

THE ORIGINS OF ACUPUNCTURE AND MOXIBUSTION

1

The origins of acupuncture and moxibustion therapy are enshrouded in mystery.¹ Naturally, a number of solutions to the mystery have been proposed. One example is the classic of acupuncture and moxibustion, *Huang Di Nei Jing (The Inner Canon of the Yellow Emperor)*, which has a ready answer to the question of where acupuncture and moxibustion originated. It is found in 'Zhi Fang Di', *Tai Su (The Grand Basic)*, vol. 19, or 'Yi Fa Fang Yi Lun', *Su Wen (The Basic Question)*, chap. 12. These works look for the origins of a variety of therapies in the differences in "topography." This explanation holds that, geographical and climatic differences result in different ways of living and intake of different foods, leading to different constitutions and different illnesses. In response, different methods of treatment were developed. According to the theory espousing separate geographic origins, however, *bian shi* (stone acupuncture needles) are from the East, "efficacious medicine" is from the West, moxibustion is from the North, the "nine needles" are from the South, and *dao yin* (a form of Taoist yoga) and massage are from the Center. Needless to say, this is merely an attempt to classify and arrange the therapies spatially based on the Five Phases Theory, and is not thought to be of any real significance. At the time the above was written, there would probably still have been folklore or memories of the origins of one or two of the methods of treatment, but the question is whether or not they were actually grouped according to these folklore or memories. Even if this was the case, no materials exist to confirm the

fact. Rather, this theory illustrated the importance that *The Inner Canon of the Yellow Emperor* placed upon *dao yin*, the Taoist's regimen and massage, both of which were said to be from the "Center." Despite the fact that the Yellow Emperor school was, as it were, the acupuncture school, the author of the above volume placed the highest value upon *dao yin* and massage. Doubtless, these writings were included in *The Inner Canon of the Yellow Emperor* because they reflected a priority in values which couldn't be attributed merely to the personal preferences of the author. This theory clearly indicates the profound influence that Taoist scholars' notions of health-care had on the Yellow Emperor school.

At any rate, *The Inner Canon of the Yellow Emperor* expounds a theory of the spatial/geographical origins, but not the chronological/historical origins. According to *Di Wang Shi Ji* by Huang-fu Mi (216–282) of the Western Jin dynasty (265–316), Fu Xi, who was said to have made the eight divination signs and taught the people hunting and fishing ('Xi Ci Zhuan' in *Yi Jing*), was also said to have "tasted one hundred medicines, then invented nine needles." This folklore clearly came into existence after the nine needles (nine types of metal needle) had appeared, which is to say that it was born after acupuncture had been established. An older legend claims that Wu Peng of the Yin Shang era was the first to "make medicine," but he dealt only with treatments using medication, not acupuncture or moxibustion. The name of the originator of acupuncture and moxibustion is not mentioned in legends of the origins of things prior to *Di Wang Shi Ji*. On the other hand, however much or little it may reflect the realities of the Zhou dynasty system, *Zhou Li*'s list of job titles includes professions such as "physician," "food doctor," "healing doctor," "carbuncle doctor," and "veterinarian," but there is no record of acupuncture or moxibustion therapy. As for archaeological findings, while one would not expect to find moxa, it is probable that needles will be excavated; in fact, quite a few items considered to be needles have been excavated. There exists, however, almost no evidence that would specify these as having been used for medicinal purposes. Unless additional artifacts are excavated which allow these to be judged or argued with a high degree of confidence to be medical instruments,

there is nothing to distinguish any of these from needles used for other purposes. If one is to reason only that it is possible that they might have been used for medical treatment, it is still necessary to prove that acupuncture existed at the time. For the time being, this proof must be sought in the form of mention in contemporary literature.

The earliest mention of acupuncture and moxibustion, at least the mention regarded as the earliest, regarding moxibustion therapy (hereinafter moxibustion), is thought to be in the tale of 'Dao Zhi', *Zhuang Zi*, chap. 29 and in the words of *Meng Zi*, vol. 7 'Li Lou' for moxibustion. In the case of acupuncture also, it is thought to be in the article of the 10th year of the Duke Cheng (581 B.C.) in *Chun Qiu Zuo Zhuan* (*Spring and Autumn Annals, Notes of Zuo*). In *Zhuang Zi*, Confucius went to see the notorious thief Dao Zhi and tried to lecture him on moral principles. Upon being rejected and called a "charlatan," Confucius was dumbstruck, and returned dejectedly to the kingdom of Lu. Upon arrival, he said,

"I have, as they say, performed moxibustion where there was no sickness."

The fact that he said, "as they say" indicates that the expression "to perform moxibustion where there is no sickness" was a country proverb, which is evidence of how widespread moxibustion was. Moxa, although not moxibustion, is mentioned in *Meng Zi*:

"Those who presently covet the throne are like seeking three-year-old moxa for a seven-year-old illness."

That is to say, the use of moxa which was picked only three years ago for the treatment of a longtime illness of seven years. According to Zhao Qi's notes, "Moxa is used for moxibustion to treat people's illnesses. The longer it is left to dry, the better. That is why the figure of speech is used." In the clause entitled 'Ai' (Mugwort) in *Ben Cao Gang Mu*, vol. 15, Li Shizhen states, "in general, if one is to use moxa leaves, one should by all means use old ones, crushed into a fine, soft powder. If moxibustion is performed with fresh moxa, it will damage the skin and the blood

vessels. For this reason, the expression ‘seeking three-year-old moxa for a seven-year-illness’ is used.” Mugworts, which are described by the same Chinese character as moxa, have a number of uses as medicine, but it is moxa used for moxibustion that is considered better the older it is, so the words of Meng Ke (Mencius, 372–289 B.C.) can be seen as giving firm evidence of the existence of moxibustion.

On the other hand, in an article in *Zuo Zhuan*, there is a famous story in which an illness afflicts the part known to Chinese medicine as *huang gao*. The Qin physician Yi Huan who was called to the sickbed of the Duke Jin diagnosed his illness as “incurable.”

“The affliction is in the *huang gao*, above the diaphragm, and below the heart. Even if one tries to attack this area, it is not possible, even if one tries to reach it, it is inaccessible, nor will medicine arrive here. There is nothing to be done.”

The question here concerns the phrase “even if one tries to reach it, it is inaccessible.” According to the notes of Du Yu (222–284) of the Western Jin dynasty, “reach” here means “needle.” That this was the common understanding of the term at the time is further evidenced by the words of ‘Za Yan’ (*Shen Jian*, chap.4) by Xun Yue (138–209) of the Eastern Han dynasty:

“the *huang gao* is situated in the narrow part near the heart. Needles cannot reach it. Medicine misses the mark, and it is impossible to attack anything there.”

To this day, the explanation that “reach” means “to reach by needle” is accepted, and this passage is considered as the material that provides proof of the oldness of the origins of acupuncture.

Another reference book which must not be forgotten is the biography of Bian Que which appears in *Shi Ji (The Historical Record)*.² Bian Que is a character who possesses a great number of legendary properties. According to the episode related by Si-ma Qian (c. 145–c. 86 B.C.), Bian Que was a famous physician of either the Chun Qiu period (770–403 B.C.) or

the Warring States period (403–222 B.C.) who was active for several centuries. Bian Que treated patients using acupuncture and moxibustion, according to Si-ma Qian. I believe that several famous doctors were combined by oral tradition to create the single character Bian Que. If it is true that even one of these contributing characters in fact had something to do with acupuncture and moxibustion, it means that this technology existed at the latest in the early years of the Warring States period. This is in fact how the biography of Bian Que has come to be explained.

According to the heretofore accepted view, the literature such as the aforementioned is evidence that the technology of acupuncture and moxibustion were established at the latest by the Warring States period, and that the period of establishment could possibly be traced back as far as the Chun Qiu period.³ This view has also been reinforced by the period in which *The Inner Canon of the Yellow Emperor* was compiled. Until recent times, setting aside *Ling Shu (The Divine Pivot)* including the many debatable questions about the period in which it was written, the generally accepted theory was that *The Basic Question* was a work in the Warring States period. Cheng Yi-chuan of the Northern Song dynasty expressed his view that “*The Basic Question* was written at the end of the Warring States period. One can see this from the distinctive character of the style of *He Nan Cheng Shi Yi Shu*, vol. 15.”⁴ In recent times, a variety of theories have placed *The Basic Question* in a period ranging from the Warring States period to the Western Han dynasty,⁵ in the Western Han dynasty,⁶ and even in the Eastern Han dynasty.⁷ One theory placed *The Basic Question* in the Western Han dynasty and *The Divine Pivot* in the Eastern Han dynasty.⁸ Nonetheless, the strongest theory still places the work in the Warring States period.⁹ If *The Inner Canon of the Yellow Emperor* is a work in the Warring States period, then we are led to the conclusion that not only the techniques of acupuncture and moxibustion but also the underlying theory were essentially completed by this period. Indeed, even if *The Inner Canon of the Yellow Emperor* were from the Han dynasty, if we suppose that, before a systematic theory was formed, there

would have been a long period of technical practice during which experiential knowledge was collected, then it would not contradict the testimony of the aforementioned literature.

The excavation of several types of medical books in 1973 from the third Mawangdui Han tomb necessitated a fundamental reexamination of these views. First, although these medical books contained mention of moxibustion, there was absolutely no mention of acupuncture. Second, among the medical books were four volumes which could be considered preliminary drafts of several essays that were included in *The Inner Canon of the Yellow Emperor* (*The Basic Question*, *The Divine Pivot* or *The Grand Basis*).¹⁰ Of course, there is more than one feasible explanation for these facts. As for the first fact, it may be simply by chance that only moxibustion books were excavated, or it may be that acupuncture did not yet exist. As for the second fact, the picture of the process by which *The Inner Canon of the Yellow Emperor* came into existence depends on whether the relationship is taken to be direct or indirect. At any rate, two strong hypotheses present themselves: the first is that the medical books excavated at Mawangdui (two versions of *Shi Yi Mai Jiu Jing*, *Mai Fa*, *Yin Yang Mai Si Hou*, and *Wu Shi Er Bing Fang*) were written at a time when acupuncture did not exist, and the second, that the essays contained in *The Inner Canon of the Yellow Emperor* as it now exists were written at a later time than these medical books. These two propositions, then, allow us to infer that acupuncture was invented as early as the Qin (221–207 B.C.) or the very beginning of the Western Han dynasty, that the technology developed at an exceedingly rapid pace, and that the underlying theory was systematized over the course of the Western Han dynasty. The research group responsible for determining the era in which the medical books excavated at Mawangdui were copied, placed them in the time period spanning the Qin and Han dynasties. If the manuscript was assembled during that period, the era in which the material was written can be placed as far back as the end of the Warring States period. Based on the information currently available, I estimate that it was written around the middle of the 3rd century B.C. The reason for this is that the advent of acupuncture would be in a later era.

It is certainly also possible to speculate that acupuncture books were simply not excavated at the Mawangdui Han tomb. In such case, however, one must not overlook the breadth of medical knowledge covered in the excavated books. According to the bibliographic volume in *Han Shu* (*The History of the Western Han Dynasty*), “*fang ji* are life-saving tools.” For the most part, then, *fang ji* corresponds to what we today call medicine, and was divided into four classes. These classes were *yi jing*, *jing fang*, *fang zhong*, and *shen xian*. *Yi jing* included the fields of basic medical theory, acupuncture, and moxibustion therapy. *Jing fang* dealt with clinical medicine, with the main emphasis upon medical therapy. *Fang zhong* and *shen xian* were fields which dealt with techniques for preserving health and prolonging life. If we classify the excavated books according to these categories of the beginning of the Eastern Han dynasty, *Zu Bi Shi Yi Mai Jiu Jing*, *Yin Yang Shi Yi Mai Jiu Jing*, *Yin Yang Mai Si Hou*, and *Mai Fa* would be classified as *yi jing*. *Wu Shi Er Bing Fang* and *Tai Chan Shu* falls under *jing fang*. *Yang Sheng Fang* deals with both *fang zhong* and *shen xian*. Finally, *Que Gu Shi Qi Pian*, *Shi Wen*, *He Yin Yang*, *Za Jin Fang*, *Tian Xia Zhi Dao Tan* and *Dao Yin Tu* would be classified as *shen xian*. The books excavated, then, cover the full range of medical fields. Despite this, absolutely no mention is made of acupuncture. This cannot be dismissed as a coincidence. The most suitable explanation is that acupuncture in fact did not yet exist.

With this in mind, let us reexamine the accounts given in *Zhuang Zi*, *Meng Zi*, *Zuo Zhuan*, and *The Historical Record*. The chapter on Dao Zhi in the *Zhuang Zi* is considered a work in the Warring States period.¹¹ If this is the case, the story certainly tells us that moxibustion was very widespread and well-established by that period. *Meng Zi* provides testimony that this time frame can be placed at least as far back as the middle of the Warring States period. The tenth year of the Duke Cheng’s period in *Zuo Zhuan* corresponds to 581 B.C., but the year in which *Zuo Zhuan* was compiled probably provides the most certain index of its contents. According to Yang Bo-jun, this year is between 403 B.C. and 386 B.C.¹² If we take this view to be true, then in order to acknowledge Du Yu’s interpretation, we must assume that acupuncture was established at the latest by

the beginning of the fourth century B.C. To "reach," however, was not a word exclusively linked to needles. Quoting a verse in *Yi Wen Lei Ju*, vol. 82, Kong Fan-zhi's work 'Ai Fu' states, "good medicines do not reach the affected part, and fine needles have no effect." There is no reason whatsoever the expressions "to reach" and "to attack" in *Zuo Zhuan* could not both have been in reference to medicines. By the period in which Du Yu lived, ancient medicine including moxibustion, acupuncture, and medicinal therapy had been systematized and had reached a certain level of completion. Looking at ancient literature through the eyes of his contemporaries, perhaps Du Yu's comments would have appeared to be a very natural interpretation. As it turns out, however, this interpretation was simply a product of the times. Finally, the medical knowledge found in the biography of Bian Que in *The Historical Record*, which, according to Cui Shi, is mostly allegorical, is in my opinion that of the era in which the author, Si-ma Qian, lived. I will examine this point in detail later.

Once we have freed ourselves of the fixed idea that the origins of acupuncture and moxibustion are exceedingly ancient, reading the literature that has come to be taken as proof of their ancientness, there can be no doubt as to a few points. Namely, moxibustion already existed by the middle of the Warring States period, and can of course be traced back as far as the beginning of the period, but acupuncture, as I shall discuss later, was not invented in the Warring States period until the era of Han Fei, at the earliest. The first mention of acupuncture therapy appears in works of the Western Han dynasty. This matches completely the realities suggested by the medical books excavated at the Mawangdui Han tomb.

I wish to reexamine the origins and development of acupuncture and moxibustion. The materials available for the task are certainly not plentiful, but by combining and analyzing the traditional materials and the newly discovered materials, I want to paint the clearest picture presently possible and define points of contention which merit deeper research in the future.

2

Since ancient times, the origins of acupuncture needles have been considered to lie with *bian shi* (*bian* stone). For example, concerning *zhen shi* (needle stones) mentioned in the Zhao Tai's biography of *Hou Han Shu* (*History of the Eastern Han Dynasty*, vol. 80), Li Xian and others in the Tang dynasty (618–907) noted that “the ancients used *bian* stones as needles.” A precursor to these assertions is found in Wang Seng-ru's biography in *Nan Shi* (*Southern History*, vol. 49). The attendant Quan Yuan-qi of the Liang dynasty (502–557), intending to annotate *The Basic Question*, asked Wang Seng-ru about *bian shi*. He answered, “the ancients undoubtedly made needles from stone, not iron. The character *bian* is found in the dictionary *Shuo Wen*, and according to the author Xu Shen (30–124), ‘stones are used to pierce diseased parts.’ The statement that needle stones are abundant on Mister Gao's mountain is found in *Dong Shan Jing*, and according to Guo Pu (276–324), ‘they are made into *bian* needles.’ In *Chun Qin*, we find the statement that good *chen* (rich food) is worse even than bad *shi*. According to Fu Zu-shen's notes, ‘stone’ here refers to *bian shi*. No good stones were left for posterity, so at this point iron needles took their place.” Posterity has yet, despite its best efforts, to come up with a better theory than Wang Seng-ru's.

It is not my intention to deny that *bian fa*, as the art of using *bian shi* will hereafter be called, is an origin of acupuncture. It seems to me, however, that *bian fa* is only one of several origins, and that acupuncture did not simply come into being when metal needles were replaced by stone needles. First of all, let us be sure that we understand what sort of thing the *bian shi* referred to in the ancient documents were. To begin with, we have the following from the document mentioned by Wang Seng-ru, Xu Shen's *Shuo Wen*, which dates from the Eastern Han dynasty:

“*Bian*. A stone used to pierce diseased parts.”

Bian refers to something which “pierces diseased parts.” Unfortunately,

it is unclear in what era it was written, but the following is found in the 'Dong Shan Jing' volume of *Shan Hai Jing*:

“On the top of Mister Gao’s mountain, jade is plentiful, and at the foot, *zhen shi* stones.”

Guo Pu noted that,

“They were used as *di zhen* (whetstone needles) to cure carbuncles.”

Hao Yi-xing of the Qing dynasty (1662–1911) stated that *di* should surely be an error of *bian*. It would be correct that Wang Seng-ru’s notes in *Nan Shi* quoted it, and state that one must replace the term “*di zhen*” with the term “*bian shi*.” An example of *bian shi* making *di shi*, however, exists in the later-cited *Han Fei Zi*. It seems quite possible that *bian shi* were also referred to as *di shi*. In any case, the word *bian* undoubtedly referred to the piercing of carbuncles and stone instruments used for that purpose.

Instruments simply referred to as “stones” were also taken to mean “*bian shi*.” According to the article in *Chun Qiu Zuo Zhuan*, Zang Sun said the following in the 23rd year of the Duke Xiang (558 B.C.):

“Li Sun’s love for myself is like *chen* disease. Meng Sun’s love for myself is like *yao shi* (medicine stone.) Good *chen* (rich food) is worse even than bad *shi*. Ultimately, *shi* brings one back to life, but in the case of rich *chen*, its poison grows even stronger.”

“*Chen*” here means delicacies, and “disease” refers to the illness caused by overeating. According to the explanation provided by Fu Qian at the end of the Western Han dynasty,

“‘Stone’ here means *bian shi*.”

As for “medicine-stones,” there are two meanings, which Yang Bo-jun summarized as follows:

“‘Medicine’ means things made from trees or plants which are supposed to cure diseases. ‘Stone’ means minerals such as stalactite, alum, and porcelain which are supposed to cure diseases. According

to other interpretations, it may be that 'stone' refers to *bianshi*, since *shi* were used for acupuncture."

His interpretation of "*shi*," of course, is based on Fu Qian's theory. In addition to the former, in 'Zhou Mu Wang' of *Lie Zi*, chap. 3, mention is made of something which "is not in a place that 'medicine-stones' can attack." When Zhang Kan of the Eastern Jin dynasty (317–419) wrote of "prescribing 'medicine-stones' to attack parts which are suffering," he interpreted "medicine-stone" to mean herbal drugs and minerals.

With exception of *The Inner Canon of the Yellow Emperor*, we find exceedingly few ancient documents which mention *bian shi*. We do find one such mention in an episode involving Bian Que in 'Record of Qin' of *Zhan Guo Ce (Records of the Warring States)*:

"The physician Bian Que went to see the King Wu of Qin. King Wu showed him his diseased part. Bian Que asked him to remove it. The attendants said to the King, 'Our King's diseased part was in front of your ear and below your eye, you would not necessarily be cured even if it were removed. You might lose hearing in the ear or vision in the eye.' When the King reported their opinions to Bian Que, he became angry and threw (*ton*) the stone . . ."

Gao You of the Eastern Han dynasty noted that,

"*Tou* here means *qi* (throw away). *Shi bian* (stone *bian*) are used to knock in carbuncles."

The correctness of Gao You's comment is proved by the following from the record of Han in the same book: a certain person said to a minister of the state of Han, "Bian Que is skillful when there is a carbuncle. Skillful though he may be, however, if there is no carbuncle, he cannot practice his skill." From 'Shuo Shan Xun' in *Huai Nan Zi*, vol. 16, we have the following:

"The patient lies in a chair. The physician uses needle-stones, or the shaman uses *xu ji* (rice offerings). Both try to attain the same goal."

Gao You noted about the above passage that,

“When stone needles are applied, it knocks into a person’s carbuncle, and the bad blood is released.”

The *bian shi* is a surgical instrument which, when applied to the affected body part of malignant festering ailments, extracts pus or bad blood.

This comment of Gao You relates directly to the 34th chapter entitled ‘Wai Chu Shuo’ in *Han Fei Zi*:

“When one suffers from fevered festering nodes or carbuncles, he cannot bear the pain in his chest, and he is alleviated by piercing the bone marrow. So long as the pain is not that severe, the knocking of a *di shi* of a half-*cun* (approximately 1.25 cm) into the patient cannot be countenanced.”

