement, while still in Shandong; later the same name was given to the weekly newspaper he founded in Wuchang, which in 1937 was renamed as *China Welfare* (*Yi hua bao* 益華報) and continued without English supplement. *Apostolicum* and *China Light* published in Shandong were the only bilingual periodicals issued by the Franciscans and it is remarkable that, apart from the English and Chinese *China Light*, the other four non-religious magazines were published

21 Löwenthal (1940) 28–30.

22 Löwenthal (1940) 36.

23 Van Damme (1978) 8.

only in Chinese language, illustrating how they were only meant to circulate in China and not abroad. On the contrary, of the 15 periodicals on religious and mission news, apart from the bilingual *Apostolicum*, four were in Chinese and ten were in foreign languages, including Italian, English, French, and Latin. The latter were often sent to the home countries of the missionaries to report on their activities and to ask for support to the mission through prayers and money.²⁴ In the following paragraph some details of the periodical *Apostolicum* will be outlined and examined, highlighting its distinctive features.

2 *Apostolicum. Periodicum pastorale et asceticum*

Apostolicum was the only monthly religious periodical published by the Franciscans in the Shandong province.²⁵ It was established by Father Bonaventure Péloquin, OFM in 1930 and was the only periodical on religious issues published by the Franciscans in two languages, namely Latin and Chinese. The copies preserved in the Library of the Pontificia Università Antonianum in Rome cover the years 1930–1943 and shed light on the variety of the subjects addressed.

The complete title of the periodical was *Apostolicum. Periodicum pastorale et asceticum a fratribus Minoribus editum – Tsinanfu in Sinis*. The title (*Titulus*) itself was explained in the first issue of the periodical, where it is noted that it came from a verse of a famous antiphon in the liturgy of the evening prayer in the vigil of the feast of St. Francis: *Franciscus, vir catholicus et totus apostolicus* (“Francis, a thoroughly Catholic and apostolic man”), to which the famous sentence of Francis is added: *Volo vos omnes ducere in Paradisum* (“I want to lead all of you in Heaven”).²⁶ The opening number was released in January 1930 and was inaugurated by the message of the Vicar Apostolic, Father Cyrillus Rudolphus Jarre OFM (Yang Enlai 楊恩賚, 1878–1952), written on December 8, 1929 to the direction of the periodical. Father Jarre was an important personality in the Franciscan China mission and was remembered as follows in the *Necrologium* by Van Damme:

8 Martii 1952 Tsinan in Shantung 山東, 濟南, in nosocomio S. Joseph, sanctam mortem obiit Exc.mus P. fr. Cyrillus Jarre, 楊恩賚, natus Ahrweiler in Germania d. 2 febr. 1878, filius provinciae Coloniensis a d. 23 aug. 1894, pervenit Tsinan d. 14 jan. 1905. Ab a. 1924 usque ad

²⁴ Löwenthal (1940) 36–37.

²⁵ Löwenthal (1940) 36; the periodical is also mentioned in Tiedemann (2010) 457.

²⁶ *Apostolicum* (1930) 2.

*a. 1929 fuit professor Juris Canonici in Collegio S. Antonii de Urbe; electus Vicarius Apostolicus de Tsinan, consecratus fuit d. 25 jul. 1929; postea ab a. 1946 primus exstitit Archiepiscopus de Tsinan. Jus Civile Sinense in linguam latinam vertit, et Jus Canonicum in linguam Sinicam. Incarceratus a communistis, propter multiplices aerumnas graviter aegrotavit et, missus in nosocomium, ut fidei confessor animam Deo reddidit. Fideles, cum adhuc insepultus iaceret, illum velut martyrem habuerunt et honorati sunt.*²⁷

On March 8, 1952, in St. Joseph's Hospital in Ji'nan 濟南, Shandong 山東, the most excellent Father Cyrillus Jarre 楊恩賚 passed away. He was born in Ahrweiler, in Germany, on February 2, 1878 and was a son of the Province of Cologne from August 23, 1894. He arrived in Ji'nan on January 14, 1905. From 1924 to 1929 he was professor of Canonical Law in the College of St. Anthony in Rome; he was appointed as Vicar Apostolic of Ji'nan and consecrated on July 25, 1929, then from 1946 he was the first Archbishop of Ji'nan. He translated the Chinese Civil Law into Latin language and the Canonical Law into Chinese. He was imprisoned by the communists and, due to the many hardships, fell seriously ill and was sent to the hospital where he gave his soul back to God as a witness of the faith. Even before he was buried, the faithful considered him a martyr and honoured him as such.

Father Jarre's introductory words to the first issue of the new periodical were only in Latin:

*Nuntium de periodico "Apostolicum" edendo laetanter accepi eiusque programma utilissimis materiis abundans attente legi. Revera munus Apostolicum inter infideles exercendum tot tantisque difficultates secum fert, ut omne medium eas minuendi cuique missionario gratum atque acceptum sit vel esse debeat.*²⁸

I gladly received the news of the publication of the periodical *Apostolicum* and carefully read its program, which is rich in many useful topics. In fact, carrying out the apostolic duties among the non-believers brings about so many difficulties that every means of reducing them is, or should be, appreciated and welcomed by every missionary.

He continued his introduction adding that, among the many ways through which the missionaries could overcome difficulties, the periodical publications were one of the best options as they could be consulted at any time, in case of emergency, and for how many times it was needed. Father Jarre saw the existing books as too expensive to be bought by individual missionaries to improve their education and knowledge of the mission territories. Furthermore, he believed that those who were expert in theology did not have a good familiarity with missionary issues, and often missionaries only knew the region where they were living, without any notion about the features of other places and missions; thus, Jarre underlined that

²⁷ Van Damme (1978) 40. Other references to the activity of Father Jarre, particularly to the involvement of three Franciscan Fathers of Ji'nan diocese in the project of the translation of the Bible, are found in Chen (1990) 19–21 and De Gruttola (2023) 87.

²⁸ *Apostolicum* (1930) 1.

Apostolicum could answer the need of a periodic publication in the issues of pastoral missions in Asia. According to the Vicar Apostolic, it was more important for a missionary to have virtues than knowledge, because people were led to conversion more by good examples of Christian life than by words or homilies. *Apostolicum* could answer the missionary question, “What attracts more Asian people to the Catholic faith?” and would identify, explain, and put into practice the related findings: *quonam agendi modo Asiae populi facilius ad catholicam vitam et cultum alliantur: haec omnia ‘Apostolicum’ periodicum indagare, explicare, necnon practice applicare intendit.*²⁹ Father Jarre acknowledged that many books on the good life a priest should lead already existed; however, he recognized the lack of something more closely related to mission life, and hoped *Apostolicum* would be the right instrument as, according to the proposed program, it would be useful to both foreign and local missionaries who worked in the Asian portion of the “vineyard of the Lord.”³⁰

The aim (*scopus*) of the periodical, as reported in the first pages of the first volume, was that of accomplishing the Gospel exhortations to “be the light of the world” (Matt 5.14) and “set the earth on fire” (Luke 12.49):

*Adjuvare Confratres in suo ministerio, mentes principiis illuminando et corda variis exhortationibus exemplisque roborando. Lucere etenim debemus simul et ardere.*³¹

Help the brethren in their ministry, enlightening the minds through principles and strengthening the hearts through exhortations and examples. For we need to bring light and to be on fire at the same time.

The presentation goes on, quoting the two main Gospel references used to “help the missionaries in their ministry”: “You are the light of the world” (Matt 5.14) and “I appointed you to go and bear fruit” (John 15.16). The ways in which missionaries would be helped by the periodical would be:

Adjuvare Missionarios enim:

- A) *Eis referendo facta, quae manifestant activitates, progressus et necessitates Ecclesiae.*
- B) *Eis monstrando applicationes variarum scientiarum ecclesiasticarum quaestionibus actualibus sive stricte religiosis, sive etiam politico-religiosis.*
- C) *Eis praebendo consilia ad recte et sancte fungendum Ministerio.*
- D) *Eos semper stimulando, variis modis, ad majorem sui status perfectionem.*³²

²⁹ *Apostolicum* (1930) 1.

³⁰ *Apostolicum* (1930) 1.

³¹ *Apostolicum* (1930) 2.

³² *Apostolicum* (1930) 1.

Help the missionaries in the following ways:

- A) Communicating them the events concerning activities, progress and needs of the Church.
- B) Showing them how to employ various ecclesiastical sciences into practical questions, both religious and political-religious.
- C) Providing them with advice on how to conduct a honest and holy ministry.
- D) Stimulating them continuously, in various ways, towards greater perfection in their role.

The list of the topics is then given and, before explaining each of them in detail, the readers are addressed:

*Ut videtis, carissimi Lectores, vastissimus et profundissimus campus nobis est apertus, tam vastus quam mundus ipse, tamque profundus quam ipsa Scientia Sacra. Missionarii etenim mittuntur per totum mundum; labia eorum custodire debent scientiam, et ex ore eorum lex requiretur ab omnibus. Igitur simplex explicatio istius Programmatiss, potius quam justificatio, est danda.*³³

Dear Readers, as you can see, a very wide and deep field is open to us, as wide as the world itself, and as deep as Sacred Science itself. For Missionaries are sent throughout the whole world: their lips must protect knowledge, and everyone expects the law to come out from their mouths. Therefore, rather than a justification, we need to give a simple explanation of this program.

Following the purposes stated, the sections of the periodical were briefly presented by Father Péroquin, giving some details when needed. The first topic is dedicated to current events (*Facta*) that would include news of religious or political-religious content. The reason for reporting them was not mere curiosity or knowledge, but their usefulness for the souls of the locals to save. These were divided into general events regarding the Church and Franciscan news on the Order, including updates on the three male branches of the Franciscans (Minor, Capuchins, Conventual), the Poor Clares, and the Tertiaries, both regular and secular. The Church events were divided according to their geographical setting: the events occurring in the center, i.e. in Rome (news on the pope and papal documents, reports, and commentaries from the Congregations, articles on Canon Law), those occurring in the different places of Christianity, and those of the mission territories, including information on the Apostolic Nuncios and Delegates, the bishops, the secular and regular clergy, and the local Christians. The section on the mission territories also included paragraphs on the missionary life and on the pagans. The chapter on current events (*Quaestiones actuales*) addressed news about Theology, Canon Law, Liturgy, and Religious Arts, while the following sec-

³³ *Apostolicum* (1930) 3.

tion was dedicated to educational issues (*Educationalia*), meant to be transmitted to the new Christians to form a new clergy, in order to prepare new helpers and successors to the missionaries, with a particular focus on young people. The section on scientific knowledge (*Scientifica*) was addressed to missionaries as they could not focus on the study of natural sciences in their education as religious people, and at that point needed to know something about physics or chemistry, as these also would enter the issue of moral principles. A dedicated section was intended for medical topics (*Medicinalia*), stating that both missionaries and believers were made by soul and body; therefore, quoting St. Paul (“that which is mortal must clothe itself with immortality,” 1Cor 15.53), the periodical also aimed at providing the basic medical principles to help the missionaries carry out the easier treatments. In the section *Casus conscientiae* the editor, claiming that the missionaries were more committed to take care of others and did not have time to study, meant to provide, through the periodical, a “faithful friend” to the missionaries in search for solutions in difficult situations. A similar purpose was that of the column *Consultationes*, intended to help missionaries if they had doubts regarding some general issues. In *Tribuna libera*, on the contrary, there was space for both questions and answers from the readers. The following four sections were strictly designated for liturgical or missionary purposes: *Aperto kalendario* addressed the believers on issues related to the rituals, the Mass, and the Divine Office; *Varietas liturgica* gave answers to questions about the liturgy, according to the indications of the Sacred Congregation of Rites; the column *Homiletica* was intended to support the missionaries in preparing the homilies, providing topics and outlines; and *Jus missionarium* gave the new missionaries indications on their duties.

One of the last sections had the same name of the subtitle of the periodical and was presented as a very important one. *Ascetico-Pastoralia* was meant to support the individual faith of the missionaries; *si vult in aliis veram fidem inserere, debet primo in semetipso fervidam servare* (“if he wants to transmit the true faith to others, he must first preserve a fervid faith in himself”).³⁴ The periodical aimed at providing the missionaries with the right means to preserve their faith and encouraged them:

*Ad tam necessarium et meritorium opus intendit et nostrum Periodicum concurrere, regulariter sub oculis missionarii ponendo paginam, pro eo accurate selectam, quod fiet sub rubrica “Ascetico-Pastoralia”. Rogamus ergo unumquemque lectorem, ut simpliciter, attente ac devote perlegat istam paginam, non quaerens quis hoc dixerit, sed quid dicatur potius attendens.*³⁵

³⁴ *Apostolicum* (1930) 6.

³⁵ *Apostolicum* (1930) 6.

To this necessary and praiseworthy task our periodical too aims to contribute, regularly putting under the eyes of the missionary a page accurately selected for him. This will be done under the title *Ascetico-Pastoralia*. We therefore ask every reader to read this page simply, carefully, and devoutly, paying more attention to what is said than to who said it.

After this section, the one on *Sanctorum exempla* follows, including the outlines of lives of saints to give missionaries concrete models, and not only words, on which they could base the exercise of their virtues. Subsequently, if saints could be seen as distant models, in the section *Necrologia* the lives of admirable Franciscans were presented, mainly those of other missionaries, to provide closer models to new missionaries, proposing in particular the lives of the martyrs. The last section is a *Bibliographia* where the latest volumes on different topics were presented, with a particular focus on those about Theology, Canon Law, and Liturgy, where the editor also encouraged the authors of new books to submit presentations of their works so that they might be made known to the missionaries.

