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Editorial Introduction

Classical Medicine

New Insights from Laoguanshan Cemetery (Second Century BCE), Tianhui Township, Southwest China

Vivienne Lo 羅維前 | ORCID: 0000-0003-1360-4308
University College London, London, UK
v.lo@ucl.ac.uk

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When finalizing the introduction to the first issue of *Asian Medicine* with Waltraud Ernst, now nearly twenty years ago, we set out the charter for the new journal of the International Association for the Study of Traditional Asian Medicine (IASTAM) over coffee in Russell Square just outside the campus at University College London. We aimed "to embrace the work of both academics and practitioners and particularly to showcase Asian scholarship." "IASTAM," we opined, "has always sought to give each of these communities a platform for the expression of their views, respecting the integrity of each group." In truth, that was not always easy, what with the "epistemological carnival" (*Asian Medicine* 1.2 Introduction) that so often had ensued when practitioners and academics shared the same platform. So, it is a joy to present to long-standing members of our honorable society and new readers alike a double special issue that fulfills the society's and the journal's interdisciplinary and intercultural mandate.

The theme of this issue is the latest archaeological finds of medical manuscripts and artifacts from the Laoguanshan 老官山 tomb site at Tianhui 天回 near the city of Chengdu in Sichuan, southwest China. The manuscripts were

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mostly copied within the reign periods of Empress Lü 呂后 (r. 195–180 BCE) and Emperor Wen 文帝 (r. 180–157 BCE) of the Western Han dynasty, with some that may have been copied a little earlier. All except one of the articles herein are written by Chinese scholars and scholars of Chinese descent, and most have been translated from original presentations in Chinese. Brought together, the kinds of scholarship produced by the authors who work in very different academic environments represent a renewal of knowledge of the history of Chinese medicine from antiquity and particularly from the Han period. Some authors trace a linear development of classical theory from this time; others take the opportunity to make important observations about the place of technology in the local history of Ba Shu 巴蜀 (Ba and Shu were two ancient states in an area of the early imperial world that corresponds roughly to modern Sichuan).

It is thanks to the team at the Chinese Academy of Chinese Medical Sciences (hereafter the "Academy Team") that we have been able to work on this double special issue, which grew out of a conference that I convened at University College London and the Needham Research Institute in Cambridge in 2017 titled "Looms of Life: The History and Archaeology of Weaving and Medicine in China." (See the poster for the conference Fig 1.) This was followed by a meeting convened by Donald Harper 夏德安 and Zhang Qicheng 张其成 at the University of Chicago Center in Beijing in 2018 titled "Rediscovering Medical Antiquity in China," where many of the papers were consolidated. The two meetings and the strong transnational research networks we subsequently developed have allowed Shelly Ochs 歐陽珊婷, Dolly Yang 楊德秀, and me to conceive and edit this collection, the interlaced themes of which provide a rich ground for future research. It is only in recent months that we have finally seen the Academy Team's beautiful two-volume set of photographs and annotated transcripts of the finds, *Medical Manuscripts from Tianhui* (*Tianhui yijian* 天回醫簡) published by Wenwu chubanshe. The stage is now set for the next phase of research.

The Academy Team comprises five scholars, Liu Changhua 柳长华, Gu Man 顾漫, Liu Yang 刘阳, and Zhou Qi 周琦, who worked closely with Xie Tao 谢涛 from the Chengdu Institute of Archaeology in analyzing the finds. Veteran historian of medicine Li Jianmin 李建民 joins us from Academia Sinica, Taipei. Apart from the editors who have each contributed articles, we have a fascinating contribution from Michael Stanley-Baker 徐源, whose expertise in the digital humanities provides refreshing new angles on the terroir associated with the finds.

Within this special issue, you will find the first academic descriptions and reflections outside Asia on objects and documents excavated at the Tianhui Laoguanshan tomb site. The cemetery was discovered in the process

