


Article

Pedro de la Piñuela's *Bencao Bu* and the Cultural Exchanges between China and the West

Junyang Ye 

School of Foreign Studies, Nanjing University, Nanjing 210023, China; qfzdky@sina.com

Abstract: In the 16th and 17th centuries, Catholic missionaries in China adopted the strategy of cultural accommodation and engaged in extensive interactions with Chinese literati and the general population in order to integrate into Chinese society. They left numerous writings in the Chinese language, objectively promoting cultural exchanges between the East and the West. This article focuses on the pharmacological work *Bencao Bu* (本草補, *Supplement to Chinese Materia Medica*) by Spanish Franciscan Pedro de la Piñuela (石鐸錄, Shi Duolu, 1650–1704). The article argues that, in addition to questioning whether the works in Chinese left by missionaries have contributed to the progress of Chinese society in science, medicine, humanities and other aspects, we should also explore the process of encounter between two different cultures. Although *Bencao Bu* did not significantly advance Chinese medicine, la Piñuela incorporated elements of Chinese culture into the book and made an initial attempt to apply Chinese medical concepts in diagnosis and treatment. Furthermore, the book not only introduced certain Western scientific knowledge and pharmaceutical techniques but also could be considered the epitome of the global exchange of botanical knowledge and medical experiences, promoting mutual understanding between different parts of the world. This underscores the cultural significance beyond religious purposes found in *Bencao Bu* as well as other scientific and cultural works by missionaries during the Ming and Qing periods in China.

Keywords: Pedro de la Piñuela; *Bencao Bu*; traditional Chinese medicine; cultural exchanges; Spanish Franciscans



Citation: Ye, Junyang. 2024. Pedro de la Piñuela's *Bencao Bu* and the Cultural Exchanges between China and the West. *Religions* 15: 343. <https://doi.org/10.3390/rel15030343>

Academic Editors: Qinghe Xiao and Naomi Thurston

Received: 30 January 2024

Revised: 26 February 2024

Accepted: 6 March 2024

Published: 12 March 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

During the late Ming Dynasty (明, 1368–1644) and early Qing Dynasty (清, 1636–1912), the arrival of Western Catholic missionaries in China not only marked the initiation of the third wave of Catholicism's introduction into the country¹ but also symbolized a unique historical episode of cultural exchanges between China and the West. Given the formidable strength of China's national power at that time, emerging expansionist forces, represented by Spain and Portugal, were unable to provide missionaries with robust secular colonial support as they had done in the Americas. Consequently, missionaries refrained from imposing European culture on the local populace, as they faced strict restrictions on the entry of foreigners imposed by the Chinese administrative system and the cultural abyss existing between China and the West, particularly the seemingly irreconcilable differences between China's polytheistic beliefs and the monotheistic tenets of Catholicism. Instead, missionaries found themselves compelled to adapt to Chinese culture.

In such a context, the strategy of cultural accommodation became a key to unlocking China's doors for Catholic missionaries. Against this backdrop, they actively engaged in authoring works in Chinese. These included, on the one hand, religious writings on Catholic doctrines, such as Matteo Ricci's (利瑪竇, Li Madou, 1552–1610) *Tianzhu Shiyi* (天主實義, *The True Meaning of the Lord of Heaven*) and Giulio Aleni's (艾儒略, Ai Rulüe, 1582–1649) *Dizui Zhenggui* (滌罪正規, *Correct Rules for the Elimination of Sins*), among others. On the other hand, there were also works introducing the latest Western scientific and technological advances or humanistic knowledge, exemplified by Johann Schreck's

(鄧玉函, Deng Yuhan, 1576–1630) *Taixi Renshen Shuogai* (泰西人身說概, *An Outline of Western Theories on the Human Body*), Matteo Ricci's *Xiguo Jifa* (西國記法, *The Art of Memory of the West*), Ferdinand Verbiest's (南懷仁, Nan Huairan, 1623–1688) *Xidushi Yuanyou Yongfa* (吸毒石原由用法, *The Origin and Use of the Poison-Absorbing Stone*) and so on. Undoubtedly, the Jesuits were considered prominent figures among these “writers”, but it cannot be denied that the Spanish Franciscans also published a considerable number of works, among which Pedro de la Piñuela's (石鐸球, Shi Duolu, 1650–1704) *Bencao Bu* (本草補, *Supplement to Chinese Materia Medica*) stood out. The book is a specialized work introducing Western natural medicines and serves as a symbolic representation of the transmission of Western medical knowledge into China during the Ming and Qing Dynasties.

The current state of research on the book exhibits a polarized situation. For researchers in the field of missionary history, *Bencao Bu* holds a unique position as a work written in Chinese by a Spanish Franciscan, earning it considerable acclaim. Nevertheless, few scholars have delved into the actual role of *Bencao Bu* in Chinese society. On the other hand, scholars specializing in the history of traditional Chinese medicine (TCM) often direct their attention toward the evolution of mainstream Chinese medical theories, medical practices and materia medica. As a result, this work by a Western missionary, which was thought to have been lost long ago, has not received significant attention from the latter group. In recent years, due to the ongoing efforts in the collection and reproduction of overseas classic texts in Chinese, *Bencao Bu* has gradually regained attention within the Chinese scholarly community. In addition to analyzing the catalytic role of *Bencao Bu* in the context of Franciscan missions (Cui 2007), some Chinese researchers have approached the content of *Bencao Bu* within the framework of TCM and argued that, substantively, it did not considerably contribute to its advancement (Zhen and Zheng 2002). Apart from translating *Bencao Bu* into French (Bocci 2014), European researchers also highlighted its role as an early witness of the global dissemination of medical knowledge (Corsi 2014). However, their lack of familiarity with traditional Chinese medical theories and practices might have led to insufficient exploration of the intricate interactions between *Bencao Bu* and Chinese medical culture.

Therefore, this paper does not intend to examine the impact of *Bencao Bu* on the Franciscan mission, nor does it attempt to explore whether it contributed to the development of TCM (although current research suggests a negative answer to this question). Instead, the aim is to pivot the research perspective toward the interactions between *Bencao Bu* and TCM, investigating the cultural dynamics that unfolded when these two entities encountered each other.

2. Pedro de la Piñuela and *Bencao Bu*

The author of *Bencao Bu* is Pedro de la Piñuela, also known by his Chinese name 石鐸球 (Shi Duolu) and the art name 振鐸 (Zhenduo). La Piñuela was born in 1650 in Mexico City.² His entry into China was somewhat incidental. Although the Franciscans began their mission in China after the successful settlement of Antonio de Santa María Caballero (利安當, Li Andang, 1602–1669) in Fujian in 1633, the development of the mission was hindered due to a lack of personnel and funds. In 1662, Buenaventura Ibáñez (文都辣, Wen Dula, 1610–1691) returned to Europe to seek assistance and recruited eight new members to join the mission in China. Unfortunately, the sea conditions were harsh during the journey, leading to widespread illness and the death of two members. Upon arriving in New Spain, Ibáñez had to make an impromptu decision to locally recruit two new members to fill the void left by his deceased companions. In this context, la Piñuela and Miguel Flores (傅勞理, Fu Laoli, 1644–1702) applied and were selected.³ After arriving in China in 1676, la Piñuela devoted 28 years to missionary endeavors in this country and was elected as the Commissar of the Franciscan Mission in China in 1699. He not only established missions in many cities and towns, such as Jiangle (將樂), Taining (泰寧) and Jianning (建寧) in Fujian (福建) province, Chaozhou (潮州) in Guangdong (廣東) province, Nan'an (南安) in Jiangxi (江西) province, etc., but also authored ten works in Chinese, including nine religious texts and

one pharmacological treatise, i.e., *Bencao Bu*. In 1704, la Piñuela passed away in Chaozhou at the age of 54.⁴

