

# THE EIGHT EXTRAORDINARY MERIDIANS, part #2

## MATSUMOTO & BIRCH (1986)

### Extraordinary Vessel Biorhythms

The theory of biorhythmic influences is well known. These rhythms are thought to be established by complex external cycles - the rotation of the earth, the rotation of the moon around the earth, the rotation of both around the sun and the progression of the sun along the celestial equator. These cycles are incorporated into the Chinese calendar, into astronomical science and into the stem and branch systems in medicine. In Eastern thought the concepts of qi, rhythmicity and energetic environment provide the rationale for the biorhythmic effects noted. In Western thought, esoteric ideas such as "rays" or "influences" provide the explanatory mechanism in occult systems. The concept of fields is the explanation of science.

The principal factor common to these cycles is the geomagnetic field of the earth. Considerable research has shown how the body is sensitive to variations in the geomagnetic field; many biological functions are conditioned by geomagnetic fluctuations. It is reasonable to suppose that the physical body may be affected by these field variations through the energetic system. Biorhythms would be thus the cyclic response to changes in the geomagnetic field; particularly, the biorhythmic fluctuations of the meridian and extraordinary vessel systems. By understanding the biorhythms of Chinese medical theory, we may better understand the meridians and extraordinary vessels.

The body's tai yi, the moving qi, is a reflection of the tai yi of Chinese astronomy, a microcosmic reflection of the macrocosm. The mechanism of this reflection is the ability of one energy to affect another, particularly in the closely allied system of heaven-person-earth. Both Xu Feng's biorhythmic system and Dr. Manaka's topological theory may be explained through the Nan Jing idea of a central source and its ability to respond to external energies. If we conceive of this source as an ocean, or in more modern terms an energetic field, we may posit that it is capable of responding to both internal and external influences. The idea of a heaven-person-earth triad implies that the meeting of heavenly and earthly influences in the person is mutually interactive. The source receives and transmits signals. Small biases and minor gradients, even perhaps those as small as the early bioelectrical patterns of the ovum, result in the channeling of the body's energies in predictable patterns.

As the Nan Jing describes, each of the meridian and organ systems branches through the body from this source. Just as the patterns of heavenly influence were described as stems and branches, the patterns of energetic influence in the human body are the stems and branches of the source. Through these the function of the whole may be affected. The extraordinary vessels are a specific aspect of this complex and subtle interchange of signals.

Here, the idea of a field is of considerable use. While field descriptions and theories are often mathematical and complex, the idea itself is simple. A field is an area where an energy or energies are active, or potentially active. There are many well known examples. The field of a magnet and the gravitational field of the earth are both generally known. Less understood, and more recently discovered, are the fields that surround biological life. In the human body, the heart, brain, muscles and the retina of the eye each produce a field that may be measured outside the body with sensitive

magnetometers. In effect, a field is a space where energies or objects that enter the area are acted upon in some way. The action that occurs varies according to the type of field, energy or object that interacts. In every instance, the field is a description of the force that is exerted upon the energy or object influenced.

In the present context, we may conceive of the human energetic system as a complex field, thus creating a picture of the relationships and interactions theorized in acupuncture. The heaven-person-earth triad may be seen as a diagram of potential interaction between three fields. The mutuality of the interaction is the result of their association; a change or stimulus in one field will affect the "overlapping" fields. Some of these stimuli will be energetic, that is, the quantity or quality of the energies will be changed. For example, absorbing or diminishing the quantity of an energy in one part of the field will have an effect not only on the other parts of that field, but also on any other field the interaction of which is in some way dependent on the quantity of the diminished energy. In many ways the self regulating nature of the five element phases is a description of a field where various deficits or excesses change the distribution of energy in the field.

