



BRILL

ASIAN MEDICINE 18 (2023) 167–192



brill.com/asme

Preliminary Translation of the Tianhui Laoguanshan Manuscript on Piercing as Therapy

Vivienne Lo 羅維前 | ORCID: 0000-0003-1360-4308

University College London, London, UK

v.lo@ucl.ac.uk

Published online 22 January 2024

Abstract

This translation forms a triptych with the following two articles in this double special issue: Gu Man, Zhou Qi, and Liu Changhua, “Techniques for Piercing the *Mai* Recorded in the Laoguanshan Han Tomb Bamboo Slips” and Zhou Qi, “Research on the Lacquered Channel Figurine Excavated from a Han Tomb in Tianhui.” Here you can read an entire Tianhui Laoguanshan text in translation on the subject of therapeutic piercing. The contribution by Gu, Zhou, and Liu positions the therapy in relation to ideas and techniques in other manuscript texts contemporary to the one translated here and the printed classics of Chinese medicine. These articles are accompanied by opinion pieces written by current practitioners of Chinese medicine as expert witnesses to the evolution of the techniques and their relevance, or not, to modern practice. Together, we present an interdisciplinary analysis that we hope will engage the reader actively in the process of multifocal interpretation. The text here is introduced by a translator’s introduction that reflects broadly on the unique challenges of rendering this fascinating work into English.

Keywords

Laogaunshan – bamboo slips – medical manuscripts – acupuncture – translation

Published with license by Koninklijke Brill NV | DOI:10.1163/15734218-12341532

© VIVIENNE LO, 2024 | ISSN: 1573-420X (print) 1573-4218 (online)
This is an open access article distributed under the terms of the CC BY 4.0 license.

<https://creativecommons.org/licenses/by/4.0/>

Translator's Introduction

It is thanks to the extraordinary work of manuscript collation and transcription of the team at the Chinese Academy of Chinese Medical Sciences (hereafter the “Academy Team”) that it has been possible to undertake this preliminary translation of the Tianhui 天回 Laoguanshan 老官山 manuscript on piercing therapy.¹ This is the text that the Academy Team has styled the *Piercing Methods* (*Cishu* 刺數) (Figure 1). It is written in mature Han clerical script style in basically unpunctuated prose on roughly forty-eight intact and fragmentary bamboo slips. It comprises a general introduction to the different styles of piercing the body with a guide to determining the number of times the body is to be pierced. This involves observing the overall state of the patient as well as the specific site of the illness. There is an explicit concern for differential diagnosis since “illnesses look very similar yet are actually different, and they have a plethora of names.”² Each illness is then described on a single slip, with the illness name as a kind of topic heading, followed by a description and the piercing number. This makes the sentence and paragraph structure quite clear in a kind of spatially determined grammar.

Initially, this prolegomenon to the translation was intended to be just a kind of linguistic introduction to the issues encountered in translating texts excavated from tombs, written within some two hundred years around the turn of the first millennium. Ultimately, it became impossible to talk about the text and its meanings without discussing the context and, specifically, the intertextuality of at least four groups of manuscripts excavated from Han dynasty tombs. The earliest manuscripts recovered from three of the tombs were interred within perhaps thirty years of each other. These three tombs were positioned along the course and hinterland of the Yangzi River. The site of the fourth set of excavations was a tomb closed over a century later than the Laoguanshan tomb, discovered at Wuwei in Gansu, some 2,000 kilometers away. The texts from all three tombs share themes, and many are versions of a similar piece of writing. Each text in Chinese medicine is “multiply dialogical,” not only in the ancient world in this way, but also “as specific authors explain the meaning of illness concepts by strategically weaving a whole network of quotes from classic and modern texts and indexing multiple historical conversations into a particular inscription.”³

1 Tianhui yijian zhenglixiaozu 2023.

2 Slip 670. Unless otherwise stated, translations are the author's.

3 Pritzker 2012, 345.



FIGURE 1 Facsimile of the text on piercing
PHOTO BY THE AUTHOR

The introductory section of *Piercing Methods* ends with a fascinating reference to the social determinates of the state of the patient: in treatment, it opines, “rich and poor each requires its own methods.” Sadly, the text doesn’t elaborate. But luckily, this statement echoes statements in two near-contemporary texts that uniquely bear their original titles on the verso of the first slip: the *Book of the Channels* (*Maishu* 脈書) and the *Pulling Book* (*Yinshu* 引書), both discovered at the Zhangjiashan 張家山 tomb (closed 186 BCE). The two Zhangjiashan texts consider the causes of disease and attribute the illnesses of nobility to imbalances of *yang* and *yin* derived from being unable to harmonize extremes of emotion and passion, overeating, and a lack of exercise.⁴

Poor people, in contrast, become ill from their labors, hunger and thirst, and exposure to the elements. They also do not know how to deport themselves when under physical stress. The *Book of the Channels*, like the Tianhui Laoguanshan text translated here, contains a long list of illnesses, in this latter case linked to appropriate piercing techniques and the number of piercings to administer.⁵ The multiple parallels, such as these, that can be found between

4 Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 124–25, 185.

5 Ibid., 115–18. Each disease entry in the Tianhui text is arranged in an internally coherent passage, written on separate slips. The lack of anything but thematic linkages between the

excavated and recovered texts from tombs spanning West and Eastern Han (closed around the turn of the first millennium) allow a valuable interdiscursivity that opens windows onto medical ideas in rapid transition.

In advance of any detailed analysis, I present the text in its entirety to provide a complete reading experience of at least one of the manuscripts to help the reader come to their own conclusions about its significance. I hope this will permit a greater engagement with the text according to specific interests. Since *Asian Medicine* is designed to attract a variety of readers with different expectations of and interests in reading early Chinese medical texts, this translation has been undertaken with raised awareness of diversity in the target audiences. It is necessarily dialogic and has to consider not only the plural interdisciplinary readership “with their desires, their demands, and their language always shaping translation decisions” but also the work of other translators and the solutions they have chosen when meeting similar challenges.⁶ With a few exceptions, translators of Chinese medical texts have not tended to examine their overall translation strategies critically as a core part of their published work except in the minutiae of word and phrase choices.

When the source concerns medical practice, for example, as with the following translation, which has a quasi-surgical nature, there is a particular ethical responsibility toward the practitioner-reader. It would be clearly irresponsible for practitioners to copy ancient techniques simply because they have some historical authenticity. Yet, as with any medicine styled “traditional,” new translations of original practices inevitably shape modern expectations of the tradition to the imagination of the past. Achieving technical accuracy involves choosing styles of technical expression. How does one communicate dexterity in handling surgical equipment, for example? It is all too easy for practitioner-translators to assume that we know, but do we (and who are *we* anyway)? With bloodletting being an early Chinese practice, it would be all too easy to read it into this text, but we are told explicitly, “Do not let the blood come out” and to press with the fingers and, in one case, to use fat to block the hole.⁷

Where the ancient medical ideas seem to resonate closely with modern practice, there is pressure to domesticate the text for a modern practitioner audience. This has led to state-sponsored attempts to standardize modern

texts on each slip would have made for some difficulty in determining their sequence had there not have been markings across the verso of the manuscript. These transverse markings served to facilitate the reordering of the forty-eight slips.