In 1940, the opening page of the first issue of *Apostolicum* included a note on the celebration of the ten years of publication of the periodical. It addressed all the readers and thanked all the contributors, encouraging them to continue to submit articles, news, and suggestions to improve the contents of the periodical. In the same section, the editor asked the confreres to make contact if the issues of the periodical were not received regularly, or to communicate any changes in their address, to ensure effective distribution of the journal. This seems to indicate that there were numerous requests of copies of *Apostolicum* and those who did not receive it would claim them.

In the section *Praedicabilia* of the June issue (VI) of the year 1940, the life of Saint Anthony of Padua was presented only in Chinese, as authored by a “Frater Michael OFM” whose nationality was not detectable. The Latin title is *S. Antonius, exemplum virtutum* (“St. Anthony, model of virtues”) but it is difficult to define whether the paragraph was written directly in Chinese or was a translation. The Chinese text covered one page and was divided into three sections whose Latin headings are, respectively, *Amor Dei*, *Humilitas*, and *Castitas*, while in the Chinese titles a short sentence is added, meaning “St. Anthony teaches us how” (*Sheng Anduoni jiaoxun women* 聖安多尼教訓我們), followed by the expressions: *cheng xin ai Tianzhu* 誠心愛天主 (“devoutly love God”), *xiu qianxun* 修謙遜 (“cultivate humility”), and *xiu jiede* 潔德 (“cultivate a pure virtue”). The Chinese text reported the date in which the Saint was commemorated (June 13) and introduced him as one of the main saints of the Franciscan Order, venerated by many and from whom there was much to learn. Every section was concluded by a number of lines with the heading: *ding zhuyi* 定主意. This seems to have been a comment by the author encouraging the readers to “make a decision” and asking some questions to verify the

behavior of the missionaries having St. Anthony as a model. The first paragraph briefly outlined the life of the Saint, from his birth in Lisbon and his joining the Augustinian monks when 15 in Coimbra, to his missionary desire which led him to join the recently established Franciscans, with it often underlined that everything he did was out of his love for God and that his life was modelled on the teachings of the Gospel. The closing paragraph asked whether both the writer and the readers, as Franciscans, completely offered their lives to God and to loving God, as St. Anthony did: a positive answer would be the only possibility to be a real confrere of the Saint:

我們也(因着入會)完全把我們自己奉獻於天主了, 我們真實把我們完全奉獻上了麼? 都為愛天主麼? 我們是怎麼樣事奉了他呢?³⁶

As we entered the Order, we also offered all ourselves to God. Do we really offer ourselves completely to God? Is it totally to love God? In what ways do we make offers to him?

In the second paragraph the central idea was humility, represented through the life of St. Anthony who always thanked, worshipped, and praised God for his talents, and prayed using the Psalms of King David. The closing paragraph commented on the general attitude of the friars that tended to concentrate on themselves without forgiving the mistakes of the others:

我們自滿自大的傲心是怎樣虛假無用呢! 我們大多數都愛自己的便宜, 光圖自己的臉面, 為此我們勞苦沒有什麼效果, 我們若認識自己的虛無, 謙卑自己, 弟兄們必彼此和睦平安, 為此當忍耐同會弟兄的軟弱可憐, 總別高於自己在別人以上, 當知每一個小犧牲天主必要賞報你的。³⁷

Our arrogant and self-satisfying proud heart is so false and useless! Most of us love our own irrelevance and only look at our own face. For this reason, our hard work has no results. If we recognize our nothingness and humble ourselves, our confreres would be in harmony and peace for this. For this reason, we must be patient with the limits and weakness of our confreres, and never put ourselves above others. For we know that God will reward every small sacrifice.

The third paragraph concerned chastity and was opened by the Gospel verse “Blessed are the clean of heart, for they will see God” (Matt 5.8). The short text made references to the life of St. Anthony, recalling that he behaved like a real saint in preserving his celibacy and purity of heart, having grasped how precious his virginity was for his love of Jesus and the Virgin Mary. The closing comment

³⁶ *Apostolicum* (1940a) 194.

³⁷ *Apostolicum* (1940a) 194.

focused on how chastity is like a jade hairpin hidden in the brambles, where the brambles represent the flesh which, like a wall, protects the heart of people, while humility is a weapon to keep the garden pure, just like a coat covers the underlying clothes:

好像一件外衣，能保護遮蓋潔淨的內衣，別的兵器也很多比如：勤謹工作，念經，謹守眼目，克制私意，躲避不好的來往及熱愛聖母等善工。³⁸

[Humility] seems like a coat that can protect the clean underwear underneath. There are also many other weapons: work diligently, pray with the Scriptures, control the eyes, restrain selfishness, avoid bad acquaintances, love the Virgin Mary, and other good deeds.

After the three sections, a prayer to St. Anthony was reported, asking the saint for help and protection to remain faithful in humility and chastity. The content of this page is interesting for its religious content and as the addressees were mainly missionaries working in China; although the article is written in Chinese, the frequent references to the life of a Franciscan Friar, or of a missionary, show the personal involvement and the similar condition of both the authors and the readers in accomplishing the task to become a good Christian model among the unfaithful, to whom they intended to transmit the message of Christ.

Of a different tone was the article dedicated to Saint Francis in the October issue, the month in which the feast of this saint is celebrated.³⁹ The contribution on *Sanctus Franciscus Assisiensis* was included in the section *Exempla sanctorum*, with particular attention given to the founder of the Order of the Franciscan Friars; moreover, the text was both in Latin and Chinese language, and the name of the author(s) was not mentioned. The introduction stated that the feast of St. Francis of Assisi on October 4 is a good occasion to remember his holy virtues and meditate on how his life must be a model, with the meditation itself introduced by some verses by St. Paul, “For to me life is Christ, and death is gain” (Phil 1.21), claiming that Francis was, in fact, “a second Christ” (*alter Christus*). The living of Francis as Christ himself was presented through three paragraphs: *Meditatur de Christo / Moxiang Yesu* 默想耶穌 (“He meditated on Christ”), *Imitatur Christum / Xiaofa Yesu* 効法耶穌 (“He imitates Christ”), *Unitur Christo / Yu Yesu jiehe* 與耶穌結合 (“He is in union with Christ”). The content of the paragraphs highlighted the origin of the virtues of S. Francis:

³⁸ *Apostolicum* (1940a) 194.

³⁹ *Apostolicum* (1940b) 290–292.

Haec tria examinando radicem virtutis S. Francisci perspiciemus.

我們察明這三條就能懂聖人修聖德的根由。⁴⁰

Examining these three [issues], we will understand the root of the virtue of Saint Francis.

The first section introduced the frivolous behavior of Francis as a young boy, before meeting the love of Christ, and the profound change this caused in his life. The meditation was thus presented through three passages, the first being the experience of the first living Nativity scene St. Francis arranged in Greccio on Christmas Day 1223. He asked the priests to celebrate the mass in the wood recreating the birth of Jesus like in Bethlehem, thus moving all the participants, who experienced the love of God. The second passage was the meditation of the burning spirit of Christ when he evangelized, which also made the spirit of Francis burn both when meditating on those episodes and when he evangelized. The third passage was the meditation of the Passion of Christ; Francis always thought about the sufferings of Christ on the cross and would often thank and praise the Lord for his love for humankind.

The second section covered the ways in which Francis, in addition to meditating the life and love of Christ, also wished to act like him, trying to be like Christ in every thought, word, and act. For example, he gave his money to the poor after contemplating the poverty in which Jesus was born, or used simple and poor clothes recalling the sufferings of Christ on the cross. Imitating Christ, he also sent his confreres to preach all over the world, reaching Egypt where there were only Muslims, and was not scared about dying as a martyr for Christ.

The third section covered the ways in which Francis behaved to be united with Christ, asking for “perfect charity” and giving away everything he had, offering all of himself to Christ, and often crying when he thought about the Eucharist and hoping everyone would be united to God in contemplating it. To experience the full beatitude of meeting Jesus, he did not fear death: in fact, on the mountain of La Verna he had an apparition and received the stigmata. To conclude, the author encouraged the believers to behave like St. Francis and be consumed by the love of God, thus summing up the three paths suggested to be similar to the Saint. For the first issue, the meditation on the life of Christ, it was suggested to pray the Holy Rosary, meditate the Stations of the Cross, read the Bible, and participate in the Holy Mass. The imitation of the life of Christ, the poverty of the Nativity, and

⁴⁰ *Apostolicum* (1940b) 290. In the Chinese text of this sentence there is not an explicit reference to Francis, but only to a “Saint” (*shengren* 聖人). Nevertheless, he is explicitly mentioned elsewhere in the text, thus being sure that it is specifically referred to Francis and not to “the Saints” in general.

the commitment of Jesus in preaching were presented as testimony of the possibility of being free from greed and dedicated to the salvation of the souls. Furthermore, the episode of the Crucifixion was given as an occasion to meditate on the sufferings of Christ and the necessity to imitate St. Francis in the atonement. In the last issue, which concerned the union with Christ, the reader was encouraged to look at the present communion as a sign of the glory in heaven. To conclude, St. Paul is quoted again, showing how his words to the Philippians (1.21: “to me life is Christ”) were true, and only Christ can be the true consolation and happiness.⁴¹

On the linguistic level, it is interesting to note that, in the title and first lines of the text, despite the Latin occurrences of the Saint’s name as *Sanctus Franciscus Assisiensis*, the Chinese did not refer to *Yaxixi de Fangjige* 亞西西的方濟各, but rather to *Sheng wu shang Fangjige* 聖五傷方濟各, literally “Saint Francis with the five wounds,” i.e. stigmatized. Furthermore, in the titles of the three sections, where the Latin *Christus* is found, the Chinese had *Yesu* 耶穌. This is probably because the meaning of the epithet “Christ” (“the anointed one” in the original Greek) was lost in the Chinese phonetic transliteration, therefore Catholic authors often prefer *Yesu* or other names to indicate Jesus Christ.⁴² The content of the Latin and Chinese text is parallel and always corresponding; nevertheless, it is noticed that often, in the Chinese section, some meanings and ideas are repeated and explained more explicitly, with a particular frequency in the occurrence of some specifications on the love of Jesus or the calling to love Jesus.⁴³ The tone of the text, the contents, and the type of explanations suggest that those who would read it were already informed on specific episodes of the Gospel or of the life of St. Francis, thus confirming the possibility of identifying the intended audience of the periodical in a large group made of Western missionaries acquainted with Latin language and learning Chinese, and of Chinese people already converted and familiar with the basic themes of Christianity and Franciscanism, namely native speakers of Chinese language and learning Latin, probably in training to become Friars or priests.

41 *Apostolicum* (1940b) 292.

42 For example, in the New Testament of the *Sigao Shengjing* 思高聖經, the Chinese Bible translated by the Franciscan Friars of the Studium Biblicum Franciscanum Sinense (*Sigao Shengjing Xuehui* 思高學會), when the Greek *ho Christos* ὁ Χριστός (“the Christ,” literally “the anointed”) occurs, the Chinese often has *Moxiya* 默西亞, phonetic transliteration of “Messiah.”

43 *Apostolicum* (1940b) 290–292.

Concluding Remarks

The Christian periodicals published in China represent a wide and interesting field of research not explored in detail to date. Considering the importance given to the presence of the Christian press in China in the first decades of the twentieth century, it is relevant to analyze the details of the circulation of the periodicals in general and some specific contents of them. In particular, this paper addressed the context in which the release of the periodical *Apostolicum* took place. The Franciscan periodical published between 1930 and 1943 in Ji'nan, Shandong was the only journal published by the Franciscans in more than one language and on religious topics. It offers the possibility to analyze the role of Latin language in Catholic missions in China at the beginning of the twentieth century. As confirmed also by the features and circulation of the Protestant missionary periodicals, in many cases the journals published in Western languages were mainly intended for an audience far from the mission territories, often involved in providing financial support to the cause. In other contexts, the periodicals circulated widely in China, but only among missionaries or believers, and did not reach local people to convert them, especially if they were not written in Chinese.

Bilingual and polyglot press has been grouped with the foreign magazines. The reason for this arrangement is that all the periodicals of the second group are primarily read by foreigners and the indigenous clergy, without reaching the Chinese laymen to any considerable extent. Hence, they do not represent the real influence of the Catholic press as a channel of propagation of the faith among the Chinese population directly. [It is] roughly estimated, about 80% of the circulation of the foreign language periodicals are sent to Europe, America and, to a lesser extent, to other parts of the world.⁴⁴

The specific case of the Franciscan periodical *Apostolicum* here analyzed can be included in the group of the journals addressed to missionaries or local believers, as the presence of the double language indicates the intent of circulation mainly within China. The analysis of the contents has shown that every issue had some sections only in Latin, some others only in Chinese, and some in both languages. The features on the lives of the saints Anthony of Padua and Francis of Assisi confirm that readers had to be already well acquainted with the lives of the characters presented, or with the Scriptures often quoted in the text. Furthermore, the choice of using Latin language as the only Western language demonstrates the intent for the periodicals to be readable by all the (Franciscan) missionaries in China, regardless of their origins. In parallel, the absence of any reference to German language, as the Province of Shandong was assigned to German missionar-

⁴⁴ Löwenthal (1940) 16–17.

ies, illustrates the intent of the journal being circulated among all the missionaries in China (and maybe all Asia), thus including the possibility of being read by local people studying to enter the Order or become a priest.

