

CHAPTER A

**Introduction**

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One can be forgiven for regarding Li Shi-Zhen's (李時珍) *Exposition on the Eight Extraordinary Vessels* (*Qi jing ba mai kao* 奇經八脈考, between 1577 and 1578) as a footnote in a career marked by more monumental achievements. He certainly had other interests. Li's *Comprehensive Outline of the Materia Medica* (*Ben cao gang mu* 本草綱目, 1590), the product of a lifetime of work, is widely regarded as the culmination of the Chinese literature on pharmaceuticals.<sup>1</sup> His *Pulse Studies of the Lakeside [Recluse]* (*Bin-Hu mai xue* 濱湖脈學, 1564) was equally innovative in its organization and presentation of pulse lore. Both texts definitively shaped how Chinese medicine is conceptualized and practiced today.

The *Exposition on the Eight Extraordinary Vessels* and *Pulse Studies* are the only remaining examples of a series of shorter works written by Li on various topics. His biographers typically portray these efforts as pleasant diversions from his daunting work on the *Comprehensive Outline*. Yet the *Exposition* has been no less pivotal in the development of its topic than the *Comprehensive Outline* and *Pulse Studies* have been to theirs. In bringing together writings from acupuncture, herbal medicine, pulse diagnosis, and internal cultivation, the book is quite literally the cornerstone of the literature on the extraordinary vessels.

Li's *Exposition* straddles the border between the familiar and the unexplored. Interest in the book has focused largely on the well-traveled territory that forms the basis for mainstream thinking on the extraordinary vessels, and the focus of scholarship has thus far been directed toward understanding how Li's work fits into the larger landscape of extraordinary vessel lore. Indeed, much of this material has now been so well-rehearsed that it seems almost pedestrian and is part of the curriculum of first-year acupuncture students. Yet the *Exposition* contains a great deal of material that has been left largely unexamined.

Few texts in the mainstream medical literature draw as deeply and explicitly from the literature of internal cultivation as the *Exposition*. Although tantalizing, these portions of the text are often rather opaque to medical readers. At first reading, such passages appear to shed little light on the medical material, and in some cases, they openly contradict our common assumptions regarding the extraordinary vessels. It is not surprising, then, that the alchemical stratum of the text has been uniformly ignored by medical readers. Yet Li states at the outset that he is writing for both physicians and those involved in internal cultivation, and to truly comprehend the extraordinary vessels, each must become intimately familiar with the territory of the

other. The authors of both of the original prefaces to the *Exposition* comment specifically on the importance of the text in creating such a synthesis.

The challenge of *Exposition on the Eight Extraordinary Vessels* is not limited to the layers of the text dealing with internal alchemy. When considered on its own terms, the book presents novel perspectives on even the most unremarkable topics. Modern acupuncturists and herbalists tend to think about the extraordinary vessels primarily in terms of the literature of their respective modalities; however, a more nuanced picture emerges when one is forced to consider the extraordinary vessels in the light of both these disciplines together. The *Exposition* is a very short book, yet the scope of its discourse demands that the extraordinary vessels be approached in new ways.

Even within the bounds of the various disciplines it addresses, the *Exposition* presents a variety of fresh perspectives. What are we to make of an extraordinary vessel acupuncture that ignores the so called ‘master-couple’ holes that form the basis for nearly all extraordinary vessel therapeutics today? What are the implications of an approach to extraordinary vessel herbal prescriptions based not on individual ingredients entering specific extraordinary vessels but on entire herbal formulas that address generalized extraordinary vessel pathologies?

Li Shi-Zhen juxtaposes all of these ideas, and then leaves the reader to somehow make them all fit together. He explains almost nothing, simply pointing his audience in the right direction. It is a text that must be read with attention and care. On initial examination, the *Exposition* appears to be little more than a laundry list of earlier writings punctuated with an occasional cryptic annotation by Li himself. Yet in classical Chinese, the structure and organization of a discourse often conveys as much information as the words and sentences it frames. This is particularly true in the *Exposition*, where Li’s own perspectives on the extraordinary vessels are most evident in how he shapes the writings of others. Typically starting with a scrap of text from the *Classic of Difficulties* (*Nan jing* 難經, ca. 260), Li builds upon its ideas, interpreting the extraordinary vessels in innovative ways.

Li’s message is defined by his editorial decisions, by his inclusion of material that originally only inferred the involvement of the extraordinary vessels, and by the material that is conspicuously omitted. Throughout the course of the book, Li requires that his audience attend to the structure of his argument as well as its substance. The reader’s sensitivity to this aspect of his writing significantly influences what she makes of the text.

Then, too, the questions one asks of a text determine the answers one gets. When one asks “How does *Exposition on the Eight Extraordinary Vessels* fit it into the larger corpus of extraordinary vessel lore?” one is rewarded with what is now a fairly predictable picture of the extraordinary vessels, some interesting new tidbits of information, and a great deal of loose ends that do not seem to really fit anywhere. By contrast, if one attempts to suspend one’s preconceptions about even the most familiar of the passages in the book in an effort to discern how Li has used them to make his own point, then a substantively different image emerges, one that is genuinely fresh and creative.

This translation and commentary aims to define Li Shi-Zhen's unique understanding of the extraordinary vessels.

## Questions without Answers

Practitioners of Chinese medicine typically study the historical literature because we hope to be able to do something with it; at the very least, it inspires us to think about what we do in fresh ways. For us, this literature is, potentially, still very much alive.

For this reason, we tend to approach the literature in very practical terms. For instance, our interests in the social or cultural milieu in which a premodern Chinese medical text developed is circumscribed by how that type of information might inform our application of the material in that text. The modern cold damage (*shang han* 傷寒) specialist Huang Huang (黃煌) has made much of the cultural milieu in which Zhang Zhong-Jing (張仲景 fl. 220 CE) developed and used his herbal formulas.<sup>2</sup> For Huang, the historical context in which those prescriptions were originally formulated and administered sheds fresh light on how we understand and apply those formulas today.

In reading historical literature, one is rewarded with new herbal formulas or needling strategies less often than one gains more generalized insights into diseases and their treatments. Even so, the counsel of many if not most medical texts can be maddeningly ambiguous, even as they seem to present detailed treatment strategies. Early medical texts in particular were written with the assumption that their meaning would be verbally transmitted from teacher to student.<sup>3</sup> As the commentary literature makes clear, a remarkable amount of information is left open to interpretation.

Then too, one need not delve very deeply into the history of the development of the *Inner Classic* (*Nei jing* 內經) to appreciate that the received version is far different from what physicians had to work with in the Han dynasty (206 BCE–220 CE). The text had, even by that time, deteriorated to the point that while compiling his *Systematic Classic of Acupuncture and Moxibustion* (*Zhen jiu jia yi jing* 針灸甲乙經), Huang-Fu Mi (皇甫謐, 215–282) grumbled about the sad state of the *Inner Classic*.<sup>4</sup> For its part, the *Discussion of Cold Damage* (*Shang han lun* 傷寒論, ca. 220) lay moldering for centuries before it was resurrected and reconstituted in a form that is unquestionably different from the original. By the time Li Shi-Zhen was parsing such texts in the latter half of the 16th century, many of their passages may well have seemed as opaque to him as they do to us today. Thus, in reading a text like *Exposition on the Eight Extraordinary Vessels*, we do well to ask not just what a passage in *Divine Pivot* (*Ling shu* 靈樞) might have meant to its authors, but what it might have meant to Li Shi-Zhen. How might Li have put a given piece of information to practical use? In this, our present attempt to make sense of the material in *Exposition on the Eight Extraordinary Vessels* is part of an ongoing interpretive tradition spanning millennia.

Many, if not most, of the questions that clinicians ask of a text are unanswerable

in any definitive way. In most cases, we can never really know how physicians applied the principles of the *Inner Classic* in the early Han or how Li Shi-Zhen interpreted that book 1500 years later. The purpose of reading a book like *Exposition on the Eight Extraordinary Vessels* is not to try to practice precisely as Li did, but to bring its ideas to life. We do our best to understand the ramifications of those principles as thoroughly as possible and then extrapolate from them using modern tools and techniques.