As far as is currently known, *Bencao Bu* is the only pharmacological work written in Chinese left by la Piñuela as well as by the entire group of Spanish Franciscans who carried out missionary activities during the 17th century in China. So far, two versions of the text have been discovered. One is stored at the National Library of France, with the reference number “Chinois 5332”. The other version is preserved in the Jesuit Roman Archives under the reference number “Jap Sin II, 86”.⁵ The book, with a preface penned by Liu Ning (劉凝, 1625–1715), who was a friend of la Piñuela and a Chinese literatus from Nanfeng (南豐), Jiangxi province, introduces the properties and applications of 13 natural medicines and concludes with three simple formulas. La Piñuela categorizes the medicines into three groups. The first group includes fragrant herb (香草, *xiangcao*) and stinky herb (臭草, *choucao*), with a note stating, “these two are not native to China, but I have brought their seeds here for cultivation”.⁶ The second group consists of six medicines: Luzon fruit (呂宋果, *Lüsong guo*), convulsion-dispelling stone (避驚風石, *bijingfengshi*), weld bark (鍛樹皮, *duan-shupi*), heart-protecting stone (保心石, *baoxinshi*), poison-absorbing stone (吸毒石, *xidushi*) and castor oil (日精油, *rijingyou*), with the annotation “None of the six are found in China”.⁷ The third group comprises mint (薄荷, *bohe*), betel leaves (蔓葉, *louye*), Chinese broccoli (芥藍, *jielan*), purslane (馬齒莧, *machixian*) and tobacco (金絲草, *jinsicao*). “These five are widely available in China, and it is rare to find someone who recognizes them as major medicines”.⁸ As for the three formulas, they are the formula for hemorrhoids, the formula for smallpox and the formula for childbirth.⁹

3. Traditional Chinese Medicine and Literature on Chinese Materia Medica

After providing a brief introduction to Pedro de la Piñuela and *Bencao Bu*, it is necessary to present an overview of TCM and the literature on Chinese materia medica (本草, *Bencao*). Our focus is not on a comprehensive review of the history of the development of TCM from the historiographical point of view¹⁰ but on elucidating core concepts in TCM diagnosis and treatment to construct the medical background when *Bencao Bu* encountered Chinese culture.

La Piñuela had a comprehension of traditional and modern European medicine, as will be mentioned later in this work. The core principles of these medical systems share some similarities with certain aspects of TCM, providing la Piñuela with an intellectual prerequisite to comprehend TCM, which allowed him to attempt to bridge the gap between Chinese and Western medicine in *Bencao Bu*.

TCM states that there is a correspondence between the internal environment of the human body and the natural world, emphasizing the necessity of achieving internal self-harmony as well as the harmony between humans and nature in both daily life and disease treatment. These notions easily evoke the perspective of Paracelsus, who viewed human beings as a “microcosm, a condensation of the entire universe”, although the worldviews establishing these theories differ: TCM is based on empirical observations of the secular interplay between humans and nature, while Paracelsus did not deviate from the Catholic theory of God’s creation. He merely metaphorically referred to God as an alchemist rather than the geometrician described by his predecessors.

The emphasis on balancing the human body shares common ground with the views of Galenic physicians and Paracelsus. Nevertheless, TCM is distinct from the Galenic theory, which underscores the balance of the four bodily humors, and from Paracelsus, who particularly stresses the relationship between chemistry and medicine/disease. TCM, on the other hand, is closely tied to ancient Chinese natural philosophy, and it has been influenced by Confucianism and Taoism throughout its development. TCM takes into account the interconnection between the natural world and the body, highlighting the combined influence of internal and external factors on the human body.

Except for accidents, such as wounds and poisoning, TCM categorizes the causes of illness into two main types: external factors and internal factors. External factors are pri-

marily referred to as *liu qi* (六氣, six qi), which encompasses wind (風, *feng*), cold (寒, *han*), summery heat (暑, *shu*), dampness (濕, *shi*), dryness (燥, *zao*) and fire (火, *huo*). Normally, these factors exist as natural elements, but when they exceed an individual's tolerance and trigger illness, they transform into *liu yin* (六淫, six yin), denoting pathological excessive factors. By contrast, internal factors primarily refer to disruptions in the internal balance of the body caused by conditions such as extreme hunger, overeating, excessive fatigue or emotional imbalances, ultimately leading to the onset of diseases.

Therefore, within this framework, the diagnostic methodology of TCM lies in identifying the causative factors and determining how they have led to imbalances in the relationship between humans and nature, as well as internal imbalances within the human body, so as to provide guidance for restoring a harmonious relationship. In TCM, the basic organs that make up the human body are referred to as *zangfu* (臟腑), whose classification is not based on anatomy or modern physiology but rather on their functions. Hence, terms in TCM such as heart, liver, spleen, lungs and kidneys not only denote anatomical organs but also represent functional entities. For example, according to modern medicine, the spleen primarily acts as a blood filter. However, in TCM theory, the spleen is considered the “root of the postnatal” (後天之本, *houtian zhiben*), which is responsible for the transportation and transformation of nutrients from food—essentially digestion and absorption. By contrast, in accordance with contemporary medical understanding, the same processes involve multiple organs, including the pancreas and liver. Correspondingly, medications traditionally used in TCM to target the “spleen” are also viewed in modern medicine as directly and positively influencing the functions of organs such as the pancreas, liver and gastrointestinal system. In this medical perspective, the significance of anatomical organs diminishes, and the focus is directed toward the normal or abnormal functionality attributed to these organs. This approach determines that the main objective of TCM treatment is not a specific disease occurring in a particular organ but rather the functional imbalances revealed by various discomforts or symptoms.

In order to accurately pinpoint the underlying cause of functional imbalances, TCM has established the system of four diagnostic methods (四診, *si zhen*)—observation, listening, questioning and pulse diagnosis (望聞問切, *wang wen wen qie*)—and eight principles (八綱, *ba gang*). Being a crucial methodology in TCM diagnosis to discern the essence of a disease, the eight principles are four pairs of relationships that manifest the essence of a disease: the nature of the disease (*yin* or *yang* [陰陽]), the location (superficial or internal [表裡, *biao li*]), the characteristic (cold or heat [寒熱, *han re*]) and the condition (deficiency or excess [虛實, *xu shi*]). In TCM, physicians use the four diagnostic methods and the eight principles to seek and collect information about various discomforts or symptoms, such as cough, fever, headache, etc., caused by the aforementioned pathogenic factors. Such symptoms are considered merely the external manifestations of the disease, which are referred to as “症” (*zheng*, symptoms). The occurrence of a specific imbalance in the body, on the other hand, is regarded as the essence of the disease, which is known as “證” (*zheng*, syndrome). Subsequently, physicians carefully analyze the obtained information to identify the internal essence of the disease, employing the complex theories of Chinese medicine as their guiding framework.

This entire process is called “Treatment according to the syndrome” (辨證論治, *bianzheng lunzhi*). Paracelsus also shared similar views. He believed that each disease has its own characteristics, and therefore, there is a specific chemical treatment for each type of disease. He opposed the prevalent “panacea” of his time, which contained many components, advocating instead for the use of specific single substances as remedies tailored to each particular disease. Paracelsus' ideas promoted the study of specialized diseases, which, however, contrasted with TCM. TCM does not focus on specific diseases, because illnesses may have different syndromes and require different herbal prescriptions despite exhibiting similar external symptoms.

Under this approach, the fundamental principle of TCM treatment is to use herbs (including some animal products and minerals) to eliminate pathogenic factors, thus restoring

harmony in the human body, rather than emphasizing treatment of specific symptoms. Following this line of thinking, each medicinal herb is not only described based on its specific therapeutic indications but also classified according to its four natures (四氣, *si qi*) (cold, hot, warm and cool) and five flavors (五味, *wu wei*) (pungent, sweet, bitter, sour and salty). However, *Bencao Bu* diverged from this discourse system, as it primarily focused on providing clear descriptions of the medicinal effects for treating specific diseases rather than extensively exploring pharmaceutical properties through the lens of TCM. This is precisely the key distinction between *Bencao Bu* and literature on Chinese materia medica.¹¹

4. *Bencao Bu* and Cultural Exchanges between China and the West

Honestly speaking, *Bencao Bu* did not have a profound influence on the advancement of TCM. Nonetheless, when we shift our research focus from the history of medical development and instead examine the cultural interactions between *Bencao Bu* and TCM, we can conclude that *Bencao Bu* undeniably exerted a positive impact in the realm of Sino-Western cultural exchanges.