6 Pritzker 2014, 93.

7 Slip 650. For an analysis of bloodletting in early China, see Kuriyama 1995.

traditional Chinese medical terminology and control the Traditional Chinese Medicine (TCM) narrative as it crosses international boundaries. Most recently, the drive to standardize teaching and communication has evolved into a productive collaboration with the World Health Organization, where teams from the big TCM universities, particularly in Shanghai and the World Federation of Acupuncture Societies, have been actively involved.⁸

I understand the importance of improving communication cross-culturally when it comes to teaching traditional medicine. As a historian, however, I am wary of how the pressure on the translator to produce accessible text obscures more nuanced historical meaning. How does one then satisfy cultural historians who require that the text be situated within its unique contexts and that differences, rather than similarities, be highlighted across time? We are fortunate to have a range of expertise on hand. Much textual interpretation is provided in the companion article by three members of the Academy Team, lessening the need for explanatory footnoting here, except in some cases with the translation of obscure illness terminology or terms for which there is significant ambiguity, and I have chosen to translate differently from the team.

Other considerations, quite distinct from simple language choices, come to bear on what Pritzker calls “living translation,” “a living, breathing process, or meta-process encompassing multiple ongoing processes.”⁹ We might imagine the function of the text relates to medical pedagogy, which also has a bearing on how one perceives the *skopos* of the translation. Perhaps the manuscript was indeed used at the point of practice, in the passing on of practical knowledge. On the other hand, the understanding of practice for a twenty-first-century acupuncturist might be at odds with the original purpose of the text, complicating the processes of translation. One, therefore, finds oneself “participating in an elaborate conversation that spans both space and time. Within this network, specialized Chinese medical terminology, built out of complex Chinese characters and combinations of characters, accumulates its characteristic polysemy and heteroglossia.”¹⁰

Perhaps the original purpose of committing a text to silk or bamboo was not about training at the point of practice at all. Maybe it was about recording and preserving a medical culture by scholars unconcerned with healing and medicine or part of a rite to mark a disciple's progress. Where, in the Han period, texts with similar contents were represented as having been transmitted at the end of a period of training, in acknowledgment of a student having achieved

8 World Health Organization 2022.

9 Pritzker 2022, 619.

10 Pritzker 2014, 92.

a certain proficiency,¹¹ they take on significance beyond the words themselves and function as part of a kind of celebratory ritual of knowledge in the transfer of knowledge as power. That power was also a feature of theories of medicine becoming a significant theme in writing, a fact to which the very high proportion of surviving and transmitted medical texts testifies. During the Han period, the culture of committing medicine to written text and the concomitant emergence of an official medicine produced manuscripts that comprised a large portion of the holdings in the imperial library and many manuscript caches excavated from tombs.

The idea of a “living translation” evokes the polysemic nature of Chinese medical terminology. The Tianhui texts are thought to have been transcribed during the period from the Lühou 呂后 (187–181 BCE) to the Wendi 文帝 (180–158 BCE) reign periods, at a time when medical ideas and technologies were in rapid transition and processes of standardization coalesced comparatively quickly. We can compare words and expressions as they appear in very similar manuscripts preserved in tombs that were closed at different times or at a remove from each other geographically – and then again in texts originating in this period but which were then edited by many hands and printed during the subsequent millennia. In this way, the creative dynamic of this time can be captured, accelerating in a flexible relationship between signifier and signified.

In interpreting the text, I have benefited from the patient guidance of Gu Man and Shelley Ochs, and, indeed, key parts of the introductory section were already translated by Ochs for the article in this issue by Gu Man, Zhou Qi, and Liu Changhua, “Techniques for Piercing the *Mai* Recorded in the Laoguanshan Han Tomb Bamboo Slips.” Their article gives a fine and contextualized analysis of the content, meaning, and application of the therapies described in this text. Their generosity has made light work of this task of translating early Han dynasty piercing therapy. Penelope Barrett is, as always, a constant companion and adviser in matters of translation and editing.

In 2019 the Academy Team presented me with the most exquisite and treasured photo facsimile of the manuscript translated here, printed on bamboo slips cut to the size of the originals. It is held together with three braided, probably hemp, bindings toward the top, bottom, and center, just like the original, although without the notches. Despite modern photo printing technology, handling a manuscript produced in this way gives a tactile sense of its materiality and replicates the reading experience much more viscerally than reading on screen or from a modern book. It has also given me a chance to get on with

11 Hsu 2010, 71–72.

this translation in advance of receiving the published Wenwu volume with full photographs and transcription.¹²

Unlike the excavated original, each of the twenty-three damaged bamboo strips is presented intact in the facsimile, and the modern title, as newly attributed by the team, is copied on the recto of the first slip. It lacks the markings deliberately incised across the back of the manuscript and the notches for connecting bindings that have allowed the collators to reconstruct the original order of the slips, but – following these traces of collation from 2,000 years ago – otherwise, and particularly in relation to the script, it is a faithful copy.

Working with scholars from the Academy evokes a kind of nostalgia in me for my PhD years, which were spent poring over the critical editions of the medical manuscripts excavated from the Mawangdui 馬王堆 tomb 3 (closed 168 BCE) and the preliminary collation and studies of those from the Zhangjiashan 張家山 tomb (closed 186 BCE) that are almost exactly contemporary with the Tianhui Laoguanshan tomb. These included the transcription (*shiwén* 釋字) and the reading text (*shidu* 釋讀) produced by another member of that illustrious center of the China Institute for History of Medicine and Medical Literature: the late and lamented Professor Ma Jixing 馬繼興 (1925–2019). Professor Ma provided graphic transcriptions and readings for all the texts.¹³ Inevitably, transcribing a graphic character from an early source into a single, modern standard graphic form also partially identifies the etymon in question. But the two interlinked processes of transcription and creating an interpretive reading do not aim exactly at the same outcome. One is concerned with graphic identification, and the other with exploring and rendering meaning.¹⁴ Thanks to the transcription, one can then achieve a reading and interpretation from which one then proceeds to translate.

The text reflects the standardization of the clerical script that was well on its way when the texts were likely transcribed.¹⁵ Nevertheless, at each stage of preparing a critical edition – identifying the signifying graph, then the signified etymon, determining the reading, and finally translation – we make judgments that can be challenged. This is why I style this translation as a preliminary offering that should and will be revised at many different levels by scholars in the fullness of time.