Like many premodern medical texts, on initial reading, one is left wondering what relevance Li's work has to one's daily practice. It is a book that clearly requires some explanation. However, our translation and commentary on the *Exposition* is not intended to be a clinical manual. Any attempt to posit definitive treatment protocols based on our interpretation of the *Exposition* would be contrary to the spirit of the text itself and would only serve to limit its possible range of meanings. In this book, we have tried to present readers with an intermediate step, providing them with the necessary tools to make independent decisions regarding how the *Exposition* might be applied without dictating what those decisions should be. First, we have produced a reliable translation as a basis for our inquiry. In our commentary on the text, we have then tried to elucidate the fundamental principles that are characteristic of Li Shi-Zhen's approach to the extraordinary vessels. Finally, we have asked the questions that clinicians will inevitably ask of the text, and questions regarding its clinical application arise on every page. For instance, the pulse material in the *Exposition* is particularly opaque, derived as it is from a part of the *Pulse Classic* (*Mai jing* 脈經, 3rd century) that was unquestionably corrupted by the time Li was working with it.<sup>5</sup> Virtually every line of the text requires the reader to make significant interpretive decisions just to gain the slightest clue about how this material might be used. How strictly must the pulses described in the text be interpreted, and what are the criteria for using them? Must they accompany the symptoms that are presented with them? How one chooses to answer such questions determines how and if the reader will use the extraordinary vessel pulses.

Insightful physicians since Li have nevertheless interpreted the *Exposition* in ways that have yielded clinically effective strategies. From Ye Tian-Shi's (葉天士 1667-1746) extraordinary vessel herbal prescriptions in the 17th century to Kido Katsuyasu's extraordinary vessel pulse strategies in the modern era, clinicians have not only kept Li's ideas alive, but have pushed them in new directions.<sup>6</sup> We have included a few essays of our own detailing how we have approached Li's material. These musings are in no way meant to be definitive. They are presented here to illustrate how we have attempted to engage the *Exposition* in a creative manner to produce a clinically relevant result.

Texts that maintain their currency throughout the ages are those that remain open to ongoing interpretation. Once a book is saddled with a definitive interpretation, it ossifies and dies. In the hope that we have left Li's *Exposition* at least as vital as we found it, we have tried to accommodate the greatest possible range of plausible interpretations. Although we have freely speculated on a range of interpretive possibilities,

we have nevertheless done our best to maintain clear boundaries between the facts presented in Li's *Exposition* and our own suppositions about the book. Much as Li Shi-Zhen left his material very open-ended, we have tried to present it in a manner that encourages readers to make the material their own.

## Organization

This book is divided into five parts. Part I contains a biography of Li Shi-Zhen and provides an introductory overview of the main themes that run through the text. These include chapters on theory, acupuncture, herbal medicine, internal alchemy, and pulse diagnosis in the *Exposition*. For instance, the rather arcane method of pulse diagnosis described in the *Exposition* is first outlined in an introductory chapter on the pulse, providing the reader with some context for understanding this material prior to encountering it in the text itself. A much more detailed discussion of extraordinary vessel pulse diagnosis appears in Ch. 17 of the *Exposition*, and in our commentary in Ch. 32.

Part II contains the Chinese text and our annotated translation of *Exposition on the Eight Extraordinary Vessels*, and Part III presents our commentary on the text. These commentaries assume a familiarity with the general themes presented in Part I, and explore those ideas in greater detail. As noted above, the structure and organization of the *Exposition* is Li's primary medium for expressing his own perspective. For this reason, our commentaries attend closely to how Li Shi-Zhen builds on a core set of ideas throughout the course of each chapter. The translation is easily read independently of the commentaries for those wishing to form their own impression of the text.

Readers will note that our commentaries to certain portions of the Li's text are considerably longer than others. For instance, we have a great deal to say about the *chong* vessel and relatively little to say about the *ren*. This is because Li himself had much more to say about the *chong* than the *ren*. We have not attempted to provide a more generalized discussion of the extraordinary vessels but have instead focused our remarks on those topics that bear directly on Li's perspective.

In understanding the role of *Exposition on the Eight Extraordinary Vessels* in Chinese medical history, it is helpful to know what later writers did with Li's ideas. Part IV discusses the influence of Li Shi-Zhen's extraordinary vessel writings on three later physicians: Luo Dong-Yi (羅東逸, 1662–1722), Ye Tian-Shi, and Shen Jin-Ao (沈金鰲, 1717–1777). In his commentary on the *Inner Classic*, Luo Dong-Yi presents a perspective on the extraordinary vessels that resonates strongly with the alchemical perspective presented in the *Exposition*. Ye Tian-Shi is himself one of the great figures of Chinese medicine, and is indelibly linked to the use of the extraordinary vessels in herbal medicine. While Li Shi-Zhen left no case records detailing how he used the extraordinary vessels in clinical practice, Ye Tian-Shi's writings, and those attributed to him, consist primarily of case records. Shen Jin-Ao's writings are, by contrast, entirely theoretical in nature, and his thinking on the extraordinary vessels suggests that he

adhered closely to Li's methodology.

Part IV also contains a selection of modern case records that reflect acupuncture and herbal approaches to the extraordinary vessels that are consistent with Li's ideas. There are also two essays by Charles Chace. The first illustrates the potential clinical value of critically examining variant readings of early acupuncture texts, and the other examines the roots of extraordinary vessels in China's early philosophical literature.

Acupuncture texts compiled after Li's *Exposition*, most notably Yang Ji-Zhou's (楊繼洲) *Grand Compendium of Acupuncture and Moxibustion* (*Zhen jiu da cheng* 針灸大成, 1601), contain extensive extraordinary vessel acupuncture formularies making use of the so-called 'master-couple' holes. This information is now well-represented in the Western language literature and moreover constitutes the basis of most modern extraordinary vessel therapeutics. Perhaps more importantly, the present book is concerned specifically with Li Shi-Zhen's approach to the extraordinary vessels, and the master couple holes were clearly of little interest to him. For these reasons, we have left this material for others to develop. Readers are referred to Kiiko Matsumoto and Steven Birch's *Extraordinary Vessels* for translations of this material.<sup>7</sup>

Part V contains appendices presenting historical prefaces to the *Exposition* as well as tables of herbs, prescriptions, acupuncture holes, people, and books mentioned in the *Exposition*.

## Various Editions of *Exposition on the Eight Extraordinary Vessels*

*Exposition on the Eight Extraordinary Vessels* was apparently published between 1576 and 1578 (the precise date is unknown), during Li's lifetime, but it is not known where or by whom. The text was accompanied by two prefaces, dated 1572 and 1577. The earliest extant edition of the book dates to 1606, shortly after Li's death, and was published by Zhang Ding-Si (張鼎思) in a compilation of Li's writings that included his *Pulse Studies of the Lakeside Recluse* and *Exposition and Explication of the Pulse Rhymes* (*Mai jue zheng kao* 脈訣證考). Zhang contributed his own preface to the work.

Our translation is based on the earliest extant edition of *Exposition on the Eight Extraordinary Vessels* that appears in *Catalog of the Complete Collection of the Four Treasuries* (*Si ku quan shu mu lu* 四庫全書目錄, 1784). This edition also appears to be the basis for all the other editions we consulted.<sup>8</sup> No commentaries were written on the *Exposition* until modern times. Wang Luo-Zhen (王羅珍) and Li Ding's (李鼎) *An Annotated Exposition on the Eight Extraordinary Vessels* (*Qi jing ba mai kao jiao zhu* 奇經八脈考校註, 1985) is the first true commentary on the text. Katsuda Masayasu's (勝田正泰) *Modern Language Translation of the Exposition on the Eight Extraordinary Vessels* (*Gendaigo Yaku Kikei Hachimiyaku Kou* 現代語訳(奇經八脈考校註, 1995) is essentially a more thoroughly annotated extrapolation on Wang and Li's work, accompanied by a translation into Japanese. We have made extensive use of

both texts. For a listing of the various editions of *Exposition on the Eight Extraordinary Vessels*, see Appendix 5.

## Notes on the Translation

The original edition of *Exposition on the Eight Extraordinary Vessels* that appears in *Catalog of the Complete Collection of the Four Treasuries* is unpunctuated, and that is how we have presented the Chinese version of the text here. Much of Li's text consists of passages that are direct quotations or paraphrases of other texts. Sometimes, Li delineates his own comments with a prefatory "Bin-Hu says," but more often than not, he simply inserts his own two-cents worth directly into the flow of the passage he is citing. This can make it difficult for a reader who is not intimately familiar with the full breadth of the Chinese medical literature to know whether one is reading Li or, for instance, the *Inner Classic*. Subsequent editors have attempted to clarify this matter by placing Li's comments in a smaller typeface, in parentheses, or both, and we have adopted this convention in our translation. Moreover, classical Chinese is typically telegraphic in style, and in the interest of readability, it is often necessary to make interpretative additions to an English translation. Such additions in our own translation are placed in brackets [ ].