The interesting features detected in this preliminary study of Catholic missionary periodicals, with a focus on the Franciscan activity in the field and the examples taken from the journal *Apostolicum*, support the possibility of exploring in detail this aspect of the missionary publications with the aim of collecting more data and presenting other aspects of the journals considered.

Aldo Petrucci

Diritto romano e tradizione giuridica cinese nell'ultimo secolo

1 Le epoche precedenti al XIX secolo

Quando il diritto romano era diritto vigente nell'Impero, non mancano notizie su contatti intercorsi con la Cina. La loro veridicità non è oggi messa in dubbio.¹ Secondo le cronache cinesi, già nel 97 d.C. la dinastia allora regnante, gli Han, avevano tentato di inviare un ambasciatore al "grande impero" dell'Occidente, chiamato dai Cinesi *Da Qin* o *Lijian*, ma costui non aveva raggiunto la meta; Marco Aurelio, poi, nel 166, aveva mandato un'ambasceria a Pechino, che era giunta in Cina passando dal Vietnam (quindi seguendo una rotta marittima), e una successiva ambasceria sarebbe avvenuta sul finire del III secolo, ma in entrambi i casi senza che si instaurassero rapporti stabili e permanenti.

Da parte romana, oltre all'isolata testimonianza di Floro su un'ambasceria del popolo dei *Seres* (identificati da alcuni studiosi con i Cinesi²) giunta a Roma all'epoca di Augusto,³ le maggiori prove dei rapporti tra i due imperi sono costituite dai riferimenti alla produzione e commercio della seta e ai suoi costi, che hanno giustificato taluni interventi imperiali diretti a limitarne l'importazione.⁴ Certo, questi dati debbono essere considerati con cautela, perché potrebbero anche solo rispecchiare l'intermediazione in tali rapporti commerciali di mercanti appartenenti a nazioni collocate geograficamente tra l'Impero romano e la Cina (Parti, Indiani o popoli dell'Asia centrale), ma non vanno neppure sottovalutati, dal momento che tanto gli annali dinastici cinesi quanto alcune opere occidentali (come la *Geografia* di Claudio Tolomeo⁵ del II secolo) parlano di commercianti romani, inviati nei porti dell'Asia sud-orientale (Siam, Tonchino e Annam), alludendo a rotte commerciali terrestri e marittime con la Cina.

Poiché nei racconti di entrambe le parti ricorre il *topos* della reciproca correttezza negli scambi, anche se accompagnata da lamentele per i prezzi praticati,⁶

1 Al riguardo si vedano, per tutti, Schipani (2009); Bertuccioli/Masini (2014) 3–14; Cardilli/Porcelli (2020) 5–6.

2 Bertuccioli/Masini (2014) 5.

3 Flor. *epit.* 2.34.62.

4 Tac. *ann.* 2.33.1 (in riferimento al senatoconsulto dell'età di Tiberio, con cui si vietava agli uomini di indossare abiti di seta); Sen. *ben.* 7.9.5; Plin. *nat.* 6.20.54 e 12.1.2.

5 Cl. Ptol. *geog.* 1.11.7.

6 Bertuccioli/Masini (2014) 6, 11–13.

è plausibile che i Cinesi fossero entrati in contatto con quella branca del diritto privato romano denominata *ius gentium*, il cui nucleo centrale era appunto costituito da un “diritto internazionale degli affari”, dominato dal principio della *bona fides*.⁷

Tale ipotesi potrebbe essere in qualche modo supportata, se si accettasse la storicità della notizia della fondazione della città di Liqian da parte di legionari romani, scampati alla sconfitta di Carre nel 54/53 a.C., catturati e poi liberati dai Cinesi dopo la battaglia di Zhizhi nel 35 a.C. Ma su tali eventi gli studiosi moderni appaiono nettamente divisi, anche dopo il ritrovamento in Tagikistan di un affresco raffigurante la lupa capitolina.⁸ È in ogni caso sicuro che un eventuale ricorso al *ius gentium* nelle relazioni mercantili non ha prodotto alcun tipo di influenza sul sistema giuridico tradizionale cinese.⁹

Anche dopo la caduta dell’Impero romano d’Occidente, restano memorie di ambascerie e rapporti commerciali fra l’Impero bizantino e quello cinese, contenute però pressoché esclusivamente nelle cronache dinastiche cinesi, mentre le fonti occidentali fra VI e X secolo tacciono, forse a causa della fine del monopolio della Cina sulla produzione della seta, avviata anche in Occidente durante il regno di Giustiniano, allorché, secondo la narrazione di Procopio di Cesarea,¹⁰ alcuni monaci avrebbero portato di nascosto uova dei bachi a Costantinopoli.

Nel basso Medioevo e nella prima età moderna abbiamo una serie di elementi che dimostrano la persistenza di scambi commerciali tra Cina e Occidente: basta riferirci a figure di mercanti, quali Marco Polo,¹¹ al ruolo assunto dal porto di Zaiton/Quanzhou nei secoli XIII–XIV¹² e alla fondazione a opera dei Portoghesi dell’avamposto mercantile di Macao intorno al 1550, riconosciuto dalle autorità cinesi nel 1557.¹³ Ma la possibile conoscenza da parte di un numero ristretto di operatori economici cinesi delle normative della *lex mercatoria* occidentale (che seguivano, almeno in parte, le regole del diritto romano) è stata, anche in questo caso, del tutto ininfluyente e non in grado di incidere sui codici, sulle leggi imperiali e sulla mentalità giuridica tradizionale.

7 Cfr., per tutti, Petrucci (2017) 338–341, 390–391.

8 Scettico, ad es., Bertuccioli/Masini (2014) 15–16; più possibilisti Schipani (2009); Cardilli/Porcelli (2020) 47–64.

9 Per un suo quadro generale rinvio a Gilissen (1988) 1–29; Mi (1989) 24–38; Cavalieri (1999) 67–107 e, con più specifico riferimento alla materia contrattuale, a Timoteo (2004) 9–68, 121–139 e Porcelli (2020) 247–265.

10 Procop. *Goth.* 4.17.1–8.

11 Sulla sua figura e sul suo libro si rinvia, in generale, a Ménard (2006) 183–197; Airdi (2006) 209–219; Lanciotti (2006) 269–274; Bertuccioli/Masini (2014) 42–48.

12 Zheng (2006) 275–301.

13 Bertuccioli/Masini (2014) 68–69.

Per poter ipotizzare una qualche forma di conoscenza del diritto romano (veicolata dal *ius commune* romano-canonico di matrice medievale) nelle classi dirigenti cinesi (i Mandarini), bisogna attendere il XVII secolo e l'arrivo dei Gesuiti nell'Impero cinese durante l'ultimo periodo della dinastia Ming (terminata nel 1644) e la fase iniziale di quella Qing (l'ultima delle dinastie imperiali, rovesciata nel 1911).¹⁴ Infatti, l'incessante attività di traduzione in cinese di opere europee (ancorché non di carattere giuridico), realizzata dai membri della Congregazione a cominciare da Matteo Ricci, Adam Schall von Bell e Ferdinand Verbiest nel corso del XVI e XVII secolo, sarebbe stata un mezzo idoneo a favorire un primo approccio al diritto comune romano-canonico dei letterati confuciani, che formavano l'apparato amministrativo imperiale. In tale prospettiva mi verrebbe da pensare a scritti come la traduzione cinese, seppur parziale, della *Summa Theologiae* di Tommaso d'Aquino, compiuta dal gesuita italiano Ludovico Buglio (1606–1682) e pubblicata in 30 volumi a Pechino, con il titolo *Compendio di Scienza del Soprannaturale*, negli anni 1654–1676,¹⁵ data la formazione anche giuridica del teologo medievale e i suoi frequenti richiami alle norme del diritto comune contenuti nella *Summa*. Tuttavia, questa traduzione conobbe una scarsa diffusione e certamente i profili giuridici dovevano essere quelli meno interessanti per la classe colta cinese, modellata sulla dottrina confuciana.

2 La “svolta” ottocentesca

La situazione fin qui descritta subisce un primo profondo cambiamento dalla metà del XIX secolo, quando, dopo la sconfitta nelle guerre dell'oppio (1839–1842 e 1856–1860) e l'imposizione dei trattati ineguali con ampie concessioni in tema di sovranità ai Paesi occidentali, l'Impero cinese dà avvio a un rinnovamento delle conoscenze scientifiche e tecnologiche, apprendendole da questi stessi Paesi. In tale contesto si inserisce l'intensa attività di traduzione in cinese di opere europee e americane, che viene intrapresa dalla Scuola di lingue occidentali (*Tongwen guan*), istituita a Pechino nel 1862, includendo anche alcuni testi giuridici, come gli *Elements of International Law* di Wheaton (1836), tradotta dal missionario protestante americano W.A.P. Martin, dove si indicava il diritto romano come la base del diritto internazionale.¹⁶

¹⁴ Schipani (2009); Bertuccioli/Masini (2014) 70–83, 94–98; Cardilli/Porcelli (2020) 5–7.

¹⁵ Bertuccioli/Masini (2014) 97–98.

¹⁶ Cfr. Schipani (2009); Bertuccioli/Masini (2014) 219–221; Cardilli/Porcelli (2020) 13–15.

La conoscenza degli ordinamenti giuridici occidentali prosegue, durante la seconda metà del XIX secolo, con la traduzione di ulteriori opere.¹⁷ In tal modo, con più specifico riferimento all'oggetto del presente contributo, i Cinesi vengono ad apprendere un diritto romano non come si era sviluppato storicamente in età romana ed era poi stato raccolto nella grande codificazione di Giustiniano del 529–534, bensì come era stato elaborato dalla scienza giuridica europea dei secoli XII–XIX. Entrano, quindi, in contatto con il diritto romano della tradizione romanistica, vale a dire con un sistema giuridico depurato da ogni elemento di storicità, costruito in modo razionale, logico e immutabile, soprattutto a opera delle varie correnti giusnaturaliste, e applicato, prima, come diritto vigente e utilizzato, poi, a cominciare dagli inizi del XIX secolo, come base delle codificazioni civilistiche già approvate (si pensi alla francese, austriaca, olandese, a quella di vari Stati preunitari italiani e tedeschi, di molti cantoni svizzeri), oppure in corso di redazione (come nel caso del Codice civile tedesco).

Tuttavia, il vero “giro di boa” nell’atteggiamento delle autorità cinesi verso la tradizione giuridica romanistica si verifica dopo la disastrosa sconfitta nella guerra con il Giappone del 1894–1895 e il passaggio a quest’ultimo del controllo sulla Corea (Trattato di Maguan/Shimonoseki), fino ad allora uno Stato vassallo della Cina. L’esempio giapponese, che in pochi decenni (durante il governo Meiji, a partire dal 1869) era divenuto un Paese moderno ed efficiente, in grado di competere con le Potenze occidentali anche sul piano dell’ordinamento giuridico, rappresenta lo sprone per il Governo imperiale cinese a rinnovare integralmente anche il proprio.

Oltre alla sconfitta militare a opera di una nazione fino ad allora ritenuta inferiore, le ragioni per cui i Cinesi, nell’intraprendere tale opera di rinnovamento, si orientano verso il Giappone sono principalmente due: una base di partenza giuridica comune e il maggiore avanzamento della scienza giuridica giapponese nella recezione delle categorie giuridiche occidentali.¹⁸ Circa il primo punto, è noto che il diritto tradizionale giapponese era stato profondamente modellato dalla ricezione del diritto cinese della dinastia Tang (621–959), che aveva dato vita a un sistema unificato, chiamato in giapponese *Ritsu Ryo*, restato ufficialmente in vigore fino all’epoca Meiji, seppure modificato in vari punti dalle consuetudini locali. Quanto al secondo punto, in Giappone una specifica educazione giuridica era cominciata già negli anni Settanta dell’Ottocento con la fondazione delle Università sul modello occidentale, l’istituzione delle Facoltà di Giurisprudenza e l’in-

¹⁷ Come il Codice civile francese: cfr. Cardilli/Porcelli (2020) 15–20.

¹⁸ Kamiya (1992) 365–376; Masini (1993) 84–107; Timoteo (2004) 69–91, 147–165; Cardilli/Porcelli (2020) 20–30.

segnamento del diritto romano, oltreché degli ordinamenti francese, inglese e tedesco, impartiti da docenti stranieri.

Fin da quel momento nei giuristi giapponesi si era radicata la convinzione che, se non si fosse studiato il diritto romano, non si sarebbe potuto comprendere a fondo il diritto privato moderno dei Paesi occidentali. A tal fine, pertanto, quando gli insegnamenti giuridici furono dati in giapponese, il più grande problema si era rivelato quello di esprimere in questa lingua i concetti romanistici (ripresi poi dagli ordinamenti moderni, e non solo di *civil law*), un problema che non vi era stato per la ricezione del diritto cinese, in quanto anche in Giappone si usavano gli ideogrammi cinesi come lingua scritta. Ma in tempi rapidi la scienza giuridica giapponese era riuscita a risolverlo, creando nuovi caratteri (e quindi nuove parole) adeguati a esprimerli.¹⁹

3 I primi decenni del XX secolo e la “prima ricezione” del diritto romano

Il governo imperiale cinese, dunque, agli inizi del XX secolo avvia la fondazione di Università e l'istituzione di Facoltà e Scuole di diritto, rivolte specificamente all'educazione giuridica (la prima è l'Università di Pechino nel 1901), prendendo a fondamento i diritti occidentali e il diritto giapponese e utilizzando, in una prima fase, per l'insegnamento docenti stranieri (soprattutto giapponesi, ma anche francesi). Contemporaneamente si inviano all'estero eminenti studiosi (come Shen Jiaben e Wu Tingfang) per conoscere ed esaminare le leggi straniere, con l'obiettivo immediato di regolare le transazioni internazionali. Nell'elaborare un linguaggio giuridico concettualmente idoneo a tal fine i giuristi cinesi hanno potuto beneficiare all'inizio dell'esperienza di quelli giapponesi per le ragioni che si sono espone nel paragrafo precedente; ma ben presto hanno intrapreso anche vie autonome, come vedremo fra breve.