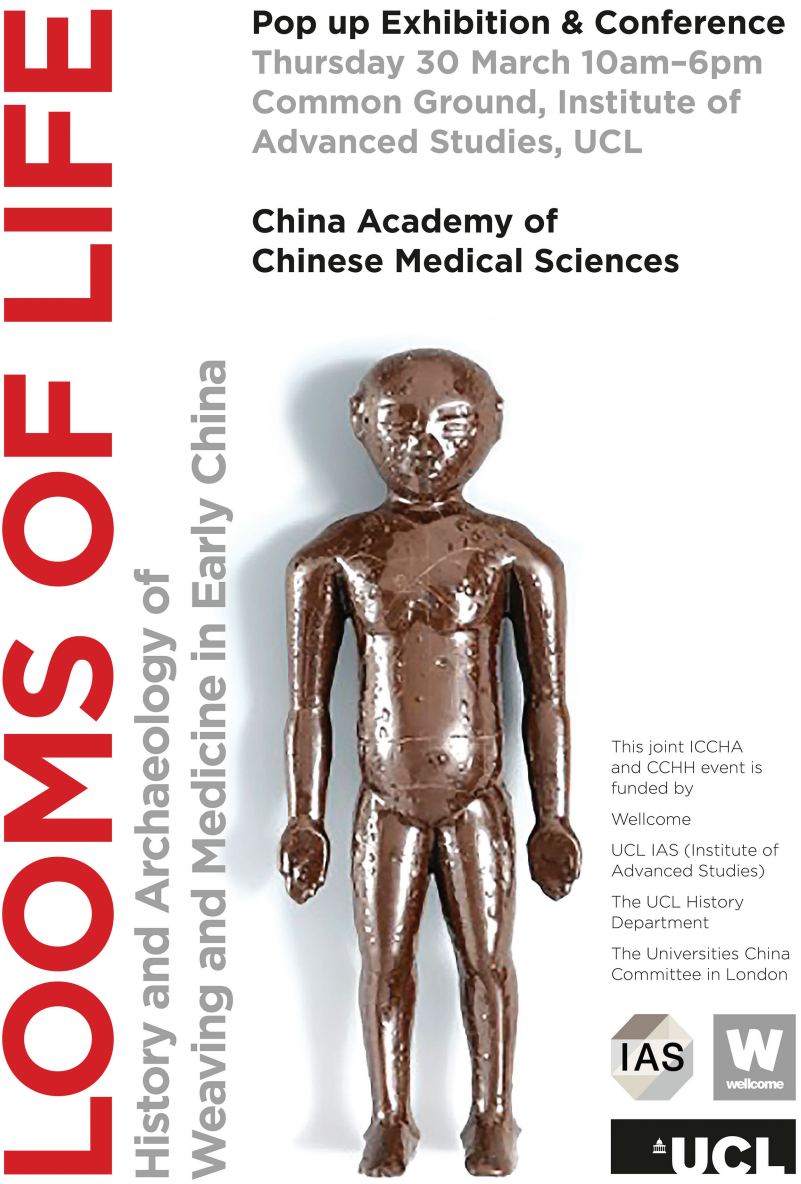

FIGURE 1 Poster for "Looms of Life" 2017
DESIGNED BY AKIO MORISHIMA

of digging for the construction of a subway station. The corpus of twelve contributions – comprising nine scholarly articles, one report, one translation, and a set of two opinion pieces – presented here gives a composite picture of these excavations, which mainly comprised four Western Han tombs where archaeologists discovered relics and writings on bamboo slips. Tomb

FIGURE 2 The Academy Team and authors at the Needham Research Institute
PHOTOGRAPH BY THE AUTHOR

M3, which has attracted the most researchers, yielded objects and texts relating specifically to medicine, including a tiny, lacquered figurine with medical significance. These finds represent a unique and valuable resource that complements the important excavated documents and artifacts relating to medicine from the Mawangdui 馬王堆 tomb site (tomb closed 168 BCE), the Zhangjiashan 張家山 site (tomb closed 186 BCE), and the first century BCE and CE tomb sites at Mianyang 綿陽 and Wuwei 武威 respectively, to name but a few of the growing number of tomb sites that have offered up mortuary items of medical interest. Medical writings made up a huge proportion of literary production in the ancient Chinese world, a fact often overlooked.