Our primary source for term selection is the Eastland Press house glossary. However, there are many instances where we have chosen other words that we believe more clearly and transparently convey the meaning of the Chinese.<sup>9</sup> A few words, in particular, bear mentioning.

We refer to the directions that the extraordinary vessels travel as 'trajectories' rather than pathways to remind the reader that these vessels are not lines or even pathways in the same sense as the primary channels, but are instead general directions of flow. Although they may intersect with specific holes on the pathways of the primary channels and are generally depicted as lines in graphic representations, the extraordinary vessels function more like tides than streams.

Similarly, we refer to acupuncture loci as 'holes' rather than points, both because this is a more accurate translation of the term *xué* (穴) and to remind the reader that these loci are three dimensional in nature. We have identified acupuncture holes by their English translations in *Practical Dictionary of Chinese Medicine*<sup>10</sup> and by their World Health Organization alphanumeric designation.

The names of the extraordinary vessels have been translated in a number of ways, none of which is (in our view) optimal, and at present there is no real consensus on how they should be translated. It has been our experience, in discussing the extraordinary vessels with both students and colleagues, that we often find ourselves running through a litany of possible translations—the yin linking vessel, the yin binding vessel, and so on—searching for the term with which our interlocutor is most familiar. Often it is only when we resort to the Chinese—in this case, the *yin wei* vessel—that our interlocutor's eyes light up in recognition. To be sure, the *chong*, *ren*, and *du* vessels

are just as often recognized as the penetrating, conception, and governing vessels, but these translations are problematic as well in that they are by no means entirely accurate. In any event, because the Chinese names of the extraordinary vessels have become part of the common terminology in the West and are the terms most readily identified by the greatest number of readers, we have chosen to use them in our text.

Chinese measure words, too, tend to be either as familiar to most readers as their English translations or they tend to lack meaningful English language equivalents. We have therefore not translated Chinese measure words into English. Thus, the word 寸 remains simply *cun* and not inch, body inch, or cubit.

Li Shi-Zhen cobbles his narrative together from a wide range of sources, and, in keeping with the scholarly style of his time, each of Li's citations lie somewhere on a continuum between a direct quotation and a rough paraphrase. Those passages that are closer to paraphrase often, but not always, begin with 云 *yun* rather than 曰 *yue*. Regardless of the prefatory words that he uses, when Li's references stray closest to paraphrase, we have omitted quotation marks and begun the translation with "xxx says that ... ."

In pre-modern times, Chinese writers were typically known by a number of different names throughout the course of their lives. In his writing, Li Shi-Zhen refers to people in a variety of ways. For instance, he refers to himself by his pen name (*bie hao* 別號), Bin-Hu (濱湖). When referring to people in our own discussion of the text, however, we have used the names that Western readers of Chinese medicine are likely to recognize. This is most often, though not invariably, some form of their literary name (*hao* 號), or their courtesy name (*zi* 字). For instance, we refer to Ye Gui (葉桂) as Ye Tian-Shi (葉天士), and Li Gao (李杲) as Li Dong-Yuan (李東垣).

Chinese proper names appear with Chinese characters when they are first mentioned. Subsequent mentions are in pinyin only. Book titles appear in English followed by the pinyin and Chinese characters when they are first mentioned. Subsequent mentions are in English only. Lists of the significant people and books mentioned in this book are included in Appendix 6.

In the interest of clarity, we have translated premodern anatomical terms using their modern anatomical equivalents. For instance, *jue gu* 絕骨, literally the extreme or terminal bone, is translated as the fibula, and *que pen* 缺盆, literally the empty basin, as the supraclavicular fossa.

CHAPTER F

**Keeping to the One: Internal Alchemy in  
*Exposition on the Eight Extraordinary Vessels***

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Daoist techniques of internal cultivation, also known as internal alchemy (*nei dan* 內丹), are closely, if often indirectly, associated with the extraordinary vessels. These sensibilities subtly but profoundly shade the conceptual picture of the extraordinary vessels painted by the *Inner Classic* and *Classic of Difficulties*. Making sense of the much more explicitly alchemical material in Li's *Exposition* is one of the greatest challenges to a full understanding of his work. In expanding the scope of extraordinary vessel function beyond a purely medical realm, Li Shi-Zhen's incorporation of material from a closely related, but fundamentally different discipline adds an entirely new dimension to our understanding of these vessels. His use of an arcane terminology largely foreign to the medical reader requires us to move in the worlds of both the physician and the Daoist adept.

Despite the importance of alchemical material to the integration of medical and alchemical perspectives on the extraordinary vessel models, Li Shi-Zhen doles out these insights in a sparing manner. His target audience probably had some familiarity with all of this material, and he needed only allude to it to make his point.<sup>1</sup> The philosophical and alchemical passages in *Exposition on the Eight Extraordinary Vessels* consist, at best, of just a few pages of text. Li includes just enough alchemical lore that it cannot be ignored, but he leaves it to his readers to decide for themselves how it relates to the medical material. The stratum of the *Exposition* dealing with internal alchemy is a subtle spice added to an already complex blend of flavors. Yet Li demands in no uncertain terms that we do indeed engage the extraordinary vessels from the perspective of internal alchemy as well as medicine. He closes both of his introductory chapters with an admonition to physicians and cultivators alike that each group must become conversant with both medical and alchemical perspectives on the extraordinary vessels. Competency in both these aspects of the extraordinary vessels will allow physicians to "comprehend the great purpose of the 12 channels and 15 networks." Li warns that by remaining ignorant of the larger scope of extraordinary vessel lore, physicians will "remain in the dark as to the cause of disease." Similarly, longevity seekers ignorant of the medical applications of the extraordinary vessels will find it "difficult to tame the cauldron's heat."

The alchemical material in the *Exposition* requires that we first define the bounds of internal alchemy. It will also be helpful to briefly review the alchemical texts appearing in the *Exposition* and their place in the development of internal alchemy. Along the

way, we must consider the scope of Li's personal involvement with Daoism and inner alchemy, an association that was extensive, multifaceted, and nuanced. We will here treat inner alchemy as a subset of Daoism, recognizing, however, its highly syncretic use of certain Buddhist concepts and its complex relationship with religious Daoism. We will examine the major alchemical themes in the *Exposition* and consider their implications for the application of the extraordinary vessels in medicine.

It is difficult to overstate the open nature of the terminology of internal alchemy. Each term possesses a complex sphere of meaning that shifts continually with the context in which it is used and the level of accomplishment of the reader. We will examine the key alchemical terms used in Li's *Exposition* and how they shade our understanding of more familiar medical material.

Modern commentators tend to refer to the passages concerning internal alchemy in the *Exposition* as *qigong*, but this is something of an oversimplification.<sup>2</sup> Developing slowly over centuries as a uniquely Chinese method of personal cultivation, the term 'internal alchemy' refers to more than breathing practices or exercise. Although such practices are an integral part of internal alchemy, the goals and techniques of internal alchemy are much more far-reaching. Isabelle Robinet defines internal alchemy as a "technique of enlightenment including a method of controlling both the world and oneself and a means of fashioning (*zao hua* 造化) and hence understanding in the sense of an existential and intellectual integration."<sup>3</sup> Others define the goal somewhat more simply as a quest to transcend space and time that often takes the form of the pursuit of physical or spiritual transcendence. Livia Kohn has described this quest for transcendence as a progressive "lightening and brightening" wherein the corporeal body becomes ever buoyant and more luminous until the adept is finally able to soar away on the clouds.<sup>4</sup>

According to Robinet, internal alchemy has three distinguishing components:

1. There is a concern for mental and physiological training, with an emphasis on the mental aspects. In addition, internal alchemy strives toward a synthesis of various Daoist aspects (breathing exercises, visualization, alchemy), certain Buddhist speculations, and references to Confucian texts.
2. There is a systematized use of the trigrams and hexagrams of the *Classic of Change*, already used metaphorically in the laboratory rituals of external alchemy.
3. Finally, internal alchemy invariably involves references to metallurgical practices of a purely metaphorical nature.<sup>5</sup>

All of these components are plainly evident in the *Exposition's* references to internal alchemy.