Così, nell'arco di pochi anni, anche in Cina si forma una scienza giuridica nazionale, che si sostituisce a quelle straniere sia nell'insegnamento che nelle elaborazioni dottrinarie.²⁰ Benché i corsi di diritto romano, laddove attivati, fossero in genere opzionali, si radica però anche in Cina la profonda convinzione della necessità di conoscerlo non solo per comprendere gli ordinamenti civilistici degli altri Paesi, ma anche per realizzarne uno proprio in senso moderno. Il diritto ro-

¹⁹ Kamiya (1992) 375–376; Hayashi (2012) 1–9; Cardilli/Porcelli (2020) 22–30.

²⁰ Cfr. Mi (1991) 347–348; Schipani (1996) 71–73 e (2009); Xu (2002); Cardilli/Porcelli (2020) 30–43.

mano, che si comincia a studiare nelle Scuole giuridiche e nelle Università cinesi, è dunque quello privato, che risulta fortemente influenzato dalla dottrina tedesca pandettistica e dalla sua visione sistematica e razionale.²¹ Ciò è dovuto non tanto all'esempio giapponese, che pure ha avuto un suo indubbio peso, quanto al grande prestigio acquisito dalla scienza giuridica della Germania tra la fine dell'Ottocento e gli inizi del Novecento.

Oltreché nei contenuti, sui quali ci soffermeremo tra breve, l'influenza della tradizione del diritto privato romano di matrice tedesca, si manifesta anche nella scelta di redigere un proprio codice civile, una scelta, in verità, seguita da tutti i Paesi c.d. di *civil law* e che in Cina ben si innestava sulla tradizione giuridica nazionale, dove si erano succeduti nel tempo i Codici di leggi delle varie dinastie. L'osservazione potrebbe apparire banale, ma in realtà, a mio avviso, non lo è, in quanto gli studiosi cinesi inviati all'estero avevano avuto modo di conoscere anche gli ordinamenti anglo-americani (che, come è noto, non contemplano codici civili) e avrebbero potuto orientare il governo imperiale in quella direzione, poiché si trattava di "sradicare" l'ordinamento giuridico tradizionale e "ripiantarne" uno totalmente nuovo.

Il principale risultato di questa prima recezione del diritto romano, ancorché nella visione pandettistica tedesca, è dato dall'approvazione di un Codice civile nazionale alla fine degli anni Venti. Il suo primo progetto era già pronto nel 1911, ma la caduta dell'ultima dinastia imperiale (i Qing) in quell'anno ne aveva impedito l'approvazione e l'entrata in vigore. Sulla sua base, negli anni seguenti il governo repubblicano fa redigere un secondo progetto, realizzato dai più eminenti studiosi cinesi di diritto civile (e diritto romano), ma anch'esso rimane inattuato a causa della difficile situazione politica interna (epoca dei Signori della guerra). Tuttavia, questo progetto è largamente utilizzato dalla Corte Suprema, le cui decisioni sono raccolte nei *Principi fondamentali per il giudizio dei casi civili*, favorendo così la diffusione all'interno della società cinese. Si apre così la strada alla successiva approvazione del Codice civile, fondato anch'esso su tale progetto ed entrato in vigore tra il 1928 e il 1931.²²

Una breve analisi della sistematica e del contenuto di questo Codice civile appare utile anche nella nostra attuale prospettiva, per comprendere il successo della penetrazione in esso delle categorie e dei concetti giuridici romanistici e le numerose difficoltà terminologiche affrontate e superate dai giuristi cinesi.

21 Mi (1991) 346–349; Xu (2002); Cardilli/Porcelli (2020) 41–43.

22 Mi (1991) 349–350; Cavalieri (1999) 121–123; Schipani (2009); Cardilli/Porcelli (2020) 37–43. È significativo che di tale Codice esista, oltre alle traduzioni in inglese, francese e tedesco, anche una in latino compiuta dal vicario apostolico di una missione cattolica: cfr. Jarre (1934).

Il Codice è articolato in cinque libri, di cui il primo racchiude una parte generale, come quello tedesco (il *Bürgerliches Gesetzbuch*, *BGB*), sulla scia degli insegnamenti della dottrina pandettistica ottocentesca, che aveva tratto ed elaborato dai testi giuridici romani principi e regole generali, da applicare poi alle singole branche del diritto privato. Le altre quattro parti del Codice sono infatti dedicate alla proprietà, diritti reali e possesso (libro II), alle obbligazioni (libro III), alla famiglia (libro IV) e alle successioni ereditarie (libro V). Si tratta di una scelta che si presentava in quel momento come la più avanzata, scientificamente e sistematicamente, rispetto al modello delle *Istituzioni* di Giustiniano, seguito nei tre libri del Codice civile francese.²³

Il suo linguaggio riflette anche un'importante maturazione del nuovo linguaggio giuridico cinese, formatosi negli anni precedenti. Se, da un lato, come si è detto in precedenza, la scienza giuridica cinese si era potuta basare su nuovi ideogrammi inventati da quella giapponese per esprimere nozioni, quali diritto civile, diritto soggettivo, persona giuridica, negozio giuridico, diritti reali, beni mobili e immobili,²⁴ dall'altro, si era mossa in modo autonomo, spesso all'esito di una pluralità di tentativi e soluzioni. Possiamo brevemente ricordare i seguenti esempi.

Obbligazione: nel diritto cinese antico non esisteva una distinzione tra obbligazione (*obligatio*) e responsabilità derivante dal suo inadempimento, in quanto si usavano indifferentemente i termini *zhai* ("obbligazione") e *ze* ("responsabilità") con una connotazione penalistica di soggezione a una pena. Ora, attraverso anche la mediazione del giapponese, tali parole transitano nell'ambito civilistico, dando vita ai neologismi *zhaiquan* ("obbligazione" / "diritto di esigerne l'adempimento") e *zeren* ("responsabilità"), che, come nella tradizione romanistica, esprimono concetti ben separati.²⁵

Receptum nautarum, cauponum et stabulariorum. Si tratta di una pattuizione con la quale un armatore o il comandante di una nave oppure il titolare di un albergo o di una stazione di cambio si impegnava a custodire e salvaguardare, in modo rigoroso e assoluto, le merci dei passeggeri o dei clienti. Le traduzioni cinesi sono state varie, a seconda degli aspetti di questo istituto ritenuti più rilevanti: *yue ding* mette in luce la sua natura di *pactum*, *fuze jianyue* il profilo della responsabilità per aver concluso un patto, *chengbao* l'assunzione di un'obbligazione di custodia, con un passaggio dal campo penale a quello civile dei morfemi *cheng* ("assumere un obbligo") e *bao* ("garantire").²⁶

²³ Mi (1991) 348–349; Schipani (2009); Cardilli/Porcelli (2020) 95–97.

²⁴ Cardilli/Porcelli (2020) 33–35.

²⁵ Cardilli/Porcelli (2020) 197–202.

²⁶ Petrucci (1996) 456–457.

Anche nel campo dell'educazione giuridica si registra in questi stessi anni un considerevole sviluppo con l'aumento del numero delle Facoltà di Giurisprudenza e dei corsi di diritto romano al loro interno, che in molte diventano obbligatori. I cinque grandi romanisti cinesi dell'epoca, formati anche all'estero, realizzano molti studi e scrivono manuali di diritto romano, destinati all'insegnamento. I loro nomi sono: Huang Youchang, Chen Chaobi, Chen Yun, Yin Shi e Qiu Hanping.²⁷

Per comprendere quanto la scienza giuridica romanistica, recepita nei modi fin qui descritti, abbia rivoluzionato l'ordinamento cinese anteriore, è sufficiente un breve confronto con la struttura e i contenuti del Codice della dinastia Qing, l'ultima dinastia imperiale, promulgato nel 1740 con il nome di *Da Qing lü li* e rimasto vigente fino al 1911. Tale Codice, composto da 436 articoli fondamentali e permanenti (i *lü*) e 815 disposizioni complementari (i *li*), era ampiamente modellato su quelli delle dinastie precedenti, di cui aveva accolto molti contenuti,²⁸ e si può quindi, a ragione, ritenere un'espressione del pensiero giuridico tradizionale.

La sua struttura risulta così suddivisa. A una parte generale, comprendente "nomi e regole generali", incentrata sulle cinque pene applicate (art. 1) e sui dieci reati più gravi (art. 2), fanno seguito sei parti speciali, ciascuna corrispondente agli Uffici centrali dell'amministrazione imperiale: Ufficio del Personale, Ufficio delle Imposte (al cui interno sono contenute disposizioni, indirette e in un'ottica penale, sulla compravendita di fondi, sul *dian*, sul matrimonio e sulle successioni), Ufficio dei Riti, Ufficio della Guerra, Ufficio delle Pene e Ufficio dei Lavori Pubblici.²⁹

4 Dall'approvazione del primo Codice civile alla morte di Mao Zedong (1976)

Se con il Codice civile del 1928–1931 la prima ricezione del diritto romano in Cina ha raggiunto l'apice, non va, tuttavia, dimenticato che la sua conoscenza non era avvenuta direttamente, ma attraverso il filtro e l'intermediazione del diritto e della scienza giuridica di altri Paesi. Le traduzioni cinesi di alcune fonti, come le *Istituzioni* di Giustiniano, sono compiute non dal testo latino, ma da quelle di altre lingue moderne e gli studi dei romanisti cinesi fanno largo uso della letteratura europea in materia e dell'impiego che essa fa dei testi giuridici romani, senza leggerli direttamente e svolgere una loro autonoma interpretazione. Inol-

²⁷ Mi (1991) 351; Xu (2002); Schipani (2009).

²⁸ Gilissen (1988) 9; Cavalieri (1999) 88–91.

²⁹ Gilissen (1988) 13–27; Jones (1994) 1–28.

tre, la diffusione di questa nuova cultura giuridica interessa soltanto alcune aree della Cina: quelle più sviluppate, più aperte ai traffici commerciali e ai rapporti con gli stranieri, mentre nelle altre continua a seguirsi il diritto tradizionale.

Negli anni successivi fino al 1949, anno della fondazione della Repubblica Popolare, il destino del Codice civile, del diritto romano e degli studi romanistici subisce le vicissitudini che hanno travagliato la storia cinese contemporanea. Sono vicende assai note, ma che è opportuno riassumere anche qui *à vol d'oiseau*.

Il governo del *Guomindang* perde il controllo di larghe parti del territorio rurale, dove scoppia la rivoluzione promossa dal Partito comunista, che le sottopone alla propria autorità, dando inizio a un'esperienza che si sarebbe rivelata utile nell'epoca successiva. Tra il 1931 e il 1934 in tali zone, infatti, sono varate leggi sul lavoro, sull'organizzazione economica, sul matrimonio, sulla terra, che seguivano strettamente l'esempio dell'URSS. La Manciuria al Nord è occupata dai Giapponesi, che insediano lo Stato "fantoccio" del Manzhuguo, esportandovi il proprio ordinamento giuridico. Poi, nel 1937, il Giappone aggredisce e invade anche le regioni orientali della Cina, dando inizio a una guerra, che termina solo nel 1945 con la sconfitta dei Nipponici nella Seconda guerra mondiale. Nazionalisti e comunisti cinesi, che avevano sospeso le reciproche ostilità per opporsi in un fronte comune ai Giapponesi, le riprendono fino alla definitiva vittoria dei secondi e all'instaurazione, il 1° ottobre 1949, della Repubblica Popolare Cinese.

In un tale contesto, non è difficile comprendere come la tradizione romanistica e la nuova scienza del diritto civile che ne derivava non avessero un particolare impatto, restando confinate a limitate zone del Paese, mentre le altre vivevano o secondo esperienze giuridiche diverse (sovietica e giapponese) oppure facevano uso del diritto tradizionale.³⁰

La proclamazione della Repubblica Popolare, se ha avuto il merito di riunificare politicamente il Paese (a eccezione di Hong Kong, Macao, ritornati sotto la sovranità cinese solo nel 1997 e 1999 con un'ampia autonomia anche giuridica, e di Taiwan), ha contato, fra i suoi primi atti, quello di abolire i codici e tutte le normative fatte approvare dal governo nazionalista. Cessa così la vigenza del Codice civile, che permane nella sola isola di Taiwan, recuperata dal Giappone nel 1945 e rimasta sotto il controllo del *Guomindang*, e parallelamente si abbandona la formazione giuridica su base romanistica, che a esso si collegava e che si era sviluppata nei quattro decenni precedenti. L'ordinamento del Paese e l'educazione dei futuri giuristi sono decisamente rivolti verso il modello sovietico, dati i rapporti privilegiati del nuovo regime con l'Unione Sovietica. I piani degli studi di diritto, previsti dal Ministero dell'Educazione Pubblica nel 1951 e 1953, erano appiattiti su tale mo-

30 Cavalieri (1999) 112–114, 118–154; Fei (2007) 113–120; Schipani (2009).

dello, con insegnamenti impartiti da docenti russi o di formazione russa e manuali tradotti dal russo. Il diritto romano e la tradizione romanistica ne erano però esclusi diversamente da come avveniva nell'URSS.³¹

Infatti, nelle Università sovietiche i corsi di diritto romano, dopo essere stati per un certo tempo aboliti, erano stati reintrodotti come materia obbligatoria da Stalin nel 1944 non solo per l'influenza esercitata dalla dottrina pandettistica tedesca sul modello seguito dal primo Codice civile del 1922, promulgato da Lenin,³² ma anche e soprattutto per motivi di carattere ideologico, in quanto una più piena conoscenza delle radici del diritto privato borghese avrebbe contribuito a creare strumenti più efficaci per combatterlo.