Even when in pain, unless one cannot stay still, there is no desire to have surgery done. A few facts are noteworthy here. First, the term *di shi* is used instead of *bian shi*; second, the size of the needle, which most likely refers to its width, is said to be a half-*cun*, which is quite small; third, *di shi* is something to *tan* (knock into) diseased parts; finally, the expression *ci* (pierce) is used for the inserting of a *di shi* deep into the body. The expression “pierce diseased parts (*ci bing*)” previously appeared in the quotation from *Shuo Wen*. The mention of “piercing” certainly brings the acupuncture techniques of later generations to mind. The following, however, from ‘An Wei’ in *Han Fei Zi*, chap. 25, proves this association incorrect:

“One hears that, in ancient times, Bian Que cured serious illnesses by piercing bones with a knife, and that the sages saved their imperiled countries by faithfully saying that which one did not wish to hear. Piercing bones causes the body some minor pain, but physically it is for the best in the long run. Saying that which one does not wish to hear may be a minor treachery, but it is all for the lasting well-being of the country. So those who suffer from serious diseases benefit from bearing pain. The sovereigns produce the

well-being by saying that which one does not wish to hear. By reason of bearing pain, Bian Que gives full play to his skill for the patient's sake. By saying that which others do not want to hear, one may save one's descendants. This is the art of peace and longevity. If one is sick but does not bear pain, the benefit of Bian Que's skill is lost. If one is in danger but dare not to listen that which one does not wish to hear, then the benefit of a sage's faithful heart is lost. If such is one's doing, benefits never last and glorious deeds are never achieved."

In this case the reference is to knives rather than *di shi*, but in either case considering the entire context, undoubtedly "piercing bones," like the previous expression "piercing the bone marrow," indicates surgery on festering diseased parts of the body. Later generations praise Bian Que as a master of acupuncture, but if we are to trust *Han Fei Zi*, he was known in his time for surgery, which reached as far as the bone, on festering body parts. Somewhere along the line, a change occurred; the process of "piercing festering parts," using "surgical instruments," came to be taken as the process of "piercing points on the body's *qi* meridians using 'needles'." Wei Bo-yang of the Eastern Han dynasty said in *Zhou Yi Can Tong Qi*, "Bian Que manipulates needles." Among the nine needles of early acupuncture, which were distinguished by shape and use, were surgical tools that inherited their shapes and uses directly from *bian shi*. For this reason, there was likely almost no psychological resistance to the change. The emergence of acupuncture was in fact a great milestone of innovation in the field of medical treatment technology. As shall be related later, the innovators were well aware of this fact. Despite this fact, one reason that the origins of acupuncture have been forgotten is certainly that, as illustrated by the change in nature of the legend of Bian Que, the transition from *bian shi* to needles occurred smoothly in the consciousness of the people of the time.

What does *bian shi* really mean? The character *bian* consists of the two elements *shi* and *fa*, but originally, the element *fa* was expressed as *jie*. The character *jie* is the same as the character *han*. According to *Shuo Wen*, *han*

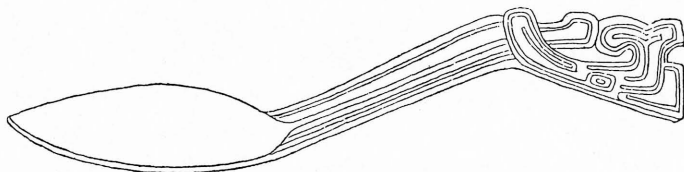


Figure 1: Guo Mo-ruo, *Jin Wen Yu Yi Zhi Yu*, Bunkiyudo Pub. Co., 1932, p. 35.

means “contain,” and its image is the appearance of the flowers of trees and plants that are not yet in bloom. Also, according to *Shuo Wen Tong Xun Ding Sheng*, the image given is “the shape of a bud at the tip of a stem.”

In this case, the ancient character for *bian* undoubtedly indicates a stone tool shaped like the bud at the tip of a stem. The character *di* in *di shi* corroborates this interpretation. The character *di* consists of the two elements *shi* (stone) and *di*, and the element *di* consists of the other element *shi* on *yi* (one). According to the inference of Guo Mo-ruo, the element *shi* would have been the original character *bi*, which meant “spoon.”¹³ He says, this coincides perfectly with Duan Yu-cai’s note in *Shuo Wen* that “ancient spoons (*bi*) were thin with a sharp neck” (see Fig. 1). The element *shi* on *yi*, then, actually means a spoon which has been placed on the ground, and *di shi* must have been a “stone tool which resembled a spoon placed on the ground and viewed from above.” In short, the original character “*bian*” and the character “*di*” signified the same shape; one likened it to the bud on the tip of a stem, the other to a spoon.

One more piece of corroborating evidence is another term, *chan shi*, which refers to *bian shi*. The left hand element *jin* of the character *chan* means metal, and the right-hand element *chan* is a word of similar meaning to *jie*. Furthermore, according to *Guang Yun*, people of the Wu region expressed a plow-share using the same element *chan*. Examining the Han dynasty stone etchings, one sees that the shape of the plow is the same as that of a bud at the tip of a stem, or of a spoon (see Fig. 2). The

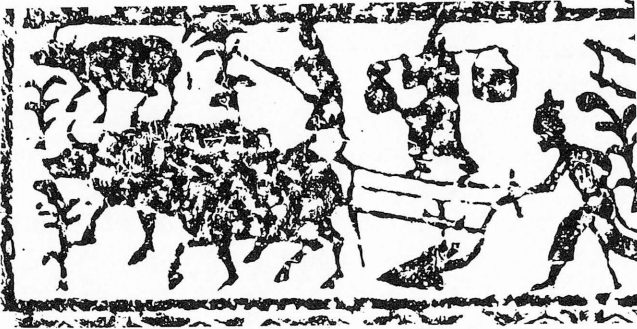


Figure 2: *Jiangsu Xuzhou Han Hua Xiang Shi*, ed. by Zhejiang Provincial Committee for the Management of Cultural Assets, Kexue Pub. Co., Beijing, 1959.

characters *bian*, *di*, and *chan* all imply the same shape.

Bian shi is also sometimes referred to as *zhen shi*. In Lin Yi's comments in 'Bao Ming Quan Xing Lun' in *The Basic Question*, chap. 25, Quan Yuan-qi's notes are quoted:

“*Bian shi*, used for an ancient method of external healing, have three names. One is *zhen shi* (needle-stone), the second is *bian shi*, and the third is *chan shi*. All of these are actually the same thing. In ancient times, before iron could be cast, stones were used as needles. These, then, were called *zhen shi*.”

The term *zhen shi* is generally interpreted as meaning a stone needle. In such cases, one is likely to picture a long, thin stick with a sharp point. Certainly, depending on the depth and size of the festering part, instruments of such a shape would have been necessary, and may actually have been made. Supposing, however, that *zhen* were exactly the same thing as *bian* or *chan*, as Quan Yuan-qi said, it is incorrect to picture an object resembling sewing needles. Rather, it would seem that the name *zhen* was given because of the deep piercing for which the instrument was used.

When the nine metal acupuncture needles were invented, at least two instruments which may be called the direct descendants of *bianshi* came

into existence. One was the *chan zhen*. In ‘Jiu Zhen Suo Xiang’ of *The Grand Basic*, vol. 21, or ‘Jiu Zhen Shi Er Yuan’ of *The Divine Pivot*, chap. 1, *chan zhen* is explained as follows: “the head is large, and the end is sharp. It is mainly used for restoring *yang qi*.” Its use is different from that of the *chan shi*, but the shape must surely be the same. Another descendant was called the *pi zhen* (or *fei zhen*), likewise, explained as “the end is like a sword’s point, and it is used to remove large festering sores.” In the chapter ‘Jian’ in the ‘Shi Bing’ volume in the dictionary *Shi Ming*, it is explained that “the end of a sword is called the point. This indicates the pointed end.” Its method of use was inherited from that of *bian shi*, but what of the shape? A hint lies in a weapon called *pi*. In *Fang Yan (The Dialect)*, vol. 9, we have that “*tan* (a pike) is called *pi*,” and Guo Pu notes that “in the Jiang-dong region, big *mao* (a kind of sword with long-handle like a spear) are now called *pi*.” Furthermore, in ‘Annals of Qin Shi Huang Di’ in *The Historical Record*, Pei Yin notes about *tan* that, “according to Ru Chun’s explanation, it is a long-edged *mao*.” In addition to big *mao* and long-edged *mao*, the term *pi* was also used to refer to a kind of sword. After its explanation as “a large needle,” *Shuo Wen* appended another explanation of “a sword (*jian*) which has been sheathed as if it were a blade (*dao*).” Duan Yu-cai noted the following:

“A *jian* is double-edged, whereas a *dao* is single-edged and differs in the hilt and sheath. Something that is a *jian* in reality but is enclosed with a sheath, that is called a *pi*.”

Again, according to Li Shan’s notes of ‘Wu Du Fu’ in *Wen Xuan*, vol. 5, the concept is somewhat confused, but we have that a *pi* is a double-bladed knife. Hayashi Minao seeks a trait of the *pi* which *jian* and *mao* have in common, namely being “thin and long,” and gives the *mao* in Figure 3 as one example.¹⁴ In short, one may assume that a *pi zhen* is a small *jian* which is long and thin and whose width tapers off gradually. The *chan zhen* inherits *bian shi*’s shape and the *pi zhen* inherits *bian shi*’s method of use. Incidentally, the expression *pi shi* is seen in ‘Wu Jie Ci’ in *The Grand Basic*, vol. 22, or ‘Ci Jie Zhen Xie’ of *The Divine Pivot*, chap. 75, where it is said to be used for urinary tract disorders. As the commenta-

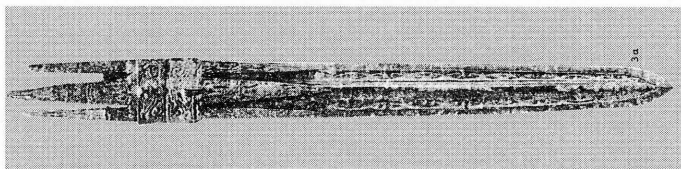


Figure 3: Over Karlbeck, 'Selected Objects from Ancient Shouchou', pl. 1, 3a, *The Museum of Far Eastern Antiquities, Bulletin*, No. 27, Stockholm, 1955.

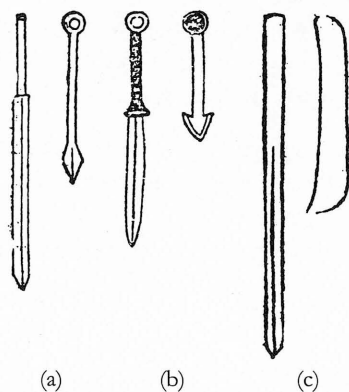


Figure 4: (a) *Zhen Jing Zhai Ying Ji*, author unknown, (b) *Zhen Jiu Da Cheng*, vol. 4, sketch of the nine needles (Renmin Weisheng Pub. Co. edition), (c) *Zhen Jiu Xue Jiang Yi*, ed. by the Shanghai College of Traditional Chinese Medicine, Department of Acupuncture and Moxibustion, fig. 2, sketch of the nine needles (Shanghai Kexue Yishu Pub. Co., 1960).

tor Yang Shang-shan points out, *fei shi* are the same as *fei zhen*, and are known to have had many uses other than the treatment of festering ailments. Furthermore, the expression *pi shi* may have been a vestige of a *pi* stone that once existed.

One of the nine needles, the *feng zhen* was used exclusively for phlebotomy. According to 'Jiu Zhen Suo Xiang', the shape was always a cylindrical pin with a sharpened point, "the blade was triple-edged," and was "used to remove fever and draw blood." This is the so-called triple-edged needle, and a genuine article, made of metal in the Western Han dynasty, has been unearthed (see p. 57, Figures 5 and 6). It was certainly used in the same manner as the *bian shi*, but it must have been difficult to make an instrument with three sharpened edges out of stone. I am

inclined to believe that this is an instrument that was invented when metal needles were being used.

A number of sketches of the nine needles as they looked in their original state exist. I have chosen here to display sketches (Fig. 4) of needles from (a) the Yuan dynasty, (b) the Ming dynasty, and (c) the present. *Chan zhen* needles are clearly closer to (b) and (c), whereas *pi zhen* are clearly closer to (b).

If the *chan zhen* and *pi zhen* were successors to *bian shi*, the implication is that *bian shi* would have been classified not as single-edged *dao*, but as double-edged *jian*. As *Han Fei Zi* says of surgery for festering ailments, both *zhen shi* and *dao* were used. In 'Yu Lao' of *Han Fei Zi*, chap. 21, and also, the term *zhen shi* is seen as in the words of Bian Que:

“Bian Que says, ‘If a disease is on the epidermis, bathing and poulticing may cure it. If a disease is in the subcutaneous parts, *zhen shi* may cure it. If a disease is in the stomach or intestines, *huo ji* (medicine prepared through an unknown process) may cure it. If a disease is in the bone marrow, then it is in the hands of fate, so there is nothing to be done.’”

This passage, as I shall relate later, is preserved with only a few alterations in the biography of Bian Que in *The Historical Record*. Let us first of all note that *zhen shi* are said to be limited in use to the subcutaneous parts. The use of *zhen shi* at the time is here precisely expressed.

At the end of the Warring States period, the era of Han Fei, who rated Bian Que as a famous master of surgery by *bian shi* or *dao*, it is obvious that that technology has long since been established. It is not clear when it was written, but the description in the volume entitled 'Tian Guan' in *Zhou Li* is worthy of note. According to this volume, there were the four different types of doctors, that is *shi yi* (food doctor), *ji yi* (disease doctor), *yang yi* (carbuncle doctor), and *shou yi* (veterinarian). The duties of carbuncle doctors, or surgeons, included, “treating tumors, ulcers, cuts, and fractures by adjusting spells (*zhu*), medicines (*yao*), scooping (*gua*) and removing (*sha*).” Zheng Xuan (127–200) of the Eastern Han dynasty noted that the character *gua* meant “to scoop out pus and blood,” and

sha meant “to use medicine to remove malignant flesh.” There is no saying whether or not the *gua* (scooping) means to use surgical instruments. The emphasis in this description is clearly on medicinal therapy as a whole. Because of the specialization of surgery, however, ways of operating and the use of *bian shi* techniques may have undergone rapid and multifaceted development. We do not know anything about the origins of *bian fa* or the use of *bian shi*, but one can easily imagine that the development would have occurred between the Chun Qiu and the Warring States periods. Bian Que was a symbol of this.

After the Wei and the Jin dynasties, knowledge of *bian fa* was quickly lost. In the *Bao Pu Zi* of Ge Hong (283–364) of the Eastern Jin dynasty, for example, *zhen bian* and *zhen shi* are mentioned only in metaphorical expressions. *Xin Lun*, whose author is unknown, but according to another view, it is Liu Hua of the Northern Qi dynasty (550–577), contains the following in the vol. 9 ‘Li Hai’:

“When a feverish case takes efficacious medicine, it is bound to do some damage, and when *bian shi* are used on carbuncles, it is bound to cause some pain. By doing this, however, major pain is reduced while minor pain is caused, and enormous damage is removed while minute damage is caused.”

In another passage, we have that “if abdominal growths have entered the chest, one dares not use *pi* on them.” The description is precise about the use of *bian shi* and *pi shi*, which may suggest in what era the author lived. When Quan Yuan-qi of Liang annotated *The Basic Question*, he had to ask Wang Seng-ru, who “knew about many ancient things” about these things. In the volume ‘Yi Wen Zhi’ in *Han Shu*, the following explanation of *yi jing* is found:

“The *yi jing* is a field of medicine that, examining the people’s blood and vessels, meridians and capillaries, bones and marrows, *yin* and *yang*, exterior and interior, make clear the origins of all sorts of diseases, and the boundary between life and death, ascertains whether *zhen shi* or *tang huo* (decoctions-fire) should be used, and

deals with all sorts of appropriate medicine and well prepared and adjusted preparations.”

Yan Shi-gu (581–645) in the early Tang dynasty notes with regard to *zhen shi* as follows:

“*Zhen* is a tool to pierce affected parts. *Shi* means *zhen shi*, or a stone needle. In ancient times, there was *bian* to attack affected parts, but this technique has not been handed down to the present.”

During the period between the end of the Warring States period when *bian shi* were still used as surgical tools and the beginning of the Wei-Jin dynasties when the technique was lost, that is to say in the Qin-Han dynasties, a major transformation occurred in medical treatment techniques.

In the 6th year of the rule of the Emperor Zhao (81 B.C.), a conference was held concerning the monopoly system, and a heated controversy arose between the government's and nongovernmental representatives. In ‘Qing Zhong’ of *Yan Tie Lun (Discourses on Salt and Iron)*, chap. 14, written by Heng Kuan (c. 73 B.C.), in which the contents of the conference were recorded, one of the representatives of the nonofficial intellectuals, Wen Xue (literate) argues as follows:

“Pien Ch’iao (Bian Que) diagnosed the cause of a disease by merely feeling the pulse of the patient. Where the positive fluid (*yang qi*) was over-developed, he would lessen it to harmonize with the negative (*yin*). When the cold fluid (*han qi*) was predominant, he would subdue it to harmonize the positive (*yang*). Consequently the vital fluid and the pulse were harmonized and balanced, and evil influences (*xie qi*) were unable to remain. The inferior physician does not know the lines of artery and vein, or the difference between the blood and the vital fluid. He stabs in his needle blindly without any effect on the disease, and only injures the skin and flesh. Now [the Government] desires to subtract from the superabundant to add to the needy. And yet the rich grow richer, and the poor grow poorer. Severe laws and penalties are intended to curb the tyrannical and

suppress malefactors. Yet the wicked still persist. Possibly these measures differ from the way Pien Ch'iao (Bian Que) used his acupuncture and probing (*zhen shi*), and hence the multitude have not felt their salutary effect." (*Discourses on Salt and Iron*, tr. by E. M. Gale, 1931, pp. 88–89)

The *zhen shi* referred to here is no longer a surgical instrument used on festering parts: it is none other than a tool for supplying or lessening *qi*, harmonizing *yin* and *yang*, and piercing points on the acupuncture meridians. The reply to this opinion by the government's representative Yu Shi (prosecutor) also contains the expression, "Nor is it merely a matter of employing *zhen shi*, equalizing surplus and want, or supplying the needy." Of course, the *zhen* of the time also included items like *pi zhen* used to remove pus. Likewise, in the 59th chapter entitled 'Da Lun', the chief Yu Shi says that, "it is similar to a quack using a short *zhen* to try to attack a carbuncle, and Confucius trying to use principles of propriety (*li*) to preach to Dao Zhi the thief." Clearly, however, the emphasis on the use of *zhen* had shifted. Wen Xue stated in response that, "Bian Que cuts off evil *qi* by attacking the epidermis, and therefore carbuncles cannot take shape."

This passage of *Yan Tie Lun* gives symbolic evidence that, by the middle of the Western Han dynasty, a definite change had taken place, and by later in the dynasty the intellectuals were familiar with the basics of acupuncture. So, then, how was this change reflected in the medical book, *The Inner Canon of the Yellow Emperor*?

3

Obviously, the book of the Han dynasty that makes most frequent mention of acupuncture and moxibustion is *The Inner Canon of the Yellow Emperor*. This work has come to be regarded as the authoritative writing on the basic theory of Chinese medicine, which it, in fact, undoubtedly is. Nonetheless, from the standpoint of medical technology, it is strictly

a book on acupuncture. We can see in it the prominent traits of Chinese medicine, that the basic theory of Chinese medicine developed in this realm. The conceit and ambition of the scholars who wrote *The Inner Canon of the Yellow Emperor* were found in the consciousness of being of the acupuncture school of medicine, and the endeavour to complete the acupuncture's techniques and theory. In the opening of 'Jiu Zhen Yao Dao' of *The Grand Basic*, vol. 21, the Yellow Emperor says to Qi Bo as follows:

“The people are my children; I rear everybody, and in return, I receive their taxes. I lament that, due to illness, their lives are cut short. I want to stop subjecting them to efficacious medicines and do away with the use of *bian shi*. I want to regulate and harmonize the circulation of the blood and *qi* by means of a small needle applied to the cardinal vessels and systematize the procedure connected with the regular and reverse circulation and the incoming and outgoing of the blood and *qi*, so that it may be passed on to future generations.”

He wants to make complete the technique by which, without the use of strong medicines or surgical knives, illnesses can be cured solely with a small needle, and furthermore, systematize the technique enough to pass them on to future generations.

Similarly in 'Ju Yong Ni Shun Ci' of *The Grand Basic*, vol. 23, or 'Yu Ban' of *The Divine Pivot*, chap. 60, we have a statement that, “only a needle can cure the people.” I see here the true self of the innovators who appeared bearing new medical techniques called acupuncture. It is my opinion that the Yellow Emperor school of medicine is none other than the school which consisted of these innovators. It was by no means the case that the techniques were developed timidly by simple extension of the technique of experience. Surely, it was based upon the premises of the accumulated techniques and theory of past ages. One can easily guess that these premises were *bian fa* and moxibustion. Nevertheless, acupuncture was in essence after all a novel invention.

How, then, did the members of the Yellow Emperor school, which

publicized acupuncture, evaluate, inherit, and place *bian fa* and moxibustion? If my supposition is correct and they felt the need to emphasize the justifiability and superiority of acupuncture, then it would not be surprising to find some clues to their arguments in *The Inner Canon of the Yellow Emperor*.