It is worth noting that although they fall within the scope of internal alchemy, breathing practices and exercise are not inherently Daoist pursuits per se. Other groups, including Confucians, also claimed these practices as their own. Daniel Bur-

ton-Rose has argued that by the late Ming dynasty, internal alchemy had become so syncretic in its integration of Buddhist and Confucian principles that it could no longer be considered as uniquely Daoist at all.<sup>6</sup> What defines the discipline of internal alchemy is the synthesis of all three of the above-mentioned characteristics, and these components are present in all texts on the subject.

Internal alchemy is nevertheless a pivotal part of a larger set of practices and beliefs of the Daoist religion with which it shares the common aims of a transcendence of space and time. The more immediate concern for physical and mental health is an obvious corollary of such pursuits. It was understood that the techniques of transcendence often required many years to mature, and it was therefore necessary to live a long time just to complete the work. Hence adepts put a premium on maintaining their physical form.<sup>7</sup> Over the course of centuries, practitioners of the Daoist arts developed a variety of tools in addition to internal alchemy to achieve these ends. These include diet, chemical and laboratory technologies known as ‘external alchemy’ (*wai dan* 外丹), hygienic exercises known as ‘stretching and guiding’ (*dao yin* 導引), and practices, including the use of religious charms, talismans, and magic spells. Daoist religion maintains relationships with practices that are both contained within the scope of traditional Chinese medicine and those that are vastly different from it. Most of these practices are interpreted in relation to the philosophy expounded in the *Lao zi* (老子, 5th century BCE) and the *Zhuang zi* (莊子, 3rd century BCE). Despite the fact that they occasionally appear to stand in direct opposition to the quest for immortality, Daoist cultivators interpret them as coded instructions for precisely such practices. At the very least, these texts describe the frame of the Daoist understanding of the universe, whether expressed through ritual internal alchemical practice or medicine. Li Shi-Zhen’s writings refer directly to many of the disciplines characteristic of Daoist religion.

Paul Unschuld has demonstrated the omnipresent influence of Confucian thought throughout the development of medicine in China.<sup>8</sup> Be that as it may, the fundamental worldview and many of the philosophical principles expressed in the *Lao zi* and *Zhuang zi* are also evident to one degree or another in most Chinese medical writings. Yet, although these values form the conceptual foundation of the medicine of China, they tend to remain in the background, typically overshadowed by other ideological threads. With its persistent references to putatively Daoist practices of internal alchemy, *Exposition on the Eight Extraordinary Vessels* is a notable exception to this rule.

Li’s *Exposition* is among the most Daoist texts in the mainstream Chinese medical literature and ranks on par with Sun Si-Miao’s *Important Formulas Worth a Thousand Gold Pieces [for any Emergency]* as a merger of secular Chinese medical principles and the often heterogeneous practices of Daoist religion. Li Shi-Zhen’s *Comprehensive Outline of the Materia Medica* also draws heavily, though often critically, from Daoist lore.

By the time Li Shi-Zhen was writing in the 16th century, the basic technologies of internal alchemy were already well-established, and Daoist influences of all sorts

were prevalent in the cultural milieu. Unschuld observes that, “Although Confucianism had ‘conquered’ the competing philosophies of Taoism and Buddhism since the Sung period, Taoist and Buddhist concepts, under a more or less intended disguise of Confucianism, had influenced Chinese thought to a greater degree than ever before.”<sup>9</sup> There is no question that, regardless of their professed philosophical leanings, educated physicians during the Ming dynasty had more than a passing familiarity with the alchemical literature. This broad cultural trend is especially apparent throughout Li’s work, which contains many references to the philosophical underpinnings of Daoism. Notable among these is a concern for the consequences of diverging from the virtue of the way. In *Comprehensive Outline of the Materia Medica*, Li states: “When the way and the virtue of the ancients declines even slightly, the age of evil appears.” (中古道德稍衰邪氣時至<sup>10</sup>)

Allusions to the *Lao zi* and *Zhuang zi* are especially apparent in Li’s *Exposition*. In his *Comprehensive Outline of the Materia Medica*, however, philosophical references are often overshadowed by some of the more arcane concerns of Daoist religion. Demonology was a matter of great interest to Daoists but was officially considered to be superstition by proper Confucians. Nevertheless, like many physicians of his time, Li accepts the presence of demons as etiological factors in disease as self-evident. Such concerns figure prominently in Li’s writing. In this regard, his views more closely resemble those of shamans (*wu* 巫) or Daoist priests than those of a Confucian scholar. The list of herbs in *Comprehensive Outline of the Materia Medica* said to combat demons is lengthy; Li is particularly intrigued with the uses of Persica Semen (*tao ren*) in the treatment of all manner of ghostly or demonic influences (*gui qi* 鬼氣). One of the few case records in his *Exposition on the Eight Extraordinary Vessels* concerns a malevolent spirit that has taken up residence at a particular acupuncture hole. It is treated both with moxibustion and offerings of food and wine, and the condition is resolved.

The influence of Daoist herbal lore and philosophy on *Comprehensive Outline of the Materia Medica* is profound and frequently fosters innovative interpretations concerning the use of medicinals. In one case, Li invokes *Lao zi* to explain a novel use of an herb. Fraxini Cortex (*qin pi*) is generally used to treat the eyes and stop pain. Li believed that this medicinal was “also able to treat lack of male essence and augment the essence to promote fertility because it both astringes and tonifies. This is because, as Lao [zi] stated: ‘the heavenly *dao* values astringing.’” (又能治男子少精益精有子皆取其澀而補也故老云天道貴澀<sup>11</sup>)

In another instance, Li’s discussion of Acori tatarinowii Rhizoma (*shi chang pu*) draws from a text appearing in the *Daoist Canon* (*Dao Zang* 道藏, compiled 1445) to again expand its scope of application. Acori tatarinowii Rhizoma (*shi chang pu*) is generally regarded as a phlegm-transforming, spirit-calming medicinal, yet *On the Transcendent’s Consumption of Ganoderma and Acorus* (*Shen xian fu shi ling cao chang pu* 神仙服食靈草菖蒲) views Acori tatarinowii Rhizoma (*shi chang pu*) as a tonifying medicinal. According to Li,

The qi of Acori tatarinowii Rhizoma (*shi chang pu*) is warm, its flavor is acrid, and it is a medicinal of the hand lesser yin and foot reversing yin. When there is an insufficiency of heat qi, both [the heart and liver channels] are employed, so that one tonifies the mother. When one suffers from an urgency of the liver, use acidity to tonify it.<sup>12</sup>

## Critical Evaluation

Though Li Shi-Zhen was undeniably well-read in a broad range of Daoist lore, he was by no means an uncritical cheerleader of the Daoist cause. One of the major contributions of *Comprehensive Outline of the Materia Medica* was its concern with correcting inaccuracies in the existing literature of the materia medica. Many of the entries in *Comprehensive Outline of the Materia Medica* contain a section entitled “Correction of Errors” (*zheng wu* 正誤) in which Li often took issue with Daoist claims. This aspect of *Comprehensive Outline of the Materia Medica* most definitely evidences a willingness to contradict many Daoist claims regarding the uses and functions of medicinals. Li was particularly critical of the practice of ingesting mercury for the purposes of achieving alchemical transmutation and immortality. In discussing cinnabar, he states:

*Grand Encyclopedia [of the Song People]* claims that it is nontoxic and [*Divine Husbandman’s*] *Materia Medica* says that long-term ingestion makes one a transcendent. Zhen Quan (甄權)<sup>13</sup> claims that it returns one to the maternal cinnabar source and Ge Hong’s (葛洪) *The Master Who Embraces Simplicity* (*Bao Pu-Zi* 抱朴子, 343) says that it is a medicinal of longevity. Who knows how many since the Six Dynasties have cravenly consumed [mercury] in a quest for life only to lose consciousness and their bodies. The prognosticators [i.e., early alchemists] certainly had insufficient skill, and so their materia medica contains wild talk.<sup>14</sup>

The *Exposition* cites the seminal text of both external and internal alchemy, *The Token for the Agreement of the Three According to the Changes of Zhou* (*Zhou yi can tong qi* 周易參同契, 142 BCE), in a number of places, yet in his *Comprehensive Outline of the Materia Medica*, Li takes issue with this book’s assessment of the therapeutic value of sesame seed, which was commonly held to be a Daoist panacea. He refers to this medicinal by one of its alternate names, Grand Victory (*ju sheng* 巨勝): “[According to *Agreement of the Three*,] Grand Victory can prolong life, yet can be made into pills and taken orally.” Li points out that, “Today [this medicinal] is rarely used, and is not very effective. When taken long-term, however, it has some benefit but that is all.”<sup>15</sup>

Li Shi-Zhen’s criticisms are not limited to those medicinals that claim to confer immortality or profound longevity. He is frequently of the opinion that the claims of the Daoists are simply overblown. His discussion of Acanthopanis Cortex (*wu jia pi*) conveys a similar sentiment.