Other interactions will be informational. For example, if the metabolism of an organism is in some way determined by the temperature of the surrounding atmosphere, cooling that atmosphere will not diminish the energy, the amount of the signal, but the organism's response will change. The idea of "cold invasion" comes to mind easily. While the external perverse cold energy does enter the meridian, that is, a material change of the meridian energy occurs, there are also changes in the function of other elements of the meridian system that are not directly invaded. The existence of the cold in the meridian signals defensive adaptations. In this regard the classical idea of defense or wei qi clearly has a warning or informational function.

The Nan Jing and subsequent descriptions of human energetic interrelations are easily conceived as overlapping fields. The level of no-form is entirely energetic and informational, the exchange between microcosm and macrocosm is most powerfully organizational. The division of yin and yang, fire and water, is also predominantly an exchange of information, the quality of the result is determined by the relative mix of the potentials described by these symbols. Ming men, the hara, the uterus, the oceans of qi and blood represent a more material, yet still predominantly energetic set of relationships and exchanges. These are the fields within the field of no-form. In turn, the triple warmer, master of the heart and the eight extraordinary vessels have a dual role. In some instances we are concerned with the quality and quantity of the energy, in other instances we are concerned with their role as an information network. If the triple warmer energy carried to the source points is excess or deficient, the resulting imbalance will be material, or metabolic. If the energy is sufficient, yet mistimed or misdirected, the result will be the malfunction of the systems that depend on its signals for their function.

In the extraordinary vessels, some of the ascribed functions are metabolic, the interchange of energy. Others are informational. In their role as "seas" they effect the distribution of qi. As topological entities they provide for the exchange of information throughout the organism. As with all Chinese energetic concepts these two functions are neither completely distinct nor separable. One salient point of the classical theorists is that such a separation is more conceptual than real. However,

by understanding the extraordinary vessels as fields within fields that are capable of both changing the distribution and quality of energy used in the body and changing the signals that control the use of that energy, we are able to understand the broadest range of therapeutic options. To take advantage of this realization, we must become familiar with the extraordinary vessel pathways.

## **Extraordinary Vessel Trajectories**

Concerning the internal and external paths of the twelve meridians, consensus points to the accuracy of the information in the Ling Shu and the Shisi Jing Fa Hui, Elucidation of the Fourteen Meridians, of 1341 AD. Concerning the extraordinary vessels, there has never been such a precise consensus. Since there have been many interpretations of the earliest explanations of the extraordinary vessels from the Su Wen, Ling Shu and Nan Jing, determining their trajectories is not an easy undertaking. Nonetheless, the main sources for this information must be the earlier classics. As additional sources, we have a preference for Wang Shu He's Commentary on the Nan Jing and Li Shi Zhen's text on the eight extraordinary vessels, the Qi Jing Ba Mai Kao. We have also used the Lei Jing, or Classic of Categories. The modern Chinese text, Nei Jing Jie Po Sheng Li Xue, Anatomy and Physiology of the Su Wen, has a good compilation of the major sources and commentaries.

It is important to remember that all these great texts are the written record of the experience and observation of their authors. Thus, in addition to the problems of translating a character language, where there is no absolute certainty that the modern meaning of a character is indeed its ancient meaning, there are the problems inherent in any language. Describing the energetic pathways of the human body in words, or in two dimensional drawings, is no simple task. The mental exercise required to reduce a three dimensional form to words or artistic representation is subject to considerable uncertainty. Is a line on the side of the face behind the lips on the front of the face, or is it at the front of the side? Though a practitioner or author may easily recognize or locate the indications of a pathway, often he cannot precisely describe this knowledge in a chart or expression.

This is further complicated by the pathway or meridian concept itself. When we write or teach, we find the idea of a channel to be useful. Yet, are there really channels? Are we discussing some physical analog of the meridian concept, if so, is this analog an actual, linear path that contains the energy flow as an aqueduct contains water? Since what we expect to "flow in the meridians" is an energy, an extremely subtle energy, such a physical conduit is unlikely. Further, physical channels have not been found. What has been found is different electrical properties in areas that correspond to the Oriental medical concepts of points and meridians. If we are to discuss the flow of energy and ascribe lateral and vertical direction to it, to allocate points along its path and posit the results of stimulating those points, we need to propose some idea of how this energy moves.