Everyone contributing to this issue has been concerned with the transmission of medical knowledge, whether about the source or development of classical medical ideas, the purposes of the written record, medical education, or the distribution of medical texts around early China. The field has changed exponentially since the days when I used to receive hate mail for suggesting that the Yellow Emperor's (Huangdi 黃帝) corpus was not the revealed truths of the Yellow Emperor himself, a mythical figure of prehistory imagined as living 5,000 years ago during a golden age of the Sage Emperors. The question of origins now concerns the historical period covered by the research of our authors, who chart the transformation of knowledge through the four centuries of Qin and Han rule, a time that also saw the political unification of China and the

Han bureaucratic consolidation. This follows what Angus Graham styled the "Axial Age" of Chinese philosophy, the Spring and Autumn and Warring States periods, where one can find nascent ideas about *qi* and channels germinating. In his 1986 seminal *Disputers of the Tao*, Graham believed that the Golden Age of philosophy was followed by a period of intellectual degeneration characterized by the rise of astrology and *yin*, *yang*, and Five Agent cosmology. In contrast, the Laoguanshan tomb site finds provide corroborating evidence for the most cutting-edge scholarship, which demonstrates that it is precisely these arts of calculation that lie at the foundation of innovation in imperial times. In these pages, we will see the consolidation of what is perhaps the most successful of medical traditions to have survived, or indeed thrived, into the modern world.

We have ordered the articles in a sequence that optimizes the presentation of the manuscripts and artifacts for ease of understanding and to avoid too much repetition. We begin with reports from two key members of the Academy Team. The first two articles by Gu Man and Liu Changhua et al. jointly offer a synthetic presentation of the discoveries. They describe the materiality of the writings and provide background context to the work of the Academy Team in determining six discrete texts and their likely dates of copying. The exact positions in which the manuscripts were discovered, their physical characteristics, and the structure of the writings were all elements in the process of identifying texts and assigning them appropriate titles. The dating of the tomb was established by its structural characteristics and the presence of coins. For the manuscripts themselves, a tradition of prohibiting the writing of graphs occurring in the reigning emperor's personal names helped to determine their likely dates of copying.

Two of the texts are treatises on the *mai* 脈, the key factor in the early construction of classical medical physiology of the pulse, the vessels, and body channels. Another concerns medical techniques for strategic piercing of sections of the body, including the *mai*. A fourth text links the different *mai* to the five colors and complexions through the medium of the five viscera and, interestingly, is the only text with an original title, *Contrary and Complying, Five Colors, Channels, and Viscera in Observing the Essence and Spirit* (*Nishun wuse maizang yan jingshen* 逆順五色脈藏驗精神). This synthesis represents a new stage in creating a system of medicine that integrates diagnosis and therapy. Its significance is drawn out by observing the lack of integration between the organs and viscera and the channels in texts on the *mai* from the earlier Mawangdui and Zhangjiashan tomb sites. A fifth text is a collection of remedies for sixty different illnesses, including instructions on preparing the remedies. The last of the texts describes the principles of a medical technique called the *ba* 犮 method, an as-yet obscure method of cauterization. All of these texts are

extraordinarily valuable evidence for analyzing the development of anatomy and physiology in the ancient world.

We are very lucky to have a report by Xie Tao, one of the archaeologists involved in excavating the Han tombs in Chengdu. Images and descriptions of the site excavation and the material culture of the tombs take us immediately out of a dry history of ideas and much closer to the atmosphere of the region of Ba Shu in the Han period and, therefore, the quality of life for the tomb occupants. The authors of these first three articles all agree that we are looking at a physician or high-ranking medical official for whom the manuscripts were a meaningful part of his professional activities. This connection would mark a difference with, for example, our understanding of the occupant of Mawangdui tomb 3, who was more likely a collector of manuscripts on a broad range of themes, including philosophy, astronomy, and medicine.

The Laoguanshan tombs are large and structurally distinctive, representing the mortuary culture of the Fenghuangshan area as it responded to the large-scale expansion of the Yelang 夜郎 road by Emperor Wu (r. 141–87 BCE). M2, M3, and M4 tombs were built between Wu's reign and the former reign of Emperor Jing (r. 157–141 BCE). Despite being looted, at the point of excavation, they still contained a lavish cache of grave goods: pottery, lacquerwork, and human and horse figurines, including a medical figurine, of which we will hear more shortly. Xie Tao's view on the identity of the occupants of the tomb is that they were aristocrats from the former kingdoms of Chu 楚 and former Lu 魯 (then Qi 齊), "out of state" officials who had immigrated to Chengdu.