Beyond personal nostalgia, I have a profound sense of linguistic familiarity when reading the transcription. Much of the terminology is consistent with

12 Tianhui yijian zhenglixiao zu 2023.

13 Ma 1992.

14 Zhao 2005.

15 Galambos 2006, 31–64.

the slightly earlier Mawangdui manuscripts and the even earlier medical manuscripts excavated from the Zhangjiashan tomb. The latter texts I translated for my PhD thesis some thirty years ago.¹⁶ My translations of the Zhangjiashan manuscripts remain forthcoming at Brill (expected before I retire) and since 2014 as working documents on the Needham Research Institute website.¹⁷ As I reflect on the way ahead, it seems unwise to wait that long to publish again! Besides, this text on therapeutic piercing of the body shares terminology concerned with illness and disease, body parts, pathological physiology, and medical theory with both the aforementioned caches of excavated texts.

The burning question for translation is since, taken together, they testify to rapid theoretical, cultural, and political transitions in all of these areas of healing and medicine, do these same graphs perform the same function or refer to the same thing in all three witnesses to Western Han dynasty medical textual production? We also cannot assume the levels of standardization from one place to another that we might expect in our own hyperconnected age. Triangulated, however, the three sets of mortuary texts from the three tombs from the Western Han period, which were copied perhaps some thirty years apart, describe the channels and vessels of the body and their therapy. While it would distort the evidence to look for lineal progress toward a mature Chinese medical theory, the text collections provide invaluable testimony to the situated processes of knowledge transmission and medical innovation in the early Western Han dynasty.

My own translation here also references the excellent translations of all of the Mawangdui medical manuscripts produced by my friend and mentor, Donald Harper. Harper's 1998 *Early Chinese Medical Literature* was a groundbreaking work. For the first time, it showcased the range and rich diversity of healing cultures of early China before they were shaped by the myriad editors, not necessarily doctors or healers themselves, who contributed to the formation of the classics.¹⁸ How we understand the excavated texts to relate to the formation of the classics, now generally thought to have coalesced in the Eastern Han (25–220 CE), is an important factor in the choice of translations for many of the terms below and throughout this special issue. For their English texts of the classics, which incorporate later embellished editions of some of the Han mortuary texts, the Academy Team began with and adapted

16 Lo 1998.

17 Lo 2014.

18 Harper 1998; Boyanton 2022. A substantial amount of the writing, editing, and bibliographic work that went into the formation of the classics was the work of scholars, bibliographers, and government-sponsored employees. Brown 2015, 63–86.

the mega-translation work of Paul U. Unschuld and his team, lately of Berlin, particularly Herman Tessenow and Zheng Jinsheng.

The polysemic nature and, therefore, flexibility of the medical terminology over these centuries of the Han dynasty is well acknowledged and has led to an extraordinary range of translations for some of the basic terms rendered here. I have discussed the terms *mai*, *yin*, and *yang* in detail in the editorial introduction to this special issue. I will not rehearse those observations and arguments again, except to say that these three terms have such a flexible relationship with the signified during the period in question that it is wise to leave them untranslated here.

How the two translators cited above, Harper and Unschuld, approach their work is quite different, although they are both inclined toward cultural translation in different measures. Unschuld's project aims to "reproduce a text in a target language as close to its original format and meaning as possible, without omissions and anachronistic interpretations and additions."¹⁹ For that reason, he eschews modern biomedical terminology, preferring vernacular terminology for translating specific and common organs and substances such as the "liver" or "blood," literally translating Chinese etyma, where a term alludes to a culturally specific phenomenon. See the translation of *zangfu* 臟腑 as "depots and storehouses" for all the *yin* and *yang* solid and hollow organs of the body.²⁰ He intends that, with these translation strategies, ancient medical ideas be "restored to life" so that they "lend themselves to a comparison with similar traditions from the beginning of European medicine."²¹ He is also concerned with facilitating the understanding of difference between contemporary TCM and medicine in the ancient world.

The translation of other terms is critical to understanding this particular text, including *ci* 刺 and *shu* 數, the two words that form the modern title given to the text by the Academy Team. Conspicuously absent from this textual record is any mention of the term *zhenjiu* 針灸 (lit. needling and cauterization [often with artemisia], and the term that came to designate "acupuncture and moxibustion," or simply acupuncture) and this requires explanation, particularly in a journal that prides itself on an inclusive readership, aiming to write also for practitioners of Asian medicine. For this reason, we have elicited the expert advice of practitioners themselves to interpret the different sources, and their perspectives appear in the opinion pieces by Edward Neal and George He. Clearly, the act of piercing the body along strategic channels, as described in

19 Unschuld and Tessenow 2011, 13.

20 Ibid., 136–41.

21 Ibid., 9–14.

the text below, brings to mind the modern practice of acupuncture. Given the multiple acts of piercing the body for healing, there is no doubt that the mortuary texts are in some way related to the history of acupuncture, but it is not at all clear that the two forms of needles, the *yuanzhen* 緣鍼 (border or hemming needle) and *lüzhen* 履箴 were the kind of fine needles we would expect to see today. So, to read these texts through the retrospective lens of the maturing therapy as represented, for example, in the *Yellow Emperor's Inner Classic* (*Huangdi neijing* 黃帝內經), would be to miss vital clues as to what contemporary medical practice looked like in the Western Han, or aspired to, and therefore fail to produce a critical historical analysis of incremental changes in the evidence. We are thus challenged to come to more interesting conclusions in translating these texts if we look for differences rather than similarities. Unlike the three earlier texts on *mai* therapy excavated from Mawangdui tomb 3 and one from the Zhangjiashan tomb, this text is not primarily about cauterization with artemisia (*jiu* 灸). Nor is it structured in a sequence according to the *yin* and *yang* channels. The text lists illnesses first and, thereafter, showcases appropriate locations for therapeutic piercing. Some of the locations do reflect treatments according to the *yin* and *yang* designations, which are set out much more fully as anatomical channels in the other tomb texts on the *mai*. There are also three *luo* collateral locations not mentioned in the other tombs' manuscripts but well known in the received tradition and discussed below. Others, such as the "Yang Brightness in the Cheeks" or "Great Yang at the Nape," simply seem to refer to needling in rather general localized areas (Table 1). It is therefore quite likely that these references to interventions according to *yin* and *yang* refer to designated areas where one might influence the whole channels remotely.