In the passage cited above from 'Jiu Zhen Yao Dao', it is from the standpoint of internal and external treatment that efficacious medicine and *bian shi* are contrasted. In the same manner, in 'Zhi Zhu You' (*The Grand Basic*, vol. 19), or 'Yi Jing Bian Qi Lun' (*The Basic Question*, chap. 13), we have that, "the interior is healed by efficacious medicine,¹⁵ and the exterior by *zhen shi*." Likewise, in 'Zhi Gu Jin' of the former, or 'Tang Ye Lao Li Lun' of the latter vol. 14, we have that "*huo ji* and efficacious medicine are used to treat the interior, and *chan shi*, acupuncture and moxibustion are used to treat the exterior." This is in any case a comparison of the old and the new: the context of which questions why in remote ages diseases were cured by simple ways whereas the array of contemporary techniques in use fails to cure illnesses effectively. The technique contrasted along the lines of internal vs. external, i.e., efficacious medicine vs. *bian shi*, *huo ji*/efficacious medicine vs. *bian shi*/acupuncture and moxibustion, had already changed into "decoction (*tang ye*) vs. small needles" in 'Se Mai Zhen' (*The Grand Basic*, vol. 15), or 'Yi Jing Bian Qi Lun' (*The Basic Question*), as evidenced by the statement, "I want to treat the exterior with small needles, the interior with decoction." The passages classifying medical techniques according to internal and external treatment were all written by the physicians, which I believe to have belonged to the Yellow Emperor school of the later period. By this time, the techniques of acupuncture had already established themselves.

According to their distinction, medicinal therapy such as *huo ji* and efficacious medicine were representative of internal treatment, as opposed to external treatment, which consisted of techniques such as *bian fa*, acupuncture and moxibustion. The terms *bian shi*, small needles and *jiu ruo* (moxibustion) were used, as well as the expressions *chan shi* and *zhen ai* (acupuncture and moxibustion). In the entire text of *The Inner Canon of the Yellow Emperor*, the latter type of compound terms, that is to

say, *ci jiu/ bian shi* (*The Basic Question*, chap. 77 ‘Xu Wu Guo Lun’, chap. 76 ‘Shi Cong Rong Lun’, *The Grand Basic*, vol. 16 ‘Mai Lun’), *jiu ci/ zhen shi* (*The Grand Basic*, vol. 19 ‘Zhi Xing Zhi Suo Yi’, *The Basic Question*, chap. 24 ‘Xue Qi Xing Zhi Pian’, *The Divine Pivot*, chap. 78 ‘Jiu Zhen Lun’), *chan shi/ jiu ci* (*The Grand Basic*, vol. 13 ‘Zhong Shen Bing’, *The Basic Question*, chap. 47 ‘Qi Bing Lun’), and *shi/ zhen jiu* (*The Grand Basic*, vol. 19 ‘Zhi Zhen Shi’, *The Basic Question*, chap. 46 ‘Bing Neng Lun’), are the most common. I want to point out that among these, the two chapters of *The Basic Question*, which uses the term *ci jiu/ zhen shi*, is the early work of a splinter group of the Yellow Emperor school.¹⁶ By the same token there was the same expression, “Why do I realize that trying to live by the use of *ci jiu* is no illusion?” in ‘Jing Shen Xun’ of *Huai Nan Zi*, vol. 7. *Ci jiu* or *jiu ci*, then was the oldest term for acupuncture and moxibustion therapy.

Nomenclature is at the same time a form of classification. In the aforementioned volumes, contrary to the expectations of those who look for the origins of acupuncture in *bian fa*, a distinction is made between the *bian shi* (or *zhen shi*, *chan shi* and *shi*) and *ci jiu* (or *jiu ci* and *zhen ai*), and they are even contrasted. Acupuncture is classified as more akin to moxibustion than to *bian fa*. When contrasted with *bian fa*, it is understood as belonging to the same group as moxibustion. It cannot be denied that accounts which draw a distinction between acupuncture and moxibustion are plentiful. This classification by physicians of the Han dynasty is noteworthy, since things placed in the same category generally have essentially common characters. If this is the case, then it suggests that moxibustion is an origin more intrinsically linked to acupuncture than is *bian fa*.

What meaning and position, then, are given to acupuncture and moxibustion in *The Inner Canon of the Yellow Emperor*, whose nucleus is acupuncture? The terms *bian shi*, *chan shi*, and *zhen shi* are used to mean three different things. One represents advanced medical techniques, the second is, so to speak, the ancient name for needles, and the third is an original surgical tool. To begin with, let us examine the first example. The chapter entitled ‘Zhi Si Shi Lun’ of *The Basic Question* present four

basic rules to avoid when treating illness. The first is performing an examination without knowledge of fundamental theory, the second is “using *bian shi* recklessly” without thorough regular training, the third is being ignorant of the patient’s type as attributed to environment, constitution, temperament and so on, and the fourth is immediately taking the patient’s pulse and examining him without asking about his worries, everyday life, meal, medical history and so on. “These,” the work states, “are the four failures of treatment.” In ‘Ren Ying Mai Kou Zhen’ (*The Grand Basic*, vol. 14), or ‘Wu Zang Bie Lun’ (*The Basic Question*, chap. 11), we have the statement in which deities and *chan shi* are contrasted; “Those who pray to the deities cannot discuss the ultimate cure, just as those who dislike *chan shi* cannot discuss the ultimate technique.”

The second example is seen in all the writings of the later period. According to ‘Zhi Zhen Shi’ (*The Grand Basic*, vol. 19), or ‘Bao Ming Quan Xing Lun’ (*The Basic Question*), acupuncture has five distinguishing features. The third is “knowing the use of efficacious medicine.” The fourth is “manufacturing the many sizes of *bian shi*.” Yang Shang-shan’s notes take this to be a surgical tool “with which carbuncles are cut open,” but Wang Bing interprets it as “the ancients used *bian shi* as needles, so instead of referring to the nine needles, they just talked about *bian shi*.” Distinctions could be made as to whether the use of needles or medicine was more appropriate for various illnesses, and needles of a variety of sizes and shapes could be manufactured according to the symptoms to be treated. In these points the author has seen the advantages of acupuncture. In ‘Zhong Shen Bing’ of *The Grand Basic*, or ‘Qi Bing Lun’ of *The Basic Question*, giving explanation for the passage, “the *Ci Fa* says, one doesn’t have to cause illness by lessening deficiencies and increasing excesses,” it is said that “‘deficiencies’ here indicates physical feebleness for which *chan shi* must not be used.” As we already know, in *The Inner Canon of the Yellow Emperor*, the term *zhen* is often replaced by the term *ci*. *Ci fa* is synonymous with *zhen fa*. In addition, in ‘Yin Yang Za Shuo’ (*The Grand Basic*, vol. 3), or ‘Jin Kui Zhen Yan Lun’ (*The Basic Question*, chap. 4), in which winter and spring illnesses are classified as being in the *yin* part of the body, whereas summer and autumn illnesses

in the *yang* part of the body, we have that “In my case, one observes the location and performs acupuncture in that place.” In *The Divine Pivot*, chap. 53 ‘Lun Tong’, bodies have such individual differences as strength and musculature, toughness of flesh, thickness of skin and delicacy of epidermis, then asks “what about the pain of *zhen shi* and *buo ruo* (moxibution)?” In this case, the term *zhen shi* of course refers to needles.

Nonetheless, the most frequent use of the term *bian shi* is in reference to surgical tools. According to ‘Zhi Xing Zhi Suo Yi’ (*The Grand Basic*), or ‘Xue Qi Xing Zhi Pian’ (*The Basic Question*), or ‘Jiu Zhen Lun’ (*The Divine Pivot*), ailments of the veins should be treated with *jin ci*, those of the muscles with *yun jin*, those of the flesh with *zhen shi*, hoarseness with medicine, and paralysis with massage and unrefined alcoholic drink. In this case, ailments residing in the flesh probably indicates carbuncles. Likewise, ‘Zhi Fang Di’ (*The Grand Basic*), or ‘Yi Fa Fang Yi Lun’ (*The Basic Question*) advises that *bian shi* are good for the treatment of carbuncles. According to ‘Shun Shi’ (*The Grand Basic*, vol. 30), or ‘Tong Ping Xu Shi Lun’ (*The Basic Question*, chap. 28), medicine is more commonly used than *zhen shi* during the winter, because the skin is shrunken and tight, but “though *zhen shi* are little-used, carbuncles are an exception. Carbuncles allow no time for hesitation.” The *zhen shi* referred to here are needles used to pierce meridian points, but we know from the meaning of the sentence that *zhen shi* generally indicates a surgical instrument. We have a fairly concrete passage about surgery on carbuncles in ‘Yong Ju’ (*The Grand Basic*, vol. 26, or *The Divine Pivot*, chap. 81).

“A *mi ju* is the name given to a hard, red growth beneath the armpit. To cure it, one uses a *zhen shi*, which should be long and thin. Often, it is cut out with *bian*, then suet is applied to the wound. It will heal in six days, and must not be bandaged.”

According to Yang Shang-shan, the reason that the *zhen shi* “must be long and thin” is that “the wound is deep.” Of course, then, a long, thin *bian shi* would have been needed.

Metal needles are often referred to either as *wei zhen* (minute needles) or *xiao zhen* (small needles). These expressions reflect the pride of the

physicians of the Yellow Emperor school, and when they use the terms *wei* (small) and *xiao* (minute) to refer to the needles, it is probably in comparison to *bian shi*. That being said, as previously mentioned, among acupuncture needles were items which inherited the functions of *bian shi*. In 'Ju Yong Ni Shun Ci' of *The Grand Basic*, or 'Yu Ban' of *The Divine Pivot*, we find the following:

“When using something small to cure something small, success is also small. When using something large to cure something large, damage is largely done. For this reason, for festering parts, only *jie shi* and *pai feng* are appropriate.”

Pai feng signifies *pi zhen* and *feng zhen*. *Feng zhen* are needles used for bloodletting. Yang Shang-shan, ignoring *feng zhen*, says that carbuncles are difficult to cure with small needles, and on the contrary with large needles, the wound becomes large. Furthermore, only *bian shi* and *pi zhen* can be used on festering parts. In this statement, *bian shi* and *pi zhen* are consciously classified in one category. By the same token, *chang zhen* (long needle), which is one of the nine needles, is described as *da zhen* (large needle) (*The Grand Basic*, vol. 21 'Jiu Zhen Suo Xiang'). The opinions of how it was used are divided in later generations when the single word *shi* (stone) is used. Such is the case in the following passage from 'Zhi Zhen Shi' of *The Grand Basic*, or 'Bing Neng Lun' of *The Basic Question*:

“The Yellow Emperor asked Qi Bo, ‘A person on whom a carbuncle had formed on the neck was cured completely with a stone or acupuncture and moxibustion. Wherein lies the truth?’ Qi Bo answered, ‘the name is the same, but the degree is different. If the *qi* of a carbuncle is in a state of *xi*, then one may use a needle (*zhen*) to open it and clear it away. If there is a surplus of *qi* and blood is gathering, then one may remove it with a stone (*shi*). The illness is the same, but the methods vary.”

According to Yang Shang-shan, “the degree is different” here refers to the difference in treatment, and “*xi*” means to increase. According to Wang Bing, “the degree is different” means that seemingly similar tu-

mors on the neck are in different in condition under the skin, and that “*xi*” refers to dead flesh. Wang Bing writes, “the stone referred to is a *bian shi*. With it, a festering area is broken open, and the pus is released. *Bian shi* have now been replaced by *fei zhen*.” This is more of an explanation of *bian shi*, and does not amount to an explanation of the text, but at least a clear limit is placed upon the way that *bian shi* was used. By contrast, Yang Shang-shan, dealing first of all with needles, writes,

“If the *qi* of a carbuncle is increasing, one may use a needle to open a hole and remove it.”

In the case of stones, he writes,

“If there is a surplus of *qi*, and blood is gathering, but it is not yet festering, then it should be compressed with a stone and the *qi* removed. If the *qi* is active, and blood and pus are gathering, then needle of *jie shi* should be used to lessen it.”

The author has divided the symptoms of carbuncles into three stages: There is an early, a middle, and a late stage. His interpretation is that, during the early stage, when the carbuncle has just begun to form, *zhen* are to be used. During the middle stage, when it has not yet begun to fester, stones are to be used. During the late stage, when it has begun to fester, needles of *jie shi* are to be used. Whereas Wang Bing regarded “*shi*” as *zhen shi*, Yang Shang-shan thought of them as *jie shi* and stones. According to Yang Shang-shan, the reason that different nomenclature is used for the same item is that there were two different categories of its use as a tool, and a “stone” was an item used to “compress”; hence, a tool used in the application of poultices.

Yang Shang-shan expresses his interpretation of “stones” as being used in poultices in the notes of the ‘Yong Ju’ chapter of *The Grand Basic*, or *The Divine Pivot*. Here, we find that, “a growth which forms on the knee is called a *ci ju*. It is a large, hard carbuncle with no discoloration, and causes chills on the surface and fever inside. Stones must not be used on it, or death will result. When it is soft, however, then a stone is used and the patient lives.” Yang notes that in the phrase “stones must

not be used . . .” all texts but this use the word *bian* instead of “stone.” The term “stone” is used here only; “perhaps a cold stone was used to compress,” and, “for this reason, it was not used on a hard object, since the chills would accumulate. If it was found to be soft, then stones should be used.” Continuing, he notes about the passage, “a growth on the ankle is called a *zou huan*. There is no discoloration. Often, death is prevented by using a stone on vital points and stopping the fever and chills,” that “using a stone on vital points means using a cold stone to compress these points at which the formation of the growth originated.” Furthermore, about the passage near the end of the same chapter of *The Grand Basic*, or ‘Fu Zhong Lun’ of *The Basic Question*, chap. 40,

“The Yellow Emperor asked Qi Bo, ‘a person is afflicted with a growth . . . what should one do to cure it?’ (Qi Bo) answered, ‘if you use moxibustion on it, he will become mute. If you use a stone on it, he will lose his mind. You should adjust the balance between *yin* and *yang* to cure it.’ (The Emperor) asked, ‘why is this?’ Qi Bo answered, ‘there is an excess of *yang*, and if moxibustion is done, this *yang* will overcome the *yin*, and the patient will become mute. If a stone is used, then the *yang* will be void, and the patient will lose his mind. For complete recovery, the balance of *yin* and *yang* should be restored to cure the patient.”

Yang Shang-shan notes that “if you use moxibustion on it, he will become mute,” saying,

“There will result an excess of *yang* and a lack of *yin*. If moxibustion is performed, the fire is hot, and the *yang* in its abundance will overflow and overcome the *yin*, resulting in muteness. If a cold stone is used for compression, *yin* will be abundant, and there will be a lack of *yang*. Because of the void of *yang*, madness results. It is better to let the balance return naturally, then treat the patient afterwards, for complete recovery.”

Whereas Yang Shang-shan took “stone” to refer to the use of cold stones in poultices, Wang Bing has a different interpretation of the

term's meaning: we have from him that, "'stone' here refers to breaking open (a growth) with a stone needle." There is a contrast in opinions in the Tang dynasty as to the meaning of stone: Wang Bing takes the "stone" to be a surgical instrument, whereas Yang Shang-shan takes it to be both a surgical instrument and an instrument used to apply poultices. Actually, there is room for one more hypothesis: it seems to me that if *bian shi* were long and thin, they would surely be ineffective instruments for the application of poultices. As long as a *bian shi* is long and thin, there can be no doubt that the shape of such a stone would be completely different from that of a stone used for poultices. One wonders whether the same name would really be used for two medical instruments with different shapes as well as different functions. It seems, then, that "stone" refers not to *bian shi*, but to a stone instrument used for the application of poultices. There are no unequivocal examples of the word "stone" being used to refer to *bian shi* in *The Inner Canon of the Yellow Emperor*, so there is plenty of room to establish this third interpretation. The validity of any theory, however, must be corroborated by other materials. I shall in fact attempt to do so at a later point.

We must also note the following passage from the 'Mai Lun' chapter of *The Grand Basic*, or the 'Shi Cong Rong Lun' chapter of *The Basic Question*:

"Lei Gong said, 'there is a patient who suffers from fatigued limbs, coughing, and leaking blood. An ignorant practitioner diagnosed it as damaged lungs. . . . Not daring to treat it, the unskillful doctor used a *bian* for bloodletting, and cured it. There was a great deal of bleeding and after it was stopped, the patient felt better. What is the meaning of this?'"

"Leaking blood" here refers to vomiting blood. The Yellow Emperor answered Lei Gong, saying that in the case of damaged lungs, "if there is no nosebleed, there will be vomiting." Yang Shang-shan interprets Lei Gong's words as follows:

“An ignorant practitioner diagnosed the problem as damaged lungs, but Lei Gong did not cure it as there was a dubious point. The unskillful doctor, without calculation carefully, used a *bian shi* immediately and released the blood, which in many cases cures the diseases in question. Then, although it is not suitable for serious illnesses, bloodletting can get rid of some diseases. What is the reason?”

There is no doubt here, since *bian shi* are referred to as bloodletting instruments both in Yang’s notes and the main text’s passages on symptoms and treatments. It is just one example, but it does prove with certainty that *bian shi* were instruments used for bloodletting.

The two applications of *bian shi* mentioned in *The Inner Canon of the Yellow Emperor* are surgery on festering areas and bloodletting. Furthermore, Yang Shang-shan regards “stones” as both surgical instruments and instruments used for applying poultices, but Wang Bing does not accept this interpretation. We have already dealt with the possibility that the term “stone” refers not to *bianshi* but to instruments used exclusively for the application of poultices.

What sort of position, then, was given to moxibustion in the medical system of *The Inner Canon of the Yellow Emperor*, which emphasizes acupuncture? This is quickly clarified and fundamentally established in a work which I consider to be one of the oldest works of the Yellow Emperor school, an untitled chapter in *The Grand Basic*, vol. 8 (hereafter referred to as ‘Jing Mai’, since the work is entitled ‘Jing Mai’ in the 10th chapter of *The Divine Pivot*): Namely, “if there is a surplus, lessen it. If there is a want, add to it. If there is a fever, pierce it quickly. If there are chills, leave (the needles) in place. If it is caving in, perform moxibustion on it. If there is neither surplus nor a want, treat it through the cardinal vessels.” Performing moxibustion when the pulse is “caving in” is fundamental. These simple and clear fundamentals would naturally have had to have been applied during actual treatment according to the specific conditions of the clinical case. This is dealt with in ‘Ren Ying Mai Kou

Zhen' (*The Grand Basic*, vol. 14), or 'Jin Fu' (*The Divine Pivot*, chap. 48). It is conceivable that the author of 'Jing Mai' extracted one of the most fundamental modes of operation from this work.

The method of diagnosis described in 'Ren Ying Mai Kou Zhen' involves determining the proper treatment by means of a diagnosis of the pulse. The strength of the pulse in the wrist's *cun kou*, which "governs the interior," is compared with that of the neck's *ren ying*, which "governs the exterior": "If the *ren ying* is the same strength as the *cun kou*, then the illness is in the *shao yang* vessel. If the *ren ying* is twice the strength of the *cun kou*, then the illness is in the *tai yang* vessel. If three times the strength, then the illness is in the *yang ming* vessel." With these symptoms, when the *ren ying*'s condition "is a surplus, a fever develops. When it is empty, chills develop. When it is tense, pain and numbness follow. When it is intermittent, the illness is sometimes severe, and alternately, sometimes calm." According to Yang Shang-shan's notes, "when the *qi* is moving and in a tense state, it is something like hurried," whereas "'intermittent' means stopped. The term 'intermittent' is used because the pulse has paused, not stopped. When the pulse is intermittent, a malignancy has lodged itself in the blood of the capillaries, and is affected by food or drink, so the illness is sometimes severe, and alternately, with intervals of calm." According to the symptoms, the following treatments are used: "If there is a surplus, lessen it. If it is tense and painful, pierce the muscles. If it is intermittent, perform a bloodletting from a capillary and have the patient take medicine. If it is caving in, use moxibustion. If there is neither surplus nor void, treat it through the cardinal vessels." This time, by contrast, we have that, "If the *cun kou* is the same strength as the *ren ying*, then the illness is in the *jue yin*. If the *cun kou* is twice the strength of the *ren ying*, then the illness is in the *shao yin*. If it is three times the strength, then it is in the *tai yin*." The above-mentioned symptoms are described as follows: "If there is a surplus, there is swelling, *han zhong*, and indigestion. If empty, then there is *re zhong*, inflammation, lack of *qi*, discoloration of urine, and an outpouring of porridge. If it is tense, then there is numbness. If it is intermittent, then the pain becomes intense and then stops instantaneously." *Han*

zhong and *re zhong* refer to “chills” and “fever” in the stomach and bowels. According to Yang Shang-shan, in the former case, there are chills and indigestion, whereas in the latter, there is fever accompanied by porridge-like stools and yellow urine. In such cases, the treatment is as follows: “If there is a surplus, lessen it. If it is void, add to it. If it is tense, use a needle and then moxibustion. If it is intermittent, perform a bloodletting from a capillary. If it is caving in, just use moxibustion. . . . If there is neither a surplus nor void, then treat it through the cardinal vessels.” Further, if the *ren ying* is four times the strength of the *cun kou*, it is called *wai ge*, and if the *cun kou* is four times the strength of the *ren ying*, it is called *nei guan*. Both of these conditions were incurable. Thus, this diagnosis of the pulse must have been a method of “determining life or death.”