Among the papers in this issue from the Academy Team, there is a coordinated line of argument that these texts were first written in the state of Qi 齊, where they are understood to link to accounts of the medical practices of Bian Que 扁鵲 and Canggong 倉公 (a.k.a. Chunyu Yi 淳于意, 216–150 BCE) and their lineages of medical knowledge transmission as articulated in biographies recorded by Sima Qian's 司馬遷 (145–86 BCE) *Records of the Grand Historian* (*Shiji* 史記, ca. 100 BCE). The fresh evidence from Tianhui, in the view of the Academy Team, supports secondary and literary evidence that has been passed down to us through the millennia in printed texts through the biographies of the semi-legendary Bian Que, recorded alongside the biography of Chunyu Yi in Sima Qian's *Records of the Grand Historian*. Five of the Tianhui slips contain the phrase "Bi Xi stated" (*Bi Xi yue* 敝昔曰), apparently citing an alternative name for Bian Que.

This vision of the regional transmission of medical ideas from the littoral northeast states inwards along the riverways to the landlocked hinterland of Ba Shu (which corresponds roughly to the modern Sichuan area) is supported from a number of different angles. The evidence cited includes the material

FIGURE 3
The author at Mianyang with the Shuangbaoshan figurine in 1994, the year after the discovery

culture of inscriptions on the lacquerware in the tombs that suggests close affiliation with the Jing 景 and Gong 弓 clans, which historians claim originated in Qi. Gu Man also alludes to the use of local Qi linguistic features in the texts, and Michael Stanley-Baker's digital humanities analysis seems to confirm this directional flow of drug knowledge using a completely different approach to be discussed later in this introduction.

Three articles present very different approaches to interpreting the significance of a tiny lacquer figurine adorned with eleven red lines, twenty-three white lines, and some one hundred dots that was, like the medical manuscripts, recovered in Tianhui tomb M3. This is the second such figurine to have been discovered, both in Sichuan, the other dating to at least one hundred years later, having been excavated in Mianyang at the Shuangbaoshan 雙包山 tomb site. The latter was, in part, the subject of my own PhD thesis in 1998, and so the new find is naturally particularly exciting for me. (See Figures 3 and 4.) But there are important differences between the two figurines. In my thesis, I argued that the Shuangbaoshan figurine should not necessarily be read exclusively as a medical figurine at the expense of observing its ritual significance.

The Tianhui figurine has been discovered in a more distinctly medical context. However, Donald Harper draws my attention to the five captions listing the internal organs on its dorsal surface in the sequence from top to bottom: heart, lungs, liver, and spleen, which corresponds to the cycle of fire, metal, wood, earth, water, fire, and metal. This is consistent with the *xiangke* 相剋

FIGURE 4 Close up of the Shuangbaoshan figurine in 1994 before it deteriorated, losing many of the red laquered lines

or conquering cycle. The *ke* cycle ordered the inner organs according to their affinities with the Five Agents (*wuxing* 五行, often translated as Five Phases or Five Elements) and the control relationship between them: fire conquers metal, metal conquers wood, wood conquers earth, earth conquers water, water conquers fire. This predated the *xiangsheng* 相生 cycle of generation – wood, fire, earth, metal, and water – which ultimately became more central to structuring classical medical practice by the end of the Han period. This is therefore another piece of evidence that allows us to confirm the dating of the manuscripts and to place them within the context of competing medical ideas in the Han and pre-Han periods.

It is fascinating to note that the heart was listed above the lungs on the back of the Tianhui figurine. There is evident interest in, and attention to, anatomy in Han China, but there is no doubt that ritual priorities trumped observational anatomy in this case. In terms of therapeutic efficacy, no doubt that was a wise decision since it would be more than two thousand years before knowledge

of deep anatomy could be of any use in medicine. Ritual priorities provided an excellent base for structuring what would otherwise be an undifferentiated mass of biological information and would, in the fullness of the Han dynasty, be combined with observations of body function to good therapeutic effect.

Zhou Qi first uses a comparative methodology to find parallels with four near-contemporary medical texts excavated from the Western Han tombs at Mawangdui and Zhangjiashan. Eleven red lines inscribed on the Tianhui figurine's surface provide visual corroboration for the eleven channels in the other tombs' texts. This figurine both reflects and constitutes significant information about the development of medical ideas in the Western Han period (202 BCE–9 CE). There are important dissonances that are also noted, such as the twelve channels recorded in the two Tianhui texts, the *Book of the Channels: Book One and Book Two* (*Maishu shangxia jing* 脈書上下經), which contrasts with the eleven channels on the figurine. Compared to the received tradition of the classical Yellow Emperor corpus, the Heart Master (*xinzhu* 心主) and collateral (*luo* 絡) channel networks are not illustrated on the figure. Zhou Qi deduces that the system represented is an older one from when the Heart Master channel was not conceptualized and in which the secondary or connecting *luo* channels were not yet developed, although already in gestation, as we will see in the subsequent articles in this issue.