The tools used for piercing therapy require detailed analysis. Medical techniques in the early Han period required sharpened stone lancets, stones for cauterizing, and for hot pressing. Even in the received classics, only one or two of the piercing devices described as the "Nine Needles" (*jiu zhen* 九針) in the treatise of the same name in the *Yellow Emperor's Inner Classic* are the sort of fine needles we would expect to see today in an acupuncture clinic.²² Most seem more surgical or designed for massage. Thus, it is very important for the translator not to make teleological judgments that blind one to the evidence presented, in this case missing medical innovations as witnessed in evidence from the Western Han dynasty (202 BCE–9 CE). Here, piercing, *ci*, does involve piercing the channels and vessels, although not necessarily at the acupuncture

22 *Lingshu* (1956) 1963, 1–4; trans. Unschuld 2016, 35–52.

TABLE 1 Piercing Locations

English	Chinese	Pinyin	No. of occurrences
Two Yang Brightness of the Shin	兩脗陽明	<i>Liang Heng Yang Ming</i>	9
Jue Yin on the Two Shins	兩脗厥陰	<i>Liang Heng Jue Yin</i>	2
The Great Yin of the Two Arms	兩脗大陰	<i>Liang Heng Day Yin</i>	1
Lesser Yang in Front of the Two Ears	兩耳前少陽	<i>Liang Er Qian Shao Yang</i>	2
Yang Brightness in the Cheeks	頰陽明	<i>Jia Yang Ming</i>	1
Heart <i>luo</i> Collateral	心絡	<i>Xin Luo</i>	10
Great Yang at the Nape	項鉅陽	<i>Xiang Ju Yang</i>	3
Great Yang <i>luo</i> Collateral of the Back	背鉅陽	<i>Bei Ju Yang</i>	1
Great Yang <i>luo</i> Collateral	背鉅陽絡	<i>Bei Ju Yang Luo</i>	1
Knee Great Yang	膝鉅陽	<i>Xi Ju Yang</i>	1
Foot Great Yang Collateral	足鉅陽絡	<i>Zu Ju Yang Luo</i>	1
The Two-Arm Yang Brightness	兩臂陽明	<i>Liangbi Yang Ming</i>	3
The Two-Arm Great Yin	兩臂大陰	<i>Liangbi Da Yin</i>	1
Foot Yang Brightness	足陽明	<i>Zu Yang Ming</i>	1

Created by the author

points we know from the classical medical treatises. The areas designated seem broader than simple point locations. Indeed, they may be a way of stimulating the whole channel through multiple piercings on a related location.

The earliest extant evidence for body piercing at strategic points to normalize the flow of *qi* through the body is found in a text that, unusually, has a surviving original title, the *Maishu (Book of the Channels)* from Zhangjishan. The tool was a sharpened *bian* 砭, a medical stone lancet used for surgical operations and adapted, in the quotation below, for moving the *qi*. This was not a metal needle.

The channels are valued by the sages. As for *qi*, it benefits the lower and harms the upper; it follows heat and distances coolness. So, the sages cool the head and warm the feet. Those who treat illness take the surplus and supplement the insufficiency. So, if *qi* goes up, not down, then when you see the channel that is in excess, apply one cauterization where it meets the articulation. When the illness is intense, apply another cauterization at a place two *cun* above the articulation. When the *qi* rises at one moment and falls in the next, pierce it with a stone lancet at the back of

the knee and the elbow.²³ Using a stone to open the channel must be as in this style.²⁴

夫脈者，聖人之所貴毆。氣者，利下而害上，從煖而去清，故聖人寒頭而煖足。治病者取有徐（餘）而益不足，故氣上而不下，則視有過之脈，五七當環而久（灸）之。病甚而上於環二寸益為一久（灸）。氣壹上壹下，當脰（郄）與肘（跗）之脈而砭（砭）之。用砭（砭）啓脈者必如式。

A tendency to pierce the channel, or a point or constellation of points, at locations given the same name as the channel, such as the *tai yang* 太陽 or *yang ming* 陽明, can be seen in the medical cases included in the biography of the Grain Attendant, Chunyu Yi 淳于意 (216–150 BCE), in Sima Qian's *Records of the Grand Historian* (*Shiji* 史記).²⁵ Dating to circa 154 BCE, these case histories have proved vital as contemporary supporting evidence for the Academy Team's interpretations.²⁶ While we must be wary of how closely the case histories reflect contemporary medical practice, the biography is an account of a Western Han physician and government official whose lifetime overlapped with that of the son of the Lord and Lady of Dai 軫 in whose tomb at Mawangdui the manuscripts were found.

Piercing that comes close to what we now understand as acupuncture is first seen in the account of treatment on the transporter points (*shuxue* 腧穴) in the Wuwei 武威 wooden and bamboo texts, recovered in a first-century CE Eastern Han tomb at Hantanpo 旱灘坡 near modern-day Gansu 甘肅. These texts capture a later moment in the history of acupuncture. Treatments at well-known acupuncture points such as the "Three Miles" (*sanli* 三里), at the knee, and the lung transporter, on the back, in the Wuwei records leave the needle in place at these points. In this text, there are also early acupuncture and moxibustion prohibitions.²⁷

In contrast, the evidence from the Laoguanshan manuscript, which sits temporally between those from Mawangdui, Zhangjiashan, and Wuwei, gives us piercing on the *mai*, on the divisions between muscles, and directly into fluid swellings. Interestingly, despite the flavor of minor surgery that pervades

23 The Zhangjiashan collation team read the graph as *fu* 肘, lit. the instep. In 1998 I read and translated this term as *zhou* 肘 (elbow). While the location is different, the general technical meaning remains the same.

24 Lo 1998, 92, 340; Jiangling Zhangjiashan hanjian zhengli xiaozu 1989; Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 125.

25 For a translation of the case histories, see Hsu 2010.

26 *Shiji* 105 (Sima Qian 1982, 2785–2820).

27 Gansusheng bowuguan and Wuwei xian wenhuaguan 1975; Yang and Brown 2017, 267–69.

the text, there is no evidence here of bloodletting and simply a concern to seal the place of insertion with the fingers, presumably to prevent bleeding after therapeutic intervention. We also see ten interventions on the *luo* 絡, generally considered the collateral and subsidiary parts of a network of otherwise perpendicular vessels and channels with strategic points that link their inner and outer trajectories. The *luo* are like the weft of woven cloth and draw on the emerging weaving homology I have explored elsewhere in this issue.²⁸ It seems that these strategic points that guide piercing practice are to be stimulated where we see the channels and vessels meet, at the junctions between the main channels and these *luo* collateral channels or, in the case of the Great Yang *luo* and the Yang Brightness *luo*, where they themselves meet. These are mentioned four and three times, respectively. A heart *luo* collateral is also mentioned three times for treating sensory disorders where the heart is suffering from anxiety and hurts or where there are symptoms in the chest of coughing and rising *qi*. The Great Yang *luo* collateral is referred to twice in relation to water swelling and retention. Great Yang is therefore associated with fluid pathologies but is *not* connected to the bladder in these texts as it comes to be in classical theory later.