Dunque, fino alla crisi delle relazioni sino-sovietiche nel 1958, gli studenti cinesi più brillanti, inviati nelle Università russe per ricevere una formazione giuridica, quando erano tornati in patria, avevano acquisito anche una conoscenza del diritto romano, dei suoi concetti e principi attraverso il filtro e l'intermediazione sovietica. Si tratta di un elemento di fondamentale importanza e non di dettaglio, come potrebbe apparentemente sembrare, e i motivi li vedremo chiaramente da quanto si dirà nel prossimo paragrafo.

Dopo il 1958 la Repubblica Popolare si richiude in sé stessa, isolandosi dall'esterno e realizzando un processo di radicale trasformazione interna, culminato nella Grande rivoluzione culturale degli anni 1966–1976, con pesanti riflessi anche nel settore giuridico. È la fase che i Cinesi chiamano del “nichilismo giuridico”, perché in essa è annullato ogni ruolo del diritto e dei giuristi, le Facoltà di Giurisprudenza sono chiuse e tutte le questioni giuridiche trovano una soluzione esclusivamente sul piano ideologico, mediante i pensieri contenuti nel “libretto rosso” di Mao Zedong e i principi del marxismo-leninismo. Come è evidente, in questa fase storica si tronca anche ogni nesso fra ordinamento cinese e diritto romano.³³

5 La “seconda ricezione” del diritto romano in Cina

Dopo la morte di Mao nel 1976 e l'ascesa al potere di Deng Xiaoping, il Governo cinese si è subito attivato per ricostruire un nuovo ordinamento giuridico in

³¹ Xu (2002); Schipani (2009).

³² Xu (2002).

³³ Sulle diverse fasi attraversate dall'ordinamento cinese tra la fondazione della Repubblica Popolare e la morte di Mao rinvio a Jiang (1988) 367; Mi (1991) 351; Schipani (1996) 69; Fei (2007) 120–121; Schipani (2009); Cardilli/Porcelli (2020) 97–98.

grado di permettere una incisiva trasformazione della società e la realizzazione di un'economia "socialista di mercato" e in tale nuovo contesto il diritto romano è tornato ad assumere un proprio ruolo di rilievo. Vediamo come.

Ancora una volta il punto di partenza iniziale è stato quello di conoscere i più recenti sviluppi della scienza giuridica dei Paesi occidentali, principalmente nel campo del diritto privato, ritenuto, non a caso, il settore più importante per il raggiungimento dei risultati economico-sociali attesi. Come nei primi anni del Novecento, anche adesso le finalità sono state quelle di trarre da ogni sistema, ordinamento e modello le norme che apparissero più utili alle peculiarità della situazione cinese. In una simile prospettiva, limitandoci al tema di nostro interesse, l'approccio allo studio del diritto romano cambia, subendo un salto di qualità, in quanto i giuristi cinesi non si sono limitati a riprendere le attività di studio e insegnamento interrotte nel 1949 (importanti romanisti degli anni Trenta e Quaranta, come Chen Chaobi e Zhou Nan, erano comunque sopravvissuti), ma hanno principalmente puntato a conoscerlo in via diretta sulla base delle fonti, senza i filtri e le intermediazioni della scienza giuridica e degli ordinamenti altrui.

Nel perseguimento di questo obiettivo un ruolo determinante è stato svolto proprio da uno di quei giuristi che, come osservato in precedenza, era stato mandato a studiare giurisprudenza a Mosca nei primi anni Cinquanta, dove aveva sostenuto l'esame di diritto romano. Il suo nome è Jiang Ping. Egli, oltre a rivestire importanti ruoli politici (membro della Commissione permanente dell'Assemblea Popolare Nazionale e Vicepresidente della sua Commissione giuridica), è stato professore di diritto civile e di diritto romano (scrivendo anche un manuale di *Principi di diritto romano* pubblicato nel 1987) e Rettore, dal 1988 al 1990, dell'Università di Scienze Politiche e Giurisprudenza della Cina di Pechino, una delle cinque Università istituite agli inizi degli anni Ottanta con lo specifico compito di formare le nuove leve di giuristi e poste alle dirette dipendenze del Ministero della Giustizia anziché dell'Educazione Pubblica.

In tale qualità, durante la sua visita in Italia nel febbraio del 1989, su invito del CNR in collaborazione con l'Università di Roma Tor Vergata, ha siglato con quest'ultima un accordo grazie al quale, negli anni successivi, è stato possibile per molti giovani ricercatori cinesi venire a studiare sui testi di diritto romano e poi tradurli.³⁴ Durante il loro soggiorno (protrattosi fra i due e quattro anni e finanziato con risorse soprattutto del CNR) questi giovani sono stati integrati in un gruppo di ricerca, di cui ha fatto parte il sottoscritto fino agli inizi del Duemila, dove sono stati dapprima introdotti alla conoscenza delle fonti e delle basi del la-

34 Schipani (1996) 77–80.

tino giuridico e poi seguiti nel lavoro di traduzione, discutendo le complesse problematiche relative alla terminologia e ai concetti giuridici romanistici.

I risultati che ne sono derivati sono stati soddisfacenti sotto molteplici aspetti.³⁵ Innanzitutto, le pubblicazioni. Tra il 1991 e il 1999 sono stati editi in Cina, per la prima volta, dodici volumetti di frammenti selezionati del *Corpus iuris civilis* di Giustiniano (tratti soprattutto dai *Digesta* e dal *Codex*) tradotti in cinese (*Corporis iuris civilis fragmenta selecta*, casa editrice CUPL). Contemporaneamente e successivamente sono state pubblicate le traduzioni delle XII Tavole e delle *Istituzioni* di Gaio (per la prima volta), delle *Istituzioni* di Giustiniano, del *De republica* e del *De legibus* di Cicerone (tutte direttamente dal latino, senza intermediazione di altre lingue moderne). Si è inoltre avviato – e in parte realizzato – un più ampio e ambizioso progetto, che ha portato all’edizione in cinese della traduzione di interi libri dei *Digesta* (ad esempio, il VI sulla rivendicazione della proprietà, il VII sull’usufrutto, l’VIII sulle servitù prediali, il XVIII sulla compravendita, il XLVIII sugli illeciti privati) e di alcuni manuali classici italiani di diritto privato e pubblico romano, quali le *Istituzioni di Diritto Romano* di Pietro Bonfante, le *Lezioni di storia del diritto romano* di Giuseppe Grosso e il primo volume della monumentale *Storia della costituzione romana* di Francesco De Martino. Ancor più importanti, però, sono state le pubblicazioni di monografie romanistiche e testi per la didattica del diritto romano, scritti dagli studiosi cinesi formati in Italia utilizzando di prima mano i dati delle fonti tradotte.³⁶

In secondo luogo, si è messo in atto un ulteriore sforzo per individuare una più precisa terminologia tecnica cinese per i concetti del diritto romano e soprattutto per renderla uniforme, superando le difficoltà che si sono evidenziate negli esempi fatti nel § 3. In tale sforzo si sono rivelati di grande ausilio i risultati già raggiunti dalla scienza giuridica cinese delle prime decadi del XX secolo (nei modi descritti in precedenza) e il lavoro svolto dal Gabinetto di traduzione giuridica della Regione autonoma di Macao, che, già prima del suo ritorno alla Repubblica Popolare nel 1999, ha realizzato importanti glossari giuridici portoghese-cinese, che vengono ancora periodicamente aggiornati (e qui, come è ovvio, un notevole ausilio è dato dalla forte corrispondenza della terminologia giuridica portoghese a quella latina).³⁷ Ne è nato così un glossario latino giuridico-cinese, purtroppo solo parzialmente edito in appendice ad alcune delle pubblicazioni ci-

35 Per un quadro di sintesi cfr. Xu (2002); Schipani (2009).

36 Basta menzionare qui Ding (1998) sulla responsabilità contrattuale in diritto romano; Zhang (2007) sui contratti innominati e il manuale di diritto privato romano Huang (2003).

37 Cito come esempio il *Glossário Jurídico Chinês-Português, Português-Chinês*, pubblicato a Macao nel 2005 dalla *Direcção dos Serviços de Assuntos de Justiça* della Regione amministrativa speciale.

tate in precedenza, che andrebbe però rivisto oggi nel suo complesso, prima di pensare a pubblicarlo integralmente.

In terzo luogo, sono stati riattivati o attivati numerosi corsi di diritto romano nelle Università cinesi,³⁸ insegnati da ricercatori educati principalmente in Italia con il metodo del confronto immediato con le fonti. La maggior parte di loro ha conseguito un dottorato romanistico nel nostro Paese, che gli ha consentito di vincere il concorso di professore dopo il rientro in Cina.

Last, but not least, una breve riflessione, anche nel contesto del presente volume, meritano gli effetti che gli studi post-maoistici di diritto romano hanno avuto e stanno avendo sul rinnovamento attuale dell'ordinamento giuridico cinese. In via preliminare, ci tengo a sottolineare che non è stato mai operato alcun condizionamento od orientamento nei confronti dei ricercatori cinesi su come utilizzare il diritto romano appreso dai dati delle fonti. Ci è stata chiesta una collaborazione nella loro conoscenza e traduzione e questo abbiamo fatto. E, come sempre, la scienza giuridica cinese si è mossa in modo del tutto autonomo e prammatico, prendendo e utilizzando solo quanto le è sembrato conveniente.

Chiarito ciò, va sottolineato il notevole numero di corrispondenze concettuali e normative tra diritto romano "puro", diritto romano "filtrato" dalla tradizione romanistica e dagli ordinamenti moderni e singole leggi della Repubblica Popolare Cinese sul diritto privato patrimoniale, approvate tra gli anni Novanta del Novecento e la prima decade del Duemila (in particolare, quelle sui contratti del 1999 e sui diritti reali del 2007), riversate pressoché integralmente nel nuovo Codice civile del 2020 (in 7 libri), considerato, soprattutto in riferimento alla sua parte generale, come "un'enciclopedia del diritto privato".³⁹

Solo per fare qualche esempio: il rilievo riconosciuto alla buona fede (art. 7) e all'equità (art. 6) nelle attività giuridiche, la libertà di concluderle e la posizione paritaria dei soggetti (artt. 4 e 5, in contrapposizione alle direttive dirigistiche derivanti dall'economia pianificata statale), la tipicità dei diritti reali di godimento (artt. 116, 323 ss.), in cui si separa la proprietà dei suoli (necessariamente pubblica) dalla loro utilizzazione o dall'utilizzazione degli edifici costruiti su di essi (consentita anche ai privati).⁴⁰

Un'annotazione conclusiva. Ora che il nuovo Codice civile è stato approvato, quale sarà il futuro che la scienza giuridica cinese intende riservare al diritto romano? Si può ritenere ormai assolta la funzione di costruire il nuovo ordina-

³⁸ Mi (1991) 351–352; Xu (2002).

³⁹ Cardilli/Porcelli (2020) 70–90, 99–111; Xu (2021) v–xx. Del nuovo Codice civile cinese esiste una traduzione anche in italiano: Huang (2021).

⁴⁰ Su tali argomenti si rinvia, per tutti, a Cardilli/Porcelli (2020) 153–165 sui diritti reali, 234–242 sulla buona fede contrattuale e 273–293 in tema di contratti.

mento giuridico, assegnatagli negli anni Ottanta del secolo passato, e quindi metterlo da parte, oppure riconoscergli ancora un ruolo fondamentale nell'educazione e nella *forma mentis* delle giovani generazioni di giuristi? Come è evidente, il dibattito esiste non solo in Cina, ma caratterizza oggi tutti i Paesi di tradizione romanistica e i suoi esiti non sono affatto prevedibili: nel caso cinese, bisognerà vedere se continuerà a prevalere la convinzione dell'utilità formativa della conoscenza di questo diritto oppure se verranno ad avere maggiore peso fattori più pragmatici (i più determinanti nella Cina contemporanea), per cui lo stesso, con tutto il suo enorme bagaglio di esperienza, sarà sacrificato sull'altare di un diritto più specializzato e collegato all'informatica e alle nuove tecnologie, slegato da una visione generale e unitaria dell'ordinamento.

Federico Andrea Galatolo, Gabriele Martino, Mario G.C.A. Cimino,
and Chiara Ombretta Tommasi

SERICA Digital Library: ricerca di testi antichi attraverso Neural NLP

1 Introduzione

I sistemi di Information Retrieval (IR) sono diventati una componente essenziale della moderna gestione delle informazioni. Questi sistemi sono progettati per recuperare informazioni rilevanti da grandi collezioni di documenti, in risposta alle richieste degli utenti. In particolare, gli approcci DIR (Dense IR), che si basano sulla tecnologia *deep learning*, sono sempre più utilizzati in vari ambiti per trovare informazioni rilevanti a partire da dati ampi ed eterogenei in modo più rapido ed efficiente rispetto agli IR basati sulla tradizionale elaborazione del linguaggio naturale (NLP). I recenti progressi nel campo del NLP hanno portato allo sviluppo di modelli di trasformazione pre-addestrati, come BERT e LaBSE, che hanno mostrato prestazioni impressionanti. Questi modelli sono addestrati su *corpora* ampi, perché possano apprendere ricche rappresentazioni delle lingue, e sono adatti a una varietà di compiti in ambito NLP.