If we take as a point of reference in time the date of 26 BCE, when Liu Xiang 劉向 (77–6 BCE) revised the *Divine Pivot* (*Lingshu* 靈樞) recension of the *Yellow Emperor's Inner Classic* (*Huangdi neijing* 黃帝內經), there is at least a century of difference between the period of the closing of the Tianhui tombs and the classical medical ideas as represented in the Yellow Emperor's corpus. This is therefore pristine evidence of transformations at the heart of the construction of medicine in China at a time when there remained plural formulations about the channels and vessels of the body. We should not be surprised at the inconsistencies. The white lines on the inner side of the figurine seem to be a visual expression of the Tianhui texts, with twelve channels and one hundred dots that represent where the *qi* might move in and out of the body. This confirms the exciting prospect that we now have evidence that facilitates analyses of different and plural intersecting stages in the rapid development of medical ideas in China.

Zhou Qi's article represents a comprehensive attempt to synthesize the growing evidence at our fingertips to build a framework for understanding the coalescing of medical knowledge. There is no question that the Han dynasty represents four centuries of consolidation and attempts to standardize many aspects of life, from language to coinage, wheel track sizes, and weights and measures. The academic impulse of the Academy Team is to establish

overall coherence and trace stages in the unification of an enduring system of medicine. There are, however, also other, less teleological, ways to approach the material.

Li Jianmin and Dolly Yang are less inclined to the syncretic account. To demonstrate how little we actually know, they take up the controversial question of whether there were medical schools at the time, including a school or lineage associated with the figure of Bian Que. They review the positions and arguments of Li Ling 李玲 and others, who considered that medical texts could be separated into two categories, those of the east with Bian Que as the figure of authority and those of the west calling on the authority of the Yellow Emperor, the Yellow Emperor ultimately winning out for posterity since his name was forever after associated with classical medicine.

Shelley Ochs also analyzes the place of Bian Que in the medical and religious traditions of early China. She isolates healing principles and techniques associated with his name: puncturing the *mai*-channels to heal disease; diagnosis based on examining the appearance (*se* 色) and palpating multiple sites on the body; reverence for the mantic arts (*shushu* 數術); and the superior physician who can correctly "determine whether [the patient] will live or die." These medical practices were revered as efficacious healing worthy of study and transmission, but there is, as yet, insufficient evidence to reconstruct any social phenomenon such as the work of any individual, clan, or mode of authority called "Bian Que." That is, we have to be equally cautious about imagining medical "schools" as scholars have already been in revising early assumptions of the importance of the Jixia 稷下 Academy, reputedly patronized by King Xuan (319–301 BCE) of Qi (Qi Xuanwang 齊宣王), on the philosophers of the Warring States.

For all these reasons Li and Yang agree with those scholars who have suggested that it is better to explore differences, and in this case in particular, the regional differences of Ba Shu. This was my very thought as I examined with Gu Man in this issue the tensions between local and imperial culture through a visual analysis of the Tianhui Laoguanshan figurine. Medical images and texts should not be read in the light of an ultimate authentic source, an ur-text, and the many slightly variant versions of early Chinese medical texts discovered in late twentieth and twenty-first century excavations along the course and hinterland of the Yangzi River underline this fact. Ba Shu has offered us an excellent opportunity to analyze the transfer of knowledge between medicine and weaving in this issue; and medicine and water technology (forthcoming). The earliest extant mechanical models of looms were excavated from Tianhui tomb M2 and permit an analysis of the technology transfers between weaving and medicine. Evidence of these transfers is well known to be embedded

in the language of classical medicine, where the channels of acupuncture are referred to as the "warp" and the "weft" of the body. As Xie Tao has argued, there is evidence of the bones of women weavers in tomb M2, so not only do we have the manuscripts and artifacts but the people themselves who would have been communicating about the latest technologies in common homologies.

Drawing fresh frames from these observations, we can see in the Yellow Emperor's corpus an image of the medical body as an automaton animated by *qi* and the spirits, a homology of the human body as a machine. This image is familiar to us in Europe from the time of Descartes's 1649 *Principia Philosophiae*, whose concept of the body as a machine has been retrospectively cast as a cultural feature of modernity. But these early Chinese mechanical models of the body designed to stimulate the remote movement of *qi* around the body were formulated at the beginning of the empire two thousand years ago. Laoguanshan provides a local context for the reception and transformation of medical ideas that puts Ba Shu indelibly on the map of regional technological and cultural innovations in medicine.