The text here is not concerned with systematically associating the illnesses with *yin* and *yang* body structures, as seen in the Mawangdui and Zhangjiashan texts on the *mai*-channels. In the latter texts, the illnesses are listed after an anatomical description of each *yin* and *yang* channel. The symptoms of illness themselves, however, are rather similar to those we find in this text. Only three of the forty-two entries in the *Piercing Methods* involve culturally specific phenomena in that they relate to syndromes that involve concepts peculiar to the Chinese context: *bi* syndrome, *jue*, and Wind. *Bi* syndrome is a serious illness glossed in the list of illnesses in the Zhangjiashan *Book of the Channels* as “in the body; when dull-witted, □ and doesn’t recognize others, this is *bi*.”²⁹ It is a progressive and potentially terminal syndrome characterized as being caused by wind, cold, or dampness and traveling from the outer body into the internal organs. *Jue* relates to a pathological movement often of reversing *qi*, sometimes associated with serious and potentially fatal heart problems.³⁰ Wind, conceived as a cause of disease, is pervasive throughout Asia. Here it refers to a symptom located in the head. It often results in extreme symptoms such as stroke, which are subject to rapid change.

Each of the forty-two entries in the *Piercing Methods* might involve a range of symptoms, by far the greatest proportion of which are sensory complaints

28 See Lo, “Looms of Life: Weaving a New Medical Imaginary” in this issue (Lo 2023).

29 See n. 36.

30 See n. 38.

that only the patient would know about easily.³¹ Pain, abdominal discomfort, and problems of locomotion stand out. There are three instances of displacement where the womb is out of place or signs of hernia, two cases of skin disease, and one of tooth decay. There is one entry for convulsion and one for “craziness,” a behavioral disorder. Interestingly, the symptoms are not listed in order from head to toe as they often are in medical texts from across the ancient world. In contrast, this order is strikingly the case in the *Book of the Channels* text from Zhangjiaohan.

Finally, the Academy Team has decided to translate the *shu* 數 of *Maishu* as “skill” or “technique” for the reason that the character is often used interchangeably with its homophone *shu* 術 (skill or technique) in the received texts. The character, as written, however, primarily refers to “numbers” and thus points to the cultures of “numbers” and numerology that pervade the wider world of ritual, *technē*, and the arts of the Han period. The skill clearly involves understanding the numbers. Here, therefore, I translate “numbers” as the text itself stipulates for each illness how many times the body is to be pierced (despite the fact that the unique characteristic of this text is that there is a certain uniformity of number). The number of piercings is given as five twenty-eight times, and three, four, seven, and ten piercings only once each. Is it more than mere coincidence, perhaps, that five is the number most clearly associated with the rise of the empire, with the Five Agents becoming transcendent in imperial ritual?³² For the most part, however, the Academy Team and I are in surprising agreement about the nuances of translation involved in rendering this text.

Translation of the *Piercing Methods*

Slip 653

Mai piercing, needle to a depth of a quarter of a *cun*,³³ space apart one-seventh of a *cun*. [In] *mai* piercing, the needle is as large as a border or hemming needle. Division piercing, □ large □, space apart the small half of a *cun* [one-third]. Piercing water [swelling], the needle is as large as a knitting needle □ three *cun*.

31 See n. 39.

32 Woolf 2022, 80–81. Harper and Kalinowski 2017, 86–87.

33 One *cun* 寸, the Chinese measurement often translated as “inch,” is quite accurately determined as 2.31 centimeters but might vary regionally.

脈刺（刺），深四分寸一，間相去七分寸一。脈刺（刺），箴（針）大如緣葢（針）。分刺（刺），□天□，間相去少半寸。
刺（刺）水，葢（針）大如覆葢（針），□三寸。

Slip 650

Pierce, but do not let the blood come out; whenever piercing, press it with your fingers immediately. Use [animal] fat to block it, and do not let □. This is done.

刺（刺）血不當出，刺（刺）輒以指案，有（又）以脂肪寒（塞）之，勿令得□，已。

Strip 652

[Determine] the location of the illness. [If the *mai*] is hot, it will be agitated and is not like the other one; and [on the corresponding] hand, [the pulse] is also fast. [When it is flourishing], it will be agitated, and the [pulse at the] corresponding hand is fast; if it is depleted, then [the pulse will be] slow. The illness will not end and will return the day after; the illness

【切】病所在，【脈】熱，動（動）不與它【脈】等，【其應】手也疾，【盛則】動（動），其應手疾，其虛則徐。病不已，間日復之；病

Strip 669

will come to an end and stop. What is named “division piercing” is [piercing] between the flesh divisions. For the number of piercings, one must observe the characteristics of the illness and determine the location of the illness.

已，止。所胃（調）分刺■（刺，刺）分肉間也。
刺（刺）數，必見病者狀，切視病所。

Strip 670

For the number of piercings,³⁴ one must observe the characteristics of the illness and palpate the site of the ailment, and then you might [follow with the hand and inspect]. Illnesses look very similar yet are actually different and have a plethora of names; inspect, examine, and diagnose the illness before piercing. [In this way], illness can be cured. If one does not inspect

34 In the next article the Academy Team translate this as “to [appropriately] apply piercing techniques,” thus translating *shu* 數 as “techniques.” See Gu, Zhou, and Liu 2023.

刺（刺）數，必見病者狀，切視病所，乃可【循察】。病多相類而非，其名眾，審察診病而葢（針）之，病可俞（愈）也；不審

Strip 667

for diagnosis, then piercing will not affect a cure. Treating rich and poor each requires its own methods.

其診，葢（針）之不可俞（愈）。治貴賤各有理。

Strip 661

When the lower back and abdomen hurt, with cold and heat. [Pierce] the Yang Brightness and the Lesser Yang³⁵ on the two shins; five times each.

要（腰）腹痛，寒熱。兩胛陽明，少陽，各五

Strip 658

Bloody tooth decay [abscess of the teeth]; in the upper [teeth], [Pierce] Lesser Yang in front of the two ears; in the lower [teeth], [Pierce] the Yang Brightness in the cheeks; five times each.

血齩■（齩。齩）在上，兩耳前少陽，在下，頰陽明各五

Strip 629

The neck, the nape, [the eyes], and the nose ... hurt, [tears] come out, stuffed up nose, nose bleed. [Pierce] the nape Great Yang; five times each [side].

頸項■鼻口痛，■出，肌（鼻）{月口}（衄）。項距（鉅）陽各五

Strip 630

Inguinal³⁶ hernia, bulge, 淪 sinking,³⁷ urine retention, retroverted womb. [Pierce] the Jue Yin on the two shins; five times each.