In questo senso, le biblioteche digitali storiche pongono sfide maggiori. I testi antichi, medievali o della prima età moderna sono scritti in lingue non più in uso, presentano un'ortografia e una grammatica in evoluzione nei vari periodi, e quindi sono difficili da elaborare con i sistemi NLP tradizionali. Per superare queste sfide, questo lavoro presenta un sistema DIR per una biblioteca latina che utilizza modelli di *machine learning* detti “transformer” pre-addestrati. Il metodo adoperato richiede di calcolare gli embeddings (rappresentazioni numeriche delle parole) utilizzando i modelli disponibili, come Latin BERT e LaBSE, per ogni frase nei documenti e per le interrogazioni. Per recuperare le frasi più simili per una determinata interrogazione, viene utilizzata una distanza come il coseno. Il presente lavoro illustra lo sviluppo del sistema proposto, che comprende una sequenza di pre-elaborazione dei dati, un motore di elaborazione delle interrogazioni, e un'interfaccia di ricerca per gli utenti. Per valutare le prestazioni del sistema, una metrica quantitativa basata sulla classifica dei documenti per interrogazioni è stata fornita da una persona esperta in latino e confrontata con i risultati ottenuti dal sistema proposto. I risultati sperimentali mostrano che il modello basato su LaBSE supera quello basato su Latin BERT per lo scopo di recuperare informazioni pertinenti dalla biblioteca latina. Per favorire ulteriori svi-

luppi, i dati e il codice sorgente sono stati resi pubblici [Galatolo and Martino (2023)].

Il presente articolo è strutturato come segue. La Sezione 2 tratta lo stato dell'arte. Il metodo è discusso nella Sezione 3. Gli studi sperimentali sono descritti nella Sezione 4. Infine, la Sezione 5 trae le conclusioni.

2 Stato dell'arte

Con l'avvento dell'apprendimento automatico, i modelli di IR si sono evoluti dai metodi classici alle funzioni di classificazione basate sull'apprendimento. Uno dei fattori critici per la progettazione di modelli IR efficaci è il modo in cui apprendere le rappresentazioni del testo e modellare una corrispondente rilevanza. Con i recenti progressi dei modelli di linguaggio pre-addestrati (LLM), come BERT e GPT, è possibile apprendere efficacemente le rappresentazioni dense delle interrogazioni e dei testi nello spazio cosiddetto "latente" e costruire una funzione di corrispondenza semantica per la modellazione della rilevanza. Questo approccio è noto come *dense retrieval*, in quanto impiega vettori o embeddings densi per rappresentare i testi [Zhao et al. (2022)]. BERT (Bidirectional Encoder Representations from Transformers) [Devlin et al. (2019)] è un modello di rappresentazione linguistica all'avanguardia che ha ottenuto ottimi risultati su una serie di compiti di elaborazione del linguaggio naturale. Si tratta di un modello di deep learning che utilizza un'architettura a "transformer" per elaborare sequenze di testo e generare rappresentazioni di alta qualità. L'innovazione chiave di BERT è l'uso dell'elaborazione bidirezionale, che gli consente di catturare le informazioni contestuali sia in avanti che indietro su una determinata parola. Ciò si ottiene dividendo il testo in ingresso in segmenti di lunghezza fissa e poi elaborando ogni segmento in entrambe le direzioni, da sinistra a destra e da destra a sinistra. In questo modo, BERT è in grado di acquisire informazioni sul contesto in cui appare una parola, comprese le parole che la precedono e la seguono. Oltre all'elaborazione bidirezionale, BERT utilizza anche diverse altre tecniche per migliorare le sue prestazioni. Queste includono l'uso delle seguenti caratteristiche:

- (i) l'auto-attenzione multi-testa, che consente al modello di concentrarsi selettivamente su diverse parti del testo in ingresso;
- (ii) un obiettivo di modellazione linguistica mascherata, che incoraggia il modello a prevedere le parole mancanti in base al contesto in cui appaiono;
- (iii) un compito di previsione della frase successiva, che incoraggia il modello a comprendere le relazioni tra le diverse frasi di un documento.

Recentemente, David Bamman e Patrick Burns [Bamman and Burns (2020)] hanno presentato Latin BERT, un modello linguistico contestuale per la lingua latina, addestrato su un ampio corpus di 642,7 milioni di parole provenienti da varie fonti che vanno dall'epoca classica al XXI secolo. Gli autori hanno dimostrato le capacità di questo modello specifico per la lingua latina attraverso diversi casi di studio, tra cui il suo utilizzo per l'etichettatura "part-of-speech", dove Latin BERT ha raggiunto un nuovo stato dell'arte per tre dataset *Universal Dependency Latin*. Il modello viene utilizzato anche per la previsione del testo mancante, comprese le emendazioni critiche, e supera i word embeddings statici per la disambiguazione del senso delle parole. Inoltre, lo studio dimostra che Latin BERT può essere utilizzato per la ricerca semanticamente informata, interrogando i vicini contestuali.

Anche LaBSE è un modello di embedding di frase multilingue basato sull'architettura BERT [Feng et al. (2022)]. Gli autori hanno studiato sistematicamente i metodi per l'apprendimento di embeddings di frasi multilingue, combinando i migliori metodi per l'apprendimento di rappresentazioni monolingue e multilingue, tra cui il Masked Language Modeling (MLM), il Translation Language Modeling (TLM), il Dual Encoder Translation Ranking e l'Additive Margin Softmax. Gli autori hanno dimostrato che l'introduzione di un modello linguistico multilingue pre-addestrato riduce drasticamente la quantità di dati di addestramento paralleli necessari per ottenere buone prestazioni. La combinazione dei migliori metodi ha prodotto un modello che raggiunge l'83,7% di accuratezza nel recupero di testi in più di 112 lingue sul set di dati Tatoeba, contro il 65,5% di accuratezza ottenuto dai precedenti modelli allo stato dell'arte, ottenendo allo stesso tempo prestazioni competitive in benchmark di transfer learning monolingue. Gli autori hanno inoltre dimostrato l'efficacia del modello LaBSE estraendo dati paralleli dal repository CommonCrawl e utilizzandoli per addestrare modelli di traduzione automatica neurale (Neural Machine Translation, NMT) competitivi per inglese-cinese e inglese-tedesco.

Un lavoro recente nella comprensione del linguaggio, che sfrutta le caratteristiche contestualizzate, è Semantics-aware BERT (SemBERT) [Zhang et al. (2020)]. SemBERT incorpora la semantica contestuale esplicita dall'etichettatura dei ruoli semantici pre-addestrata, migliorando le capacità di rappresentazione linguistica di BERT. SemBERT è in grado di assorbire la semantica contestuale senza sostanziali modifiche specifiche al compito, con un design più potente e semplice rispetto a BERT. Ha ottenuto nuovi risultati relativamente allo stato dell'arte in diversi compiti di comprensione automatica e di inferenza del linguaggio naturale. Per l'IR basata sul latino, Piroska Lendvai e Claudia Wick hanno perfezionato Latin BERT per la *Word Sense Disambiguation* sul *Thesaurus linguae Latinae (TLL)* [Lendvai and Wick (2022)]. Questo lavoro propone di utilizzare Latin BERT per creare un nuovo set di dati basato su un sottoinsieme di rappresentazioni del *Thesaurus linguae Latinae*. I risultati dello studio hanno mostrato che le rappre-

sentazioni BERT contestualizzate e messe a punto sui dati *ThLL* hanno prestazioni migliori rispetto agli embeddings statici utilizzati in un classificatore LSTM bidirezionale sullo stesso dataset. Inoltre, i modelli BERT per ogni singolo template hanno ottenuto prestazioni più elevate e più robuste rispetto ai risultati precedenti, basati su dati provenienti da un dizionario bilingue latino. Più recentemente, Zhengbao Jiang et al. hanno proposto X-FACTR: a Multilingual Factual Knowledge Retrieval from Pretrained Language Models [Jiang et al. (2020)]. Gli autori hanno proposto un benchmark di interrogazioni cloze-style per 23 lingue tipologicamente diverse per valutare il recupero della conoscenza fattuale nei LLM (Large Language Model). Lo studio ha ampliato i metodi di sondaggio da entità a parola singola a entità a più parole, e ha sviluppato diversi algoritmi di decodifica per generare previsioni a più token. I risultati dello studio hanno fornito indicazioni sulle prestazioni degli attuali LLM in lingue con più o meno risorse disponibili. I ricercatori hanno inoltre proposto un metodo basato sul code-switching per migliorare la capacità dei LLM multilingue di accedere alla conoscenza, che è stato verificato essere efficace in diverse lingue di riferimento. I dati e il codice di riferimento di questo articolo sono stati resi pubblici per facilitare ulteriori ricerche in questo settore.

3 Nuovi paradigmi di ricerca nella SERICA Digital Library

3.1 I livelli di rappresentazione del testo nella SERICA Digital Library

La SERICA Digital Library è stata progettata per ospitare diversi paradigmi di elaborazione del testo, corrispondenti a diverse metodologie di analisi testuale. La Figura 1 mostra i sei livelli di rappresentazione del testo. In sostanza, il testo viene archiviato in formati incrementali per poter essere elaborato in modo indipendente con vari metodi.

La struttura multilivello è composta come di seguito. Il primo livello è quello del *testo semplice*, ossia il contenuto puro senza alcun'altra informazione aggiuntiva. Il secondo livello, del *testo normalizzato*, si ottiene dopo aver convertito in una singola forma canonica ogni termine che si manifesta in diverse varianti storiche. Il *testo strutturato* corrisponde invece al terzo livello, in cui vengono aggiunte informazioni sulla struttura testuale, quali riferimenti, sezioni, pagine, ecc. Il quarto livello è il *testo annotato* semanticamente, in cui elementi testuali vengono associati a concetti, quali luoghi, persone, eventi ecc., di interesse dello studioso. Poi si passa al livello del

The SERICA textual levels

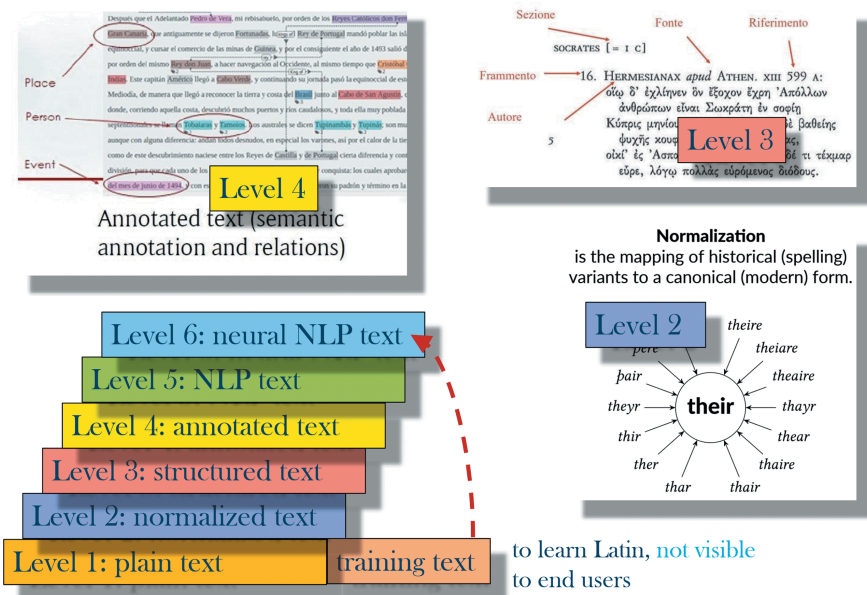


Figura 1: I livelli della SERICA Digital Library.

testo elaborato tramite NLP, in cui si possono produrre analisi elaborate del testo, ad esempio per studiare l'evoluzione del linguaggio, oppure per studiare il sentimento presente in un racconto, attraverso algoritmi finalizzati allo scopo. L'ultimo livello è quello del *testo elaborato tramite neural NLP*, ossia metodi di rappresentazione basati sulle reti neurali, oggetto del presente lavoro di ricerca. Si tratta di metodi che adoperano un corpus di testi di riferimento (*training text*) per modellare la struttura del linguaggio tramite un paradigma computazionale, e adoperano tale modello per esplorare una digital library, ad esempio ai fini della ricerca.

3.2 Il processo di *word embedding* e i modelli multilingua

Più precisamente, si dice *word embedding* il processo di conversione dei testi in numeri, con l'obiettivo di ottenere numeri simili per parole dal significato simile. La conversione numerica avviene secondo un principio puramente distribuzionale: secondo la *ipotesi distribuzionale*, parole che occorrono in contesti simili tendono ad avere significati simili. Pertanto, viene contrapposta la somiglianza basata sulla semantica con la somiglianza basata su come le parole sono distri-

buite. Il *machine learning* può generare rappresentazioni numeriche dove parole con significato simile hanno una rappresentazione numerica simile. Ad esempio, dato un gruppo di parole, si genera una rappresentazione numerica multidimensionale in cui i termini maschili sono più vicini tra loro, e analogamente quelli femminili, rispetto a termini di diverso genere. Oppure termini che rappresentano verbi sono vicini tra loro se hanno lo stesso tempo. Vi sono infine anche *modelli di embedding multilingue*, in cui parole che in diverse lingue corrispondono allo stesso concetto sono vicine tra loro. La Figura 2 mostra le diverse lingue disponibili nel modello LaBSE e il numero di frasi per lingua.