Certainly, it is important to clarify that, despite having left a large number of scientific and humanistic works, the Catholic missionaries' original purpose was not to foster academic research and to facilitate cultural exchanges. The primary intention of la Piñuela's writing of *Bencao Bu*, as clearly explained by Liu Ning in the preface, was rooted in a pragmatic philosophy: "If it is simple and essential, beneficial to people and effective, why should it be abandoned? I [la Piñuela] compiled my knowledge and observations that I had accumulated into a book, which might not be without minor benefits in the way of preserving health".¹² La Piñuela viewed his religious works as the "way of obtaining virtue" (淑性之道, *shuxing zhidao*) to save the soul, while *Bencao Bu* represented the "way of preserving health" (保身之道, *baoshen zhidao*) to save the body. For missionaries, the relation between "obtaining virtue" and "preserving health" was complementary, with "virtue" being primary and "health" secondary. In other words, the "soul" took precedence over the "body", and the ultimate purpose of saving the body was still for saving the soul.

Therefore, it is true that la Piñuela wrote *Bencao Bu* and presented it to Liu Ning for review to supplement people's "way of preserving health" after having written religious works, such as *Moxiang Shengong* (默想神功, *Spiritual Practice of Meditation*), *Yongzan Dingheng* (永暫定衡, *Evaluation of Eternity and Temporariness*), *Dashe Jielue* (大赦解略, *Brief Explanation of Indulgences*) and *Chuhui Wenda* (初會問答, *Preliminary Conversation*), in which he "explained things that have not been clarified before and may provide some additional benefits for the way of obtaining virtue".¹³ However, when Liu Ning requested him to expand on the content of *Bencao Bu*, la Piñuela politely refused, saying, "I had travelled nine thousand *li* (里, Chinese mile)¹⁴ to China to save souls, not to plan for the saving of bodies".¹⁵ This evangelical mode, emphasizing compassion for the soul as the main focus and compassion for the body as secondary, led to la Piñuela's lack of intention to comprehensively introduce Western medical theories to readers. Due to the shortage of relevant records, there is currently no definitive conclusion regarding whether la Piñuela received systematic medical training.¹⁶ However, based on the letters he left behind and some of his Chinese works, we can assert that the Franciscan was not ignorant of medicine. He not only studied Western medicine when he worked with Blas García (艾腦爵, Ai Naojue, 1635–1699) but also offered medical services in his missionary work. For instance, in 1687, when la Piñuela was preaching in the rural areas of Nan'an, he cured a foot ailment of the mother of a young Taoist monk and successfully converted him to Catholicism.¹⁷ In 1688, while he was in Guangzhou, he was invited to heal the sick for local residents as well.¹⁸

In fact, he possessed a generally clear understanding of the historical evolution of European medicine. On the one hand, he was a staunch supporter of Paracelsian medical theory, as is reflected in his depictions of certain medicines, such as the poison-absorbing stone, in *Bencao bu* (Corsi 2014, p. 143). On the other hand, he demonstrated a clear grasp of ancient Greek traditional medical concepts and skillfully applied them to the interpretation of Catholic doctrine. In *Chuhui Wenda*, la Piñuela used the analogy of the four elements—

earth, air, water and fire—to explain the different levels and quantities of heavenly gods (La Piñuela 2014, p. 635). In *Yongzan Dingheng*, he mentioned the theory of the four classic properties “heat, cold, dry and wet”, and, at the end of the work, he once more referred to the four elements, affirming that “God created the four elements of fire, air, water and earth to nourish the life of all things”.¹⁹ It can be seen that la Piñuela used these Western medical theories with the fundamental purpose of using the “humanity” of medicine to serve the “divinity” of God, to explain the magnificence of God’s creation, thereby aligning with the overarching goal of serving the Franciscan mission. Although Franciscan friars did not exclude interactions with literati,²⁰ often their primary targets for missionary works were still the lower-class population, characterized by lower levels of education and a limited capacity as well as interest to understand various unfamiliar medical concepts. The fundamental rationale behind his decision not to introduce these medical theories and concepts in *Bencao Bu* was that such an endeavor would not yield positive benefits to the mission.

Joan-Pau Rubiés, in his evaluation of the Jesuits, highlighted that “their activities as cultural mediators were restricted to a religious purpose, which also severely limited their capacity for compromise”.²¹ Considering this perspective, it is not hard to understand why missionary works like *Bencao Bu* sometimes had limited contribution to Chinese society at the time. Therefore, in addition to focusing on the direct outcomes of these works and questioning whether they promoted progress in Chinese society in terms of science, medicine, humanities, etc., it is valuable to delve into the intricate dynamics of cultural encounters. In the case of *Bencao Bu*, this process encompassed at least four aspects.

First of all, the author incorporated elements of Chinese culture into *Bencao Bu* to provide clearer descriptions of medicinal herbs. For instance, when introducing the sorrow-relieving properties of fragrant herb, la Piñuela deliberately posed the question, “Which one has a better effect, fragrant herb or *Hemerocallis fulva* (萱草, *xuancao*)?”²² Although *Hemerocallis fulva* is commonly used in TCM for clearing heat, cooling blood and relieving urinary difficulty (information that might not have been familiar to the general public), the cultural concept of “*Hemerocallis fulva* relieving sorrow” (萱草解憂, *xuancao jieyou*) is well known and has a far-reaching influence beyond its medical effects. In *Shi Jing* (詩經, *Classic of Poetry*), which is the oldest existing collection of Chinese poetry and comprises 305 works dating from the 11th to 7th centuries BC, the idea that planting *Hemerocallis fulva* dispels worries was already mentioned. By the Wei and Jin Periods (魏晉, 220–420), the cultural concept of *Hemerocallis fulva* relieving sorrow had become common knowledge.²³ By comparing fragrant herb to *Hemerocallis fulva*, the author narrowed the distance between the exotic herb and Chinese readers, fostering a connection with Chinese culture. When introducing Chinese broccoli, the author directly quoted descriptions of its appearance and taste from the *Agriculture Book* (農書, *Nongshu*) written by Wang Zhen (王禎, 1271–1368) in the Yuan Dynasty: “A more tender breed of *Brassica juncea* is called Chinese broccoli and has a very crispy texture. Su Dongpo said, ‘Chinese broccoli is like a mushroom, both crispy and delicious, making a sound when bitten’”.²⁴

In fact, having served as a missionary in China for many years, la Piñuela had a substantial understanding of Chinese culture, which is evidenced by his frequent use of Chinese elements in his religious works. For example, in *Chuhui Wenda*, when discussing the rules for joining the Catholic Church, la Piñuela underlined the importance of not only loving God but also extending love to others, advocating “What you wish for yourself, also do to others, while what you do not wish for yourself, do not do to others”.²⁵ The latter part is a quote from Confucius, whereas the former part brings to mind Jesus’s Golden Rule: “Do unto others as you would have them do unto you”. It is hard to imagine that this was not a deliberate effort by la Piñuela to integrate the principles of Catholicism and Confucianism. In *Yongzan Dingheng*, he stated that “faith to people is as roots to a tree, [...] and that without faith, there is no hope, and without hope, there is no belief in the Lord as the origin of all things”.²⁶ To stress the importance of faith, he pointed out, “First, one must know; then one can wish. Without knowledge, there is no willingness”.²⁷ This evokes the important concept of “knowing before acting” (知先行後, *zhixian xinghou*) advocated by Neo-Confucian

philosophers.²⁸ When discussing the notion of “eternity”, he once again drew upon two Chinese mythological concepts, “three-legged crow” (赤鳥, *Chiwu*) and “Yanzi” (崦嵫)²⁹, proposing “When the three-legged crow appears in the sky, it is day; when it falls into Yanzi, it is night [...]. The so-called ‘eternity’ is akin to a perpetual day without night”.³⁰ All these examples demonstrated that the practice of analogizing fragrant herb to *Hemerocallis fulva* and quoting the *Agriculture Book* in *Bencao Bu* was consistent with the author’s long-standing writing style and methods.

In the second place, although la Piñuela did not fundamentally incorporate *Bencao Bu* into the TCM theoretical system, he did not completely reject Chinese medicine concepts. On the contrary, he made some preliminary attempts to bridge *Bencao Bu* and Chinese medicine, primarily in three aspects.