One can easily see that there are common elements in the two methods of treatment based on the comparison of the *ren ying* and the *cun kou* pulses. Taking these, we can probably form a single fundamental principle. As a matter of fact, the author of this volume goes on to say, “according to the principle, if there is a surplus, ‘just’ lessen it. If it is void, then just compensate for it. If it is tense, then use acupuncture and moxibustion and give medicine. If it is caving in, then perform moxibustion. If there is neither surplus nor void, then treat it through the cardinal vessels.” “Just” here means that instead of combining two treatments, for example performing moxibustion after acupuncture, one treatment is used by itself. In this summary, however, under “tense,” the cases described as “tense” and “intermittent” are described, and moreover three treatments, moxibustion, acupuncture and medicine, are used in combination. This, then, is too complicated and too unusual to be regarded as fundamental. Accordingly in the ‘Jing Mai’ chapter, the case described as “tense” was set aside, and a concise thesis based on fundamental principles was formed.

Moxibustion is a supplementary treatment to acupuncture, and its use in cases where the pulse is “caved in” is an important fundamental of the Yellow Emperor school. In ‘Fu Bing He Shu’ (*The Grand Basic*, vol. 11), or ‘Xie Qi Zang Fu Bing Xing’ (*The Divine Pivot*), we have that, “if the

pulse is observed to be caving in, then moxibustion is performed.” Secondary conditions are specified, and the first is the one described as “tense.” In ‘Zhi Guan Neng’ (*The Grand Basic*, vol. 19), or ‘Guan Neng’ (*The Divine Pivot*, chap. 4), we have that, “fire is good for places where needles cannot be used,” which indicates this supplementary role. Replacing the terms surplus/void in the previously stated thesis with upper/lower and *yin/yang*, we have, “If the upper (chest) *qi* is insufficient, then increase it. If lower (abdomen) *qi* is insufficient, then accumulate it. Furthermore, if void of both *yin* and *yang*, then just treat with fire.” From the standpoint of *yin* and *yang*, this makes it clear that moxibustion is used when there is a lack both of *yin* and of *yang*. The passage continues, saying that, “if the cardinal vessels cave in, then fire is used. If the intersections of the body’s capillaries are stiff and tense, then this is a place to be treated with fire.”

What, then, is there to be seen from the standpoint of “emptiness and fullness (*xu shi*)?” In ‘Jing Luo Xu Shi’ (*The Grand Basic*, vol. 30), or ‘Tong Ping Xu Shi Lun’ (*The Basic Question*, chap. 28), we have that, “if the capillaries are full and the cardinal vessels are empty, then perform moxibustion on the *yin* and acupuncture on the *yang*. If the cardinal vessels are full and the capillaries empty, then perform acupuncture on the *yin* and moxibustion on the *yang*.” The cardinal vessels are *yin*, and the capillaries are *yang*. “*Shi*” here corresponds to “fullness” or “surplus.” Furthermore, in ‘Qi Xue’ (*The Grand Basic*, vol. 11), or ‘Bei Shu’ (*The Divine Pivot*, chap. 51), the fundamental principle is said to be, “if there is a surplus of *qi*, lessen it, and if it is empty, supply to it.” In such cases, the main function of moxibustion would be to “supply,” but this chapter reports that there was a technique by which moxibustion could be used to “lessen” *qi*: “When using fire to supply *qi*, wait for the fire to go out without blowing on it. When using fire to lessen *qi*, blow quickly on the fire, attach the moxa, and wait for the fire to go out.”

With these fundamental principles and techniques, it seems that moxibustion must have been applied to a wide range of symptoms. As a matter of fact, *Zhen Jiu Jia Yi Jing* by Huang-fu Mi of the Jin dynasty, relying theoretically upon *The Inner Canon of the Yellow Emperor*, instructs

the use of needles and the use of moxibustion on all of the meridial points. In *The Inner Canon of the Yellow Emperor*, however, there are very few actual examples of moxibustion being used. There are only scattered references to special symptoms such as leprosy and madness (*The Grand Basic*, vol. 30 'Lai Ji' and 'Jing Kuang', *The Divine Pivot*, chap. 22 'Lai Kuang'), *da feng* (mental illness) (*The Grand Basic*, vol. 11 'Gu Kong', *The Basic Question*, chap. 60 'Gu Kong Lun'), damage from illnesses in which carbuncles form in the armpits of women (*The Grand Basic* and *The Divine Pivot*, 'Yong Ju'), ague of malaria fever (*The Grand Basic*, vol. 30 'Ci Nü Jie Du', *The Basic Question*, vol. 10 'Ci Nü Pian'), and acute seizures (*The Basic Question*, chap. 19 'Yu Ji Zhen Zang Lun'). In addition, in 'Shi Er Shui' (*The Grand Basic*, vol. 5), or 'Jing Shui' (*The Divine Pivot*, chap. 12), there is a passage on the bad effects if moxibustion is overdone, and in 'Ren Ying Mai Kou Zhen' (*The Grand Basic*), or 'Zong Shi' (*The Divine Pivot*, chap. 9), there is a note not to perform moxibustion "when both *yin* and *yang* are insufficient." These are the only instances in which moxibustion is mentioned.

In *The Inner Canon of the Yellow Emperor*, acupuncture and moxibustion are referred to together in such terms as *ci jiu* and *zhen ai*, and from this it would appear that, theoretically, the two have equal status. The truth, however, is that moxibustion was given the status of a function merely supplementary to that of acupuncture. The status which the Yellow Emperor school gave to moxibustion is illustrated by the following interview in 'Za Ci' (*The Grand Basic*, vol. 23), or 'Si Shi Qi' (*The Divine Pivot*, chap. 19):

"The Yellow Emperor asked Qi Bo, 'each of the four seasons has its own form of expressing its *qi*. Because of this, illnesses differ according to the season in which they occur. What is valued about the way of acupuncture and moxibustion therapy?' Qi Bo answered, 'there are points at which the *qi* of the four seasons resides in the body. The ability to pierce these points with a needle is valued. For that reason, in the spring, certain cardinal vessels in the muscles are pierced. For serious illnesses, one pierces deeply. . . . When the ill-

ness has gotten somewhat better, one pierces shallowly. In the winter, one always pierces the *jin* and *rong* points deeply, and leaves (the needles) in place.”

Although “the way of acupuncture and moxibustion” is referred to, the fact is that only acupuncture is discussed. It seems that “acupuncture and moxibustion” (*jin ci*) is simply an idiom that refers to acupuncture. Conversely, however, it seems to me that the fact that such an idiom existed suggests the history prior to the establishment of acupuncture.

4

The important writings concerning medicine in the Han dynasty are the biographies of the two doctors Bian Que and Cang Gong in *The Historical Record*. The date at which this work was written is known; it was written around 100 B.C. The only problem is the point that Sima Qian used materials of entirely different natures to write the two biographies.

As I have already related, the majority of the biography of Bian Que is made up of legendary elements. For this reason, there is a high possibility that the medical knowledge of Sima Qian’s day may have been mixed into the contents of the account. This is not the case with the biography of Cang Gong. The majority of this account consists of twenty-five clinical charts prepared by Cang Gong, or Chun-yu Yi. There is virtually no room for doubt that these charts were actually written by Chun-yu Yi, since these are not the sorts of diagnoses that could have been made by a layman. The following are Chun-yu Yi’s own comments:

“I record my diagnoses whenever I examine a patient. The reason that I write a separate record is as follows. Just at the point when I had learned medicine, my teacher passed away. Thus, by recording my diagnoses, I can predict when a patient will live or die, and I can see whether my diagnosis is right or wrong, and adjust the methods of treating the vessels (*mai fa*) that my teacher taught me. Owing to the records, I can understand the *mai fa* now.”

As Takigawa Kametaro indicates, the records of diagnoses was termed *zhen ji* (clinical charts), and recording the diagnoses onto these charts was called *biao ji*. It is doubtless true that, as he said, "the medical records in the twenty-five cases of Cang Gong were extracts of these." Let us examine the circumstances at the time.

In the fourth year of the Emperor Wen's reign (167 B.C.), Chun-yu Yi was accused of a crime and sent to Chang'an, but escaped punishment thanks to his daughter's letter to the throne. This was the incident which led to the abolition of corporal punishment. Afterward, in response to the Emperor Wen's request, Chun-yu Yi composed a document featuring the twenty-five cases of medical records and also including accounts of his masters and students. It is likely that Sima Qian transplanted this writing directly into the biography of Cang Gong. Sima Qian's contribution to the work probably consisted of no more than writing a brief preface or at most editing some of the work's rhetoric. If this is so, the clinical records which were the basis for the medical records were certainly the result of a lengthy career diagnosing illness which spanned the decade of 170 B.C., so the medical knowledge seen in the biography of Cang Gong can be taken to be the criteria of the era, and one can accept that time period. In short, the order in which the medical knowledge of the biographies of Bian Que and Cang Gong developed is the opposite of the order in which Bian Que and Cang Gong lived and died. It is likely that the biography of Cang Gong reveals the medical knowledge of the beginning of the Western Han dynasty, and that of Bian Que reveals the knowledge of the middle of the same dynasty. Let us begin by examining the treatment of *bian shi*, acupuncture and moxibustion in the biography of Bian Que.

There is mention of *chan shi* in the words of an official with some medical ability to Bian Que when he passed through the kingdom of Guo:

"I hear that, in ancient times, there was a physician named Yu Fu. To cure illnesses, he didn't use *tang ye* (decoction), *li sa*, *chan shi*, *jiao yin*, *an wu*, *du yu*, and the like."

Most likely, *li sa* is a mistaken version of *li jiu* (sweet drink made from fermented rice),¹⁷ *jiao yin* is *dao yin*, *an wu* is *an mo* (Chinese massage), and *du yu* is a poultice using medicinal substances. If the terms acupuncture and moxibustion are assumed to have been passed down from antiquity, it is very interesting that there is no description about these terms. By the way, in one passage of *The Inner Canon of the Yellow Emperor* (*The Grand Basic*, 'Zhi Gu Jin', *The Basic Question*, "Tang Ye Lao Li Lun"), we have the question, "why is it that the sages of ancient times made the decoction and unrefined alcoholic drink but did not use the product?" These words are found in a recurring reflective passage of *The Inner Canon of the Yellow Emperor* which states that in ancient times illnesses were treated with techniques which did not seem like techniques.

In the biography of Bian Que, there is only one concrete example of treatment, namely the case of *shi jue*, in which the prince of Guo is ill, but in that case, the illness is explained in terms of *yin* and *yang*, the cardinal vessels and the capillaries, and internal organs. Incidentally, the explanation and treatment of *shi jue* is found in *The Inner Canon of the Yellow Emperor* (*The Basic Question*, chap. 63 'Miu Ci Lun', *The Grand Basic*, vol. 13 'Liang Miu Ci').

In treating the prince of Guo, Bian Que started by using needles:

"Bian Que then had his apprentice, Zi-yang sharpen a needle with a whetstone, and used it to pierce the outer *san yang wu hui*."

San yang wu hui undoubtedly refers to points on the body, but there are conventionally three interpretations. The first, based on the passage in the 3rd volume of *Zhen Jiu Jia Yi Jing*, which states that, "another name for *bai hui* is *san yang wu hui*," is that the term refers to a point at the top of the head (*bai hui*). This is the interpretation espoused by Genkan Taki and others. The second interpretation is that *san yang* signifies three *yang* vessels, namely the *tai yang*, the *shao yang*, and the *yang ming* meridians, and that *wu hui* refers to the five points called *bai hui*, *xiong hui*, *ting hui*, *qi hui*, and *rao hui* respectively. This is Tang dynasty's Zhang Shou-jie's interpretation. The third interpretation is based on the mention of *san yang wu shu* in the 10th volume of *Han Shi Wai Zhuan*, which contains the same Bian

Que episode, and the chapter entitled 'Bian Wu' in *Shuo Yuan*. This is Sun Yi-rang's interpretation, which makes it out to be the ducts of the five organs. Each of these interpretations has weak points.

The first interpretation holds up if we take *san yang wu hui* to be the old name for the *bai hui* point. In *The Inner Canon of the Yellow Emperor*, however, only six points in the hands and feet are used in the treatment of *shi jue*. Can this really be no more than a difference between the schools of medicine? As for the second interpretation, the connection between *san yang* and *wu hui* is unclear, and the term *wu hui* is not seen in *The Inner Canon of the Yellow Emperor*. Moreover, my comments on the first interpretation also apply to the second. Regarding the third interpretation, *wu shu* (five medical points) referred to in *The Inner Canon of the Yellow Emperor* are five important points of the cardinal vessels of the five organs and six viscera respectively, called *jing*, *rong*, *shu*, *jing* and *he*. Here, *wu shu* is taken to refer to the five points of the three *yang* vessels. The question here is whether *wu hui* and *wu shu* are the same thing. A number of alterations were made to the sentences of *The Historical Record* in the cases of both *Han Shi Wai Zhuan* and *Shuo Yuan*, and there is a strong possibility that the term *wu shu* was used in place of *wu hui*, whose meaning had already been forgotten.

Whatever the correct notion of the meaning of *wu hui* in *The Inner Canon of the Yellow Emperor* may be, the biography of Bian Que's account of *shi jue* in its entirety displays chronological proximity to *The Inner Canon of the Yellow Emperor*. As proven by the two copies of *Shi Yi Mai Jiu Jing* excavated from the Mawangdui Han tomb, the notion of the three *yin* and three *yang* vessels had been forming at the time the work was written, though it is doubtful whether the idea of points existed or not, and even if the idea of points did exist, there is a great deal of doubt as to how many points had been discovered and named. Even in *Wu Shi Er Bing Fang*, conclusive evidence is nowhere to be found. In Bian Que's era, then, it is all the more unthinkable that the notions of the three *yin* and three *yang* vessels or the points would have existed. The medical knowledge of the biography of Bian Que must be taken to be a product either of Si-ma Qian's era or an era close to it.

One more passage in the biography of Bian Que refers to *zhen shi*:

“Bian Que says: If a disease is on the epidermis, bathing and poultices may cure it. If a disease is in the blood vessels, *zhen shi* may cure it. If a disease is in the stomach or intestines, unrefined fermented drink may cure it. If it is the bone marrow, there is nothing to be done, although it is said to be up to fate.”

The vital notion that the seriousness of a disease increases as it advances inward, a basic principle of *The Inner Canon of the Yellow Emperor*, is here clearly expressed. In extracting this passage from *Han Fei Zi*, Si-ma Qian altered three expressions. First, he changed “it is in the hands of fate” to “although it is said to be up to fate.” This is a change which calls attention to the different views on death and fate held by Han Fei, who saw life and death as the will of the god of fate, and that of Si-ma Qian, who believed in an even greater, transcending power. Second, “subcutaneous areas” is changed to “blood vessels.” Although the term *zhen shi* is used in both cases, blood vessels have replaced subcutaneous areas. Would it be inferring too much to assume that behind this was the revolution in technique marked by the transition from *bian shi* to needles? Third, *huo ji* has been changed to “unrefined fermented drink.” We will not deal with this point here.¹⁸ Nonetheless, the development of medicine in the century and a half between the time of Han Fei (295?–233 B.C.) and Si-ma Qian must be reflected in the latter’s expressions.

At this point, I would like to introduce an image of Bian Que from ‘Tai Zu Xun’ in *Huai Nan Zi*, vol. 20, which slightly predates *The Historical Record*:

“Those who revere Bian Que do not place importance on preparing medicine according to the disease, but upon discovering the cause of disease by placing his fingers on a patient’s pulse.”

This image of Bian Que is nearly that of Chun-yu Yi.

The discipline in which Chun-yu Yi received the greatest expertise from his teacher was the science of diagnosis, the focus of which was diagnosis of the vessels (*mai*). These diagnostics display a leap forward in

development placing it beyond all comparison with the writings excavated from the Mawangdui Han tomb such as *Zu Bi Shi Yi Mai Jiu Jing* or *Yin Yang Mai Si Hou*. It is said that Chun-yu Yi was given the writings of the diagnostics such as *Huang Di Bian Que Zhi Mai Shu* (The Yellow Emperor and Bian Que's Book on Vessels), *Mai Shu Shang Xia Jing* (The Two Chapters Book of Vessels) and other works by his teacher, and in his medical advice, he often cites the works connected with *mai fa* and *zhen fa* in the medical records. The former book's title suggests that a faction that revered the Yellow Emperor and Bian Que as originators had begun, but this is not all. For example, the citation, "according to *Mai Fa*, in the case of a fever, if the *yin* and the *yang* associate, the person will die," is found in *The Inner Canon of the Yellow Emperor* (*The Grand Basic*, vol. 25 'Re Bing Shuo', *The Basic Question*, chap. 33 'Ping Re Bing Lun'), as "the name of the illness is *yin yang jiao* (association of *yin* and *yang*), and the person in whom the two associate dies." It is found again in Wang Shu-he's work *Mai Jing* (vol. 7 'Re Bing Yin Yang Jiao') in the Jin dynasty, as "in the case of a fever, if the *yin* and *yang* associate, the person will die." This tells us that this writing was of central importance to the later development of the study of the vessels. The notions used by Chun-yu Yi have many things in common with *The Inner Canon of the Yellow Emperor*. At the same time, compared to *The Inner Canon of the Yellow Emperor*, on the whole, the medical content is less advanced. For one example, as I shall relate presently, there is no mention of the names of the meridial points. I cannot here enter into an investigation of the relationship between Chun-yu Yi's medical records and *The Inner Canon of the Yellow Emperor*, but for the time being I shall simply present my opinions as a hypothesis. Chun-yu Yi's medical records are from the time period between the writing of the medical books excavated at the Mawangdui Han tomb and the writings in *The Inner Canon of the Yellow Emperor*, and the majority of what now exists of this work was either written or came into its present form after the period in which Chun-yu Yi lived. This does not mean that the work does not contain writings from during or before the period in which Chun-yu Yi lived. Many of the work's independent essays which I have mentioned were written not

at one time by one person but over an extended period of time by several people, and finally completed by somebody.

Chun-yu Yi accomplished cures for fifteen out of twenty-five cases. Eighteen methods of treatment were used, and in three cases two types of method were used together. Of the eighteen methods, fourteen involved medicinal therapy, two involved acupuncture, and the remaining two involved moxibustion. By my standards, which state that the Yellow Emperor school was the acupuncture school, Chun-yu Yi does not belong to this school. He would probably be better classified as the eclectic school, which is focused on medicinal therapy. His mention of performing acupuncture and moxibustion is just as follows:

1. "Pierce all three points on the center of the sole, then cover it carefully so as not to draw blood."
2. "Pierce the *yang ming* vessel on the foot, all three points, both left and right."
3. "Perform moxibustion on the *jue yin* vessel of the foot, one point, both left and right."
4. "Perform moxibustion on the left *da yang ming* vessel."

As for the *da yang ming* vessel mentioned in number 4, according to Genkan Taki, *da* (big) becomes *shou* (hand) in *Zheng Lei Ben Cao*, and the character *ming* (bright) is not used in *Yi Shuo* at all. This is a treatment for dental cavities, and since we have in 'Liang Miu Ci' of *The Grand Basic*, or 'Miu Ci Lun' of *The Basic Question*, that "for dental cavities, the *yang ming* vessel in the hand is pierced," it would probably be correct to follow the example set by *Zheng Lei Ben Cao*. The disease referred to in number 1 is *re jue*, which causes fever in the hands and feet and constriction of the chest. The disease referred to in number 2 is *jue*, which causes headache, fever, and constriction of the chest. Number 3 is a treatment for *qi shan*, an illness characterized by abdominal pain and constipation. Unlike the *bian shi*, which are used for festering ailments, needles are used for a syndrome called *jue* disease, characterized by having a rush of *qi* (blood) to the head and dizziness. This tells us very plainly the differences be-

tween *bian fa* and acupuncture and that the transition from the former to the latter is only in a very limited category.

Of note here is the fact that two cardinal vessels and three points on the center of the sole are specified as places for acupuncture and moxibustion, and the fact that no names are given to specific points. This remains the same even if the purpose was to indicate the mistaken diagnoses and treatments of other physicians.

5. "Many physicians . . . pierced this."
6. "The chief court physician of the Qi state . . . performed moxibustion on the mouth of the *shao yang* vessel in the foot . . . and also on the *shao yin* vessel."
7. "Many physicians . . . pierced that *shao yang* vessel of the foot."
8. "I heard later that a physician had performed moxibustion on it, meaning that the illness became serious."

The fact that there are no names for points may be taken to mean that the notion of such points had not yet attained full growth, or that the location of the points had not been firmly established. In Chun-yu Yi's era, acupuncture and moxibustion were performed on vessels, or if not on the vessels then within a specified range. The biography of Bian Que, which makes mention of points, is thought with some certainty to reflect the knowledge accumulated after the era in which Chun-yu Yi lived. Incidentally, regarding the mistaken treatment in number 7, the corrective measures that Chun-yu Yi took are those described in number 3.

Some particularly meaningful expressions are found in the portion describing the tenets for curing disease:

9. "On those suffering from fatigue, acupuncture and moxibustion should not be performed on them. In addition, they should not be given efficacious medicine."
10. "A treatise says, if *yang* illness exists in the inner, and *yin* body is influenced from the outer, they should not be treated with efficacious medicine or needles (*chan shi*)."

11. "According to the basic rule for treatment this case is not to perform acupuncture and moxibustion (*bian jiu*), which will drive out the *qi* from the vessels."

Number 11 is related in reference to number 8. We also have number 12, as the curriculum he gave to his apprentice:

12. "I have taught him the illnesses and areas upon which to perform *chan shi* and *bian jiu* for the past year."