35 The multiple needling suggested here appears to be along the course of the channel, Yang Brightness, rather than at any specific point.

36 For an analysis of *tui* 積, see Harper 1998, 259n3. See the Zhangjiashan *Book of the Channels* on inguinal swellings, “When there is an abscess of the scrotal sac, it is ‘blood collapse in the groin;’ if its abscess makes a calling sound as it goes up and down, it is *an inguinal hernia*.” Lo 1998, 335; Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 116.

37 *Lun* 淪 sinking suggests *daixia bing* 帶下病 (diseases below the belt), which often have symptoms with a downward motion, like bleeding or hernia.

積■（癩。癩）山（疝），暴L侖，瘡（癰），轉胞。兩脗[癥/止]（厥）陰各

Strip 631

The heart hurts with anxiety. [Pierce] Great Yin of the two arms and the shins; five times each. As with the heart *luo* collateral.

心痛惋。兩辟（臂）、脗大陰各五，若心落（絡）

Strip 604

Blood. Follow where the blood is and, according to the severity, determine the number [of piercings].

血。因血在所，以劇易(易)，為數

Strip 598

The heart and abdomen are [full]. □ [Pierce?] the heart *luo* collateral; five times each. [Or] the Foot and Hand Great Yin.

心腹盈。□心落（絡）各五，若足手大陰。

Strip 649

Convulsions illness. [Pierce] the two arms and shin Yang Brightness, and the Great Yang at the nape; five times each.

顛疾。兩辟（臂）、脗陽明，項鉅陽，各五。

Strip 651

Throat *bi*.³⁸ Two places: the collateral channels of the Yang Brightness of the two shins and the Yang Brightness of the two shoulders; the Great Yang *luo* collateral; □times each.

疝瘕。兩脗陽明、兩肩陽明落（絡）二所，北（背）鉅陽[絡]（絡），[各]□。

38 As noted in the introduction, *bi* 痺 is an enduring disease concept that, in this period, was a progressive and potentially terminal syndrome characterized as being caused by wind, cold, or damp and traveling from the outer body into the internal organs. It is glossed in the list of illnesses in the Zhangjiashan *Book of the Channels* as “the body; when dull-witted, □ and doesn’t recognize others, this is *bi*.” Lo 1998, 141–42, 334. See also Harper 1998, 199n7. The *Shuowen* (Xu 2007, 613) glosses *bi* 痺 as “damp illness” and associates it with wasting.

Strip 668

Bi syndrome. According to the location, determine the number in relation to the severity.

鼻（痺）。因所在，以鬪鬪爲數。

Strip 665

The diaphragm [blocked] at the center. The Great Yin of the two arms and the two shins; five times each, as well as the central line.³⁹

膈（膈）中。兩臂（臂）、兩胛大陰各五，及督。

Strip 666

Jue.⁴⁰ Yang Brightness of the two shins; five times each. Also, according to location.

蹙。兩胛陽明各五，有（又）因所在。

See Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 115, 117. *Suwen* 43 “*Bilun*” 痺論 (Discourse on *Bi*) is devoted to a description of the syndrome in all its various manifestations. It states, “*bi* is sometimes painful, sometimes without pain, sometimes numb, and also comes from the three *qi* of wind, cold, and damp.” *Suwen* (1956) 1963, 240. In the “Nine Needles” (*Jiuzhen* 九針) treatise of the *Divine Pivot*, the *haozhen* 毫針 (needle as fine as a hair) is used with a gentle and slow technique to needle *bi* conditions associated with pain. It is a technique thought to nourish a weak condition. *Lingshu* (1956) 1963, 2.

39 One must resist the temptation to translate, “and the *Du* [*mai*],” what is generally translated as the Governor Vessel. At this time there was no *dumai*. According to Gu Man, *du* here suggests a “central line,” as we can see with the term “central hem” (*du feng* 督縫). Shelley Ochs sensibly suggests this might refer to the spine, or simply the channel that marks the center of the back.

40 By the time of the Tianhui manuscripts, the symptom known as *jue* was well established. In 239 BCE, the *Spring and Autumn of Master Lü* (*Lüshi chunqiu* 呂氏春秋) had related it to an excess of *yin*. See Lü Buwei 1984, 34–43. Several graphs express interlinked *jue* syndromes: 蹙, 蹙, 蹙, and 蹙. *Jue* appears in both the Zhangjiashan and Mawangdui writings on the *mai* as a syndrome that gathers together the total complex of symptoms that result from the *dong* 動 (“pathological) movement,” i.e., an agitation, of five different channels. While the syndrome could be relatively mild, a condition of *jue* in three channels at the same time was considered a sign of impending death with symptoms associating the feet and the heart with pathologies of *qi*, particularly *qi* traveling in the wrong direction. Harper therefore translates *jue* as “reversal.” Harper 1998, 94. *Jue* was also a key feature of the case histories related by Chunyu Yi in *Shiji* 105 (Sima Qian 1982). Hsu 2010, 108. Taking the Western Han dynasty evidence together, we see a syndrome developing that ultimately gets associated with *ni qi* 逆氣, the reversal of the appropriate movement of *qi*. See Lo 1998, 218–65; Lo 1999.

Strip 66o

The lower back and the back hurt. [Pierce] the knee and the back Great Yang; five times each.

要（腰）北（背）痛。黍（膝）、北（背）距（鉅）陽各五。

Strip 659

Swallowing hurts. When one cannot swallow, and it is not severe, pierce the Yang Brightness of the arm and the Yang Brightness of the shin; five times each. When it is severe, and there is sputum, [the number of times you pierce should be] according to that.

嗑痛。不可咽，不甚，刺（刺）辟（臂）陽明、肱陽明各五；甚而𦘔（農一膿），因之。

Slip 663⁴¹ (Ten Strips)

Flea sores.⁴² [Pierce] between the two tendons on the inside of the arm and where the shins cross; five times each.

騷。兩辟（臂）內筋間，交肱次口者，各五。

In the center of a woman's belly, it is like a fist. [Pierce] on the two Jue Yin of the shins, on the big toe where there is a clump of hair; five times each.

女子腹中如捲。兩肱[癥/止]（癥）陰足大指鬢毛上，各五。

Counterflow *qi*: [Pierce] on the Yang Brightness of the two arms and shins; five times each, as well as the central line.

逆氣。兩辟（臂）、肱陽明各五，及督

Muscle spasm. Foot Great Yang collateral [channels]; five times each.

轉筋。足鉅陽落（絡），各五。

⁴¹ This slip is one of ten cataloged under the same number.

⁴² See the Zhangjiashan *Book of the Channels*. The illness list includes *sao* 騷, "When the limbs are sick and itching and pus comes out, this is *flea sores*." Lo 1998, 157, 336. Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 116, 118.