First, in describing symptoms, while la Piñuela lacked the ability to diagnose diseases through the four diagnostic methods and the eight principles, he still incorporated some Chinese medicine concepts to help local readers understand the main symptoms or syndromes targeted by the herbs that he presented. When introducing fragrant herb, he accentuated its efficacy in treating diseases characterized by the syndrome of “wind cold” (風寒, *feng han*) and “stomach fire” (胃火, *wei huo*) (La Piñuela 1697a, fol. 6v). The so-called “fire” is an interesting concept that played a significant role in the early medicine of many civilizations. The classic elements (earth, water, air and fire) mentioned by la Piñuela in *Chuhui Wenda* were a crucial theory used to explain the nature and complexity of all matter in terms of simpler substances in early European medicine. Similarly, China also has its own elemental system, known as *wuxing* (五行, five elements), including fire, water, wood, metal and earth. However, unlike the Western understanding, which associates these elements with various manifestations of matter, in Chinese medicine, they are perceived more as different types of energy in a constant state of interaction and flow among each other. In this sense, it seems that translating *wuxing* as “five movements” or “five phases” would be more accurate. Therefore, the concepts of *liu yin* and *wuxing*, as well as the classic elements in Europe, represent different theoretical systems. *Wuxing* pays more attention to the dynamics and interconnectedness of worldly phenomena, whereas the classic elements are considered as fundamental components of all things. On the other hand, *liu yin* refers specifically to pathogenic factors. Thus, the concept of “stomach fire” used by la Piñuela in *Bencao Bu* is unique to TCM. The term “fire” here should not be understood as one of the classic elements in Europe or as the “fire” in *wuxing* but rather as a pathogenic factor within the system of *liu yin* and a pathological manifestation in the functional entity of the stomach. It is evident that la Piñuela had a preliminary understanding of Chinese medical culture, and there are many similar examples in his work.

In his exposition on the convulsion-dispelling stone, he refined the concept of *jingfeng* (驚風, convulsion), distinguishing between acute convulsion (急驚風, *ji jingfeng*) and chronic convulsion (慢驚風, *man jingfeng*). Notably, the name “convulsion-dispelling stone” itself carries a strong TCM connotation. The so-called *jingfeng*, akin to convulsive in modern Western medicine, is a common pediatric condition in ancient China. Its characteristic symptoms encompass limb convulsions, rolling of the eyes, clenched jaws and impaired consciousness. According to classic diagnostic theory, it can be further classified into acute and chronic. By distinguishing between these two concepts while introducing and utilizing the stone, la Piñuela demonstrated a certain level of comprehension of TCM. In addition, under the entry for castor oil, he underlined that, in order to use the oil for treatment, pain in various parts of the body must be attributed to the syndrome of “wind cold” rather than “dry heat” (燥熱, *zao re*). When presenting Luzon fruit, la Piñuela mentioned that it could treat the syndrome of “wind phlegm” (風痰, *feng tan*), a pathological manifestation resulting from the interaction between the pathogenic factor “wind” and the disruption of internal fluid metabolism (痰, *tan*) within the human body, etc.

Second, in the application of medicinal materials, the Franciscan innovatively combined Western medicines with indigenous Chinese medicines. The Jesuit Michal Boym (卜彌格, Bu Mige, 1612–1659)³¹ once featured the Chinese herb pomegranate rind (石榴皮,

shiliu pi)³² and mentioned its efficacy in treating foot pain and neuralgia (Boym 2010, p. 467). In the section dedicated to stinky herb, la Piñuela recommended the concurrent use of stinky herb with pomegranate rind for treating earaches (La Piñuela 1697a, fol. 7v.), which surpassed Boym's understanding, possibly stemming from innovative practices based on experience. When introducing weld bark, la Piñuela pointed out that, in cases where obtaining this Western medicine proved challenging, one could use the Chinese local medicine sappanwood (蘇木, *sumu*) as a substitute (La Piñuela 1697a, fol. 10r). TCM attributes to sappanwood the benefits of promoting blood circulation, dispelling blood stasis, reducing swelling and relieving pain. Thus, it was often used for treating injuries, mirroring the efficacy attributed to weld bark in *Bencao Bu*. Thus, la Piñuela's assertion is accurate, once again substantiating his comprehension of TCM.

Third, in terms of medicine preparation, la Piñuela extracted lessons from the TCM technique of processing medicinal herbs, whose history can be traced back to the period prior to the Qin Dynasty (秦, 221 BC–207 BC). The work *Wushi'er Bingfang* (五十二病方, *Recipes for Fifty-Two Ailments*) compiled during the Warring States period (戰國, 476 BC–221 BC) already documented methods of roasting (炙, *zhi*) and calcination (煨, *duan*). Relevant records are also found in traditional Chinese medical classics such as *Huangdi Neijing* (黃帝內經, *Inner Canon of the Yellow Emperor*), *Shennong Bencaojing* (神農本草經, *Shen-nong's Herbal Classic*) and *Shanghan Lun* (傷寒論, *Treatise on Cold Damage Diseases*). During the Northern and Southern Dynasties (南北朝, 420–589 AD), Lei Xiao (雷斅, ?–?) authored *Leigong Paozhilun* (雷公炮炙論, *Master Lei's Discourse on Processing of Chinese Materia Medica*), which stands as the earliest book in China that systemically described the principles and methods of processing medicines.³³ In the early Qing Dynasty, when la Piñuela came to China, the techniques and experience of processing medical materials were already quite mature. During his medical practice, he easily gained access to relevant knowledge. In *Bencao Bu*, the Franciscan stated that, when using the juice of stinky herb with pomegranate rind to treat earaches, one should place the former inside the latter, calcine them together and then use them (La Piñuela 1697a, fol. 7v). Similarly, in addressing back pain with Chinese broccoli, he emphasized the prerequisite of initially roasting the herb (La Piñuela 1697a, fol. 17v).

In the third place, in *Bencao Bu*, la Piñuela introduced to Chinese readers some Western scientific knowledge and pharmaceutical procedures. He mentioned that fragrant herb possessed the capability of nourishing the brain, stating, “for weak memory, take the leaves, decoct them in water, and add vinegar when taking [...] because human memory is in the brain”.³⁴ In contrast to modern Western medicine, which is rooted in anatomical principles, TCM stems from the theory of *zangxiang* (藏象, visceral manifestations). In this framework, the heart is considered similar to the “monarch, holding sway over the realms of spirit and mental activity”,³⁵ while “the brain is perceived as the marrow sea (髓海, *suihai*)”³⁶ and “the mansion of mentality (元神之府, *yuanshen zhifu*)”.³⁷ From a therapeutic standpoint, the treatment of conditions related to memory, such as forgetfulness, often involves complex medication. Due to different interpretations of ancient Chinese medical texts and the continuous development of TCM theory, there was an ongoing debate among medical professionals about whether memory resided in the heart or the brain.

During the Ming and Qing Dynasties, Jesuits, represented by Matteo Ricci, distinctly advocated the view that “memory is in the brain” in their scientific works, bringing a novel perspective to the Chinese medical community of that era and garnering widespread attention from later researchers. However, unlike the well-known works such as Ricci's *Xiguo Jifa*, the significance of *Bencao Bu* has often gone unnoticed. This work not only introduced various herbs but also explicitly articulated the view that “memory resides in the brain” and creatively applied the theory to medical practice. This marks a noteworthy contribution by the Spanish Franciscans to the cultural exchanges between Chinese and Western medicine, particularly in challenging the Jesuits' “monopoly” on the transmission of the idea that the brain is the center of memory, for which Pedro de la Piñuela deserves credit.

In addition, prior to la Piñuela, Jesuits had touched upon Western pharmaceutical processes in their works (medical or non-medical). For example, in *Taixi Shuifa* (泰西水法, *Hydraulic machinery of the West*), Sabatino de Ursis (熊三拔, Xiong Sanba, 1575–1620) outlined the process of distillation for extracting medicinal essence (De Ursis 1612, vol. 4). Verbiest briefly mentioned the method of preparing the poison-absorbing stone (Verbiest 2003, p. 737) and so on. In *Bencao Bu*, la Piñuela not only referenced Verbiest's method for making the poison-absorbing stone but also elaborately explained the process of crafting tobacco ointment:

“Take fresh tobacco leaves, which contain natural sap. Crush two catties and put them in a jar and add white wine. Let the wine soak through the tobacco leaves, reaching a height of two fingers above them. Take them out after two days, and compress the leaves with a wrapping cotton cloth to collect all the liquid, and be careful not to include any impurities. Next, place the liquid in a pot, add one catty of purified lard that has been simmered until free of dross, and then simmer them together until there is no alcohol smell. Filter the dross thoroughly with cloth, add six taels of pure rosin, and simmer together until the decoction of the tobacco leaves becomes very thick. Filter the decoction again and add three taels of beeswax, then simmer together until the decoction becomes an ointment. Then remove it from the pot, put it in a jar, and expose it to the sun on hot days without covering it, but stir it regularly. Let it dry until all the moisture evaporates, and the longer the drying time is, the better. If mold appears, expose it to the sun and stir it again.”³⁸

From this description, it is apparent that the process of making tobacco paste, although involving several steps, was not overly complex. The ingredients employed, such as white wine, lard, rosin and beeswax, were all readily available in China. Furthermore, the ointment was primarily crafted through a concentrated decoction, incorporating supplements like pine resin. Notably, the method intentionally steered clear of costly ingredients such as donkey hide gelatin (阿膠, *ejiao*) for thickening, which made it economically practical and suitable for the general populace. After the introduction of tobacco to China in the mid-16th century to the early 17th century, its predominant consumption involved internal use (smoking).³⁹ La Piñuela detailed the external use of tobacco, thus providing an alternative to direct internal consumption. This innovative approach not only preserved the therapeutic effects of tobacco but also mitigated its potential side effects, making it a viable option for both the general public and missionaries at the time.