The expression *guan jiu* found in number 8 is most likely one method of moxibustion, since 'Wu Ci' of *The Grand Basic*, vol. 22, or 'Guan Zhen' of *The Divine Pivot*, chap. 7, one of the five ways of piercing is called *guan ci*. The terms *chan shi* and *bian jiu* are used here. Chun-yu Yi, however, gave up on patients once he had diagnosed them as having illnesses with festering carbuncles, and there is no evidence that he performed even simple surgery. It seems that surgery was rather his weak point. If this is the case, then we must take the mention of *chan shi* and *bian* here as indicating a needle. The fact that these ancient terms show up in the portions in which abstract tenets are related, not in the concrete accounts of therapeutic measures gives us a good account of what acupuncture inherited from *bian fa*. At the same time, the fact that *bian shi* came to be used as-is to mean "needle," no doubt suggests that it was a piercing tool. We must also not overlook the fact that the term *bian jiu*, which had already vanished when *The Inner Canon of the Yellow Emperor* was written is still used here. There can be no doubt that this is in recollection of an era in which *bian fa* and moxibustion existed, but acupuncture did not.

5

Among the books excavated at the Mawangdui Han tomb were two versions of *Shi Yi Mai Jiu Jing*, *Mai Fa*, and *Wu Shi Er Bing Fang*, in which there are statements pertaining to the present subject. As previously

mentioned, *Shi Yi Mai Jiu Jing* and *Mai Fa* are, like *The Inner Canon of the Yellow Emperor*, works which belong to the category known as *yi jing* (basic medicine, acupuncture and moxibustion), and they have profound connections with passages in a number of chapters of *The Inner Canon of the Yellow Emperor*. Their content may be called the ancestral form of this work. On the other hand, *Wu Shi Er Bing Fang* is a book on *jing fang*, a clinical work which focuses on medicinal therapy. In this way, it has a connection with Chun-yu Yi's medical records. However, Chun-yu Yi's medicine is characterized by focus on diagnostics, particularly diagnosis of the vessels, accounting in part for the themes of *Shi Yi Mai Jiu Jing* and *Mai Fa*. Let us begin by examining the work *Wu Shi Er Bing Fang*.

Bian shi are used only once, in the treatment for hernia in the groin:

“First lift the *luan* (literally, egg) then pull down the skin, and use *jie* (a slim, two edged surgical tool) to pierce the side of the *sui*.”

According to my interpretation, *luan* refers to a testicle, and *sui* refers to hanging portion of the scrotum. *Jie* here refers to an instrument used for piercing a small hole in the skin. Onto the wound, some sort of extract and paste are (character missing, probably) applied, then alcoholic drink is poured.

“And then moxibustion is performed on the *wei*.”

Wei means wound. Moxibustion, that is to say, was performed directly on the wound. The passage continues (In the following passages, □ will stand for “one missing character.” ▢ will stand for “unknown number of missing characters.”):

“Moxibustion is performed on the *tai yang* and *tai yin* □ □.”

This is the only indication in *Wu Shi Er Bing Fang* of moxibustion being performed on the vessels.

There are three examples of moxibustion being recorded as a treatment for leprosy:

“Perform moxibustion on the middle toe of the left foot.”

“For leprosy, □ perform moxibustion □ on the left *xing* 冓.”

“Take a waste hemp, wrap it with moxa (*ai*), and perform moxibustion on the leper’s *zhong dian*, and let it burn him to cure him.”

The *xing* mentioned above refers to the area below the knee, and *zhong dian* refers to the top of the head, or in terms of points, it corresponds to the *bai hui* or *san yang wu hui*.

The way of performing moxibustion directly on the afflicted area is used for blind piles and warts. For blind piles, which have small roots and large tips, we have the following:

“Do □ on it, then quickly perform moxibustion and heat, take hold of the small root, and twist it off.”

When only moxibustion was performed, moxa was probably used, but this was not the case for warts:

“Take leaves of young bulrush from a ragged bulrush seat or rug, then burn the end, perform moxibustion on the tip of the wart, heat it, then take the wart off and get rid of it.”

“Seat” refers to a straw carpet, and “rug” refers to a mat. This is the only case in which moxa is not used.

Although it is not moxibustion, there is one instance of *ai* (mugwort) being used for fumigation therapy on a type of pile called *gou yang*. According to the account of the symptoms, a small hole forms on the side of the anus. Small larvae occasionally emerge from the hole, and the part smarts. A hole is dug in the ground according to the size of the tray to be used, dried, and filled with a mixture of two parts moxa, and one part willow mushrooms, which is then set on fire. The tray, which has a hole in the bottom, is then placed over the opening of the hole. The patient sits over this, and fumigates the afflicted area. I would like the reader to keep in mind that this is one of the uses given for *ai* (moxa or mugwort).

Large blind piles are removed with a knife. After drawing out the afflicted part with a small horn, then:

“use a small rope to fasten, and a knife to pare.”

In the case that blind piles (festering carbuncles around the anus) or “nests” (tumors) are blocking the intestines, a bamboo tube is attached to a dog’s bladder, which is inserted into the intestines and inflated, thus drawing out the afflicted part.

“In such situation, pierce and incise slowly, using a knife, and remove the nests.”

In reference to blind piles, we have,

“first, pierce it.”

Needless to say, a knife was most likely used. After that, we have,

“heat a small, elliptical stone, quench it in vinegar, and press with this.”

By the same means that a sword is tempered, a stone is heated and then plunged into vinegar. This is a kind of poultice, and also among the use of the stones, is one that involves heating a stone, placing it in water, and then preparing a porridge.

These are the only portions of *Wu Shi Er Bing Fang* dealing with *bian fa* and moxibustion. A few points should be noted here. First, there is no mention of acupuncture. This supports my supposition that acupuncture had not been invented by the Warring States period. Second, a clear distinction is made between *jie* used for piercing and opening holes as opposed to knives used for surgical excision and stones used for poultices, and different terms are used for each. This matches the use of *bian* and *shi* (stone) in *The Inner Canon of the Yellow Emperor*, and attests to the correctness of my analysis. Incidentally, there is no mention of knives used as surgical instruments in *The Inner Canon of the Yellow Emperor*. Third, there is no mention whatsoever of the names of points. There is, however, one example of vessels upon which moxibustion should be performed being indicated, and three examples of specific places being indicated. This is the same as the method mentioned in the biography of Cang Gong in *The Historical Record*. Fourth, there are two examples of moxibustion being performed directly on an afflicted part (the case: piles

and warts), and one example of it being performed on a surgical wound made by *jie* (the case: hernia of the groin). These are applications not seen in the previously investigated works. The latter is unique in that moxibustion is performed on an open wound, and then on two or three different vessels. Fifth, moxa is used not only for moxibustion, but also for fumigation. This application is also not seen in the previously investigated works. Sixth, moxibustion, *bian*, knives, and stones are used as surgical instruments only for three conditions, namely, leprosy, piles, and warts; *bian*, knives, and stones are not used for festering ailments such as carbuncles. This may not reflect the nature of this technique as much as it does the fact that surgery on festering ailments was not the strong point of the authors of *Wu Shi Er Bing Fang*.

In *Mai Fa*, the rules of moxibustion and use of *jie* are described. The condition is one in which the *qi* goes down by nature, and for the cure, “excesses are removed, and deficiencies are augmented.” The subject of the basic tenets of this treatment is presented later in *The Inner Canon of the Yellow Emperor*.

“□ goes up and does not go down, □ □ □ □ □ □, lay your finger on the *huan*, then perform moxibustion on this. If the illness is severe, and the *yang* rises two *cun* (about 5.5 cm) above the *huan*, then augment by performing moxibustion once. If the *qi* exits the *guo* and the groin, then □ perform moxibustion once □.”

The first missing character is probably *qi*.¹⁹ *Guo* is the hollow area behind the knee. It is not known what part of the body is indicated by the word *huan*, but it is not thought to be a point. With the exception of the last line, whose context cannot be ascertained, the above is none other than the tenets for treatment of the illness called *jue* in which *qi* that should go down goes back up. Earlier, when I mentioned the biography of Cang Gong in *The Historical Record*, I indicated that Chun-yu Yi used acupuncture to treat *jue*. This is certainly not a coincidental correspondence. Doubtless, it implies the transition in medical therapy from moxibustion to acupuncture.

There are four formally recognized errors to be avoided in the use of *jie*.

“When opening vessels with *jie*, it is necessary to follow procedures. If the growth has pus, then according to the size, □ □. There are four errors to be avoided in □ □. If the pus is deep but the *jie* is shallow, that is called not reaching. That is the first error. If the pus is shallow but the *jie* is deep, then that is called overshooting. That is the second error. If the festering part is large but the *jie* is small, □ □ and, large □ □ □. That is the third error. If the festering part is small but the *jie* is large, this is called *jie* □. If one makes the error of *jie* □, then the stone eats into the flesh. This is the fourth error.”

The Yellow Emperor school inherited the principles of the use of *bian* as illustrated in the following passage from ‘Jiu Zhen Suo Zhu’ of *The Grand Basic*, vol. 22, or ‘Guan Zhen’ of *The Divine Pivot*:

“The essential point in the technique of the nine needles is the optimally dexterous use of the needle. Each of the nine needles has unique features and corresponding functions. The relative length and size of the needles have their own dedicated purpose for use. If the usage of the needles is incorrect, it is impossible to cure any illness. If the ailment is shallow, but the needle goes deep, then it will injure healthy flesh, and cause a carbuncle on the skin. If the ailment is deep, but the needle goes shallow, then the *qi* of disease will not be gotten rid of, and on the contrary, severe festering will result. If the ailment is small and the needle is large, the *qi* will be gotten rid of exceedingly quickly, and there will certainly be harmful after-effects. If the ailment is large and the needle is small, then further damage to the body will result.”

This short passage attests very clearly to the fact that the principles for the use of *bian shi* were transformed into the principles for the use of the nine needles by changing the word “pus” to “ailment” and “*jie*” to “needle.”

In what field, then, was the notion of vessels established? The answer lies in the two versions of *Shi Yi Mai Jiu Jing*. Although the description's writing style closely resembles that of the two versions, there is a slight difference. In *Zu Bi Shi Yi Mai Jiu Jing* (hereafter abbreviated as *Zu Bi Jing*), after an account is given of the names of vessels and their capillaries, "their ailments" are enumerated. In the case of the *tai yang* vessel in the foot mentioned in the opening passage, for example, we have, "for all sorts of ailments, perform moxibustion on the *tai yang* vessel." Likewise, in *Yin Yang Shi Yi Mai Jiu Jing* (hereafter abbreviated as *Yin Yang Jing*), an account is given of the names of the vessels and their capillaries, followed by passages like the following in the opening passage, which deals with the *tai yang* vessel and describes the symptoms and treatment as follows: "If it moves, then the patient . . . is suffering from a tumor or headaches, is stooped over, etc. This is *huai jue*, and one must treat the *tai yang* vessel." It goes on to enumerate the names of illnesses as "the illnesses born of it," and finishes by giving the number of illnesses: "there are twelve illnesses." These accounts are relatively simple, but they are the ancestral forms of the material in the 'Jing Mai' chapter in *The Inner Canon of the Yellow Emperor*, just as I indicated earlier.²⁰

Let us examine the names and arrangement of the vessels. In *Zu Bi Jing*, the *tai yang* (great yang) vessel is written with a different character, although the pronunciation is the same, and in *Yin Yang Jing*, it is called the *ju yang* (huge yang). These are examples of the slight difference between earlier and later nomenclature. Here, I shall use the latter. Both *Zu Bi Jing* and *Yin Yang Jing* mention eleven vessels, three *yin* vessels (*tai yin*, *shao yin*, and *jue yin*) and three *yang* vessels (*tai yang*, *shao yang*, and *yang ming*) in the foot, and two *yin* vessels (*tai yin* and *shao yin*) and three *yang* vessels in the hand. The *jue yin* vessel in the hand appears first in *The Inner Canon of the Yellow Emperor*. It has been noted that, in *Yin Yang Jing*, the vessels later known as the hand's *tai yang*, *shao yang*, and *yang ming* are called the shoulder vessel, the ear vessel, and the tooth vessel. As for the arrangement of the vessels, in *Zu Bi Jing*, the order is as follows: The three *yang* vessels of the foot are first, followed by the three *yin* vessels of the foot, then the two *yin* vessels of the hand, and the three *yang* vessels

of the hand. In *Yin Yang Jing*, the three *yang* vessels of the foot are first, followed by the shoulder, ear, and tooth vessels, the three *yin* vessels of the foot, and the two *yin* vessels of the hand.

The most important thought expressed in the two versions of *Shi Yi Mai Jiu Jing* is the original notion that there exist a number of vessels running through the body, and that a number of different diseases belong to each of the vessels. In other words, the idea is that those illnesses are controlled by each of the vessels. When the vessels move, that is to say, when they deviate from the normal condition, a set of symptoms will appear, and all sorts of illnesses may occur. The second important thought follows, namely, that in order to cure an illness, one should restore the vessel to which it belongs to the normal state. These are none other than the ideas that form the basis of the system of Chinese clinical medicine, and this is expressed as the implication on therapeutic technique in *Shi Yi Mai Jiu Jing*.

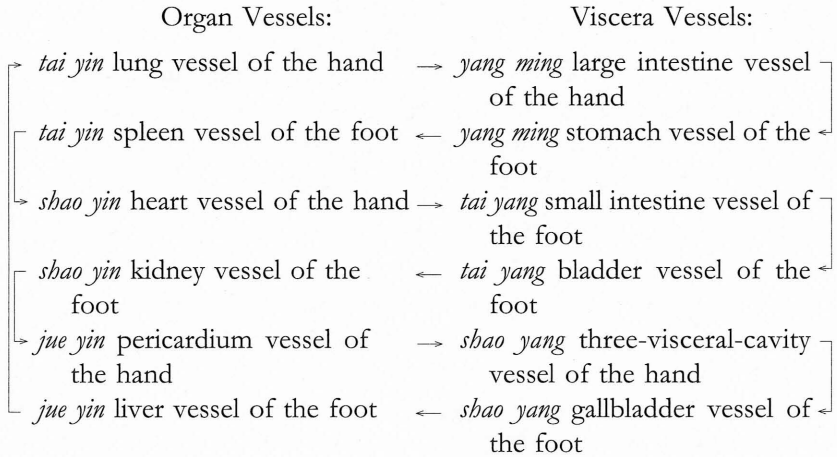
Later, of course, vessels come to be seen as belonging to the category of organs and viscera. The first signs of this have appeared already in *Yin Yang Jing*. The *tai yin* vessel in the foot may have been a mere exception, but it is stipulated tentatively to be "the stomach vessel." If illnesses belong to vessels, and vessels belong to organs and viscera, then the conclusion seems clear. *Mai Fa*, citing Chun-yu Yi, says, "the host of the disease is in the heart," and "the host of the disease is in the kidney." Incidentally, in Chinese medicine, the vessels (*mai*) heretofore discussed, later called "meridians," are not the only things called vessels; blood vessels are also called vessels (*mai*). It is supposed that a close correspondence exists between these two types of vessel, and a unique method of diagnosis of the vessels in which the illnesses of the meridians are found out by closely observing the pulsation of the blood vessels is established. It has already been mentioned that Chun-yu Yi excelled in the diagnosis of vessels. In *Zu Bi Jing*, a standard is set for the judgment of deadly diseases according to the vessels.

The discovery of vessels, or the establishment of the concept of vessels, was certainly an epoch-making event in the history of the formation of Chinese medicine. In the two versions of *Shi Yi Mai Jiu Jing*, there is

one indication suggesting the discovery process. Among the mentions of vessels, those of the vessels in the foot are much more detailed, and those of the vessels in the hand are simpler. This is also the case in *Zu Bi Jing* and *Yin Yang Jing*. A slight difference is evident, however, in the method of describing the vessels' channels. In *Zu Bi Jing*, the foot vessels all start in the feet and move out into the upper body, and likewise, the hand vessels all start in the hand and move into the trunk. In *Yin Yang Jing*, similarly, with the exception of the *tai yin* vessel of the foot, the five foot vessels and two hand vessels begin in the limbs and move into the body. If this is the case, then foot vessels and hand vessels can no doubt be defined as vessels which begin in the hands and feet, respectively. The taiyin vessel of the foot was defined as the aforementioned stomach vessel. Accordingly, the account of its channel begins in the stomach. The introduction of the idea defining a stomach vessel as a vessel belonging to the stomach doubtless caused a reversal of direction in the accounts of vessels. Likewise, the accounts of the shoulder, ear, and tooth vessels cannot be overlooked. The accounts of the shoulder vessel begin in the shoulder. This suggests that the terms shoulder, ear, and tooth meridians most likely originally signified vessels beginning in the shoulders, ears, and teeth. The ear and tooth vessels, however, are described as beginning in the fingers. It would have been suitable to call vessels beginning in the fingers hand vessels at the outset. Most likely, the standards originally integrated and systematized according to the theory of the three *yin* and three *yang*, with the shoulder, ear, and tooth vessels being *yang* vessels of the hand. Continuous mention of the ear vessel, tooth vessel, and *tai yin* vessel of the foot (stomach vessel) also seems to be something more than a coincidence. Despite the cessation of the use of the terms shoulder, ear, and tooth vessel, which are probably old nomenclature, *Yin Yang Jing* surpasses *Zu Bi Jing* in its intent to systematize, and the entire format of the account is very close to that of the 'Jing Mai' chapter in *The Inner Canon of the Yellow Emperor*.

One thing I want to make clear at this point concerns the "circulation" of the meridians. In the theory of later generations, the ending points of the twelve meridians are the beginning points of other meridians.

ians, and all of the meridians are interconnected, and in this interconnected network, a great circulation of the *qi* and blood is followed:



At this stage, however, the idea of cycles has not yet been established. Separate vessels are simply running through the body. This idea is clearly expressed by the names of the foot vessels, hand vessels, shoulder vessels, ear vessels, and tooth vessels, which are based on the areas from which they originate. The task of clarifying when and how the idea of a cycle formed has been left for later.

In another treatise,²¹ I conducted a comparative analysis of the sentence added to the end of the passage concerning the *jue yin* vessel of the foot in *Zu Bi Jing*, and the corresponding sentence in the passage concerning three *yin* vessels of the foot in *Yin Yang Jing* and *Yin Yang Mai Si Hou*, and made several points. First, considering the detail of the accounts, it is likely that the foot vessels were discovered first, and considerable study was made of their connection to illnesses before the two *yin* vessels of the hand and those of the shoulder, ear and tooth were discovered as, so to speak, applications. Second, the vessels of the foot were regarded as even more important than the vessels of the hand. Third, the *yin* vessels were seen as the “death vessels” (*si mai*) that affect deadly

diseases, whereas the *yang* vessels, on the contrary, were seen as the “life vessels.” Continuing along this line of reasoning, let us assume that the eleven vessels were discovered and this notion established in the following order:

“First, the three *yin* vessels in the foot; second, the three *yang* vessels in the hand; third, the two *yin* vessels of the hand; fourth, the shoulder, ear, and tooth vessels; and last, its change of nomenclature to the three *yang* vessels of the hand.”

At the beginning of the Western Han period, the *jue yin* vessel of the hand was added, completing the twelve meridians, namely, the three *yin* and three *yang* vessels of the hand and foot respectively. That being said, the status of the *jue yin* vessel of the hand, which was contrived with the goal of achieving systematic coordination from the standpoint of the theory of three *yin* and three *yang*, is that of a vessel prepared in the theory of meridians as a last-resort for exceptions.

There could exist a variety of treatments designed to restore the vessels to their normal condition. For example, it must be possible to use medicines for treatment, as Chun-yu Yi did. In *Shi Yi Mai Jiu Jing*, moxibustion is performed directly on vessels showing signs of disorders. This is what is described by the expression “perform moxibustion on the vessel” in *Zu Bi Jing*, and “treat the vessel” in *Yin Yang Jing*. Needless to repeat, this technique matches that of *Wu Shi Er Bing Fang*. There is no mention of points.

As for the discovery of vessels, it was heretofore almost always thought to be self-evident. First, the thinking goes, points were discovered through experience, then connections were made between the points, and the realization followed that these connections were vessels. In the medical books excavated from the Mawangdui Han tomb, however, it was proven that exactly the opposite was true. Vessels were discovered first, and then either along these vessels or in places not on the vessels, the locations of points were confirmed. The medical notes in the biography of Cang Gong in *The Historical Record* corroborate this.

The two versions of *Shi Yi Mai Jiu Jing* made three decidedly impor-

tant facts clear. First, it was in the field of moxibustion that the discovery of vessels, and the origin of pathology and diagnosis of the vessels occurred. Second, vessels were discovered before points. Third, moxibustion involved treatment of the vessels. Furthermore, in *Wu Shi Er Bing Fang* and *Mai Fa*, we have a fourth fact: there were also places not on the vessels where moxibustion was performed. This was none other than a listing of the wealth of moxibustion that was to be inherited by acupuncture.

In the books classified as *fang zhe* and *shen xian*, which differ slightly in nature from the *yi jing* and *jing fang* heretofore considered, we find *Yang Sheng Fang*, *Shi Wen* and *He Yin Yang*. In the first work, breathing and nutrition are considered, and in the second and third, techniques of sex. These are not therapeutic techniques, but techniques for maintaining and increasing health and achieving longevity; in addition, methods of preparing medicinal liquors also seem to be mentioned. This was also an important area of ancient medicine. Moxibustion was only mentioned in one place. In a section discussing the seven losses and eight profits of the techniques of sex, we have the following for restoring strength to a weakened body:

“Produce *qi* by giving medicine and performing moxibustion, then supply it to the body by serving food.”