CHAPTER 1

奇經八脈總說

An Overview of the Eight Extraordinary Vessels

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凡人一身有經脈絡脈直行曰經旁支曰絡經凡十二手之三陰三陽足之三陰三陽是也絡凡十五乃十二經各有一別絡而脾又有一大絡並任督二絡為十五也（難經作陰絡陽絡）共二十七氣相隨上下如泉之流如日月之行不得休息故陰脈營於五臟陽脈營於六府陰陽相貫如環無端莫知其紀終而復始其流溢之氣入於奇經轉相灌溉內溫臟腑外濡腠理

People have channel vessels and network vessels throughout their bodies. Those that travel longitudinally are called channels, while those that branch off are called networks. There are 12 channels [consisting of] three yin and three yang of the hand, and the three yin and three yang of the foot. There are 15 networks. Each of the 12 channels has its own branching network, and the spleen also has a great network. In addition, with the two networks of the *ren* and *du* [vessels], there are 15 [networks]. (The *Classic of Difficulties* posits a yin network and a yang network.) Combined, the 27 qi [of the channels and networks] move up and down together as if flowing from a spring, moving like the sun and moon without rest.<sup>1</sup> Thus, the yin vessels manage [the qi] in the five yin viscera while the yang vessels sustain the six yang receptacles. Yin and yang connect with each other in an endless circuit in which there is no discernable break. Upon reaching the end, it just starts again. The overflow of qi [from the channels and networks] enters the extraordinary vessels, providing reciprocal irrigation, interiorly warming the yin viscera and yang receptacles, and exteriorly moistening the interstices.

奇經凡八脈不拘制於十二正經無表裡配合故謂之奇蓋正經猶夫溝渠奇經猶夫湖澤正經之脈隆盛則溢於奇經故秦越人比之天雨降下溝渠溢滿滂沛妄行流於湖澤此發靈素未發之秘旨也

The eight extraordinary channels are altogether eight vessels that are not controlled by the 12 main channels, nor are they arranged in exterior-interior combinations, and therefore they are called extraordinary. The main channels are like irrigation ditches, and the extraordinary channels are like lakes and marshes. When the vessels

of the main channels are swollen and abundant, they overflow into the extraordinary channels. Thus it was that Qin Yue-Ren compared this to when the “rains pour down from heaven, the irrigation ditches overflow, the rain floods rush wildly, flowing into the lakes and marshes.” This is the revelation of the secret meaning not presented in *Divine [Pivot]* and *Basic [Questions]*.

八脈散在群書者略而不悉醫不知此罔探病機仙不知此難安爐鼎時  
珍不敏參考諸說萃集於左以備學仙醫者簽蹄之用云

[Discussions of] the eight vessels scattered throughout the masses of [medical] texts are sketchy and incomplete. If physicians are not aware [of such theories of the extraordinary channels], they will remain in the dark as to the cause of disease. If [aspiring] transcendents are not aware [of the more comprehensive theories of the extraordinary channels], it will be difficult for them to tame the furnace and the cauldron. [Although I,] Li Shi-Zhen, am not clever, I have carefully considered the statements of all [the various schools] and compiled them below to allow both transcendents and physicians to trap and snare these useful words.

CHAPTER 19

**On the Overview of the Eight Extraordinary Vessels**

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Li Shi-Zhen begins his exposition on the eight extraordinary vessels by establishing their place in the overall scheme of the channels and networks: “People have channel vessels and network vessels throughout their body. Those that travel longitudinally are called channels, while those that branch off are called networks.” Here Li introduces a technique that he uses throughout the book, juxtaposing passages from earlier texts in a way that expands their meaning. Li’s opening statement glosses a line from Ch. 17 of *Divine Pivot* that compares the channels and networks and states: “The channels and vessels are the interior and those that branch from it and travel horizontally are networks.”<sup>1</sup>

The modern commentator Wang Luo-Zhen notes that the original meaning of the graph 經 (*jing*, ‘channel’) is a vertical or longitudinal line, whereas the original meaning of the graph 絡 (*luo*, ‘network’) indicates a connecting net. Thus, the channels and vessels are the trunk and their trajectories are typically deep, while the network vessels are the branches and these are disseminated superficially.<sup>2</sup> Li develops this theme, elaborating on Ch. 1 of *Divine Pivot*:

There are 12 channels [consisting of the] three yin and three yang of the hand, and the three yin and three yang of the foot. There are 15 networks. Each of the 12 channels has its own branching network, and the spleen also has a great network. In addition, with the two networks of the *ren* and *du* [vessels], there are 15 [networks]. (The *Classic of Difficulties* posits a yin network and a yang network.) Combined, the 27 qi [of the channels and networks] move up and down together as if flowing from a spring, moving like the sun and moon without rest.

The original passage from Ch. 1 of *Divine Pivot* is considerably less detailed. “There are 12 channel vessels, and 15 network vessels. Altogether these make 27 [channels], and the qi thus ascends and descends [through them].”<sup>3</sup> Ch. 1 of *Divine Pivot* makes no mention of the great network of the spleen, nor does it include the networks of the *ren* and *du*.

In an annotation of his own, Li mentions that the *Classic of Difficulties* omits the *yin* and *yang qiao* in its count of the networks, tacitly pointing out that these vessels have been substituted for the *ren* and *du*. Although this appears to be a passing comment, the relationship of the *qiao* vessels to the networks is central to Li’s understanding of extraordinary vessel physiology. Li makes no mention of the *Classic of Difficulties* as the source of the great network of the spleen.

In *Discerning the Truth Regarding Pulse Theory* (*Mai li qiu zhen* 脈理求真, 1769), Huang Gong-Xiu (黃宮綉) takes this idea a step farther. Huang identifies the *qiao* vessels not only as constituents of the networks, but as their primary controllers. The *yang qiao* masters the yang networks and the *yin qiao* masters the yin networks.<sup>4</sup> At least one modern commentary goes so far as to claim that the *qiao* vessels are synonymous with yin and yang networks.<sup>5</sup> These interpretations echo Li's own perspective on the extraordinary vessels, which will be developed in subsequent chapters of *Exposition on the Eight Extraordinary Vessels*. Here in the introduction, Li lays the groundwork for his development of this idea in later chapters. For him, the *qiao* vessels are intimately related to the networks while the *ren* and *du* have a much more generalized function in regulating yin and yang.

Li next presents his own explanation of the flow of qi between the channels and networks and the extraordinary vessels.

Thus, the yin vessels manage [the qi] in the five yin viscera while the yang vessels sustain the six yang receptacles. Yin and yang connect with each other in an endless circuit in which there is no discernable break. Upon reaching the end, it just starts again. The overflow of qi [from the channels and networks] enters the extraordinary vessels, providing reciprocal irrigation, interiorly warming the yin viscera and yang receptacles, and exteriorly moistening the interstices.

Although it is regarded as part of the bedrock understanding of the extraordinary vessels today, the notion of a reciprocal flow of qi between the extraordinary vessels and the rest of the channel system is an innovation of Li's. In the *Inner Classic* (*Nei jing*), the relationship between the flow of qi in the primary channels and extraordinary vessels is unclear. Li reframes the meaning of a passage from Ch. 17 of *Divine Pivot* to fit his own more versatile interpretation. The original passage reads:

At no time does the qi not circulate. It is like the flow of water, like the ceaseless movement of the sun and moon. Therefore, the yin vessels nourish the viscera while the yang vessels nourish the receptacles, like an endless circuit in which there is no discernable break. The overflow of qi internally irrigates the viscera and receptacles and externally moistens the interstices.<sup>6</sup>

This passage appears in the context of a discussion of the trajectory of the *qiao* vessels and their transmission of qi to the eyes and interstices in the exterior, and to the yin viscera and yang receptacles in the interior. Li has taken a statement pertaining to the physiology of a specific extraordinary vessel and extrapolated it to include all the extraordinary vessels as a whole. Li asserts that the overflow of *all* the extraordinary vessels irrigates the viscera and receptacles. By contrast, the 27th and 28th Difficult Issues of the *Classic of Difficulties* posit a much different dynamic between the pri-

mary channels and the extraordinary vessels. In this scheme, the networks receive the overflow from the primary channels, and the extraordinary vessels in turn receive the overflow from the networks. The extraordinary vessels of the *Classic of Difficulties* clearly do not flow back into the primary channels or their networks.