Mouth Sores. Follow [where the symptoms manifest] and pierce it eight times.

口疔（疔）。因刺（刺）之八。

Wind. Pierce the head Great Yang where it presses on the cheekbones 頤; ten times each.

風。刺（刺）頭鉅陽頤（夾）頤，各十。

Shortness of breath. Do not pierce.

短氣，不刺（刺）。

Head hurts. [Pierce] Lesser Yang in front of the ear. If it is the head, [pierce] the Great Yang where it presses on the cheekbones; five times each.

頭痛。耳前少陽，若頭鉅（鉅）陽頤<夾>頤，各五。

Wasting. Follow where it is. [Pierce the] ten [fingers and toes], and the hands and feet all at Lesser Yang, Yang Brightness.

痿。因所在，十，手足皆在少陽【☳】（陽、陽）明。

Dizziness: Great Yang at the nape and Yang Brightness on the shin; five times each.

眩（眩）。項鉅陽、胛陽明，各五。

Strip 639

Tears come out. [Pierce] Arm Yang Brightness, Great Yang at the nape; five times each.

涕出。辟（臂）陽明、項鉅陽，各五。

Strip 662

Coughing and rising *qi*. [Pierce] the Two-Arm Yang Brightness; five times each. The same for the heart *luo* collateral.

欬上氣。兩辟（臂）陽明，各五，若也<心>落（絡）。

Strip 646

Abdominal swelling. As for swelling in the abdomen, and below the navel is hurting, there is a blockage. Follow where the illness is located, and pierce it five times.

肘_𠄎（疔。疔）者，齊（臍）下痛，有積<積>。因病在所，刺（刺）之五。

Strip 664

The knee cramps and hurts. Follow the places it hurts and determine the number according to the severity.

𠄎（膝）攣痛。因痛所，以劇易（易）爲數。

Strip 656

The skin is swollen. [Pierce] Foot Great Yin and Yang Brightness; each five times.

膚張（脹）。足大陰、陽明，各五。

Strip 645

Exhaustion.⁴³ The Two-Arm Great Yin and the Two-Arm Yang Brightness of the shin; each five times.

單（瘡）。兩臂（臂）大陰、兩脗陽明各五。

Strip 638

Masses.⁴⁴ According to where they are located, and pierce the head three times.

嫁。案所在，刺（刺）頭，三。

43 *Shuowen* (Xu 2007: 615) glosses *dan* 瘡 as an “illness from exhaustion.” *Suwen* 19 “Discourse on the Jade Mechanism and the True [Qi of the] Depots” (*Yu ji zhen cang lun* 玉機真藏論), associates *dan* with *huang* 黃 (yellowing) and the passing of illness from the liver to the spleen. Over the ensuing centuries, the syndrome comes to be associated with symptoms that approximate to our modern understanding of jaundice, but this had not yet happened during the Han period. *Suwen* (1956) 1963, 118–29. Lo 2014, 38. See also Harper 1998, 211n2.

44 See the section on the differential diagnosis of masses in the illness list in the Zhangjiashan *Book of the Channels*. Lo 1998, 153–54, 334–35. The *Book of the Channels* differentiates tumorous, blood, *qi*, fat, and loose fecal masses.

Strip 607

Intermittent fever⁴⁵ illness with frequent lying down. [Pierce] the Yang Brightness and Lesser Yang of the two shins; each five times.

瘧病多臥。兩胛陽明、少陽，各五。

Strip 654

Deafness. The two Lesser Yang of the Arm; each five times.

聾。兩臂（臂）少陽各五。

Strip 657

The body is too full. Pierce at the muscular divisions, at the shins. Pierce the shins.

身盈。在肌分刺（刺），在胛■（胛胛）刺（刺）。

Strip 644

The mouth is locked. [Pierce] the Lesser Yang of the Head, each five times.

口噤（噤）。頭少陽，各五。

Strip 642

Sounds from the middle of the knee. Follow where the sounds are located and pierce there.

膝（膝）中鳴。因鳴所刺（刺）之。

Strip 640

It hurts under the heel. Follow where the illness is located and pierce there four times.

蹶下痛。因病所在，刺（刺）之四。

45 The illness list in the Zhangjiashan *Book of the Channels* lists the symptoms of *nue*, “When the body is cold and hot, there is thirst and the four limbs hurt.” Lo 1998, 336.

Strip 606

Craziness. [Pierce] the two arms and Yang Brightness of the two shins; each five times.

狂。兩臂（臂）、兩胛陽明，各五。

Strip 637

Water [swelling]. [Pierce] where the Great Yang *luo* collateral and the Yang Brightness *luo* collateral of the abdomen meet; each seven times.

水。鉅陽落（絡）與腹陽明落（絡）會者，各七。

Strip 634

Retention,⁴⁶ which doesn't get to come out. [Pierce] the two Foot Lesser Yin, Great Yang *luo* collateral; each five times.

閉，不得出。兩足少陰、鉅陽落（絡），各五。

Strip 636

The bowels hurt, and there is cold in the center. There is diarrhea and bowel flushing,⁴⁷ and a tendency to blockage of the bowels and boils on the tongue. [Pierce] the Lesser Yin of the two shins; each five times.

腸痛，寒中，唐（溏）泄，腸澼（澼），善腸（癰），舌癰（癰）。兩胛少陰，各五。

Strip 643

Stiff Neck. [Pierce] the Great Yang *luo* collateral of the back; each five times.

脛（瘰）。北（背）鉅陽落（絡），各五。

46 The illness list in the Zhangjiashan *Book of the Channels* lists the symptoms of *bi* 閉, "in the privates: when unable to urinate, it is retention." Lo 1998, 334; Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 117, 115.

47 *Changpi* 腸澼 (bowel flushing) is probably an ancient term for dysentery-like symptoms, an excess activity of the bowel characterized by pain and bleeding. The illness list in the Zhangjiashan *Book of the Channels* states "in the bowel: when there is pus and blood, and pain in the perineum, the spleen, the buttocks and lower abdomen, this is *bowel flushing*." Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 2006, 116–17.

Author Biography

Vivienne Lo 羅維前 is Professor of Chinese History at University College London. She has published widely on the ancient and medieval history of medicine in China and the diaspora. Her research interests include medical manuscripts, medical imagery, and the history of nutrition.