SERICA Intelligent Search

- **LaBSE: Language-agnostic BERT Sentence Embedding** (Google, 2022)
- **BERT: Bidirectional Encoder Representations from Transformers** (Google, 2018)
- **Transformer: deep neural network to learn sequences with long-range dependencies, via an attention mechanism**

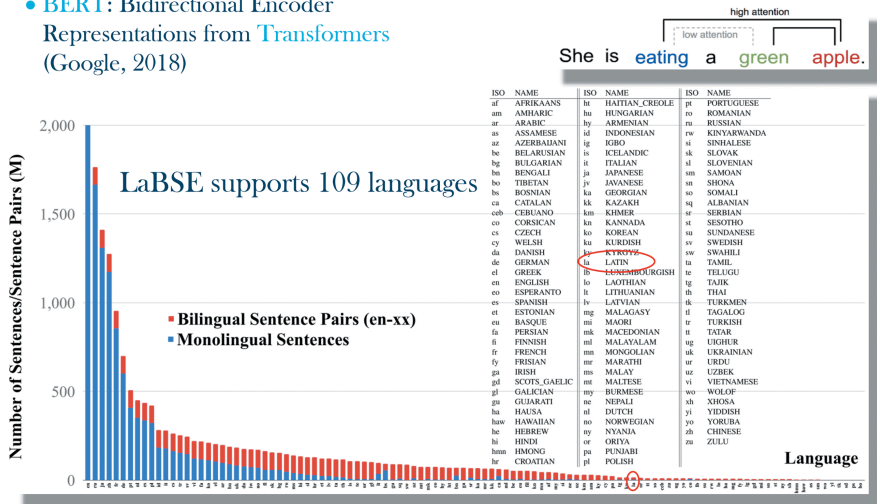


Figura 2: Fondamenti del modello LaBSE e numero di frasi adoperate per ogni lingua.

Sebbene risulti evidente la minore disponibilità di testi in lingue antiche, il fatto di creare un modello congiunto con le lingue moderne consente di avere un embedding più rappresentativo di ogni lingua, in quanto basato su un nucleo di relazioni tra parole che è “a fattore comune” in tutti i linguaggi con un’origine comune (proto-struttura linguistica).

3.3 La ricerca avanzata in SERICA: un esempio pilota

A scopo di esempio, la Figura 3 raffigura una dimostrazione della ricerca avanzata nella SERICA Digital Library (<https://serica.unipi.it/ricerca-avanzata>), effettuata su un sottoinsieme di 10 testi selezionati. In particolare, è stato selezionato il modello linguistico LaBSE, limitando il numero di risultati a 100, e come chiave di ricerca è stata inserita la parola *Christianitas*.

Serica Intelligent Search

Perform an intelligent search using a Sentence Embedding Transformer model on the SERICA database

Model 1

LaBSE

Number of results 2

100

Query 3

Christianitas

Search

Relatio - Iohannes de Marignollis O.F.M.1290-1358

Relatio - Odoricus de Portu Naonis O.F.M.1265?-1231

Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270

Historia Mongolorum - Iohannes de Plano Carpini O.F....

Expositio totius mundi et gentium - Ignotus

Primus catalogus personarum, an 1618 [Provinciae P...

Epistula de vita Tartarorum - Julianus Hungarus O.F....

Epistola - Andreas de Perusio O.F.M.12.-.1332

Primus catalogus personarum Provinciae Philippinar...

Responsa ad D. Carolum Maigrot, 15 et 22 Mart. 1689 - ...

Figura 3: Dimostrazione di ricerca avanzata (a sinistra) su un sottoinsieme di testi (a destra).

La Figura 4 mostra i primi tre risultati della ricerca. Ogni risultato ha un titolo del testo, un punteggio (score), e un estratto del testo dove un termine inerente a quello cercato appare, con evidenza in grassetto il paragrafo che ha determinato il punteggio. È interessante notare che tra i primi risultati appaiono termini legati a *Christianitas* ma non esattamente coincidenti con la parola di ricerca: *Christianus*, *Christiani*, e anche il nome proprio *Christoforus* (letteralmente “colui che porta Cristo [scil. nel cuore]”). Il concetto importante nel paradigma di ricerca tramite neural NLP è che, da una parte, si ha molta flessibilità nell’esprimere le chiavi di ricerca, ossia non occorre preoccuparsi di inserire le varianti sintattiche del termine. Dall’altra però non si ha un controllo diretto della relazione semantica, in quanto essa discende dal processo di embedding. Di conseguenza, lo studioso si aspetta di trovare – tra i risultati – dei testi inerenti alla sua chiave di ricerca, ma anche alcuni testi non del tutto attinenti al suo studio. Tecnicamente si dice che lo studioso si aspetta una buona *precisione* e una buona *sensibilità* (detta anche *recupero* o *richiamo*). Più precisamente, per una data chiave di ricerca, consideriamo il numero totale di documenti correttamente inerenti: la precisione è il rapporto tra il numero di documenti trovati corret-

SERICA Intelligent Search

- Christianitas

Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.55)

Et ego cogitans quod orarem Deum, quia flexeram ambo genua, incepti verba ab oratione dicens: «Domine nos oramus Deum a quo cuncta bona procedunt, qui dedit vobis ista terrena, ut post hec det vobis celestia, quia hec sine illis vana sunt»; Et ipse diligenter ascultavit, et subiunxit: «**Noveritis pro certo quod celestia non habebitis nisi fueritis Christianus.**» Dicit enim Deus: Qui crediderit et baptizatus fuerit, salvus erit. Qui vero non crediderit condemnabitur.

Historia Mongalorum - Iohannes de Plano Carpini O.F.M.1190-1252 (score: 1.52)

);p. 258, riga 3:videtur pro videtur, suspectum, p. 306, riga 104: **Christiani| Chritiani** ed.; p. 324, riga 523:voluntatem] voluntatem ed.;p. 332, righe 681-682:

Relatio - Odoricus de Portu Naonis O.F.M.1265?-1231 (score: 1.49)

2.In hac multa sunt monasteria religiosorum, qui ydola universaliter adorant.In uno autem istorum monasteriorum ego fui, in quo erant bene tria millia religiosorum, habencium undecim millia ydola, et unum illorum ydolorum, qui minus aliis esse videbatur, erat bene ita magnum sicut esset **S. Christoforus.** Illa autem hora qua illis diis dant ad comedendum, ivi ad videndum.Et isto modo comedere sibi dant:omnia que illis offerunt comedenda eis calidissima porriguntur, ita quod fumus illorum ascendat ad ydola, que ipsi pro comestione istorum ydolorum esse dicunt;

Etymology: Christ-bearer, the one who bears Christ (in his soul)"

Figura 4: I primi tre risultati della ricerca di *Christianitas* tramite il modello LaBSE.

tamente e il numero totale di documenti trovati (correttamente o meno), mentre la sensibilità è misurata come il rapporto tra il numero di documenti corretti trovati sul numero totale di documenti corretti.

La Figura 5 mostra alcuni dei successivi risultati: è sorprendente trovare molte varianti della parola chiave, ma anche risultati non significativi. Per esempio, il risultato numero 5 associa al termine *Christianitas* il termine *Latin* perché si tratta di una parola latina: fatto scontato per lo studioso, quindi non rilevante. Un altro risultato, riportato come ultimo nella figura, evidenzia i termini *religionis* ed *Evangelium*, sicuramente collegati a *Christianitas*, ma sta allo studioso capire se il risultato risulta utile ai fini del suo processo di analisi.

Infine, la Figura 6 mostra altri risultati da collocare nel contesto della ricerca corrente.

SERICA Intelligent Search

• Christianitas:

4. Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.44)
Hoc scio quod Christianus non vult dici, immo magis videtur michi deridere christianos
5. Relatio - Iohannes de Marignollis O.F.M.1290-1358 (score: 1.44)
"Chronicon Bohemorum" Latin Prosa Sinica Franciscana Itinera et Relationes China1355-1359 Christianitas is a Latin word
6. Historia Mongalorum - Iohannes de Plano Carpini O.F.M.1190-1252 (score: 1.43)
Et quia, excepta christianitate, nulla est terra in orbe quam ipsi non teneant
7. [...] christianitatis,
8. [...] Christi, "Religionis" and "Evangelium" are related to Christianitas (not semantically but similar distribution in sentences)
- ...

Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.38)

Tunc illi: «Littere Baatu perditae sunt, et ipse tradidit oblivioni id quod scripsit ei Baatu, unde vellet scire a vobis». Tunc securior factus dixi eis: «**Officium nostre religionis est predicare Evangelium omnibus hominibus.** Unde quando audivi famam de gente Moal, habui desiderium veniendi ad eos; et dum essem in hoc desiderio audivimus de Sartach quod esset christianus. Tunc direxi iter meum ad eum.

Figura 5: I successivi risultati della ricerca di *Christianitas* tramite il modello LaBSE.

SERICA Intelligent Search

- ...
8. Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.37)
De Sartach autem utrum credat in Christum vel non, nescio.
9. Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.37)
Ego assumam partem tuorum, et vos sustinete partem Christianorum
10. Primus catalogus personarum, an 1618 [Provinciae Philippinarum] [20 Febr. 1619]
- Valerius de Ledesma S.J. (score: 1.35)
Nomen [...] Augustinus Vota Patria Molina, diaecesis Siguntinae Arima in Japonia
11. Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.34)
Et ex tunc non potui habere locum vel tempus ostendendi ei fidem catholicam.
12. Iohannes de Marignollis O.F.M.1290-1358 (score: 1.33)
in: Sinica Franciscana, I: Itinera et relationes fratrum Minorum saeculi XIII et XIV

Figura 6: ulteriori risultati della ricerca di *Christianitas* tramite il modello LaBSE.

3.4 Approfondimento sui modelli linguistici LaBSE e Latin BERT

Nella SERICA Digital Library è stato sviluppato un sistema DIR multilingue per testi in latino, in cui l'utente può eseguire interrogazioni utilizzando diverse lingue. Per la valutazione, sono stati selezionati campioni di interrogazioni in latino e le loro controparti in inglese. Il primo passo del metodo è la tokenizzazione, cioè la suddivisione di tutti i documenti in unità di testo più piccole. La tokenizzazione dipende dalla lingua specifica. Ogni frase viene poi sottoposta all'estrazione degli embeddings LLMs. In particolare, si sperimentano e confrontano l'alta specificità di Latin BERT e l'alta generalità di LaBSE, sebbene i due modelli siano piuttosto diversi. LaBSE parte da un modello BERT pre-addestrato in combinazione con il Multi-Lingual Model (MLM) e il Translation Language Model (TLM), e lo riaddestra per combinare gli embeddings a livello di frase in lingue diverse. Al contrario, Latin BERT è addestrato con il Masked-Language Model (MLM), che si basa sulla previsione di una parola casuale selezionata da una frase. Entrambi gli embedding di output dei due modelli hanno una dimensionalità di 768. Inoltre, sono stati calcolati l'embedding medio dei due modelli e il vettore concatenato, per verificare come la combinazione dei due modelli possa influire sulle prestazioni di recupero.

Un altro aspetto interessante del modello LaBSE è il fatto di essere multilingua. La Figura 7 mostra la ricerca, tra i medesimi testi, del termine *brother* espresso in inglese. Si noti come tra i primi risultati appaia correttamente il termine latino *frater* in diverse declinazioni.

Nella SERICA Digital Library, ogni documento latino e ogni frase correlata, insieme ai quattro embedding rappresentativi estratti, sono memorizzati in un database open source Apache Lucene che consente la ricerca indicizzata. Quando si invia una interrogazione, viene calcolato il tipo di embedding selezionato e la ricerca nel database viene effettuata utilizzando la similarità coseno, una delle metriche di similarità più utilizzate dai motori di ricerca. È noto che la similarità coseno è più robusta al problema della dimensionalità. Infine, tutti i documenti vengono ordinati per similarità.

Nella rimanente parte dell'articolo, vengono eseguiti una serie di risultati sperimentali basati su un numero di ricerche statisticamente rilevanti. Vengono quindi valutate le prestazioni della ricerca, e tratte le opportune conclusioni. L'obiettivo non è di valutare in assoluto un modello linguistico, ma di comparare più modelli linguistici.

SERICA Intelligent Search

- LabSE is a cross-lingual model: search an English word in Latin texts!
- Lack of models for most ancient languages, e.g. Latin: corpus size not comparable with modern languages (several billion words)
- An ancient languages proto-structure can be learned via modern languages

Query
brother

Results ready...

Search

Relatio - Iohannes de Marignollis O.F.M.1290-1358 (score: 1.51)
frater Paschalis Hispanus, qui fuit propheta et vidit celum apertum et predixit sibi et sociis suis martyrium et Thartaros de Saraydestruendos diluio, Armalec perituram propter ipsorum martirium, Imperatorum illorum die occidentum post ipsorum martirium et multa alla gloriosa;frater Laurentius de Ancenis;frater Petrus;frater Indus interpres illorum et Gillothus mercator.6.Anno tercio post nostrum recessum de Curia, circa fines de Armalec recedentes, pervenimus ad Cyollosagan, id est ad montes arene quos faciunt venti, ultra quos ante Thartaros nullus putavit terram habitabilem, nec putabatur ultra aliquam terram esse.