The historiographical issue at stake is the way in which Sima Qian not only established a normative historical narrative from his vantage point in the Western Han but even determined exactly where archaeologists would look for evidence in the past century or so and how they would analyze it. The serendipity of recent archaeological discoveries has been driven by bulldozers blundering into ancient tombs in the process of modernization and urban development. These have rediscovered vibrant cultures in the Sichuan region from the humanesque figurines of the Sanxingdui 三星堆 (twelfth – eleventh centuries BCE) archaeological finds and succeeding Jinsha 金沙 cultures (1200–650 BCE), which provide us with a rich visual record to counter the official narrative about the exclusive origins of a Chinese culture in Shang that has persisted for two millennia. The enormous ears and eyes of the Sanxingdui figurines and the evidence of golden suns and immortal birds at Jinsha, and a thousand years later, the early imperial lacquered figurines that so far have been found only in the Chengdu region, articulate for us a new image of southwest China. This was not the world of uncouth barbarians as depicted by historians of the Han period, but a well-known center of erudition where influential scholars were nurtured, and cities had become a cosmopolitan hub for commercial and technology transfers, where people wore silks of the finest jacquard in the world.

The subsequent two articles and the opinion pieces form a triptych devoted to the text that the Academy Team calls the *Piercing Methods* (*Cishu* 刺數). In the first of these, I have provided a full translation into English of one of the Tianhui texts. This fascinating text emphasizes the importance of differential

diagnosis to establish the site of the illness, the place to be pierced, and the specific number of piercings for a particular illness. Viewed retrospectively, the techniques appear as crude as the stone *bian* that were likely used to pierce the body. But the reference to areas to be pierced, rather than acupuncture points, gives us a sense of a medicine in motion. I preface the translation with a reflection on the challenges and creativity involved in translating Han medical texts, especially at a time when conceptualizing the body and its treatment was in rapid transition. This became most evident in trying to translate the key concept at the heart of classical Chinese medicine that intelligent and thoughtful academics have translated as diversely as "conduit," "vessel," "channel," "pulse," "tract," and "meridian." There is no single correct translation since elements of all these English words are indicated by the term *mai*, and certain aspects are stressed in a particular text or at a particular time. We have therefore resolved this issue between us by translating as *mai-channel* or *mai-vessel* where appropriate. And is it so difficult to imagine a structure that is both the channel/vessel and the pulse, the pulse being the pulsating *mai* that is detected only at the surface of the body where the channel/vessel emerges? Could this be how the body looked before a mature concept of *qi* circulation was described?

The next article in the triptych is a collaborative contribution by three members of the Academy Team – Gu Man, Zhou Qi, and Liu Changhua – which combines analyses of excavated manuscripts, received texts, and excavated artifacts to reconstruct three piercing methods from the early Han: *maici* 脈刺 (*mai* piercing), *fenci* 分刺 (division piercing), and *cishui* 刺水 (piercing water [swelling]). A wide variety of therapeutic tools and methods are cited in the Tianhui Laoguanshan manuscript: stone therapy, scraping or pulling, cauterization, piercing, salves, hot compresses, decoctions, tinctures, and pills. But this article only concerns therapeutic needling, albeit not necessarily with the fine needles we might imagine.

Thereafter, there are 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. The Tianhui Laoguanshan finds are an extraordinary resource with which to explore the creative tensions between intellectual and pragmatic agendas in healing in the creation of a medical tradition. George He has enumerated the innovations in medical piercing that we see in our own times. Perhaps the ability to design new techniques inspired by ancient wisdom is a key part of successful traditions. As we see, the Han dynasty was a time of great medical innovation when classical medical ideas were rapidly taking shape. Practitioners had to respond to critical medical emergencies with the blunt tools of the ancient world and formulate

increasingly elegant solutions. What we have presented in this journal is a multiperspective analysis of those solutions.