When they are filled to overflowing, they stagnate and they cannot return to the circulating [qi] by drainage into the [primary] channels ... they are no longer part of the circulation because the 12 channels cannot seize this [surplus].<sup>7</sup>

Similarly, the symptoms associated with the extraordinary vessels in the *Classic of Difficulties* tend to reflect conditions most commonly associated with excesses such as lower back stiffness, chest pain, abdominal urgency, and accumulations and masses. The only treatment strategy mentioned in the *Classic of Difficulties* is to “pierce [the respective vessel] with a sharp stone” (*bian she zhi* 砭射之) to relieve swelling and heat resulting from the stagnation of pathogenic heat within it.”<sup>8</sup>

Li’s proposal that the flow of qi between the extraordinary vessels and the rest of the channel system is reciprocal (*chuan xiang guan gai* 傳相灌溉) skillfully reconciles this apparent contradiction. According to Katsuda Masayasu, “When the circulating qi is in excess, it flows into the extraordinary vessels. It also flows back to the 12 primary channels to nourish the viscera and receptacles and the interstices.”<sup>9</sup> This interpretation has become the standard understanding of the relationship between the extraordinary vessels and the rest of the channel system. Having established this key piece of extraordinary vessel physiology, Li then returns to the 27th Difficult Issue to explain what is so extraordinary about the extraordinary (*qi* 奇) vessels. “The eight extraordinary channels are eight vessels that are not controlled by the 12 main channels, nor are they arranged in exterior-interior combinations. Therefore, they are called extraordinary.”

This is not the only interpretation of the word *qi* 奇. According to the Tang dynasty commentator Yang Xuan-Cao (楊玄操),

*Qi* 奇 means ‘odd or unpaired’ (*yi* 異). These eight vessels are not part of the [system of] mutual seizure regulation [of contents] among the 12 conduits; they constitute passageways proceeding separately. They are different from the main conduits. Hence, they are called extraordinary channels.<sup>10</sup>

However, during the Song dynasty, Yu Shu (虞庶) took issue with Xuan-Cao’s interpretation:

*Qi* 奇 is to be read as ‘fundamental’ (*ji* 基); it stands for ‘slanted, oblique’ (*xie* 斜), ‘odd’ (*ling* 零); it means ‘singular’ (*bu ou* 不偶). That is to say, the eight vessels are not regulated by the main channels, there are no interior-exterior combinations between yin and yang [vessels], and they constitute

separate pathways with unusual circulations, therefore they are called the extraordinary vessels. [Thus] Master Yang's statement that *qi* means odd is incorrect.<sup>11</sup>

Katsuda points out that there may be another shade of meaning to Yu Shu's association of 'odd' with the extraordinary vessels. He claims that *ling* (零) often refers to small things like the falling of leaves or the dripping of water and so evokes an image of the extraordinary vessels as branching off of or falling away from the major channels.<sup>12</sup>

The Qing dynasty physician Xu Da-Chun (徐大椿, 1693–1771) noted that “[The word] *qi* 奇 should be read as ‘odd or singular’ (*ji ou* 奇偶). That is to say, in contrast to the 12 channels, there are no pairs of foot or hand [channels] in the case [of the extraordinary vessels].”<sup>13</sup>

As previously mentioned, the extraordinary vessels are not arranged in hand and foot pairings but in interior-exterior pairings, such as the *yin* and *yang qiao* and the *yin* and *yang wei*. The *ren* and *du* are also a functional pair, and, as we will see, there is even a tacit pairing of the *chong* and the *dai*.

The main channels are like irrigation ditches, and the extraordinary channels are like lakes and marshes. When the vessels of the main channels are swollen and abundant, they overflow into the extraordinary channels. Thus it was that Qin Yue-Ren compared this to when the “rains pour down from heaven, the irrigation ditches overflow, the rain floods rush wildly, flowing into the lakes and marshes.” This is the revelation of the secret meaning not presented in the *Divine [Pivot]* and *Basic [Questions]*.

Qin Yue-Ren is also known as Bian Que (扁鵲), the apocryphal author of the *Classic of Difficulties*. The above passage is a synthesis of the 27th and 28th Difficult Issues, which state:

The sages constructed irrigation ditches and kept the waterways open so that they would be prepared for any extraordinary situation. When the rains poured down from heaven, the irrigation ditches overflowed. In times such as that when the rain rushed recklessly, even the sages could not make plans again [and therefore they had to be prepared].<sup>14</sup>

The 28th Difficult Issue continues:

This is comparable to the sages planning and constructing irrigation ditches. When these irrigation ditches were full to overflowing, [this excess water] flowed into deep lakes because even the sages were unable to [find other means to] seize [this overflow] and ensure the continuation of a circulatory flow.<sup>15</sup>

This passage again emphasizes the one-way flow of qi from the channels to the extraordinary vessels. It suggests that once the networks overflow with qi and blood, the 12 channels cannot further add more qi and blood. Because this statement does not actually appear in the *Inner Classic*, Li considers it to be “a revelation of the secret meaning of the *Divine [Pivot]* and *Basic [Questions]*.”<sup>16</sup> Li Shi-Zhen evidently has a low opinion of the existing literature concerning the extraordinary vessels. His goal was to compile the information he considered most relevant to their study and to present it in a coherent manner so that those involved in internal alchemy could benefit from his synthesis of these materials.

[Discussions of] the eight vessels scattered throughout the masses of [medical] texts are sketchy and incomplete. If physicians are not aware [of the theories of the extraordinary channels], they will remain in the dark as to the cause of disease. If [aspiring] transcendents are not aware of [the more comprehensive theories of the extraordinary channels] it will be difficult for them to tame the furnace and the cauldron. [Although I,] Li Shi-Zhen, am not clever, I have carefully considered the statements of all [the various schools] and compiled them below to allow both transcendents and physicians to trap and snare these useful words.

The “transcendents” (仙 *xian*) mentioned here refer to practitioners of internal alchemy concerned with longevity practices. In the lexicon of Daoist alchemy, the “furnace and the cauldron” (*lu ding* 爐鼎) is the elixir of immortality. The 50th hexagram of the *Classic of Change* is also called *ding* or cauldron. Li concludes his introduction with an allusion to *Zhuang zi*, establishing the Daoist thread that runs through his *Exposition*. His reference to a “trap” (*quan* 筌) is a bamboo fish trap and the “snare” (*ti* 蹄) is a snare for catching rabbits. The phrase is from *Zhuang zi*, Ch. 2, titled “On External Things” (*wai wu* 外物), which says:

Nets exist for catching fish; once a fish is caught, the net is forgotten. Traps exist for catching rabbits; once a rabbit is caught, the trap is forgotten. Words exist for expressing ideas; once the ideas are expressed, the words are forgotten. I would like to find someone who forgets words and have a talk with him!<sup>17</sup>

Li is making it clear that he understands the limitations of the written word. He intends his book to be a snare for capturing the meaning of the extraordinary vessels, but once the reader has grasped their meaning, the words can be discarded.

and stomach, and the deepest level of the pulse corresponds to the liver and kidneys. The first of these two innovations is still used widely, the latter less so.

All of Li's major innovations reflect a willingness to approach the pulse as an indicator of broad trends in the system. For him, the pulse is a means of evoking a three-dimensional image of the qi terrain. This characteristic of his thought is particularly evident in the extraordinary vessel pulse images, which are necessarily defined in three-dimensional terms.

Drawing heavily from Wang Shu-He's "Hand Diagram" chapter throughout his *Exposition*, Li considers this obscure style of pulse diagnosis to be a lost jewel, foolishly ignored by his contemporaries and predecessors alike. By presenting this material as a coherent unit, both Li and Wang lay out the overall system in which the extraordinary vessels are embedded. Despite its unwieldy nature, it is essential to have at least a rough understanding of the entire system if we hope to make sense of its descriptions of extraordinary vessel pulses.