Itinerarium - Gulielmus de Rubruquis O.F.M.1215?-1270 (score: 1.49)
Mangu dicit ita:Si tu vis ire cum socio tuo vadas, sed super te sit, quia forte remanebis apud aliquem iam, et non providebit tibi et eris impedimentum a socio tuo;si autem vis remanere hic, ipse providebit tibi necessariis donec veniant aliqui nuncii cum quibus possis redire lentius et per iter in quo inveniuntur villae. Frater respondit: Deus det bonam vitam ipsi Chani Ego remanebo».Ego autem dixi fratri «Frater vide quid facias.Ego non dimitto te».

Epistola - Andreas de Perusio O.F.M.12..-1332 (score: 1.49)
sed de iudeis et sarracenis nemo convertitur;de ydololis bazzizantur quam plurimi, sed bazzizati non recte incedunt per viam christianitatis. De sanctis fratribus: quatuor nostri fratres martirizati fuerunt in India a sarracenis, quorum unus bis in ignem copiosum infectus illesus evasid.Et tamen ad tam stupendum miraculum nullus est a sua perfidia permutatus.7.

Figura 7: Primi risultati di ricerca del termine inglese *brother* in testi latini con il modello LaBSE.

3.5 Metodo di valutazione delle prestazioni

Per la valutazione del sistema DIR proposto, sono state selezionate Q frasi di interrogazioni, sia in latino che nelle rispettive traduzioni in inglese. Poi sono stati estratti i primi R risultati delle interrogazioni. Infine, ogni frase risultante è stata valutata attraverso una valutazione graduata tra 1 e 5. La valutazione è stata effettuata da un esperto di latino e inglese. La valutazione di ogni documento recuperato si basa sul rapporto di coerenza semantica tra l'interrogazione e la frase recuperata. Per valutare ogni interrogazione viene utilizzato il Discounted Cumulative Gain (Järvelin and Kekäläinen 2002):

$$DCG_q = \sum_{i=1}^{|D|} \frac{grade_i}{\log_2(i+1)}$$

dove D è il numero totale dei documenti risultanti per la interrogazione (query) q . Il grado è la valutazione nell'intervallo definito per quel risultato. Si utilizza il DCG normalizzato: il valore del DCG viene normalizzato rispetto al DCG ideale,

ricorrendo a tutti i risultati secondo la valutazione. Il valore risultante è quindi nell'intervallo $[0, 1]$.

$$nDCG_q = \frac{DCG_q}{IDCG_q}$$

dove $IDCG_q$ (DCG ideale) corrisponde al DCG calcolato con tutti i documenti recuperati ordinati in ordine decrescente di grado. Infine, viene calcolato il DCG medio normalizzato:

$$AnDCG = \frac{1}{|Q|} \sum_i^{|Q|} nDCG_i$$

dove $|Q|$ è il numero totale di interrogazioni. Notiamo che l' $nDCG$ confronta il ranking effettivo dei documenti della interrogazione rispetto a quello ideale, ma solo per i documenti rilevanti. Ciò comporta una complicazione nella definizione della soglia per considerare un documento rilevante o meno. Inoltre, l' $nDCG$ non è adatto a considerare le prestazioni complessive di tutti i documenti recuperati, oltre al loro grado.

Per questo motivo, è stata sviluppata una nuova metrica di valutazione delle prestazioni, il DCG normalizzato penalizzato:

$$PnDCG_q = \frac{DCG_q}{IDCG_q} * \frac{MaxDist - Dist}{MaxDist}$$

dove $MaxDist$ è la norma L1 tra la migliore classifica possibile e la peggiore classifica possibile per un insieme di D documenti recuperati:

$$MaxDist = |D| * |maxGrade - minGrade|$$

$Dist$ è invece la norma L1 tra la migliore classifica possibile e la classifica ideale:

$$Dist = \sum_{i=1}^{|D|} maxGrade - idealGrade_i$$

Vale la pena notare che, se la classifica idealizzata è esattamente uguale al voto migliore (dove tutti i documenti recuperati hanno il voto massimo), $PnDCG_q$ è uguale a 1,0. Al contrario, se tutti i documenti recuperati hanno il voto minimo, il lato sinistro del prodotto ($nDCG_q$) è uguale a 1,0, mentre il lato destro diventa 0,0, portando l'intera metrica di valutazione è 0,0, riflettendo cioè una bassa performance. Infine, il DCG medio penalizzato normalizzato viene calcolato come segue:

$$APnDCG = \frac{1}{|Q|} \sum_i^{|Q|} PnDCG_{qi}$$

4 Studi sperimentali

Ai fini degli esperimenti, sono state selezionate $Q = 10$ frasi di interrogazione, sia in latino che nelle rispettive traduzioni in inglese. I primi $R = 10$ risultati delle interrogazioni sono stati estratti e classificati dall'esperto.

La Tabella 1 mostra i risultati sperimentali. Si noti innanzitutto che gli embeddings LaBSE superano tutti gli altri embeddings estratti, anche la combinazione LaBSE e LatinBERT. D'altra parte, sembra che gli embeddings LatinBERT non siano adatti a questo compito, confermando i risultati ottenuti da Hu [Hu et al. (2020)]. In particolare, Hu et al. hanno scoperto che le prestazioni di tali modelli in compiti di recupero sono molto scarse se non sono abbinati a una messa a punto a livello di frase. Inoltre, è importante notare che la ricerca della stessa frase in inglese ha risultati migliori rispetto a quella in latino. Questa distorsione potrebbe essere attribuita all'addestramento del modello LaBSE [Feng et al. (2022)]: la maggior parte delle frasi utilizzate per l'addestramento bilingue sono in inglese, il che porta il modello ad avere una maggiore capacità di astrazione in inglese.

Tabella 1: Valutazione delle prestazioni del sistema DIR proposto.

	LaBSE	LatinBERT	LaBSE-LatinBERT Mean	LaBSE-LatinBERT Concat
Latin	0.33±0.06	0.05±0.02	0.32±0.06	0.32±0.06
English	0.52±0.05	NA	0.43±0.06	0.43±0.06

Per spiegare ulteriormente le prestazioni, è stata calcolata la PCA (Principal Component Analysis) degli embeddings, per ottenere una riduzione della dimensionalità a 50 dimensioni. Si è inoltre utilizzato il t-SNE (t-Distributed Stochastic Neighbor Embedding) per visualizzare lo spazio latente su un grafico bidimensionale. Per visualizzare il funzionamento del motore di ricerca, il t-SNE viene calcolato con l'uso della similarità del coseno, per rappresentare meglio la metrica di distanza utilizzata dal motore di ricerca.

La Figura 8a riporta lo spazio degli embeddings delle frasi LaBSE per diversi documenti. È evidente che la distribuzione dello spazio LaBSE è più regolare rispetto agli altri spazi. Considerando che tutti i documenti sono coerenti negli argo-

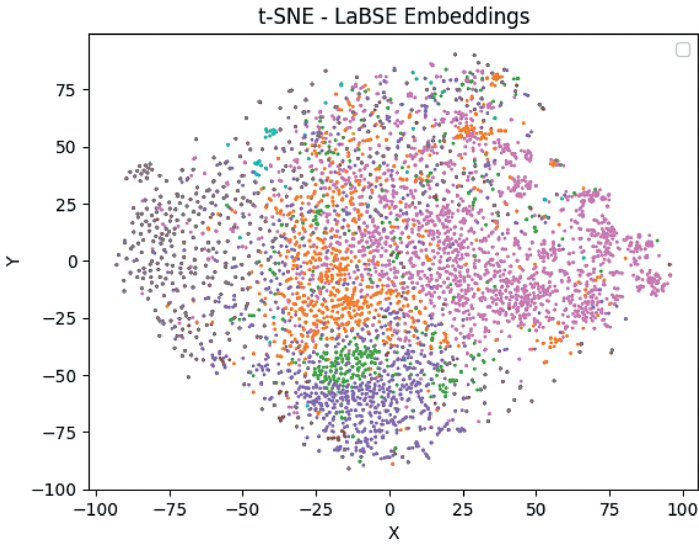


Figura 8a: LaBSE Embeddings t-SNE – proiezioni di frasi dei documenti.

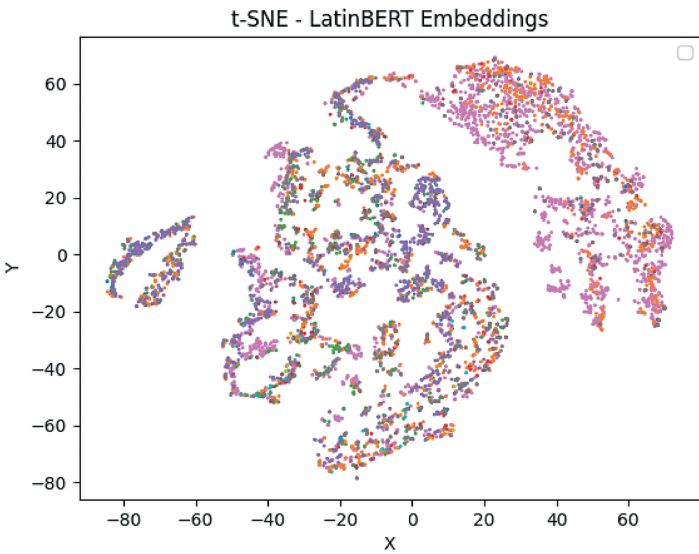


Figura 8b: LatinBERT Embeddings t-SNE – proiezioni di frasi dei documenti.

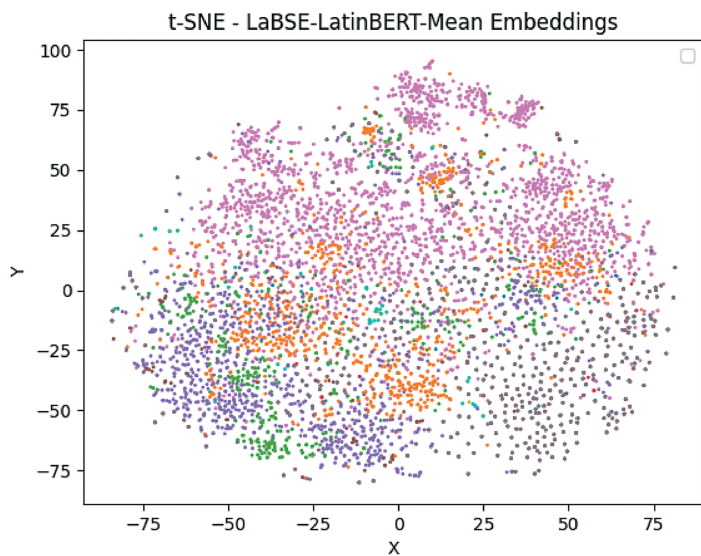


Figura 9a: LaBSE-LatinBERT Mean Embeddings t-SNE – proiezione di frasi di documenti.

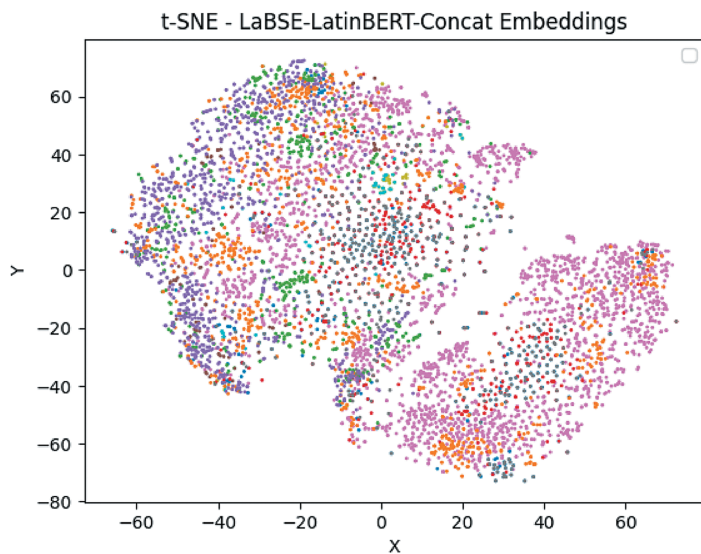


Figura 9b: LaBSE-LatinBERT-Concat Embeddings t-SNE – proiezioni di frasi di documenti.

menti che trattano, nonostante lo spettro lessicale, questa regolarità dello spazio potrebbe spiegare le migliori prestazioni ottenute dal modello LaBSE, così come le minori prestazioni del modello Latin BERT, rappresentato nella Figura 8b. Infine, gli embeddings Mean e Concat, rappresentati nella Figura 9, riflettono una diminuzione della regolarità dello spazio.

5 Conclusioni

Nonostante gli ampi progressi dei sistemi di Dense Information Retrieval (DIR), il recupero di testi in lingue antiche, come il latino, deve essere ulteriormente investigato, viste le sfide aggiuntive. Questo lavoro di ricerca illustra lo sviluppo di un sistema DIR e la sua sperimentazione sulla biblioteca digitale latina SERICA, effettuando interrogazioni multilingue in latino e in inglese. Viene inoltre proposta una metrica per tali motori di ricerca, al fine di valutare le prestazioni del sistema a partire da un insieme di documenti classificati. I primi risultati mostrano il potenziale di questo quadro comparativo, incoraggiando ricerche future. In particolare, è stato dimostrato che il modello LaBSE supera il modello Latin BERT, e che le interrogazioni in inglese hanno risultati migliori di quelle in latino. Il codice sorgente è stato rilasciato pubblicamente, insieme a una dimostrazione in-browser.

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