In the fourth place, *Bencao Bu* is the epitome of the global exchange of botanical knowledge and medical experiences, fostering mutual understanding between different parts of the world. If the accounts of Chinese plants and herbs by Jesuits such as Michal Boym can be seen as reports unveiling the newly discovered world for Europeans, then la Piñuela's *Bencao Bu* can similarly be considered a report for the Chinese, offering insights into the Western and American world. As Corsi pointed out, *Bencao Bu* serves as “an example of the early circulation of medical knowledge that reflects experiences acquired in a space of action where the East is indissolubly connected to both the New and the Old World”.⁴⁰

In terms of medications, la Piñuela commenced by introducing eight new medicinal materials that had never been heard of in China, opening a gateway for botanical interactions between China, Europe and the New World. As an illustration, la Piñuela provided some botanical characteristics of fragrant herb (albeit not in great detail), which caught the attention of Zhao Xuemin (趙學敏, 1719–1805), a Chinese doctor and pharmacologist in the Qing Dynasty. Zhao Xuemin speculated, in his work *Bencao Gangmu Shiyi* (本草綱目拾遺, *Supplement to Compendium of Materia Medica*), that fragrant herb might be *Naihancao* (奶酣草, literally translated as “baby herb”)⁴¹ in China. Considering botanical differences between the two, such as the fact that “baby herb” withers upon encountering frost, while fragrant herb remains unwilted even throughout winter, Zhao Xuemin inferred that this might be attributed to the distinct climates between China and the West, where the warmer climate and more fertile land might explain its resilience.⁴² Although Zhao Xuemin's observations

remained at a relatively rudimentary stage, they portrayed a picture of East-West knowledge exchange.

For the medicines that were previously absent in China, attention was given to their similarities with existing Chinese medicines. For instance, when describing the morphology of weld bark, la Piñuela compared it to the traditional Chinese medicine *Eucommia* (杜仲, *duzhong*), stating, “its color is red, and its shape resembles *Eucommia*”.⁴³ Regarding medicines that had existed in China, la Piñuela stressed the differences between western herbs and their local counterparts. For example, he noticed that morphological differences could be observed in broccoli from the East and the West, indicating that “Chinese broccoli [...] had been consumed in China for a long time, and its roots are the size of taro, while the broccoli grown from the seeds brought by Westerners to China has roots as large as a *dou*”.⁴⁴ When describing mint, he mentioned that the Chinese considered mint from Suzhou to be of good quality.⁴⁵ This series of botanical morphology descriptions of plants illustrates the Franciscan’s understanding of certain medicines originating from both the East and the West, thereby laying the foundation for him to engage in cross-cultural dialogue in the text.

On the other hand, *Bencao Bu* also describes novel therapeutic effects of mint, betel leaves, Chinese broccoli, purslane and tobacco, medicines that were already in use in China. The observation, comprehension and application of these mutually shared medicinal materials in distinct manners signified the exchanges and collisions of different worldviews and the medical thoughts derived from these worldviews. Certainly, these exchanges did not decisively impact medical practices in China during that time. Nevertheless, they provided a new pathway for medical professionals in the Qing Dynasty to understand and study medicines originating from the other side of the world and also opened a window for la Piñuela himself and other Catholic missionaries in China to glimpse into the intricacies of Chinese medical and pharmaceutical culture.⁴⁶

In terms of diseases, *Bencao Bu* presented treatment methods for certain illnesses different from TCM, reflecting the exchanges of therapeutic experiences worldwide. A notable example is the treatment of syphilis. La Piñuela not only used the traditional Chinese term *yangmei chuang* (楊梅瘡, yangmei sores) to refer to syphilis⁴⁷ but also provided two treatment methods for this ailment: one was administered internally—using the natural juice of stinky herb mixed with wine and oil, boiled into a decoction for oral consumption (La Piñuela 1697a, f. 7v); the other was applied externally—mashing betel leaves, mixing them with oil and applying the mixture to the ulcerated areas (La Piñuela 1697a, f. 16v).

The global spread of syphilis serves as a typical microcosm of the exchanges between the East and the West during the Age of Discovery. In the Columbian Exchange, the eastward transmission of syphilis and the westward transmission of the Chinese herb *tu fuling* (土茯苓, *Poria cocos*) constituted an intriguing pair of oppositely directed exchange currents. Syphilis ravaged Europe in the 15th century and was introduced to Portuguese India in the early 16th century before making its way to China. There is still some controversy regarding the precise time of its introduction to China, which is generally believed to have been in the early 16th century. Subsequently, Chinese medical professionals began to research this disease and discovered that *tu fuling* demonstrated positive effects on syphilis.

Later, *tu fuling* was introduced to Portuguese India, where, according to the records of Portuguese physician Garcia da Orta, people began using *tu fuling* brought by the Chinese from 1535 onward (Da Orta 1895, p. 260). As *tu fuling* originated and grew in China, Europeans referred to it as the “China root”. The exact timing of *tu fuling*’s arrival in Europe is unclear, but it roughly occurred shortly after being brought to Portuguese India, and traders subsequently transported it back to Spain and Portugal from there (Li 2019, p. 139).

During that time, Europe lacked effective and low-toxicity treatments for syphilis. Following the introduction of *tu fuling* to Europe, it gained acclaim not only for its therapeutic efficacy among doctors and patients but also garnered favor from merchants due to the lucrative trade profits associated with it. Researchers have shown considerable interest in

this topic. However, few have paid attention to the fact that, during the transmission of *tu fuling* to the West, a Franciscan friar from Spain introduced natural herbs for treating syphilis to Chinese readers through his book *Bencao Bu*.

In *Flora Sinensis (Chinese Flora)*, Michal Boym mentioned that the juice of the betel leaves was blood-red, and he noted that people in the Lingnan area had the habit of consuming this herb (Boym 2023, p. 20).⁴⁸ This is similar to the description of betel leaves by la Piñuela (La Piñuela 1697a, fol. 16r). *Flora Sinensis* was published at the end of 1656 in Europe, at which time la Piñuela was only six years old. At present, we are unable to determine whether la Piñuela read Boym's book during his study and upbringing in New Spain or if all his knowledge related to betel leaves stemmed from his missionary and medical practices in China. After all, the friar spent many years in southern China, providing him with the opportunity to directly observe the custom of people using betel leaves. However, what can be confirmed is that Boym did not mention that these leaves could treat syphilis. Even 150 years later, in 1837, when Manuel Blanco published his iconic botanical text *Flora de Filipinas (Flora of the Philippines)*, documenting hundreds of Philippine plant species according to popular usage, he also did not mention that the betel leaves were effective for syphilis (Blanco 1837, p. 22).

Based on la Piñuela's descriptions of these two herbs, it appears that they possessed detoxifying, pus-draining and anti-inflammatory properties. In an era lacking pathological and pharmacological research, these effects conveniently aligned with the characteristic skin lesions of syphilis presenting as ulcers. Therefore, the potential efficacy of these herbs in treating syphilis was more likely a result of la Piñuela's accumulated experiences during his upbringing in New Spain and the Philippines, as well as his missionary period in China, which reflected the medical explorations of people worldwide in an era short of specific remedies against syphilis. This practical knowledge not only provided a new possibility for syphilis treatment for the lower-class people in China, the primary target of the Franciscan missionaries, but also offered more subjects for pharmacological research to Chinese medical practitioners. For instance, Zhao Xuemin cited la Piñuela's descriptions in his work and documented the effectiveness of betel leaves and stinky herb in dealing with syphilis (Zhao 1998, pp. 177, 245).