In these past twenty years, the roles of practitioners and academics have drawn ever closer around IASTAM, a fact that is nowhere more evident than in the profiles of the three editors of this special issue. The first twenty years of my own professional life were spent working in and managing the largest acupuncture practice in Europe before my academic journey began rather late in life. It is a long time since I worked all day in a clinic, but those formative years indelibly shaped how I approach text analysis and the sensory histories that are a hallmark of my work. In contrast, Shelley Ochs is a scholar-practitioner who works across the fields of traditional Chinese medicine and translation. She trained at the China Academy of Chinese Medical Sciences and was the official interpreter for the Academy Team. Dolly Yang is a historian of the institutionalization of therapeutic exercise in Sui China (581–618 CE). Her research focuses on the social and cultural aspects of bodily practices in premodern China, but she is also a devoted practitioner of those arts. The same goes for most of the other authors that have contributed to this issue. Thus, even though we have divided the double special issue into academic articles and opinion pieces by practitioners, these labels are arbitrary. The so-called practitioner-authors also have redoubtable academic qualifications and speak authoritatively of critical issues that concern the application of Chinese medical ideas and the transmission of medical knowledge. We just do not demand of them the scholarly apparatus that is de rigueur for jobbing academics.

Practitioners still tend to value the authority that imagining more ancient origins confers on a tradition. Given the mass of accumulating evidence that the Han period was the critical moment in the coalescence of classical ideas, the burden of proof does seem to me to fall on anyone who claims an earlier date for the consolidation of the classical medical models of Yin-Yang and the Five Agents. At the same time, we are challenged by Edward Neal in this issue to explain why we assume manuscripts retrieved from the Han tombs were produced at a time just prior to their interment. Han aristocrats might have wanted to be buried with treasured ancient texts and artifacts they had collected during their lifetimes. Could they not have valued antiquity, like Fu Hao 婦好, Wu Ding's 武丁 Shang Queen, who collected ancient neolithic jades from far and wide, some already a thousand years old? Certainly, the script of the text known as *Fifty-Two Remedies* (*Wushier bingfang* 五十二病方) from the Mawangdui tomb cache of medical manuscripts is written in a Warring States style, and its presence in the tomb represents this antiquarian spirit. An analysis of the Tianhui text known as the *Book of Treating Horses*

(*Liaoma shu* 療馬書) also seems to conclude that it is written in an older script than the rest of the manuscripts in this collection.

This brings me to the last article by the Academy Team, a collaborative research project led by Luo Qiong with Gu Man and Liu Changhua. It examines the text to which they give the modern title, *Methods of Decoctions with Blended Formulas to Treat Sixty Ailments* (*Zhi liushibing heqi tangfa* 治六十病和齊湯法). This is the only article in the set that deals with drug prescriptions, an essential therapy at the time. It reports on the remedies and how they link to a text that was listed in Chunyu Yi's biography in the *Records of the Grand Historian*: the *Classical Formularies for Decoctions* (*Tangye jingfang* 湯液經法), as well as two other major excavated prescription texts, one from Wuwei in modern Gansu in the northwest and the text known as *Fifty-Two Remedies* of Mawangdui. At the beginning of the text is a "table of contents" written on fifteen bamboo slips before sixty different pathologies for a set of 106 prescriptions, including four apotropaic techniques. We also see forms of the table of contents as a mode of organization in manuscript texts discovered at Zhangjiashan and Mawangdui This is one clear indication that the accompanying writing (if not the specific mortuary copy) was not just a record of practice but was also originally designed to facilitate practice.

To complement the historical analysis of the Tianhui recipe collection, Michael Stanley-Baker runs the herbs and drugs mentioned in the manuscripts through his database of materia medica to map the early textual layers of pharmacopoeic lore found therein. The digital mapping of these species' geographic distribution against the fifth-century *Collected Commentaries on the Pharmaceutical Canon* (*Bencao jing jizhu* 本草經集注) allows us alternative access to regional medical heritage and medical resources in ancient times. The rapid growth of excavated literature gives us more precise knowledge of the geographic, temporal, and social circulation than do the drug records of the received tradition. Remarkably, his findings about the directional flow of the materia medica seem to mirror the Academy Team's historical and archaeological analysis of the transmission of medical knowledge along the river networks from east to west.