Of note here is, first, the grasp of moxibustion as a means of supplying *qi*, and second, the fact that there is mention here of moxibustion but not of acupuncture. Techniques for the supplying of *qi* was one more example of the wealth that acupuncture was to inherit from moxibustion.

Finally, one more set of excavated items that must be examined is that of *bian shi* and needles. Up to now, more than just two or three articles have been reasoned to be *bian shi*.²² Decisive corroborating evidence, however, is lacking, and this is not all: no distinction of the sort I made clear is made between stones, *bian shi*, and knives. Among the shapes of *bian shi*, there may have existed the *chan zhen* model, as well as the *pi zhen* model. It is necessary, keeping this point in mind, to re-examine the

Table 1: The Sizes of Gold Needles

Figure # \ cm	Length (Handle + Needle)	Length of Handle	Width	Length of Needle
1, 2 (<i>hao zhen?</i>)	6.6	4.9	0.2	1.7
3 (<i>ti zhen?</i>)	6.9	4.6	0.2	2.3
4 (<i>feng zhen</i>)	6.55	2.65	0.2	3.9

excavated articles. It is my hope that Chinese researchers will undertake this task.

The only relics from the Han dynasty confirmed to be needles for the purpose of acupuncture are some gold and silver needles unearthed with a copper basin with medical inscriptions on it and other therapeutic instruments from the tomb of King Liu Sheng (?-113 B.C.) of the Zhong Shan state, located in Mancheng Canton in Hebei Province.²³ Of the four gold needles excavated, in terms of the nine needles mentioned in *The Inner Canon of the Yellow Emperor*, two are thought to correspond to *hao zhen*, one is thought to be a *ti zhen*, and one other is thought to be a *feng zhen* (Fig. 5 & 6, Table 1). The five silver needles are all in fragments, but one is speculated to be the member of the nine needles called *yuan zhen* (Fig. 7). There is a great deal of overlap between the lifespans of Liu Sheng and Si-ma Qian, and this was doubtless a period of striking development for acupuncture. The gold and silver needles are shining symbols of this. Incidentally, it is likely that the needles normally used for acupuncture were steel needles identical to those used by posterity. Unfortunately, it is unknown whether or not the *da zhen* (large needles) used for torture in the 81st volume of the *Hou Han Shu*, the biography of Dai Jiu, belonged to the nine-needle category *da zhen*.

6

The words of Bian Que, quoted in *The Historical Record*, which first appeared in *Han Fei Zi*, have changed into the following by the time they

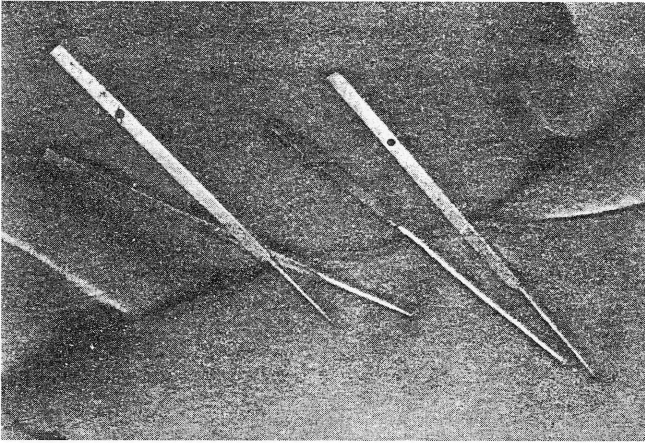


Figure 5: *Report on the Discovery of the Mancheng Han Tomb*, ed. by China Institute of Sociology, Department of Archaeology and Hebei Artifact Administration Bureau, vol. 2, color photo 14, Wenwu Pub. Co., 1980.

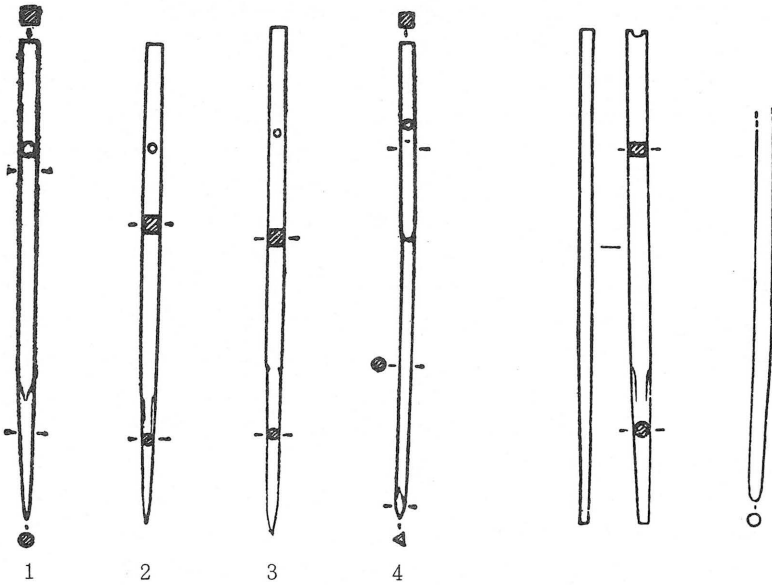


Figure 6: *Ibid.*, vol. 1, fig. 78.

Figure 7: *Ibid.*, vol. 1, fig. 81-3, 4.

were quoted in Yan Zun's *Dao De Shi Gui Lun* (vol. 5 'Wei Wu Wei Pian') of the beginning of the Eastern Han dynasty.

"When trouble is about to occur, it is just like the attack of a cold. If it is suppressed before it has developed, it will not come. If it is in the skin and hair, it can be gotten rid of by bathings and poultices. If it is in the muscles, it can be taken out with a small needle. If it is in the organs and viscera, a hundred medicines can get rid of it. If it is in the bone marrow, then there is nothing that can be done even with the power of heaven and earth: even the Creature cannot cure it."

The change in terms and their meanings, from *zhen shi*, which is another word for *bian shi*, to another character pronounced *zhen shi* but meaning needle, and finally to *wei zhen* (small needle) over the course of just less than three centuries, from the end of the Warring States period through the middle of the Western Han to the beginning of the Eastern Han, is a clear reflection of the process and results of the revolution in medical technique.

With the emergence of acupuncture, the use of *bian* fades away from the techniques of the acupuncture school of medicine. One might think, however, that the reason is that the techniques of *bian* were not absorbed completely into acupuncture. Despite the intentions of the early acupuncture school, which tried to carry this on by making the nine needles, with the exception of techniques such as light bloodletting, the use of *bian* was not absorbed into acupuncture. It can be said that surgical techniques constituted a separate field after all. Evidence indicates that the later Yellow Emperor school at some point abandoned techniques such as the cutting open of carbuncles and disassociated themselves from the field of surgery. For example, in 'Ju Yong Ni Shun Ci' of *The Grand Basic*, or 'Yu Ban' of *The Divine Pivot*, it is written that only one man in ten can be saved if a carbuncle is festering, that wise men consider the good method to be seeing to it that carbuncles do not fester, whereas fools treat something after it has begun to fester. Although it is written that "only a *jie shi* or *pai* needles can remove something that is

festering," the work stresses very clearly that acupuncture's area of emphasis is prevention before festering has occurred. At this point, then, acupuncture very quickly limits itself to an emphasis on the basis of preventive medicine, from which the greatest effectiveness can be expected. Since the use of acupuncture and *bian* are two separate techniques having in common only the practice of using sharpened tools to pierce parts, this must have been a natural course of events. As a matter of fact, among the gold needles dating from the middle of the Western Han dynasty excavated from the Mancheng Han tomb, there were *feng zhen* used for bloodletting, but no more *chan zhen* or *pi zhen*. It may also have been that this was the case with the items unearthed entirely by chance, but with the exception of the various chapters of *The Inner Canon of the Yellow Emperor*, dealing with the nine needles, there are almost no accounts of the use of needles in surgery. Because of the common features of the tools of acupuncture and the use of *bian*, the degree to which one is a continuation of the other has been exaggerated.

What, then, is the case with moxibustion? To be certain, the Yellow Emperor school of medicine placed moxibustion in a role as a mere supplementary means. One would not expect, however, that techniques of such proven effectiveness as to be the subjects of proverbs in the Warring States period would have disappeared so simply. The Yellow Emperor school, although considering these techniques supplementary, continues to use them. In addition, one would not expect that the physicians of the moxibustion school, who had perfected their art over the ages, would have deferred to the newly established acupuncture school. The Yellow Emperor school, which is the acupuncture school, doubtless left so many writings such as those in *The Inner Canon of the Yellow Emperor* in part due to the intrinsic need to establish the fundamentals of its theory and systematize the techniques. Another reason, however, was probably that they, as innovator of techniques themselves, were driven by the need to go beyond the theoretical horizons of the existing techniques. In particular, simply because the technical foundations of moxibustion were inherited as-is by acupuncture, there are indications that the acupuncture school intentionally made light of moxibustion.

The assertions of the Yellow Emperor school being what they may, in reality there must have been numerous physicians of the moxibustion school, and most average physicians were probably the eclectic school who, like Chun-yu Yi, used acupuncture as well as moxibustion and medicines. Jiao Gan, who lived during the Emperor Zhao (87–74 B.C.) and the Emperor Yuan (49–33 B.C.) periods of the Western Han dynasty, says in *Jiao Shi Yi Lin*, vol. 3, that,

“one hundred illnesses are cured by piercing the hand with the head of a needle. The dead can be raised by performing massage and then moxibustion.”

During that time, we see that in Jiao Gan’s eyes, acupuncture and moxibustion were considered by society to be of equal importance.

Wuwei Han Dai Yi Jian, which was excavated from an Han tomb in Wuwei in Gansu Province in 1972, seems by its contents to be a work from the beginning of the Eastern Han period. The remaining wooden slips, from nineteen to twenty-five, deal with acupuncture and moxibustion therapy. Following mention of acupuncture treatment for stomach and intestinal ailments, there is a section entitled ‘Huang Di Zhi Bing Shen Hun Ji’ which deals with the taboos of moxibustion:

“At one year after birth, one must not perform moxibustion on the heart, or death will occur in ten days. At two years after birth, one must not perform moxibustion on the stomach, or death will occur in five days. At three years, one must not perform moxibustion on the back, or death will occur in twenty days. At four years, one must not perform moxibustion on the head, or death will occur in three days. . . . Those between the ages of ninety and one hundred are the same as those nine years old. Those over one hundred years old should not have acupuncture or moxibustion, or the *qi* vessels will be blocked at once. If acupuncture or moxibustion is performed, death will result immediately.”

Unlike *The Inner Canon of the Yellow Emperor*, mention of “*jiu ci*,” “*zhen jiu*”

and moxibustion here refers mainly to moxibustion. In addition, these taboos are called by the Yellow Emperor's names. Times have changed a great deal. Moreover, in 'Jiu Ci Jue' of the Taoist canon *Tai Ping Jing*, vol. 50, which appeared at the end of the Eastern Han period or the beginning of the Three States period, moxibustion and acupuncture are treated in exactly the same fashion.

Needless to say, there probably also existed a school which, deriving from the orthodoxy of the Yellow Emperor school, rallied around the concepts of acupuncture and diagnosis of the vessels. In the latter half of the first century A.D., according to *Hou Han Shu*, vol. 82, there was a man called Fu Weng who "begged for his meals and if he saw a sick person, would use a *zhen shi* (needle)." This person, it continues, wrote *Zhen Jing* and *Zhen Mai Fa* and passed them on to later generations. His medical knowledge was said to have been passed along to Cheng Gao, and then inherited by Guo Yu, who became an imperial physician in the Emperor He's period (88–105).

Moreover, over the course of more than one hundred years, from the end of the Eastern Han period into the Wei (220–265) period, a legendary physician was active. His name was Hua Ta, and he is said to have given *ma fei san* as medicine for paralysis, performed surgery, cut open the abdomen to expose the source of an infection, and cut and stitched the intestines. In Chen Shou's work *San Guo Zhi* (*Book of Wei*, vol. 29, the biography of Hua Ta), sixteen examples of his clinical records can be seen. Five of these consist only of an examination and warning, one consists of the afflicted part being warmed by hot water, eight consist of medicine being given, one consists of the combined use of medicine and acupuncture, one consists of acupuncture, and in one, abdominal surgery is performed. The opening passage states that, "he is outstanding at preparing medicine," and then goes on to say, "if one is to do moxibustion, it is done on just one or two points, with just seven or eight pinches of moxa cauterize each points," and "if one is to do acupuncture, then it should once again be done on just one or two points." Despite the fact that Hua Ta's excellence as a surgeon is stressed, it looks like his forte was probably not surgery but internal medicine. In an episode from

another biography of Hua Ta cited by Pei Song-zhi's notes of the Liu Song period, a slightly different tendency appears. The account seems to be striving to portray the unusual or superhuman nature of his actions, and one cannot but think that a legend has begun to evolve. Of the five symptoms mentioned, Hua Ta uses moxibustion on one, medicine on one, and in one case he uses a treatment in which the patient is placed in a cold bath and then on a heated sickbed, inducing perspiration. At any rate, we know from the two accounts that Hua Ta performed both acupuncture and moxibustion.

Precious testimony remains in the form of the remaining two examples, which combine bloodletting with medicinal treatment and surgery with medicinal treatment. In the former case, "Ta and several of his disciples used a *pi dao* to cut the vessels." In the latter, "a knife was used to make a cut, and bad flesh is scraped out." The expression *pi dao* corresponds to the note by Li Shan in 'Wu Du Fu' that "a *pi* is a small, double-edged knife (*dao*)." Despite the name *pi*, it is not one of the nine needles, but it is a surgical knife. This was a large bloodletting operation involving several people, and seems like something that could be called surgery, and for this, a *pi dao* is used. The "bad flesh" is probably a tumor. A knife is used to remove it. From these episodes, we know of the existence of knives used specifically for surgery, and accordingly of the existence of techniques and specialists in the use of the knives. In this, we can see proof that surgical techniques developed from the use of *bian* formed their own branch, separate from acupuncture.

As for specialists, there are two disciples mentioned after the biography of Hua Ta. One of them "treated according to Ta's standards." This is Wu Pu, who is said to have cured almost all patients. Although there is no mention of it in the biography, he is known as the author of *Wu Pu Ben Cao*, so medicines were probably his forte. In contrast with Wu Pu, who inherited methods of internal medicine, we have Fan A, a renowned acupuncturist, who inherited methods of external medicine. It is fascinating that Hua Ta, the all-knowing physician, would educate specialists in different fields. Medicine had certainly begun to move toward specialization.

The tendency toward specialization, of course, appeared long ago. Bian Que is said to have changed specialization from gynecological ailments, to geriatric ailments, to pediatric medicine, according to the customs of the area. In the government posts of the Zhou dynasty, medicine was said to have been divided into four categories of specialization dealing with food, disease, carbuncles, and animals. At any rate, however, the process of specialization which is thought to have advanced as the Eastern Han dynasty began was different: it occurred with the stimulation of the striking development of acupuncture, and accompanied by advancement in medical theory and technique. One example of this is the appearance of the decoction school of medicinal treatment which is foreshadowed in Zhang Zhong-jing's work *Shang Han Za Bing Lun* (now existing as *Shang Han Lun* and *Jin Kui Yao Lue Fang Lun*) of the end of the Eastern Han dynasty.²⁴ This group created a system of therapy featuring decoctions based on the diagnosis of the vessels associated with the illnesses of the six cardinal vessels. The notion of symptoms belonging to the meridians, born of moxibustion and nurtured by acupuncture, separated from acupuncture and moxibustion to be used in medicinal treatments, and the first signs of this tendency can be seen in the Western Han examinations by Chun-yu Yi.

The theory which formed in the field of acupuncture and moxibustion had by the end of the Eastern Han dynasty become the fundamental theory of Chinese medicine in all fields. It was in this setting that the Western Han schools of medicine such as the Yellow Emperor school, the Bian Que school, and the Bai Shi school, which very clearly advocated acupuncture, fell apart. Huang-fu Mi of the Western Jin dynasty wrote *Zhen Jiu Jia Yi Jing*, giving moxibustion the status it naturally deserved considering popular demand, and striving for the unification of acupuncture and moxibustion. Although it bears the name of the Yellow Emperor, there is no more sense of the school of thought. Wang Shu-he, also of the Western Jin dynasty, gathered the "essentials" of works from *The Grand Basic* and *Zhen Jing* (which must have been the old text of *The Divine Pivot*) to those of Bian Que, Zhang Zhong-jing, and Hua Ta, and authored *Mai Jing*. Therein is included the oldest still-existing text,

Shang Han Za Bing Lun. Acupuncture/moxibustion and medicinal treatments, or external medicine and internal medicine, had been combined from the standpoint of the study of the vessels.

7

I have been conducting my analysis based on the working hypothesis that, in the Warring States period, moxibustion already existed, but acupuncture had not yet been invented. It is not just that, despite the supposition of all researchers until now that the origins of acupuncture and moxibustion are obviously extremely ancient, the existence of even one piece of material contradicting my working hypothesis has not been confirmed. The complex reality embedded in a variety of materials begins, like the points, to have its own connecting lines. I would like here once again to propose a basic hypothesis. I am certainly prepared, with pleasure, to withdraw this hypothesis of reality when new materials are discovered and decisive evidence to the contrary is presented.

Proposition 1: The discovery of moxibustion can be placed back as far as the beginning of the Warring States period, but the discovery of acupuncture cannot be placed back any farther than the end of the same period.

The importance of hypotheses presented in the field of historical research depends on the extent to which they stir the imaginations of historians and cause a concrete image of history to be drawn. Hereafter, I hope to present the facts that we have heretofore examined and established as a group of hypotheses which supplement the basic hypothesis. I hope also to establish several supplementary hypotheses, and briefly but completely survey the formation and development process of acupuncture and moxibustion. Through this presentation, both the independence and the interconnection of the hypotheses should become clear.

The therapies of ancient Chinese medicine, according to the expres-

sions of *The Inner Canon of the Yellow Emperor*, consist of two techniques, namely, internal and external medicine. Whereas the former relied upon medicinal therapy, the latter was represented in the pre-Qin dynasty times by the use of *bian* and moxibustion. Let us touch first upon the origins of the use of *bian*.

There is no doubt that techniques for curing festering ailments by removing pus from the body had existed since exceedingly ancient times. Despite this fact, it is in the Warring States period that verifiable documentation exists of the appearance of a specialized surgical instrument, with a distinct shape, called *bian shi*.

Proposition 2: *Bian shi* is a distinctly shaped, double-edged piercing instrument used exclusively for removing pus or bloodletting.

This distinct shape is that of one of the nine needles described hereafter called *chan zhen* or *pi zhen*.

Corollary 2-1: The fundamental principle of the use of *bian* dictated that the size of the *bian shi* and the depth to which it pierced depended on the size and depth of the festering part.

Among the surgical instruments often confused with *bian shi*, there are both knives and stones.

Corollary 2-2: A knife was used for opening, removal, or extraction, whereas a stone was used for poultices.

The knife was a single-edged surgical tool. The stone, in order to have the correct shape for warming or cooling afflicted areas, would have probably needed to be a somewhat flat, massive rock with a smooth surface. Incidentally, steel makes its appearance at the end of the Warring States period, and with its spread, *bian shi* were probably quickly transformed into steel surgical instruments. By the beginning of the Western Han dynasty, they had almost completely disappeared.

Although the origins of the use of *bian* are relatively easy to imagine, the origins of moxibustion present a far more difficult problem. Even if the establishment of the method of performing moxibustion on vessels

occurred fairly late in history, but the origins of the primitive forms of moxibustion may be extremely ancient. One suggestive piece of material is the portion of *Wu Shi Er Bing Fang* dealing with the method of moxibustion and the use of mugwort. Four distinguishing points can be seen which differ from the methods of later generations. The first is the use of plants other than moxa. In one example, moxibustion is done on a wart using straw or bulrush from a straw carpet or mat, and in another, it is done with waste hemp wrapped in moxa on the top of the head. The latter is a simple procedure designed to increase the effect of the moxa, but the former is suggestive of the origins of one form of moxibustion. That is to say, there existed moxibustion which did not use moxa, and the possibility that afflicted areas were seared directly and removed is high. There exist examples of direct searing and removal of piles other than warts, but in this case, moxa was probably used. At any rate, the method consisted of burning a protrusion on the skin and removing it, and it made up one category of surgical methods. Let us call this direct-searing and removal type moxibustion. If moxibustion performed on the vessels, toes, *zhong dian*, etc., is called heat-stimulation type moxibustion, there is a fundamental difference between the two types. Although both used moxa, it is my opinion that no connecting principle exists between the two types.

Where did the notion of treating patients by applying thermal stimulation with moxa to certain areas of the body originate? My notion of the answer to the first question about the origins of moxibustion is not yet fully developed, but as a working hypothesis for the sake of later research, I shall present my ideas. To me, the third and fourth points on the unique methods mentioned in *Wu Shi Er Bing Fang* are suggestive. The third point deals with making an opening and performing moxibustion. The process is somewhat complicated and unusual. An opening is made in the scrotum of the hernia patient, and some extract or paste is probably applied. Then, alcoholic drink is poured onto the area, and moxibustion is performed on the wound. The fourth point deals with the fumigation of afflicted areas. Piles are fumigated by burning moxa together with willow mushroom.

Needless to say, moxa (*ai*) is made from a mugwort (*ai*). According to *Jin Chu Sui Shi Ji*,

“On the fifth day of the fifth month . . . mugwort is picked and used to make dolls, which are hung above doors to drive away poisonous air.”