## Li Shi-Zhen's Introductory Remarks to His Chapter on the Pulse

Li begins where Wang begins, with an introductory statement outlining pulse diagnosis according to a now-lost text known as Qi Bo's secret teaching of *Yellow Emperor's Rhyme*. He rationalizes the juxtaposition of two apparently contradictory pulse systems, asserting, "Although they pass through the three [standard] positions, the nine pathways are submerged [within it]." That is to say, the extraordinary vessel pulse system is not separate from the three standard positions used to diagnose the 12 primary channels, but rather is embedded within it.

According to Li, he is resurrecting a diagnostic method that has been lost for millennia.

Because nobody in the world knows the pulses for the eight extraordinary vessels, I have now decided to draw a diagram [of this pulse diagnosis system] and append an explanation after it to transmit the secrets that have remained unknown throughout the ages.

Li did not in fact "draw" a diagram at all, and neither Wang's nor Li's original chapters contain any graphic material. According to Shen Yan-Nan, the first commentator to illustrate the relationships depicted in the "Hand Diagram" was He Meng-Yao (何蒙瑤) sometime during the Qing dynasty. It is his drawing that appears in most modern editions of the *Pulse Classic* and is reproduced at the end of this chapter.<sup>2</sup>

Li Shi-Zhen goes on to assert that, "When [the pulse is] examined in this manner, one may know where the disease pathogen lies." This statement differs slightly but perhaps meaningfully from Wang's original: "The floating, sinking, bound, and scattered [pulse qualities] [allow one to] know where the pathogen lies."<sup>3</sup>

Li's failure to mention these latter pulse qualities as an essential component of

this system of pulse diagnosis may be a consequence of an imperfect memory, but it highlights a unique feature of extraordinary vessel diagnostics. Wang's sentence stresses that proper diagnosis requires one to consider the location of the pulse within the "Hand Diagram" scheme and an additional set of specific pulse qualities. In nearly all of the individual pulse qualities presented in the "Hand Diagram", the above-mentioned pulse qualities are integral to making proper use of the system. As in the more familiar forms of Chinese pulse diagnosis, pulse position tends to define the location of the disease, and pulse quality identifies the pathodynamic. The "Hand Diagram" chapter attributes a channel and a set of symptoms to each of the nine pulse locations in the system. Wang then distinguishes the pathogenic factors contributing to the condition based on whether the pulse is "floating, sinking, bound, or scattered," though this is by no means a comprehensive list.<sup>4</sup>

Li's interests lie specifically with the extraordinary vessels, which are defined by two criteria that differ slightly from the other pulses in this system. The first is that every extraordinary vessel pulse occupies more than one of the nine positions of the "Hand Diagram." The second is that, with the exception of the *du* vessel pulse which is "floating in all three positions," the extraordinary vessels rely on an entirely different set of pulse qualities to define them. The pill-like, tapping, hard, and confined qualities used to describe the extraordinary vessels are unique to them, and these terms are not associated with individual pulse positions within the "Hand Diagram" system.

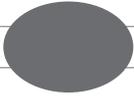
Unlike individual positions, most extraordinary vessels have one or more core pulse qualities that distinguish them from the surrounding pulse terrain. *Yin wei* pulses may be sinking, *yang wei* pulses may be floating, and *chong* pulses may be sinking and faint, but these are not their defining characteristics. Whatever Li's reasons for framing his remarks in the way he did, in excluding such secondary pulse qualities from his introductory remarks, Li focuses his reader's attention on the essential pulse qualities characterizing the extraordinary vessels.

Evidently anticipating some controversy over the adoption of such an obscure system of pulse diagnosis, Li's introduction establishes its pedigree beyond Wang Shu-He's claim that "Each [position] has its own diagnostic presentation according to Qi Bo's secret teaching of the *Yellow Emperor's Rhyme*."

## Characteristics of the "Hand Diagram" Scheme and Li's Interpretation of It

If Li's interest in the "Hand Diagram" system were limited to its capacity to describe the extraordinary vessel pulses, Li could easily have saved himself some effort and simply cited the introductory section at the beginning of that chapter of the *Pulse Classic*. It concisely outlines the location of each of the nine pulse positions on the wrist. Yet Li omits this entirely. He seems to have gone out of his way to catalogue many but not all of the symptoms associated with each pulse position.

Despite Li's attention to the details of the "Hand Diagram," extraordinary vessel pulse symptoms correlate poorly with the symptoms attributed to the pulse positions they traverse. For example, the *yang wei* pulse passes through the bladder, heart master, and kidney positions in the "Hand Diagram" system (see Table 32-1), and yet these channels and their representative symptoms have little bearing on *yang wei* pathology. Just as the nine-position pulse system is conceptually submerged within the standard pulse system, the extraordinary vessel pulses appear to be further embedded within the nine positions. Li's rhetoric notwithstanding, on initial inspection, his only apparent use for the "Hand Diagram" system is as an anatomical reference grid for describing the extraordinary vessels. Indeed, with the exception of the distinctive oblique trajectories of the *wei* vessel pulses, the remaining extraordinary vessel pulses are more easily described using more conventional means.

	OUTSIDE (RADIAL)	MIDDLE	INSIDE (ULNAR)
DISTAL			
MIDDLE			
PROXIMAL			
	DISTAL	MIDDLE	PROXIMAL
SUPERFICIAL			
MIDDLE			
DEEP			

**Fig. 32-1** Pill-like *ren* pulse in the distal position

For example, it is unnecessary to resort to a nine-position pulse scheme to adequately describe a *ren* pulse that is "pill-like across all of the distal positions" 前部横于寸口丸丸者住脈也. Any pulse quality that covers all of the distal positions in the nine-position pulse scheme simply occupies the conventional distal (*cun* 寸) position.

Whatever his reasons, Li Shi-Zhen carefully presents the iconoclastic terminology of the "Hand Diagram" despite the fact that he has already described the extraordinary vessel pulses themselves in much simpler terms in his *Pulse Studies of the Lakeside [Recluse]*, written in 1564, 13 years before the publication of his work on the extraordinary vessels. In his book on the pulse, Li describes the *yang wei* pulse as traveling "from the inside of the proximal position and ascending obliquely, to reach the distal position." Shen Jin-Ao, the writer who adhered most closely to Li's vision of the extraordinary vessels, also dispenses with the nine-position jargon, clearly and succinctly describing the *yang wei* pulse as "traveling obliquely to the outside of the distal position."<sup>5</sup> These descriptions are far more accessible than those presented in the *Pulse Classic*.

The *Pulse Classic* scatters its descriptions of the extraordinary vessel pulses

CHAPTER 37

**Vessels Wide Shut: Li Shi-Zhen's *Qiao* Vessel Pathodynamics**

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by Charles Chace

In his discussion of diseases of the *qiao* vessels, Li Shi-Zhen presents two apparently contradictory visions of how the *yang qiao* may become disordered and fail to transmit its qi to the *yin qiao*. The first of these interpretations is consistent with the understanding familiar to most acupuncturists. The latter interpretation, hinging on a single character, adds another dimension to *yang qiao* pathology that bears directly on how we conceptualize and treat these vessels. This chapter will explore these two interpretations of *yang qiao* pathology and their applications in acupuncture and herbal medicine.

Early Chinese medical texts were typically hand written as part of a master-disciple relationship. Nathan Sivin observes that a cornerstone of this relationship was the formal transmission of a text from the mentor and its 'reception' (受 *shou*) by the student.

Reception, we are clearly told, is a formal process that begins only after one has been 'serving' the master as a disciple for some time. When a text is 'received,' it is not simply handed over, but ritually transmitted and taught. At a certain point, the disciple is allowed to copy it out and read it, not necessarily in that order.<sup>1</sup>

Transcription errors were an inevitable part of this process and persisted even with the advent of printing when professional carvers would inadvertently miscopy handwritten documents onto woodblocks. Since memorization was such an integral part of a physician's training, they most probably quoted from memory when writing, though not always accurately. From a scholarly perspective, many of Li Shi-Zhen's citations of classical sources are more akin to paraphrase than actual quotations. These vectors account for some of the variability that has crept into the textual tradition.