Finally, and perhaps the most important article if we are to take seriously new discourses of the Anthropocene, we come to Dolly Yang's introduction to horse medicine and a reflection on the human-animal continuum in therapy. One of the remedy collections not listed among the six strictly "medical" texts from the Tianhui collection by the Academy Team is the text the team calls the *Book of Treating Horses*. The text is fragmentary, but enough remains to see that horses were treated with complex therapeutic strategies similar to those used for humans: herbal remedies, piercing (*ci* 刺), including with gold

needles, cauterization (*jiu* 灸), hot packs, bandages, massage, and bathing. We can begin to analyze the disease names, symptoms of certain diseases, and their etiologies and treatment methods. Bloodletting had been in general use in Egypt, Assyria, and Scythia as early as 2500 BCE. It was not indigenous to China, where riding was a skill acquired relatively later. Yang demonstrates that the *Book of Treating Horses* records this "foreign influence" during the Qin-Han period and not with the spread of Buddhism in the fifth century CE as previously imagined. While there are some indications of a relationship between these techniques and the northeast of China, it is hardly surprising to find expertise on horses in the border areas that were adjacent to the territories of the nomadic horse-riding peoples. The contact between the powerful Xiongnu tribes and the imperial courts, and particularly the imperial armies, was not only one with traders and raiders, of military aggression and diplomacy but also involved a massive outflow of gifts and tribute as well as the inward transmission of knowledge and equestrian skills. One wonders how much was learned by physicians during this process from veterinary medicine.

The Tianhui Laoguanshan finds provide extraordinary evidence for imagining how the diagnostic traditions were taking shape at a critical moment in the Han dynasty. There is evidence to support future research into many historical domains concerned with philosophy, medicine, and everyday practice. We can see medical and philosophical theory at various stages of development and integration: the Five Agents and the cycles that governed transformations in the phenomenal world, such as the transition from the *xiangke* to the *xiangsheng* models, the linking of the five complexions to the organs and channels, and the creation of the network of *luo* collateral channels. Perhaps most exciting is new intertextual research on technical data that compares all the manuscript finds through the early centuries of the Han period. By comparing finds from well-known tombs with these manuscripts from newly opened grave sites, as well as collections that are less clearly associated with known tomb sites such as the Peking and Qinghua University manuscript caches we can begin to piece together the processes of scientific innovation at the heart of a medicine we can begin to call uniquely "Chinese." This allows us to detail how those involved in the technical arts were imagining "connecting with" or "penetrating" heaven (*tongtian* 通天), the epithet used in the Han period to express the mapping together of correspondences at the heart of corelative thinking. We can also see the significance of the culture of early Chinese numerology and calculation, and the ways in which its inherent flexibility endowed hierarchies of numbers with both symbolic and the alchemical power of transformation so that meanings could be continuously shaped to growing observational evidence.

If I have learned anything about medical traditions in the last couple of decades, it is that successful traditions look forward to the present and the future, ready and prepared for change. What then links them to the past? This is surely the kind of question we have approached together in this rich collection of articles.

It has been my pleasure to present the work on the Tianhui discoveries of a wide range of professionals, from archaeologists and historians to philologists and acupuncturists, and academics who perform two or more of these roles simultaneously. As you will see, we have showcased a variety of historiographical traditions through this work and particularly how those communities that prefer syncretic work and those that focus on drawing out the differences of unique historical testimonies explore the evidence in different ways and come to very different yet equally valid (and often complementary) conclusions. There are disagreements between the authors of the articles, and in this introduction, I have tried to draw out the points of view so readers can see "the issues" that are raised by the new materials as presented by the different stakeholders and those that are also raised in the interstices between us. Together we present an interdisciplinary analysis that we hope will engage the reader actively in the process of multifocal interpretation. This is only the beginning. There is so much to do.

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Note on Style

In general, we use complex Chinese characters since they are the standard when quoting from premodern texts and editions of the classics and for Chinese authors outside of the mainland who tend to write their names in full form. Where mainland Chinese authors write in simplified characters, including their names, we follow their preferences.

Key to Symbols Used in Transcriptions and Translations

〓	The equals sign in bold refers to similar marks on the text that indicate that one should read a duplication of the previous graph.
[xxx]	Square brackets contain comments and suggestions for interpretation that are not part of the translation and have been interpolated by the translator.
（刺）	Round brackets contain the Academy Team's judgment as to the modern standard character indicated by the original and its transcription.
【切】	The blocked square and round brackets with infill contain the transcriber's judgment about a missing or unreadable graph. The graph suggested in the【】was "added" by referring both to the visible fragments and to other sources (texts).
□	The small square indicates a blank and missing or damaged graph.
脈	The large square containing a graph indicates the judgment made by the Academy Team about the missing or damaged graph.
ㄴ	A kind of hook marker that defines a topic or indicates a break in meaning.