In conclusion, after going through the various discussions mentioned above, *Bencao Bu* is obviously more than a mere collection of medicinal herbs and formulas; its significance also extends beyond the realm of treating illnesses. Through both theoretical descriptions and practical endeavors, la Piñuela, as a Western missionary, played a pivotal role in fostering botanical and medical exchanges between the East and the West.

5. Conclusions

The strategy of cultural accommodation was a significant feature of the Catholic mission in China during the Ming and Qing Dynasties. Under the guidance of this strategy, Jesuits adhered to the "upper-level routes" and published numerous scientific and humanities works to achieve their goals in evangelization through academic discussion, which, objectively, promoted the cultural exchanges between China and the West during the 16th to 18th centuries.

While many researchers argue that the Spanish friars primarily adopted a "lower-level route", evangelizing in rural zones, this by no means suggests that the Franciscans isolated themselves from the literati, nor does it imply that they made no contributions to Sino-Western interactions. On the contrary, Franciscans also published various works in the Chinese language, with la Piñuela's *Bencao Bu* serving as a representative example.

Bencao Bu is a book written in Chinese by la Piñuela that introduces 13 Western natural medicines and three simple formulas to Chinese readers. As analyzed earlier, this work intricately weaves a tapestry of Sino-Western cultural exchanges within the context of missionary practice. Among the 13 medicinal substances documented in *Bencao Bu*, those widely found in China included mint, betel leaves, Chinese broccoli and purslane. Originating from Europe ("the West") were herbs like fragrant herb, stinky herb, castor oil and

the convulsion-dispelling stone. Medicinal substances present in both Europe and Southeast Asia/South Asia (primarily the Philippines) included weld bark, the heart-protecting stone and the poison-absorbing stone. The Luzon fruit and tobacco were only native to the Philippines and the Americas, respectively. Examining from a Chinese-centered perspective, if the contribution of the Jesuit Boym lay in establishing an outward-radiating model of Chinese medical culture, introducing Chinese medicine and plants to Europe, then *Bencao Bu*, involving regions and countries such as China, Spain, Europe, East Asia, Southeast Asia, South Asia, the Americas, etc., adopted an aggregating model, bringing together representative medicinal substances from various regions of the world. The book introduced new medicinal materials and their preparation methods from Europe or the Americas that were previously unknown in China, symbolizing the botanical interactions between China, Europe and the New World. At the same time, it delved into new therapeutic effects of existing Chinese medicinal substances, representing the exchanges and collisions of medical thoughts between different cultures worldwide. Hence, it showcases mutual exchanges between different regions in the world and highlights the contribution made by the Franciscans represented by la Piñuela to Sino-Western cultural exchanges.

It is precisely in the multidimensional exchanges and interactions carried out through missionary activities that a rich and colorful network was woven where “westward spread of Eastern learning” and “eastward spread of Western learning” intertwined. This also underscores the cultural significance beyond religious purposes found in *Bencao Bu* and other scientific and cultural works by missionaries who came to China during the Ming and Qing periods.

Funding: This research was funded by the National Social Science Fund of China, Young Scientists Project (中国国家社会科学基金青年项目), grant number 23CWW003, Research of Treatises on China Written by Spanish Sinologists in China during the 16th and 17th Centuries [16–17世纪西班牙来华汉学家中国书写研究]; the National Social Science Fund of China, Major Research Project of Historical Issues (2021) (中国国家社会科学基金中国历史研究院重大历史问题研究专项2021年度重大招标项目), grant number LSYZD21017, Collection and Research of Archives and Documents of “Pacific Silk Road” [“太平洋丝绸之路”档案文献整理与研究]; Start-up Research Fund for High-Level Talents of Nanjing University, grant number to be assigned, Research of the Cultural Exchange History between China and Spain during the Ming and Qing Dynasties [明清之际中国与西班牙文化交流史研究].

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study.

Conflicts of Interest: The author declares no conflict of interest.

Notes

- ¹ In 635: Alopen Abraham, a missionary from the Nestorian Church, arrived in Chang’an (長安), the capital of the Tang Dynasty, and had an audience with Li Shimin (李世民, 598–649), Emperor Taizong of Tang (唐太宗, reign: 626–649). Subsequently, with the support of the governors, Nestorianism, known as “Luminous Religion” (景教, Jingjiao) at the time, was able to spread in China. This marked the first introduction of Christianity to China. Later, in 841, Emperor Wuzong of Tang (唐武宗, reign: 840–846) initiated an anti-Buddhist movement, in which Nestorianism was suppressed as well, leading to the gradual disappearance of the Nestorian Church in China. By the 13th century, the rise and expansion of the Mongol Empire had caused panic in Europe. The Pope dispatched envoys such as Giovanni da Pian del Carpine (1180–1252) in hopes of using diplomatic means to restrain Mongol military activities and to establish contact with the Mongols to combat Muslims. After the establishment of the Yuan Dynasty (元, 1271–1368), Giovanni da Montecorvino (1247–1328) was sent by the Holy See to China. In 1294, he arrived in Dadu (大都, present-day Beijing 北京), the capital of Yuan, where he was welcomed by the governors and subsequently engaged in missionary work. Thereafter, the Holy See continued to send more missionaries to China to assist Montecorvino. They established missions and built churches in Beijing and Quanzhou (泉州). This marked the second introduction of Christianity to China. However, with the rapid decline of the Yuan Dynasty, Christianity also lost its influence and gradually faded from the memory of the Chinese people. During the Age of Discovery, with the global colonial expansion of Portugal and Spain, Catholic missionaries began arriving in the East. With the strategy of cultural accommodation, they successfully established missions in China and interacted extensively with Chinese society. This marked the third introduction of Christianity to China.