This area had a custom in ancient times of wearing mugwort dolls to drive away demons. In the poem entitled ‘Li Sao’ of *Chu Ci*, this is what is meant by,

“there is mugwort on every door, and mugwort dolls are worn on the waist.”

According to Chen Zhang’s verse ‘Ai Ren Fu’ (*Wen Yan Ying Hua*, vol. 149),

“If you wear (mugwort) on your waist, you will look as lowly as the people of Chu, but it seems that you drive away demons that cause illness, waving your arms in the air.”

Mugwort was also sometimes used as incense. In ‘Gui Sheng’ of *Lu Shi Chun Qiu*, vol. 2, we have the following episode, which is also cited in ‘Rang Wang Pian’ of *Zhuang Zi*, vol. 28, and ‘Yuan Dao Xun’ of *Huai Nan Zi*, vol. 1.

“The people of Yue, for three generations, had killed their monarchs. Prince Sou feared this fate, and fled to the cave called Danxue. Yue was without a monarch. The people searched for the prince without finding him, but finally they tracked him to Danxue. Prince Sou would not come out, so the people burned mugwort as incense. Then they placed him in a king’s cart.”

According to the note of Chen Qi-you’s recent work,²⁵

“Mugwort is used as incense in order to get rid of bad luck. In the nations of North China, reeds was used, but in Chu and Yue, only mugwort was used.”

The reeds are also referred to in *Feng Su Tong Yi* (vol. 8 'Si Dian', Tao Geng Wei Jiao Hua Hu), as cited from *Lu Shi Chun Qiu*:

“When King Tang first invited Yi Yin, Tang purified him in the temple, and used reeds for incense.”

That is to say, similar to the case of Prince Sou, bad luck was gotten rid of by burning incense when a person assumed a position. Likewise, in Chu and Yue, mugwort was believed to have the power to repel illness-causing demons and purify poisonous air.

There is an incensed herb, belonging to the mugwort (*ai*) genus, called *xiao* (*yin chen hao*) in Chinese. According to *Shuo Wen*, this *xiao* is “*ai hao*.” In the poem ‘Cai Ge’ of *Shi Jing* (Wang Feng), the longing for a young woman gathering wild grasses is expressed:

“Let us go to gather arrowroot there.
 One day without seeing her is like three months.
 Let us go to gather *xiao* there.
 One day without seeing her is like three autumns.
 Let us go to gather mugwort there.
 One day without seeing her is like three years.”

According to the explanation in the annotation of Mao, arrowroot “is used to make *chi xi*,” *xiao* is “used in religious ceremonies,” and mugwort “is used to treat illness.” *Chixi* refers to an arrowroot cloth; the roots of which are also edible. *Xiao* were used in religious ceremonies as incense to beckon the gods from the heavens. In the poem ‘Sheng Min’ of *Shi Jing* (Da Ya), we have the phrase “taking *xiao* and offering the fat of sacrifices,” and in the annotation of Mao, “taking *xiao* and combining it with millets, the smell reaches the roof.” According to the chapter entitled ‘Xiao Te Xing’ in the 8th volume of *Li Ji*,

“The people of Zhou hold fragrance in high esteem . . . they combine *xiao* with millets, and the fragrance reaches the roof. After offering the foods and wines, they burn *xiao* combined with raw mutton and *xiang*.”

According to Zheng Xuan’s notes, “*xiao* is *xiang hao*. It was soaked in fat

and then burned with millets.” There is no mention of seasons in the poem ‘Cai Ge’, but the custom was to gather medicinal herbs in the spring and early summer. *Xia Xiao Zheng*, being cited in *Chu Xue Ji*, vol. 4, the item of the fifth day of the fifth month, says that, “In this month, medicines are gathered and used to get rid of poisonous air.” In Cui Shi’s work *Si Min Yue Ling* in the Han dynasty, on the third day of the third month, we have, “from this day until the *shang chu* day, mugwort should be picked.” *Shang chu* refers to *shang si*, the day of *si*, the first ten days at the beginning of every month. In that case mugwort must originally have been more than just a medicinal herb. *Ai* and *xiao* belong to the same mugwort genus, but one was used as incense to beckon the gods, whereas the other was used to drive away demons that caused illness. Although the roles of *ai* and *xiao* are separate, their original functions must be surely the same. In other words, beckoning gods meant driving away demons that caused illness.

Let us return our attention to the second use of *ai* in *Wu Shi Er Bing Fang*. The willow mushroom which was used with mugwort for fumigation was Jew’s-ear which grows on old willows, and is one of the so-called five Jew’s-ears which grow on five kinds of trees. According to *Shen Nong Ben Cao Jing*, “the five Jew’s-ears are called *ran*. They have a beneficial effect on *qi*, and without causing starvation, they make the body light and strengthen the mind.” The gist is that they were used for the techniques of longevity and regimens of Taoism. The annotator Tao Hong-jing, however, rejects this, saying, “one must not be gullible about this.” “If the five Jew’s-ears are tender and moist,” he continues, “they can be used as pickles, but they have no medicinal uses” (*Zheng He Ben Cao*, vol. 13). According to the Tang dynasty work, *Xin Xiu Ben Cao*, “people usually eat the Jew’s-ear of paper mulberry. The Jew’s-ear of Chinese scholartrees is used for treating piles. These, along with the Jew’s-ear of the elm, willow, and mulberry, make up the five Jew’s-ears. All of them can be eaten when ripe.” It seems certain that Chinese scholartree was used at that time to treat piles. According to ‘Wen Zhong Liao Chang Zhi Fang’, being cited in *Wai Tai Mi Yao*, vol. 26, “The Jew’s-ear of the Chinese scholartrees is pulverized and adminis-

tered on a one square *cun* (2.90 square cm) spoon three times per day.” This, however, is not willow mushroom, and it is also taken internally. It is likely that, just as Tao Hong-jing says, no medicinal effects were recognized. Conversely, if this is the case, then the statements in *Shen Nong Ben Cao Jing* take on new life. It seems likely that the ancients believed that mushrooms possessed magical power to give life-force to humans. This is probably the reason that they were added when mugwort was burned to drive away illness-causing demons.

This method of fumigation was used for a case of piles in which there was a small hole to the side of the rectum, from which lumbrici sometimes emerged. The use of fumigation for treatment of the same symptoms by later generations can be seen in *Qian Jin Yao Fang*, vol. 23 ‘Wu Zhi’: “Dig a hole in the ground, and put hedgehog skin, *xun huang*, and parched mugwort into it, mix it and then burn it. It is good if the *xun huang* smoke comes out of the hole.” *Xun huang*, which means “fumigating yellow,” is another word for realgar. According to *Xin Xiu Ben Cao*, being cited in *Zheng He Ben Cao*, vol. 4 ‘Xiong Huang’, “for people with bad symptoms, there is a medicine called *xun huang* which is so called because it is used to fumigate scabs. There is no other material by this name.” Realgar is a disinfectant and pesticide, and there is no doubt that the effects depended on “*xun huang* smoke.” There must, however, have been some other effect expected of *ai* (mugwort or moxa) by practitioners of fumigation.

This effect is revealed in an extremely dramatic fashion in the case of the practice of performing moxibustion on the scrota of hernia patients. To reiterate, after a wound is opened in the scrotum, some juice and paste are applied, alcoholic drink is poured on, and moxibustion is performed on the wound. Between this therapeutic practice and the ceremonial action described in *Li Ji*, there are a surprising number of common or similar points. In the latter instance, sacrificial blood or meat is presented, a wine cup is placed in front of the seat, and the fat from the innards of the sacrificed animal is combined with mugwort and millet, then burned, so that the room was filled with the strong-smelling smoke. Let us get right to the conclusion: in short, I think that this was a magical

treatment intended to drive away the god of epidemics who had caused the hernia. As a matter of fact, according to *Wu Shi Er Bing Fang's* incantation for the treatment of hernia of the groin, the disease was thought to be caused by a god of sickness called *bu cha* or *bu pao*. The place where moxibustion was done is the scrotum, which hangs down and into which the contents of the abdominal cavity fall. Rather than calling this the afflicted area, it would probably be better to call it the route by which the illness makes itself apparent. It may also be that the god of sickness was thought to enter this part of the body and cause illness.

There were two methods of performing the ritual in which the god of sickness in the body was driven away by burning moxa or mugwort. The first was the indirect method of fumigation, in which mugwort smoke was applied to the afflicted part. The second was the direct method of attaching moxa to some part of the body and burning it. The therapy consisting of performing moxibustion on specific parts probably has its origin in the latter practice. These are my ideas on the first question about the origins of moxibustion. I shall venture to express them as a proposition.

Proposition 3: The therapy consisting of performing moxibustion on specific parts of the body originates from the magic designed to drive the god of sickness away from the body by burning *ai* (mugwort or moxa) as incense.

This, however, does not mean that the question of the origins of moxibustion is solved.

In the case of the aforementioned cure for hernia of the groin, after moxibustion is performed on a wound made by *bian shi*, it is also done on the *tai yin* and *tai yang* vessels. This not only proves that, at this point in time, moxibustion was in fact being performed in its fully developed form, but also tells us that the magical applications of moxibustion were not rejected, but used in conjunction with the new developments. The aim, of course, was to multiply the effects. This practice expresses very clearly both the close relationship between and the different natures of

the use of moxa for magic and for moxibustion in the proper sense of the word. One discovery was absolutely necessary for the development of moxibustion in the proper sense of the word from these magical applications. This was the discovery of the vessels.

The second question about the origins of moxibustion is how the existence of vessels with profound connections to specific symptoms and illnesses were discovered. It is, of course, probably impossible to clarify by what process individual vessels were discovered. More important is the question of when the concept of vessels was established. This would not be the case if the conclusion were one which would be drawn naturally from accumulated experience. J. Needham and Lu Gui-zhen point out the classical analogy between meridians and waterways:²⁶

“From the beginning these were thought of in terms analogous to those of hydraulic engineering, involving rivers, tributaries, derivate canals, reservoirs, lakes, etc.; and this analogy is quite explicit in *The Divine Pivot*.”

As a matter of fact, in some volumes of *The Inner Canon of the Yellow Emperor* (*The Grand Basic*, vol. 5, and *The Divine Pivot*, vol. 3 ‘Jing Shui’, vol. 6 ‘Hai Lun’, vol. 10 ‘Xie Ke’, et al.), we can see that, at least as early as the Han dynasty, this analogy was considered an important conceptual precedent. As Needham and Lu say, there are many similar terms in the nomenclature for points. This tells us that an indispensable incentive for the development of the concept of a system of points on the body was the analogy with waterways. Nonetheless, one wonders whether, historically, this was really the case from the beginning. To put the question slightly differently, did the existence of natural and man-made networks of waterways, due to the analogy, cause the existence of vessels in the body to be conceived?

According to *Shuo Wen*, the proper character for “vessel” means, “blood channels, which diverge and run at angles through the body. It is a character made up of the characters for blood and tributary.” In other words, the character for “vessel” implies none other than a blood channel which, through a main stream and tributaries, circulates throughout

the body. At very least, the character itself was constructed based on the analogy with waterways. This being said, however, one must not take the meaning of the components making up a Chinese character too seriously. Another character, for example, which *Shuo Wen* notes consists of the elements “tributary” and “to look,” actually means to squint. In this case, the element “tributary” just means “slanted” or “diagonal.” It may be that the aforementioned character for “vessel” was simply a word signifying the branching-out of the blood vessels.

The word “vessel” makes its first literary appearance in the annals *Chun Qiu Zuo Zhuan*, the 15th year of the Duke Xi’s reign (645 B.C.):

“When disorderly *qi* moves recklessly (*jiao fen*) through the body, blood circulates vigorously, and the swollen blood vessels pulsate. The exterior is robust, and the interior is parched.”

Du Yu notes,

“*Jiao* means ‘return.’ *Fen* means ‘move.’ If *qi* moves recklessly around the body, blood is sure to circulate vigorously through the vessels, and, following the *qi*, they swell. Although the exterior body appears to be robust, the fact is that his interior is parched.”

Although this was actually written about horses, swollen vessels clearly refers to swollen blood vessels.

Although it was probably written somewhat later, ‘Chu Yu’ in *Guo Yu*, vol. 1, which deals with essentially the same era, uses anatomical metaphors when discussing ruling a city:

“Yet, the control of the city is like the nature of the body. The head controls the limbs, and this continues all the way to the hands, thumbs, and the hair vessels. The large control the small. In this way, the body functions without fatigue.”

According to Wei Zhao’s notes, “hair” refers to hair and whiskers. “Hair vessels” is generally taken to mean just that: it probably refers to the streaks seen to be related to the growth of hair.

At any rate, one passage from the first volume of ‘Zhou Yu’, in the

same *Guo Yu*, contains an expression that is very important to the present topic. Notes added by Wei Zhao are parenthesized:

“An astronomer observes the condition of the earth according to the seasons. When the *yang* is thick and plentiful, the *qi* of earth begins to move, and the symbol of agricultural good fortune (the *fang* star) appears in the eastern morning sky. When the sun and moon reach the heavenly mausoleum (the constellation *ying shi*), vessels form in which *qi* flows through the earth. Nine days before the time (before the beginning of spring), the astronomer made an announcement to Ji: ‘From now on, on the first lucky day of February, *yang qi* will rise up into the earth and the fertilized soil (*tu gao*) will begin to move. If the earth is not shaken (moved) and overturned, the *qi* will overflow in the earth’s vessels, and disaster will result. It will then be impossible to raise grain there.’”

According to Wei Zhao, in the first day of the second month in spring, namely the New Year of the lunar calendar, the sun and moon reach the constellation *ying shi*, in the northern seven *su*. At dawn of the *li chun*, the star *fang* in the eastern seven *su* cross the meridian. Since this coincides with the arrival of the planting season, the latter star is also called the star of agricultural good fortune. Apparently, the astronomer is advising Ji, who is a head agricultural official, that the time has come to plow the fields, and that if time is lost, it will not be possible to raise grain. The reader’s attention is immediately drawn by the words used to express the condition of the soil before spring. There is repeated use of anatomical metaphors to express a state such as when *yang qi* is accumulated thick in the earth, the *qi* of the earth beginning to move.

Concerning “the earth’s vessels,” Wei Zhao says that “vessels indicate the *li* (grain, streak).” Furthermore he says; “If the *qi* will overflow in the earth’s vessels and congeal, then disasters and epidemics will result.” This statement reflects the belief that there are vessels in the earth through which *qi* is flowing, and that these channels are opened. If one does not move the earth and stimulate good flow, congestion of the *qi* will result, and it will not be possible to raise crops, the thinking goes.

This conjures the image of the human body's blood vessels. Incidentally, another expression used, *tu gao*, describes the fertility of the soil. The suffix *gao* means "fat," so needless to say this is another expression which conjures images of human or animal anatomy. This passage in *Guo Yu*, by giving concrete images of the blood vessels which run through the body, tells us that the consciousness of the existence of underground passages for fluids had developed.

The above are the only examples of vessels that appear in works confirmed to be from eras earlier than that of the medical books excavated from the Mawangdui Han tomb. The earliest example is one of an animal's blood vessels. The next is a metaphorical reference to human blood vessels and the streaks along which hair grows. In other words, "vessel" originally referred to blood vessels, and its use was expanded from there to other streaks that could be seen in the human body. The notion of vessels was first put in writing at the beginning of the fourth century B.C., and at that time the word probably had two meanings. The notion of a vessel as a route for the flow of blood can probably be dated back little earlier than this period of time, since the notion corresponding to that of blood vessels cannot be seen in any works from before the Warring States period. In the medical books excavated from the Mawangdui Han tomb, which I estimate to be from around the middle of the third century B.C., the term is used in a manner that corresponds exactly to the two meanings, namely that of a blood vessel, and that of a meridian. This use of the term probably reflects usage in the everyday spoken language of the time.

The first written work dealing with blood vessels as a part of the human body and in connection to medicine is the item of *yang yi* in *Zhou Li*, "Tian Guan".

"The usual treatment for an ulcer consists of attacking it with five poisons, nourishing it with five *qi*, and curing it with five medicines, and regulating the condition with five tastes. Usually, the medicine nourishes the bone with sourness, nourishes the sinews with pungency, nourishes the vessels with saltiness, nourishes the *qi* with

bitterness, nourishes the flesh with sweetness, and nourishes the *qiao* (orifices of the human body) with slipperiness. This is the medicine that those suffering from ulcers usually receive.”

Zheng Xuan notes, “salty is the taste of water. Water, like vessels, flows through the earth.” There is almost no doubt that an account like the previous one, which is clearly based on the theory of the five phases, was written at the end of the Warring States period or, at the latest, in the beginning of the Han dynasty.

There is *Lu Shi Chun Qiu* which was probably written a little later than the medical books excavated from the Mawangdui Han tomb. It is in this book that the term “blood vessel” first appears. “The blood vessels become clogged,” because of failure to control desires (vol. 2 ‘Qing Yu’), and “the blood vessels desire to be clear” (vol. 12 ‘Da Yu’). Furthermore, “if food, drink, and lodging are all taken care of, then the nine orifices, the hundred sinews, and the thousand vessels will be clear and smooth” (vol. 21 ‘Kai Chun’). Gao You notes that, “if they are clear, smooth, and not clogged, there will be no illness.” It seems likely that the term “thousand vessels” also refers to the blood vessels.

With ‘Shui Di’ in *Guan Zi*, chap. 39, we finally have conscious expression of the analogy of surface waterways and blood vessels:

“Water is of the blood and *qi* of the earth, and it flows as if through vessels.”

In the quotation of *Tai Ping Yu Lan*, vol. 58, this expression is as follows: “water is the blood and *qi* of the earth, and it flows through vessels.” “As if” has been dropped from the sentence. Whether simile or metaphor, the flow of rivers was grasped as the flow of blood in the body’s vessels. The reverse is not true. Guo Mo-ruo sees this ‘Shui Di’ as a work from the period in which Xiang Yu of the Western Chu state ruled from Peng Cheng.²⁷ Luo Gen-ze views it as the work of a physician from the beginning of the Han dynasty.²⁸ In any case, one would probably not be far off the mark to assume that it is a piece of literature from the very beginning of the Western Han dynasty. As already noted, *The Inner Canon*

of the *Yellow Emperor* turns this analogous relationship around, going so far as to use a metaphor to compare the structure and functions of the vessels to those of rivers.

One more thing that should be remembered is that the term *di mai* (earth vessel) existed in everyday language. It first appears in the biography of Meng Tian of *The Historical Record*, vol. 28:

“The earthworks to build the wall stretch more than 10,000 *li* (one *li* = 405 m) from Lintao to Liaodong. There is no way that they could not cut across earth vessels. Tian, then, is to blame for this.”

Meng Tian is the Qin general who accomplished the major feat of “building the Great Wall, following the contours of the earth, making use of its steeps. The distance is more than 10,000 *li* from Lintao to Liaodong.” The term *shui mai* (water vessel) was created later, in the Wei and Jing dynasties. It was that difficult to create the image of a river as a vessel, and accordingly, there is almost no possibility that the notion of vessels was seized upon as the result of analogy with waterways.

I shall present the above findings as the following proposition.

Proposition 4: The term “vessel” was originally created to express the concept of blood vessels, and indicated the channels through which blood flowed, but it then came to be used for the concept of other channels in the body.

When considering the matter along this line of thought, it should be possible to understand the reason why vessels appear in the medical books unearthed at the Mawangdui Han tomb, but points do not. From the very beginning, the “vessels,” which were later called “meridians,” were understood to be holistic channels through which fluids flowed. It is not the case, as has until now often been thought, that a number of points were discovered, then connected, so that the notion of vessels came into existence analytically as connecting lines. In *Wu Shi Er Bing Fang*, in the case of a hernia of the groin, one other method of treatment involved performing moxibustion on the left middle toe, left *shin*, top of the head. The top of the head corresponds to what was later called the

bai hui point, but the latter two are not specific points. Despite being limited to the left foot instead of two feet, there is no direct connection to the points that follow. At any rate, the notion of vessels was already in existence before the notion of points was clearly established, even if the recognition of the idea of points was in a very premature phase at that point.

Proposition 5: The “meridians” were first discovered as “vessels.”

Corollary 5–1: The notion of meridians did not come into existence as one of lines interconnecting points.

There is no doubt that analogy with the blood vessels contributed to the formation of the concept of meridians. There was a close connection between the two, with blood flowing through blood vessels, and *qi* flowing through meridians. It is questionable how strictly a distinction was made between the two. Both as concepts and as actual channels, the two either matched, were separate, or else overlapped to some extent.

Corollary 5–2: Both blood vessels and meridians were simply called “vessels.”

Corollary 5–3: A meridian was the route by which an illness made itself known, or the area to which it belonged.

Corollary 5–4: Blood vessels and meridians were thought to be profoundly linked. For this reason, the illness of the meridians was diagnosed based on the condition of the blood vessels’ pulse. It was from this that the unique method of diagnosis of the vessels came into existence.

Corollary 5–5: The notion that all of the body’s vessels were connected and that blood and *qi* circulated through them had not yet come in to existence.²⁹

It is very possible that the existence of meridians was discovered by physicians who used moxa for magical therapies. This is because the idea of routes or areas of illness caused by gods of illness invading the body is highly compatible theoretically with the concept of vessels. At least, there is no room for doubt about the sixth proposition.

Proposition 6: Meridians were discovered by people who were performing therapy involving burning moxa on the skin.