Bibliography

Primary Sources

- Anon. (ca. Han dynasty, 202–220 BCE). (1956) 1963. *Huangdi neijing lingshu* 黃帝內經靈樞. Edited by Wang Bing 王冰 (ca. 710–805). Beijing: Renmin weisheng chubanshe. Translated by Paul U. Unschuld as *Huang di nei jing ling shu: The Ancient Classic on Needle Therapy – The Complete Chinese Text with an Annotated English Translation*, Berkeley: University of California Press, 2016.
- Anon. (ca. Han dynasty, 202–220 BCE). (1956) 1963. *Huangdi neijing suwen* 黃帝內經素問. Edited by Wang Bing 王冰 (ca. 710–805). Beijing: Renmin weisheng chubanshe. Translated by Paul U. Unschuld and Hermann Tessenow as *Huang Di nei jing su wen*, Berkeley: University of California Press, 2011.
- Jiangling Zhangjiashan hanjian zhengli xiaozu 江陵張家山漢簡整理小組. 1989. “Jiangling Zhangjiashan hanjian maishu shiwen” 江陵張家山漢簡脈書釋文. *Wenwu* 7: 72–74.
- Lü Buwei 呂不韋 (292–235 BCE). 1984. *Lüshi chunqiu jiao shi* 呂氏春秋校釋. Edited by Chen Qiyou 陳奇猷. Shanghai: Xuelin chubanshe.
- Sima Qian 司馬遷 (145–87 BCE). 1982. *Shiji* 史記. Beijing: Zhonghua shuju.
- Tianhui yijian zhenglixiaozu 天回醫簡整理小組. 2023. *Tianhui yijian (shangxia ce)* 天回醫簡 (上下冊). Beijing: Wenwu chubanshe.
- Xu Shen 許慎 (ca. 58–147 CE). 2007. *Shuowen jiezi zhu* 說文解字注. Edited by Duan Yucai 段玉裁 (1735–1815). Nanjing: Fenghuang chubanshe.
- Zhangjiashan 247 hao Hanmu zhujian zhengli xiaozu 張家山247號漢墓竹簡整理小組. 2006. *Zhangjiashan Hanmu zhujian (247 hao mu)* 張家山漢墓竹簡 (二四七號墓). Beijing: Wenwu chubanshe.

Secondary Sources

- Boyanton, Stephen. 2022. “The Canonicity of the *Yellow Emperor’s Inner Classic*: Han through Song.” In *Routledge Handbook of Chinese Medicine*, edited by Vivienne Lo, Michael Stanley-Baker, and Dolly Yang, 120–32. London; New York: Routledge.
- Brown, Miranda. 2015. *The Art of Medicine in Early China: The Ancient and Medieval Origins of a Modern Archive*. Cambridge: Cambridge University Press.

- Galambos, Imre. 2006. *Orthography of Early Chinese Writing: Evidence from Newly Excavated Manuscripts (490–221 BC)*. Budapest: Eötvös Lorán University, Department of East Asian Studies.
- Harper, Donald. 1998. *Early Chinese Medical Literature: The Mawangdui Medical Manuscripts*. London; New York: Kegan Paul International.
- Gansusheng bowuguan 甘肅省博物館 and Wuwei xian wenhuaguan 武威縣文化館. 1975. *Wuwei Handai Yijian* 武威漢代醫簡. Beijing: Wenwu chubanshe.
- Gu Man, Zhou Qi, and Liu Changhua. 2023. “Techniques for Piercing the Mai Recorded in the Laoguanshan Han Tomb Bamboo Slips.” Translated by Shelley Ochs. *Asian Medicine* 18, nos. 1–2: 193–228.
- Harper, Donald, and Marc Kalinowski, eds. 2017. *Books of Fate and Popular Culture in Early China*. Leiden: Brill.
- Hsu, Elisabeth. 2010. *Pulse Diagnosis in Early Chinese Medicine: The Telling Touch*, Cambridge: Cambridge University Press.
- Kuriyama, Shigehisa. 1995. “Interpreting the History of Bloodletting.” *Journal of the History of Medicine and Allied Sciences* 50, no. 1: 11–46.
- Lo, Vivienne. 1998. “The Influence of ‘Yangsheng’ Culture on Early Chinese Medicine.” PhD diss., School of Oriental and African Studies, University of London.
- Lo, Vivienne. 1999. “Tracking the Pain: *Jue* and the Formation of a Theory of Circulating Qi through the Channels.” *Sudhoffs Archiv* 83: 191–210.
- Lo, Vivienne. 2014. “How To Do the Gibbon Walk: A Translation of the *Pulling Book* (ca. 186 BCE).” Needham Research Institute Working Papers 3, Cambridge, Needham Research Institute. <http://www.nri.org.uk/yinshu.pdf>. Accessed April 28, 2023.
- Lo, Vivienne. 2023. “Looms of Life: Weaving a New Medical Imaginary.” *Asian Medicine* 18, nos. 1–2: 148–66.
- Ma Jixing 馬繼興. 1992. *Mawangdui guyishu kaoshi* 馬王堆古醫書考釋. Hunan: Hunan kexue jishu chubanshe.
- Mawangdui boshu zhengli xiaozu 馬王堆帛書整理小組. 1985. *Mawangdui Hanmu Boshu* 馬王堆漢墓帛書. Vol. 4. Beijing: Wenwu chubanshe.
- Pritzker, Sonya. 2012. “Living Translation in US Chinese Medicine.” *Language in Society* 41, no. 3: 343–63.
- Pritzker, Sonya. 2014. *Living Translation: Language and the Search for Resonance in U.S. Chinese Medicine*. New York; Oxford: Berghahn.
- Pritzker, Sonya. 2022. “Translating Chinese Medicine in the West: Language, Culture, and Practice.” In *Routledge Handbook of Chinese Medicine*, edited by Vivienne Lo, Michael Stanley-Baker, and Dolly Yang, 613–22. London; New York: Routledge.
- Unschuld, Paul U., and Hermann Tessenow, with Zheng Jinsheng 鄭金生. 2011. *Huang Di nei jing suwen: An Annotated Translation of Huang Di's Inner Classic – Basic Questions*. Berkeley: University of California Press.

- Woolf, Deborah. 2022. "The Importance of Numerology, Part 1." In *Routledge Handbook of Chinese Medicine*, edited by Vivienne Lo, Michael Stanley-Baker, and Dolly Yang, 72–89. London; New York: Routledge.
- World Health Organization. 2022. "WHO International Standard Terminologies on Traditional Chinese Medicine." March 3, 2022. <https://www.who.int/publications/i/item/9789240042322>.
- Yang, Yong and Miranda Brown. 2017 "The Wuwei Medical Manuscripts: A Brief Introduction and Translation." *Early China* 40: 241–301.
- Zhao Ping'an. 2005. "Comments on the Problem of 'Transcription' in the Dunhuang Medical Manuscripts." In *Medieval Chinese Medicine: The Dunhuang Medical Manuscripts*, edited by Vivienne Lo and Christopher Cullen, 59–76. London: Routledge Curzon.