- 2 “Catalogus Religiosorum S. P. N. S. Francisci” (Van Den Wyngaert 1942, p. 329).
- 3 “Historia y Relación Escrita por el P. Fr. Jaime Tarín, 1689” (Alcobendas 1933, pp. 269–72). For more information about Ibáñez’s trip to Europe, see (Cui 2006, pp. 171–80; Torres Trimállez 2023).
- 4 For the brief biography of Pedro de la Piñuela, see (Rosso 1948, pp. 250–74; Ye 2017, pp. 59–93).
- 5 The analysis and quotations in the following text are based on the version from the National Library of France. The main text in this version does not have folio numbers. When citing, all folio numbers are indicated based on the Arabic numerals found in the top left corner of each folio.
- 6 Original text: “二種非中邦所產，今攜種來，可以徧植”. From: (La Piñuela 1697a, fol. 5r).
- 7 Original text: “六種皆非中邦所有”. From: (La Piñuela 1697a, fol. 5v).
- 8 Original text: “五種中邦所廣有，知其為大藥者鮮矣”. From: (La Piñuela 1697a, fol. 5v).
- 9 While describing the medicines, la Piñuela mainly depicted their botanical characteristics and the ailments they primarily treat. However, the composition of these three formulas is primitive and rudimentary, involving items such as pig dung, horse dung and old boots. Therefore, the section introducing the formulas leans more toward a collection of legendary and somewhat incredible anecdotes than toward a pharmacological discourse.
- 10 In the preface of *Bencao Bu*, Liu Ning briefly described the history of the development of TCM and listed important representative medical figures. See (La Piñuela 1697a, preface written by Liu Ning, fols. 2r–3r).
- 11 Marta Hanson and Gianna Pomata studied Michal Boym’s *Specimen Medicinæ Sinicæ*, examining how the Jesuit rendered the Chinese formulas into Latin for a European audience. The authors emphasized there was a common ground between Chinese and European medicine that would allow the transfer of knowledge in both directions, while they did not pay much attention to the fundamental characteristics of TCM and the differences in diagnostic and treatment methods between Chinese and Western medicine (Hanson and Pomata 2017, pp. 1–25).
- 12 Original text: “若夫簡易而切要，裨于人而捷于效者，胡可廢歟。餘以見聞所及，匯為一帙，于保身之道，亦未必無小補焉”. From: (La Piñuela 1697a, fol. 2v).
- 13 Original text: “言前此之所未備，于淑性之道，未必無小補焉”. From: (La Piñuela 1697a, fol. 2v).
- 14 A traditional Chinese unit of distance. The *li* has varied considerably over time. The term “nine thousand *li*” here is a common rhetorical expression in ancient Chinese texts, describing a journey as extremely long.
- 15 Original text: “旅人九萬里跋涉，原為救人靈魂，非為肉軀計也”. From: (La Piñuela 1697a, fol. 3v).
- 16 Corsi also expressed a similar opinion, pointing out, “despite the relatively long periods spent in the residences of Manila and Canton, there are no references in the sources to his involvement in medical or apothecary practices” (Corsi 2014, p. 131).
- 17 “Augustinus A S. Paschali: Relatio Missionis Seraphicæ, 4 October 1688” (Van Den Wyngaert 1936, pp. 641–2).
- 18 “Augustinus A S. Paschali: Relatio Missionis Seraphicæ, 4 October 1688” (Van Den Wyngaert 1936, p. 643).
- 19 Original text: “主造火氣水土四元行，為養萬物生命之向”. From: (La Piñuela 1697b, text, fol. 29r).
- 20 For more information about the interactions between the Spanish Franciscans and Chinese literati, see (Ye 2024).
- 21 Original text: “Sin embargo, sus actividades como mediadores culturales se supeditaban a una finalidad religiosa donde la capacidad para el compromiso estaba severamente limitada”. From: (Rubiés 2012, p. 63).
- 22 Original text: “未知與萱草孰為優劣?” From: (La Piñuela 1697a, fol. 6r).
- 23 For more information about the cultural significance of *Hemerocallis fulva*, see (Fu 2012, pp. 142–48).
- 24 Original text: “芥之嫩者為芥藍，極脆。東坡雲：‘芥藍如菌藍，脆美牙頰響’”. From: (La Piñuela 1697a, fol. 17r.). Su Dongpo’s (蘇東坡) descriptions come from his poem *Yuhou Xingcaipu* (雨後行菜圃, *Walking in the Vegetable Garden After the Rain*). Su Shi (蘇軾, 1037–1101), with the art name Dongpo (東坡) and the courtesy name Zizhan (子瞻), was a famous poet, essayist, artist and statesman in the Northern Song Dynasty (北宋, 960–1127).
- 25 Original text: “己所欲，則施于人。己所不欲，勿施于人”. From: (La Piñuela 2014, p. 676).
- 26 Original text: “信德于人，如樹之根。[...] 無信德即無望德，無望德則不信上主為萬物之原”. From: (La Piñuela 1697b, text, fol. 3r).
- 27 Original text: “先可知，後可願，不知則不願”. From: (La Piñuela 1697b, text, fol. 3r).
- 28 Cheng Hao (程顥, 1032–1085) and Cheng Yi (程頤, 1033–1107) clearly expressed the concept of ‘knowledge precedes action’. Cheng Yi believed: “It is necessary to take knowledge as the foundation. With profound knowledge, action will inevitably follow; There is no one who knows but cannot act. To know but not to act is only a sign of shallow understanding”. (須以知為本，知之深，則行之必至，無有知之而不能行者。知而不能行，只是知得淺) (Cheng and Cheng 2020, p. 208). Zhu Xi (朱熹, 1130–1200) further stated: “Knowledge and action are always mutually dependent, like eyes needing feet to move and feet needing eyes to see. In terms of priority, knowledge comes first; in terms of importance, action is crucial”. (知、行常相須，如目無足不行，足無目不見。論先後，知為先；論輕重，行為重) (Zhu 2018, p. 112).
- 29 In Chinese mythology and culture, the three-legged crow represents the sun, while “Yanzhi” refers to Mount Yanzi, where the sun sets according to Chinese mythology.

- 30 Original text: “赤烏經天則為晝，淪于崦嵫則為夜。永[...]則長晝而無夜矣”。 From: (La Piñuela 1697b, text, fol. 12r).
- 31 For information about Boym’s life and works, see (Pfister 1932, pp. 269–76). For more analysis of Boym’s translation method of Chinese medicine, see (Hanson and Pomata 2017, pp. 1–25).
- 32 A commonly used traditional Chinese medicine, with a sour flavor and warm nature, that is often used to treat diarrhea.
- 33 The original book has been lost, but, due to numerous references by ancient medical physicians, we can still find pieces of content from the book in other materia medica works.
- 34 Original Text: “記含不堅固，取葉熨水，服時加醋，[...] 蓋人之記含在腦故也”。 From: (La Piñuela 1697a, fol. 6v).
- 35 Original text: “心者，君主之官也，神明出焉”。 From: (Wang 2003, p. 26).
- 36 Original text: “腦為髓之海”。 From: (Wang 2003, p. 250).
- 37 Original text: “腦為元神之府”。 From: (Li 1596, vol. 34).
- 38 Original text: “取金絲烟葉，必鮮者，有自然汁，以二斤擣爛，置罐內，加以燒酒。酒浸過烟葉，高二指。兩日後取出，以布包，壓出水，忌粗滓參入。將水置鍋內，加淨豬膏 過無粗者一斤，同煎至無酒氣為度。以布濾過去粗，加明淨松香六兩同煎。烟水要煎極濃，又濾過加黃臘三兩同煎。須烟水成膏，取起入罐，烈日曬之，不必遮蓋，常要攪勻。曬至水氣乾盡，久留逾好。即生蠟，亦曬攪之”。 From: (La Piñuela 1697a, fols. 19r–19v).
- 39 There is no consensus among scholars regarding the exact time when tobacco was introduced to China. Wu Han (吳晗) argued that tobacco was first introduced in the early 17th century, while some scholars, based on certain archaeological findings, suggested an earlier arrival in the 16th century. This issue goes beyond the scope of this paper. For further information on this topic, see (Wang 2015, pp. 33–4). Nevertheless, what can be confirmed is that, prior to Pedro de la Piñuela’s arrival in China in 1676, tobacco had already been introduced to China. Therefore, in his *Bencao Bu*, he classified tobacco under the category of “widely available in China”.
- 40 Original text: “esempio della precoce circolazione di un sapere medico che riflette esperienze acquisite in uno spazio di azione nel quale l’Oriente si trova indissolubilmente connesso tanto al Nuovo come all’ Antico Mondo”. From: (Corsi 2014, p. 147).
- 41 This is a plant whose species we cannot currently determine, as Zhao Xuemin has only provided a very vague description of its botanical features.
- 42 Zhao Xuemin also noted that the plants could potentially be different, and he suggested that this remains for later scholars to verify, reflecting a more cautious stance (Zhao 1998, p. 176).
- 43 Original text: “其色紅，其狀如杜仲”。 From: (La Piñuela 1697a, fol. 10r).
- 44 Original text: “芥藍 [...] 是中國久食矣，其根如芋大。今鹵土攜種來植者，其根大如斗”。 From: (La Piñuela 1697a, fol. 17r). “Dou (斗)” is an ancient Chinese vessel used for holding liquor and measuring grains.
- 45 Original text: “以蘇州薄荷為良”。 From: (La Piñuela 1697a, fol. 15r).
- 46 La Piñuela pointed out that mint, betel leaves, Chinese broccoli, purslane and tobacco were widely found in China, but those who knew them as major medicines were rare. It can be seen that, in the process of composing this book, he did undertake some preliminary study of Chinese medicine, albeit with a relatively shallow understanding and even some mistakes. For example, mint has always been recognized as a “major medicine” in China, used for dispelling wind and clearing heat, with extensive clinical applications.
- 47 The disease was named *yangmei chuang* because the appearance of the ulcerations during the infection resembled *yangmei* (楊梅, *Myrica rubra*).
- 48 For a Chinese translation of the work, see (Boym 2010, pp. 299–357).