This discovery was a definite step forward.

Proposition 7: When the method of performing moxibustion with moxa on meridians was invented, moxibustion in the proper sense of the term as a form of heat-stimulation therapy came into existence.

Corollary 7-1: The knowledge of the meridians' types, nomenclature, number, courses, corresponding illnesses and symptoms, methods of diagnosis, etc., increased with the development of moxibustion. At the same time, they began to be arranged into a system which, by the end of the Warring States period, had taken some preliminary form.

Corollary 7-2: The system of eleven vessels was established as follows: first, the three *yin* vessels originating in the feet were discovered, followed by the three *yang* vessels, for a total of six foot vessels. After these vessels' routes, the illnesses and symptoms that belonged to them, and the connection with the pulse became quite clear, this knowledge was applied and extended, leading to the discovery of the two *yin* vessels originating in the hand, and then of the three vessels originating in the shoulder, ear, and tooth. Finally, the latter three vessels were understood to be the three *yang* vessels of the hand.

Corollary 7-3: The notion of the three *yin* and three *yang* (*tai yin*, *shao yin*, *jue yin*, *tai yang*, *shao yang*, and *yang ming*) came into existence as a means of comprehending the meridians in a systematic manner.

Corollary 7-4: The method of diagnosis was based on the idea that the *yin* vessels of the foot were "dead" vessels, whereas the *yang* vessels of the foot were "live" vessels.

Moxibustion had already gone beyond being simple experience-based medicine, and had begun to be dealt with in a systematic and theoretical manner.

This trend was advanced all the more, and a major revolution in the world of medical treatment was brought about, by the invention of acupuncture. This became a trigger for innovations in therapeutic techniques, and the rapid development of medicine began.

Proposition 8: In the very end of the Warring States period, acupuncture was invented.

The idea of piercing with needles was surely derived from *bian fa*. On example of this is the mention of surgery involving making a hole in the skin with *bian shi* in *Wu Shi Er Bing Fang*.

Proposition 9: Acupuncture was established as follows: some of the techniques of acupuncture were added to the developed theoretical and technical base established by moxibustion, and thermal stimulation by moxa was replaced by physical stimulation by needles.

The innovators who presented the new technique called acupuncture to the world were aware of the fact that it was a therapy that combined, carried on, and developed both moxibustion and the use of *bian*.

Corollary 9-1: Acupuncture inherited virtually all of moxibustion's accumulated theoretical and technical knowledge, changed it to fit techniques using needles, and developed it.

For that reason, one cannot say that moxibustion was absorbed by acupuncture.

Corollary 9-2: Moxibustion was influenced by acupuncture, but continued to exist as a separate area of medical technique, thus assuring its place in the world of medicine alongside acupuncture.

The same sort of relationship existed between acupuncture and the use of *bian*. The needles used for early acupuncture included needles that were modeled on *bian shi* and had the same functions.

Corollary 9-3: Acupuncture tried to carry on the practice of *bian* in its entirety, but the surgery of external medicine developed as an

independent branch, and acupuncture managed barely to absorb simple bloodletting techniques and nothing else.

Considering the difference in the nature of the two branches, it was probably a natural turn of events that acupuncture gave up on surgical techniques.

The acupuncture school of medicine was faced with the task of solving two major theoretical and technical problems. First, they had to create a theory which could form the basis for techniques effective in curing myriad diseases, since they claimed that one needle could treat all illnesses. This problem was actually addressed first by moxibustion. In the two versions of *Shi Yi Mai Jiu Jing* excavated from Mawangdui, for example, more than seventy illnesses are mentioned, and the vessels upon which moxibustion should be performed are indicated. Acupuncture was the immediate heir of this problem. Second, acupuncture was a far more dangerous technique than moxibustion. *The Inner Canon of the Yellow Emperor* stresses time and again what a dangerous technique acupuncture is. According to 'Ci Fa' of *The Grand Basic*, or the 5th chapter entitled 'Gen Jin' of *The Divine Pivot*, "a good physician will even out the *qi*, a mediocre doctor will throw the meridians into disorder, and a bad physician will sever the *qi* and put the patient's life in danger." This is the danger that comes with inserting a metal needle into the body. In that case, there are a few matters that must be resolved before inserting the needle.³⁰ The first is the question of the thickness of the needle (see Fig. 1). Needles have tended to grow thinner over the ages. The second is the question of the toxicity of the needle's material. According to the early Northern Song work *Ri Hua Zi Zhu Jia Ben Cao*, they were made of non-toxic horse bits. According to Needham and Lu, this was soft steel with low carbon content. The third is the question of bacterial infection. In the middle Ming work *Zhen Jiu Ju Ying*, there is mention of sterilizing needles, which involved disinfection by medicines, boiling, and cleansing with saponin, and of flaming needles, which involved burning needles with a lamp. A method corresponding to the latter, called *fan zhen* (burning needles), can be found in *The Inner Canon of the Yellow Emperor* (*The*

Grand Basic, vol. 22 'Jiu Chi', *The Divine Pivot*, vol. 2 'Guan Zhen', and *The Grand Basic*, vol. 13 'Jing Jin', *The Divine Pivot*, vol. 4 'Jing Jin'). A method known as *cui ci* by *fan zhen*, which was used with the goal of combining the effects of thermal and physical stimulation, unexpectedly resulted in disinfection. On the other hand, there is no indication in *The Inner Canon of the Yellow Emperor* of a general understanding of the necessity of disinfection. In any case, the solution to this problem must have required extended accumulation of experience. Works such as *Zhen Jiu Ju Ying* reflect this accomplishment.

It was necessary at this point to solve the problem of where to insert the needles. A metal needle with a diameter close to two millimeters is thrust into the body. If it is inserted in the wrong place, it cannot but deprive the victim of his life. This is why, in later generations, the areas which must never be pierced are indicated, and the texts of legal medicine always contain case studies in which acupuncture and moxibustion were performed on the wrong place. The problem facing the acupuncture school's second pressing task was to establish which places on the body could be safely pierced.

The first two problems boil down in actual practice to a single question of what places can be safely and effectively pierced. It seems to me that a discovery was made and a concept established in order to solve this problem. This discovery/concept was none other than the existence of points. Even if we speculate that the idea of points, or something corresponding to it, might have been born of moxibustion, it never got past the very premature stages, and not even a handful of individual points were established or named.

Proposition 10: The system of points was discovered through acupuncture.

Needless to say, it is likely that the thrust of the search for points was first directed toward the vessels that moxibustion had revealed. The main points were discovered on cardinal vessels (*jing mai*). There were quite a few points which were not on meridians, but these are later arranged and synthesized into a system of channels through the notions

of collaterals (*luo mai*) which connect channels or the eight extra cardinal vessels (*qi jing ba mai*). Needless to say, moxibustion, influenced by acupuncture, adopted points.

The system of diagnosis and treatment based on blood vessels, the cardinal vessels, and points was not something likely by its nature to have been formed or developed simply based on experience. Something of this depth could only have been arrived at through high-level theoretical contemplation. At the same time, only with such theoretical backing could acupuncture have asserted its superiority over the experience-based methods of the past. The physicians who developed the new science called acupuncture and confirmed its effectiveness formed a school of medicine, advanced their theory and techniques, broadened their assertions, taught apprentices, and spread their therapeutic practices. One group was the most active, attained superior results, and gained unparalleled authority. This was the group whose members wrote many treaties in the name of the Yellow Emperor and his masters of medicine. I have called this group the Yellow Emperor school. ‘Yi Wen Zhi’ of *Han Shu* suggests that there were at least two other such groups, namely the Bian Que school and the Bai Shi school.

Proposition 11: Physicians who developed and believed in acupuncture formed and acted in schools of medicine.

Corollary 11–1: The most active and authoritative acupuncture school of medicine was the Yellow Emperor school, and there also existed the Bian Que school and the Bai Shi school.

Corollary 11–2: By the end of the Western Han dynasty, these schools had compiled their achieved results to date in *Nei Jing* (*The Internal Book*) and *Wai Jing* (*The External Book*) bearing the names “Yellow Emperor,” “Bian Que,” and “Bai Shi,” respectively.

There remain a few questions regarding the origins of the schools. What sort of groups first established schools of medicine? With the exception of the reference in *Han Shu*, there remain no traces of the Bai Shi school, but *Mai Jing*, vol. 5, offers some clues about the Bian Que school. Therein, alongside ‘Zhang Zhong-jing Lun Mai’, are four chapters on

diagnosis bearing Bian Que's name, namely, 'Bian Que Yin Yang Mai Fa', 'Bian Que Mai Fa', 'Bian Que Hua Ta Sheng Se Yao Jue', and 'Bian Que Zhen Zhu Fan Ni Si Mai Yao Jue'. These "Bian Que" chapters were of course edited during the Han dynasty, but it is possible that, in their original form, they date back as far as the end of the Warring States period, before the invention of acupuncture. The term "dead vessels," for example, which is found in the last essay, although it is not specifically defined, is undoubtedly indicating the same three *yang* vessels of the foot as the term "dead vessels" in *Yin Yang Mai Si Hou* excavated from the Mawangdui Han tomb. The use of the term "dead vessels" had vanished by the time of writing of *The Inner Canon of the Yellow Emperor*. In addition, in such expressions as "a person whose vessels are beating like the pecking of a sparrow in a remote corner of the house will die," there is an antiquity similar to the expression, "If the pulse is taken and found to be like three men pounding a mortar, the patient will die within three days" in *Zu Bi Shi Yi Mai Jiu Jing*.

According to the testimony of the biography of Cang Gong in *The Historical Record*, "the Yellow Emperor's and Bian Que's Books on Vessels" definitely existed at the beginning of the Western Han period. The "Book on Vessels" that bore Bian Que's and the Yellow Emperor's names formed the basis of their schools' theories, and doubtless were the works that became the schools' starting points. There were no titles on the medical books excavated from the Mawangdui Han tomb. The establishment of titles must have some connection to the establishment of schools. The end of the confrontation between the schools, however, was reached in the Eastern Han dynasty.

Corollary 11-3: In the Eastern Han dynasty, the Yellow Emperor school absorbed and combined with the Bian Que and Bai Shi schools, and the fusion of the three schools was realized.

Needless to say, the price that history has paid for this is the loss of the works of the Bian Que and Bai Shi schools.

The greatest contribution of acupuncture to Chinese medicine, other than the discovery of vessels, is the theoretical aspect. On one hand, it

allowed the solution of the problems inherent to acupuncture. It also allowed acupuncture to assert its superiority over other schools such as those advocating moxibustion and medicines. Furthermore, the theory which they constructed for the purpose of resisting other acupuncture schools has become basic theory applied in all fields of medicine.

Proposition 12: The basic theory of Chinese medicine was established in the fields of acupuncture and moxibustion, particularly the former. As this theory advanced along with the techniques, it provided a theoretical basis for other fields.

The most prominent example of this can be seen in the work of Zhang Zhong-jing, a master of diagnostic medicinal therapy from the end of the Eastern Han dynasty. As I have already related, he systematized the science of medicinal treatment based on the six-meridian illness, which had a decisive effect upon later generations' clinical medicine and basic medicine.

NOTES

1. Regarding the history of acupuncture and moxibustion, see Song Da-ren (1), 'Zhen Jiu de Fa Zhan he zai Shi Jie ge Guo de Xian Zhuang' (The Development of Acupuncture and Moxibustion and the Current State of Research Worldwide), *Zhong Hua Yi Shi Za Zhi*, Jan. 1954; Li Yuan-ji (1), 'Zhong Guo Zhen Jiu Xue Yuan Liu Ji Lue' (A Short Account on the Origins of Chinese Acupuncture and Moxibustion Research), *ibid.*, Apr. 1955; Shanghai Institute of Traditional Chinese Medicine, Educational Research Group on Acupuncture and Moxibustion (ed.), *Zhen Jiu Xue Jiang Yi* (Lectures on Acupuncture and Moxibustion), Shanghai Kexue Jishu Chubanshe, 1960; Lu Gweidian & Joseph Needham (1), *Celestial Lancers, A History and Rationale of Acupuncture and Moxa*, (3) Historical Growth of the System, Cambridge University Press, 1980, et al.

Among these, there are some, like Lu & Needham (1), that begin the descriptions with the article of the 10th year of the reign of Duke Cheng (581 B.C.) in *Chun Qiu Zuo Zhuan*, which has come to be interpreted as the earliest mention of acupuncture therapy. Some, like Li Yuan-ji (1), also subscribe to the notion that acupuncture dates back to exceedingly ancient origins. Li (1) says, "the origins of acupuncture and moxibustion therapy in China, according to the descriptions in the literature and the opinions of many scholars, are probably found in the neolithic (c. 3000 B.C.)." (p. 263) Wen Shao-feng and Yuan Ting-dong assert in *Yin Xu Bu Ci Yan Jiu: Ke Xue Ji Shu Pian* (A Study of Divination Phrases from the Ruins of Yin: Part of Science and Technology. Sichuan Province Academy of Social Science Chubanshe, 1983, pp. 333–336), that mention of acupuncture and moxibustion treatment can be found on Shang dynasty inscriptions on bones and tortoise shells.

2. Concerning Bian Que, see Yabuuchi Kiyoshi (1), *Chungoku Bunmei no Keisei* (The Formation of Chinese Civilization), Iwanami Shoten, 1974, pp. 78–80, and Yabuuchi Kiyoshi (2), *Kagakushi kara mita Chungoku Bunmei* (Chinese Civilization from the Standpoint of the History of Science), NHK Books, 1982, pp. 41–46.

3. For example, see *Zhen Jiu Xue Jiang Yi*, p. 17, and Lu & Needham (1), pp. 79–80.

4. For details, see Liu Zhang-lin (1), *Nei Jing de Zhe Xue he Zhong Yi Xue de Fang Fa* (Philosophy of *Nei Jing* and the Methods of Chinese Medicine), chap. 1 'Nei Jing Xing Cheng de Nian Dai' (Formative Years of *Nei Jing*), Kexue Chubanshe, 1982.

5. For example, Chen Bang-xian (1), *Zhong Guo Yi Xue Shi* (History of Chinese Medicine. Shangwu Yinshuguan, 1957, 3rd edition) states that "*Nei Jing* was born in the Warring States period,

and completed in the Western Han dynasty.” (p. 59) In Yabuuchi (1) & (2), and Jia De-dao (1), *Zhong Guo Yi Xue Shi Lue* (A Short History of Chinese Medicine. Shanxi Renmin Chubanshe, 1979) very similar opinions are expressed.

6. According to Lu & Needham (1), who mention Liu Bo-jian and He Ai-hua's names, “With regard to the dating, the consensus of scholarly opinion is that *Su Wen* belongs to the 2nd century B.C. and *Ling Shu* to the 1st century B.C.” (p. 89)

7. Yan Yi-ping (1), ‘Zhong Guo Yi Xue Zhi Qi Yuan Kao Lue’ (A Short Account of the Origins of Chinese Medicine), in *Zhong Guo Ke Ji Wen Ming Lun Ji* (A Collection of Treatises on Chinese Science, Technology and Culture), ed. by Guo Zheng-zhao et al., Mutong Chubanshe, 1978, pp. 455–456.

8. According to Lu & Needham (1), “With regard to the dating, the consensus of scholarly opinion is that *Su Wen* belongs to the 2nd century B.C. and *Ling Shu* to the 1st century B.C. only a few writers invert the sequence. A few have preferred to make *Ling Shu* Later Han (1st or 2nd century),” and they mention the names of Li Tao and Fan Xing-zhun. (p. 89)

9. For example, Beijing Institute of Traditional Chinese Medicine (ed.), *Zhong Guo Yi Xue Shi Jiang Yi* (Lectures on the History of Chinese Medicine), Shanghai Kexue Jishu Chubanshe, 1964; Ren Ying-qiu (1), ‘Huang Di Nei Jing Yan Jiu Shi Jiang’ (Ten Lectures on the Study of the *Huang Di Nei Jing*), in *Nei Jing Yan Jiu Lunrong* (The Collection of Treatises on the Study of the *Nei Jing*), ed. by Ren Ying-qiu & Lin Chang-lin, Hubei Chubanshe, 1982; Du Shi-ran et al. (1), *Zhong Guo Ke Xue Ji Shu Shi Gao* (The History of Chinese Science and Technology), vol. 1, Kexue Chubanshe, 1982.

When, however, *Nei Jing* is referred to here, those seven chapters which were added in a later period, namely, *The Basic Question*, chapters 66–71 and 74, are excluded. These are the so-called Yun Qi seven chapters, entitled *Tain Yuan Ji Da Lun*, *Wu Yun Xing Da Lun*, *Liu Wei Zhi Da Lun*, *Qi Jiao Bian Da Lun*, *Wu Chang Zheng Da Lun*, *Liu Yuan Zheng Ji Da Lun*, and *Zhi Zhen Yao Da Lun*.

10. Yamada Keiji (1), ‘The Formation of Huang-ti Nei-ching’, *Acta Asiatica*, no. 36, 1979, pp. 67–89.

11. Luo Gen-ze (1), *Zhu Zi Kao Suo*, Renmin Chubanshe, 1958, p. 309.

12. Yang Bo-jun (1), *Chun Qiu Zuo Zhuan Zhu*, vol. 1, Zhonghua Shujyu, 1981, p. 43.

13. Guo Mo-ruo (1), *Jin Wen Yu Yi Zhi Yu*, Bunkyo Shoten, 1932, pp. 34–45.

14. Hayashi Minao (1), *Chugoku In Shu Jidai no Buki* (Weapons of Yin and Zhou dynasties in China), Research Institute of Humanities, Kyoto University, 1972, pp. 127–129.

15. See Yamada Keiji (2), ‘The Origins of Decoction’, this book, pp. 129–130.

16. For details, see Yamada (1), and Yamada Keiji (3), ‘Kyukyū Happu Setsu to Shoshi Ha no Tachiba’ (The Nine Palaces-Eight Winds Theory and the Standpoint of the Shao Shi School), *Tobo Gakuho*, vol. 52, Kyoto, 1980, pp. 199–202 and 236.

17. See Yamada (2), pp. 109–112.

18. See Yamada (2), pp. 115–120.

19. According to the Manuscript of *Mai Shu* excavated from the Zhangjiashan Han tomb at Hubei Province in 1983/84, this first missing character is 氣, and next six missing character are 則視有過之脈. And therefore, the translation must be corrected as the following: “When *qi* goes ... down, you must examine a iled *mai*, and ...”

20. See Yamada (1), pp. 71–75.

21. Yamada (3), ‘In Yo Myaku Shi Sei Ko’ (The Deagnosis of Death and Life by Yin and Yang

Vessels), in Yamada Keiji (ed.) (4), *Shin Hatsugen Chugoku Kagaku Shi Shiryo no Kenkyu: Ronko Hen* (Newly Discovered Material on the History of Chinese Science: Part of Treatises), Research Institute of Humanities, Kyoto University, 1985, pp. 225–234.

22. See Ma Ji-xing & Zhou Shi-rong (1), ‘Kao Gu Fa Jue zhong Suojian Bian Shi de Chu Bu Tan Tao’ (Preliminary Investigation of *Bian Shi* Found in Archaeological Excavations), *Wen Wu*, 1978, 11; Wang Xue-tai, ‘Zhen Jiu Shi de Xin Zheng Ju: Jin Nian Chi Tu de Zhen Jiu Wen Wu’ (New Clues about the History of Acupuncture and Moxibustion: Recently Excavated Acupuncture and Moxibustion Artifacts), in *Zhen Jiu Yan Jiu Jin Zhan* (The Progress of Acupuncture and Moxibustion Research), ed. by Institute of Traditional Chinese Medicine Research, Renmin Weisheng Chubanshe, 1981. Ma & Zhou classify *bian shi* as follows:

- (1) *Bian shi* used for poultices.
- (2) *Bian shi* used for Chinese massage.
- (3) *Bian shi* used to cut open carbuncles and release stagnant blood.
- (4) *Bian shi* used to strike the surface of the body.

The only thing, however, that has been called actually *bian shi* is 3. See also Sakurai Kensuke (1), ‘Shin Shutsudo Iyaku Kankei Bunbutsu ni tsuite’ (Concerning Newly Unearthed Medical Artifacts), in Yamada (4), pp. 347–368.

23. Chinese Academy of Social Sciences, Institute of Archaeology, Hebei Province Office for the Management of Artifact (ed.), *Mancheng Han Mu Fa Jue Bao Gao* (Report on the Mancheng Han Tomb Excavation), Wenwu Chubanshe, 1980, vol. 1, pp. 116–119; vol. 2, color photo 14, figures 75, 76; Zhong Yi-yan (1), ‘Xi Han Liu Shen Mu Chu Tu de Yi Liao Qi Ju’ (Medical instruments excavated at the Western Han Liu Shen’s Tomb), *Kao Gu*, Mar. 1972.

24. See Yamada (2), pp. 135–139.

25. Chen Qi-you (1), *Lu Shi Chun Qiu Xiao Yi*, vol. 1, p. 78, note 18.

26. Lu & Needham (1), pp. 22–23.

27. Guo Mo-ruo, Weng Yi-duo & Xu Wei-yu (1), *Guan Zi Ji Jiao*, vol. 2, Kexue Chubanshe, 1956, p. 679.

28. Luo (1), pp. 471–473.

29. Regarding the thoughts of the cycle, see Lu & Needham (1), pp. 24–39.

30. Regarding the question of needles, see Lu & Needham (1), pp. 69–77.