As a remedy for these inherent irregularities, the Chinese medical literature has a long history of textual exegesis in which passages are annotated and errors corrected. Most often, these annotations are of more interest to academics than to clinicians. Sometimes, however, a character that had been deemed a transcription error yields a much more interesting reading of a passage than the corrected version. As physicians, our interest in such seemingly arcane matters most often remains little more than a passing curiosity. It soon occurs to us that a team of scholars much better informed than ourselves has decided how the text should be read, and it is best to get on with more productive areas of inquiry. In light of this, Li Shi-Zhen's discussion of diseases of the *qiao* vessels in *Exposition on the Eight Extraordinary Vessels* is particularly in-

triguing. His rendering of a key passage from *Divine Pivot*, using a character thought to be a transcription error, suggests a more nuanced understanding of *yang qiao* pathology. The Chinese medical literature is full of inconsistencies, and taken on its own, it is difficult to make much of Li's rendering. The interpretation suggested by this reading, however, is also echoed in the case records of Ye Tian-Shi, suggesting that it may be more than a curious anomaly.

Li Shi-Zhen begins his discussion of the diseases of the *qiao* vessels with familiar quotations from the *Classic of Difficulties* and *Pulse Classic*, addressing the relationship of tension and slackness to *qiao* vessel pathology. He proceeds with a recitation of the *Pulse Classic's* description of the pulses associated with each of the *qiao* vessels, and then continues with a series of quotations on seizures. Li then repeats a number of passages from *Basic Questions* pertaining to pathologies and acupuncture treatments involving the *qiao* vessels. Finally, he ties these disparate passages together with a discussion of the role of the *qiao* vessels in the overall circulation of yin and yang.

[Ch. 21 of *Divine Pivot Classic*] also states: "The *yin qiao* and *yang qiao* are the intersection of the yin and yang. The yang enters the yin, and the yin emerges from the yang. They intersect at the outer corner of the eye. When the yang qi is overly full, then the eyes will stare, and when the yin qi is overly full, then the eyes will be closed. With heat reversal, select the leg greater yang and lesser yang. ..." <sup>2</sup>

The gist of this passage is that when the yang is excessive, the eyes stay open, and when the yin is excessive, the eyes remain closed. This is familiar ground for most students of acupuncture, but there is a catch. Although most of the textual exegesis on this passage simply equates the yin and yang qi with the *yin* and *yang qiao*, respectively, the passage may also be understood as making a much more general statement regarding accumulations of qi in the yin and yang channels.

Li continues with a similar passage from *The Systematic Classic of Acupuncture and Moxibustion*, a passage that is itself derived from Ch. 80 of *Divine Pivot*.

*The Systematic Classic* states: "When a patient's eyes are shut and they cannot see ..., this is due to protective qi being lodged in the yin and unable to travel to the yang. When it is lodged in the yin, then the yin qi is overly full, and when the yin qi is overly full, then the *yin qiao* is full. [When the protective qi] cannot enter the yang, then the yang qi is deficient and, hence, the eyes are shut.

When a patient's eyes cannot close ... , the protective qi cannot enter the yin and constantly lodges in the yang. If [the protective qi] lodges in the yang, then the yang qi is full. If the yang qi is full, then the *yang qiao* is overly full. [If the protective qi] cannot enter the yin, then the yin qi is deficient, hence, the eyes cannot close." <sup>3</sup>

The two paragraphs make a crucial distinction not apparent in the previous passage. The protective yang may become trapped in the exterior, causing the *yang qiao* to become full. It is not just that the *yang qiao* is full, it is overly full or congested, and this congestion prevents the qi from penetrating into the *yin qiao*. Moreover, the yang qi is not necessarily synonymous with the *yang qiao*; they are separate entities. Although this may appear to be a minor point, it is central to understanding the passages that follow. According to Li,

[Ch. 71 of] *Divine Pivot* states: “The five grains enter the stomach and are divided into three pathways of dregs, fluids, and the gathering qi. Thus, gathering qi accumulates in the chest and emerges in the throat to link with the heart and lungs and propel respiration there. The nutritive qi secretes the fluids and pours into the vessels. It transforms and becomes blood to nourish the four extremities. Internally, it pours into the five viscera and six receptacles in accordance with the time of the day.

Protective qi emerges with an impetuous ferocity, first in the four extremities in the partings between the flesh and skin, and it does so in a ceaseless manner. During the daytime, it circulates in the yang, and at night, it circulates in the yin from the level of the leg lesser yin, traveling to the five viscera and six receptacles.

When a reversal qi visits the five viscera and six receptacles, then the protective qi alone protects the outside. It travels in the yang but cannot enter the yin. By traveling [only] in the yang, the yang qi becomes overly full, and when the yang qi is overly full, then the *yang qiao* caves in. When [the yang qi] cannot enter the yin, then the yin qi is deficient and the eyes cannot close.”<sup>4</sup>

With the exception of a single character, 陷 (*xian*, literally ‘collapses’), this passage is in accord with those preceding it. The crux of the third paragraph is “*yang qi sheng ze yang xiao xian*” (陽氣盛則陽蹻陷), that is, “When the yang qi is exuberant, then the *yang qiao* caves in or collapses.” This changes the meaning of the passage completely. When read with this character, the yang qi has become congested in the exterior, preventing it from even entering the *yang qiao*, much less the *yin qiao*. Annotators of *Divine Pivot* typically explain away 陷 (*xian*) as a transcription error, asserting that it should properly be read as 滿 (*man*).<sup>5</sup> Thus, this sentence is amended to read, “When the yang qi is exuberant, then the *yang qiao* is full,” neatly reconciling it with the others we have already examined.

Li, however, prefers the original reading of ‘collapses.’ The implication is that, according to Li, two potentially distinct dynamics may be involved in *yang qiao* pathology. In one case, the *yang qiao* becomes congested as a consequence of an exuberance of protective qi in the yang channels. This congestion prevents its descent into the

interior and the *yin qiao*. In the second case, the *yang qiao* is deficient, not excessive. The yang qi has become so congested in the exterior that it is unable to even reach the the latter, causing it to collapse.

The discussion in *Divine Pivot* follows with a remedy that is one of the few herbal prescriptions mentioned in the *Inner Classic*, Pinellia and Sorghum Decoction (*ban xia shu mi tang*), the assumption being that the pathogen congesting the yang channels is phlegm. If we adopt Li's reading of this passage, then it becomes apparent that this formula need not be understood as entering the extraordinary vessels at all. Its focus is on clearing the pathogen that is obstructing the exterior yang. Nevertheless, Pinellia and Sorghum Decoction (*ban xia shu mi tang*) is the only herbal treatment Li Shi-Zhen offers for pathologies of the *yang qiao*, and he makes no mention of herbal formulas for *yin qiao* pathologies at all. At this juncture, it is tempting to dismiss the entire matter as completely irrelevant to clinical practice were it not for the fact that the case records of Ye Tian-Shi (Ye Gui) also discuss the *yang qiao* in terms of deficiency.

The most thoroughly documented case records in the premodern Chinese medical literature dealing with the extraordinary vessels are those of Ye Tian-Shi. As already noted, although he is commonly viewed as the heir to Li Shi-Zhen's lineage of extraordinary vessel herbal prescribing, Ye Tian-Shi most definitely had his own interpretive agenda. His case records are evidence of a remarkable capacity to flexibly integrate a wide range of Chinese medical influences. Li's voice was but one among many. Nevertheless, in his treatment of the extraordinary vessels, Ye, too, almost invariably refers to the *yang qiao* as being empty (*kong* 空). Curiously, however, although Ye Tian-Shi claims that the *yang qiao* vessels are empty, the elimination of phlegm-thin mucus from the yang is still a central component of his treatment strategy. It appears that Ye has taken his cue from Li Shi-Zhen in his understanding of *yang qiao* pathology. The *yang qiao* is empty because the yang is being blocked from entering it. The three cases by Ye Tian-Shi's that follow illustrate this interpretation.

## Ye Tian-Shi's Cases

**Case No. 1:** Wang, age 47, thin mucus is a transformation of turbid yin hindering the yang qi and preventing it from entering the yin. The *yang qiao* is empty, preventing sound sleep at night. *Divine Pivot* advocates the use of Pinellia and Sorghum Decoction (*ban xia shu mi tang*) that is said to unblock the yang and promote communication with the yin, preventing an amassment of the thin mucus pathogen. The use of cold and cool medicinals such as Emperor of Heaven's Special Pill to Tonify the Heart (*tian wang bu xin dan*) is [the wrong] approach for well-established turbid yin [conditions]. During middle age, it is essential to take care of the yang, especially according to *Essentials from the Golden Cabinet* (*Jing gui yào lüè* 金匱要略), which says that one must use warming medicinals to harmonize [such conditions].<sup>6</sup>