References

- Alcobendas, Severiano, ed. 1933. *Las Misiones Franciscanas en China: Cartas, Informes y Relaciones del Padre Buenaventura Ibáñez (1650–1690). Con Introducción, Notas y Apéndices, por el R. P. Fr. Severiano Alcobendas. Bibliotheca Hispana Missionum V*. Madrid: Estanislao Maestre.
- Blanco, Manuel. 1837. *Flora de Filipinas*. Manila: Imprenta de Sto. Thomas por D. Candido Lopez.
- Bocci, Chiara. 2014. «Notes Additionnelles de Materia Medica»: Le Bencao Bu 本草補 de Pedro de la Piñuela (1650–1704). *Journal Asiatique* 302: 151–209.
- Boym, Michal. 2010. *Bu Mige Wenji 卜弥格文集 [Collected Works of Michal Boym]*. Translated and Edited by Zhenhui Zhang 张振辉, and Xiping Zhang 张西平. Shanghai: East China Normal University Press. 上海: 华东师范大学出版社.
- Boym, Michal. 2023. *Flora Sinensis, Fructus Floresque Humillime Porrigens*. Edited by Jinhua Xu 徐锦华. Shanghai: Shanghai Guji Chubanshe. 上海: 上海古籍出版社.
- Cheng, Hao 程颢, and Yi Cheng 程頤. 2020. *Ercheng Yishu 二程遺書 [Collection of Pieces Written by the Two Cheng Brothers]*. Shanghai: Shanghai Guji Chubanshe. 上海: 上海古籍出版社.
- Corsi, Elisabetta. 2014. L’antidotario cinese di Pedro de la Piñuela OFM (1650–1704): Testo e contesto. *Archivum Franciscanum Historicum* 107: 117–48.

- Cui, Weixiao 崔维孝. 2006. *Mingqingzhiji Xibanya Fangjihui Zaihua Chuanjiao Yanjiu (1579–1732)* 明清之际西班牙方济会在华传教研究 (1579–1732) [A Study of the Spanish Franciscan Missions in China during the Ming and Qing Dynasties (1579–1732)]. Beijing: Zhonghua Shuju. 北京: 中华书局.
- Cui, Weixiao 崔维孝. 2007. Shi Duolu Shenfu De Bencao Bu Yu Fangjigehui Zaihua Chuanjiao Yanjiu 石铎禄神父的《本草补》与方济各会在华传教研究 [The investigation on Bencao Bu by Pedro de la Piñuela and the Franciscan mission in China]. *Journal of Social Sciences* 社会科学 1: 124–33.
- Da Orta, Garcia. 1895. *Coloquios dos Simples e Drogas da India*. Lisbon: Imprensa Nacional, vol. 2.
- De Ursis, Sabatino 熊三拔. 1612. *Taixi Shuifa* 泰西水法 [Hydraulic Machinery of the West]. Version in *Siku Quanshu* 四庫全書 [Complete Library of the Four Treasuries].
- Fu, Mei 付梅. 2012. Lun Gudai Wenxuezhongde Xuancao Yixiang 论古代文学中的萱草意象 [On the Image of Hemerocallis fulva in Ancient Chinese Literature]. *Yuejiang Academic Journal* 阅江学刊 1: 142–48.
- Hanson, Marta, and Gianna Pomata. 2017. Medicinal Formulas and Experiential Knowledge in the Seventeenth-Century Epistemic Exchange between China and Europe. *Isis* 108: 1–25. [CrossRef] [PubMed]
- La Piñuela, Pedro de 石鐸禄. 1697a. *Bencao Bu* 本草補 [Supplement to Chinese Materia Medica]. Paris: Bibliothèque nationale de France, Chinois 5332.
- La Piñuela, Pedro de 石鐸禄. 1697b. *Yongzan Dingheng* 永暫定衡 [Evaluation of Eternity and Temporality]. Paris: Bibliothèque Nationale de France, Chinois 7030.
- La Piñuela, Pedro de 石鐸禄. 2014. *Chuhui Wenda* 初會問答 [Preliminary conversation]. In *Fandigang Tushuguanancang Mingqing Zhongxi Wenhua Jiaoliushi Wenxian Congkan* 梵蒂岡圖書館藏明清中西文化交流史文獻叢刊 [Series of Documents on the History of Sino-Western Cultural Exchanges in the Ming and Qing Dynasties Deposited in the Vatican Apostolic Library]. Edited by Xiping Zhang 張西平, Dayuan Ren 任大掇, Federico Masini and Ambrogio M. Piazzoni. Zhengzhou: Daxiang Chubanshe, 郑州: 大象出版社, Compilation 1. vol. 40, pp. 601–87.
- Li, Qing 李庆. 2019. 16–17 Shiji Meidu Liangyao Tufuling Zaihaiwaide Liubo 16–17世纪梅毒良药土茯苓在海外的流播 [The Medicinal Usage of China Root and Its Circulation Overseas between 1520 and 1660]. *World History* 世界历史 4: 136–51.
- Li, Shizhen 李時珍. 1596. *Bencao Gangmu* 本草綱目 [Compendium of Materia Medica]. Version in *Siku Quanshu* 四庫全書 [Complete Library of the Four Treasuries].
- Pfister, Louis. 1932. *Notices Biographiques et Bibliographiques sur les Jésuites de L'ancienne Mission de Chine, 1552–1773*. Shanghai: Imprimerie de la Mission Catholique.
- Rosso, Antonio Sisto. 1948. Pedro de la Piñuela, O.F.M., Mexican Missionary to China and Author. *Franciscan Studies* 8: 250–74.
- Rubiés, Joan-Pau. 2012. ¿Diálogo religioso, mediación cultural o cálculo maquiavélico? Una nueva mirada al método jesuita en Oriente, 1580–1640. In *Jesuitas en Imperios de Ultramar, siglos XVI–XX*. Edited by Alexandre Coello de la Rosa, Javier Burrieza Sánchez and Doris Moreno. Madrid: Sílex.
- Torres Trimállez, Marina. 2023. Ganar voluntades para unir imperios: El viaje a Europa de Buenaventura Ibáñez a finales del siglo XVII. *Hispania* 83: e033. [CrossRef]
- Van Den Wyngaert, Anastasius, ed. 1936. *Sinica Franciscana, Vol. III, Relationes et Epistolae Fratrum Minorum Saeculi XVII*. Quaracchi: Collegium S. Bonaventurae.
- Van Den Wyngaert, Anastasius, ed. 1942. *Sinica Franciscana, Vol. IV, Relationes et Epistolae Fratrum Minorum Saeculi XVII et XVIII*. Quaracchi: Collegium S. Bonaventurae.
- Verbiest, Ferdinand 南懷仁. 2003. Xidushi Yuanyou Yongfa 吸毒石原由用法 [The Origin and Use of the Poison-Absorbing Stone]. In *Haiwai Huigui Zhongyi Shanben Guji Congshu* 海外回歸中醫善本古籍叢書 [Series of Ancient Chinese Medicine Books Returning from Overseas]. Edited by Jinsheng Zheng 郑金生. Beijing: People's Medical Publishing House, 北京: 人民卫生出版社, vol. 10.
- Wang, Qingfu 王庆福, ed. 2003. *Huangdi Neijing* 黄帝內經 [Inner Canon of the Yellow Emperor]. Beijing: Zhongyi Guji Chubanshe. 北京: 中医古籍出版社.
- Wang, Yu 王雨. 2015. Jin Sanshinian Mingqing Yanco Chuanbo Wenti Yanjiu Zongshu 近30年明清烟草传播问题研究综述 [A Review of Tobacco Transmission in Ming and Qing Dynasties in the Past 30 Years]. *Journal of Chifeng University* 赤峰学院学报 10: 33–4.
- Ye, Junyang 叶君洋. 2017. La vida misionera del franciscano Pedro de la Piñuela (1650–1704) en China. *Pedralbes: Revista d'història Moderna* 37: 59–93.
- Ye, Junyang 叶君洋. 2024. Between Spanish Franciscans and Chinese Literati in Late Ming and Early Qing: Modes of Interactions and Cultural Exchanges. *Religions* 15: 261. [CrossRef]
- Zhao, Xuemin 趙學敏. 1998. *Bencao Gangmu Shiyi* 本草綱目拾遺 [Supplement of Compendium of Materia Medica]. Beijing: China Press of Traditional Chinese Medicine. 北京: 中国中医药出版社.
- Zhen, Xueyan 甄雪燕, and Jinsheng Zheng 郑金生. 2002. Shi Zhenduo Bencao Bu Yanjiu 石振铎《本草补》研究 [Research on Bencao Bu by Pedro de la Piñuela]. *Chinese Journal of Medical History* 中华医史杂志 4: 205–7.
- Zhu, Xi 朱熹. 2018. *Zhuzi Yulei* 朱子語類 [A Collection of Conversations of Master Zhu]. Wuhan: Chongwen Shuju, 武汉: 崇文书局, vol. 1.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.