We begin with the presumption that when we are discussing meridians we are discussing gradients. Further, these gradients operate within fields, areas of potential influence. Qi, while it may be much more than electricity, is similar to electricity in that it can be described as moving from an area of greater or lesser potential to an area of a complementary and opposite potential. This is simply another yin/yang pair. Thus, meridians may be thought of as the path of least resistance between gradients. Depending on the source and polarity, energy passes from yin to yang, yang to yin, and

the meridian is the resulting course. The meridian description as a line or channel is a practical means of describing and organizing the phenomena by which we observe the transference of this energy.

This is particularly true of the extraordinary vessels. Often they are described as seas or oceans, clearly implying that the energy is at least more broadly channeled. Their intimate connection to the tai yi and their strong relationship to biorhythmic influences also suggest fields and gradients more strongly than absolute channels. The classical disagreements among commentators who have described the extraordinary vessels should not be taken as an issue of who is right or wrong. First, some allowance must be made for the linguistic problem of reporting a phenomenon that was largely inferred, rather than anatomically traced. Second, we must not allow the words of our organizing concept, "meridian," "channel," or "vessel," to misrepresent the phenomena by implying too strongly a physically fixed or absolute line. The line we use to draw the picture is not the meridian. In this sense, "vessel," which implies a larger, less linear container, is a better choice of word. Finally, we must also consider that these vessels are two dimensional only when we describe them in words or drawings. In operation, they are three dimensional and may be wider or thinner at various places along their trajectories.

In response to local gradients, variations in potential, a meridian could be less a channel and more an area. Thus, these energetic seas and oceans may have their own topography, now a stream, now a river and later perhaps a broad sea. It is useful to remember the concept of a field when thinking of meridians. As noted earlier, this idea from energetic physics is three dimensional and represents an area of kinetic or potential energy. While fields are often found in relation to material forms and structures, they are entirely energetic.

They are shaped by the energetic potentials that are their source and are able to influence other fields. Thus, the idea of a field satisfies all the criteria of a meridian in classical medical thought and provides the conceptual tools necessary to consider energy flow without the limits inherent in the word "channel." If we keep in mind the idea of a field when discussing meridian trajectories, we are able to understand that frequently all the variant opinions regarding a meridian path may be no more than different, partial descriptions of the same phenomenon.

## **Applications of Extraordinary Vessel Theory**

This present study of the eight extraordinary vessels is by no means exhaustive. There are undoubtedly variations and descriptions that we have not recorded. However, those presented do include sufficient information for practical application. As students of Oriental medicine we cannot simply accept one theory and forget the rest. Understanding the generality of the descriptions, particularly the "standard" descriptions that we create as organizational aids, we should be aware of many of these possible pathways. When we palpate a point and find reactivity, or observe signs and symptoms in an area, it may be a non-standard idea or variant trajectory that provides the clue with which we are able to solve the problem. If we know only one possibility, we diminish our chances of making a complete differential diagnosis. It is always useful (unhappily or interestingly so, depending on one's perspective), to remember that each of these trajectories are just theories. It is inevitable that events in a living human will confound theory. As a working whole, the body is

greater than the sum of the theories used to describe the various parts. The greater our background knowledge, the greater our chances of helping any patient.

It is in treatment that a broad knowledge of theory and diagnosis is particularly useful. Information regarding the eight extraordinary vessels provides us with a wide range of point correspondences and potential energetic results. Certainly, the trajectories of the vessels demonstrate that considerable energetic exchange and transformation occurs in the abdomen, at the energetic center that we described. Four of the extraordinary vessels have their origins on, or in, the abdomen. The other four pass over or around the edges. These paths represent the simplest and most obvious level of energetics involved. There are other deeper energetic functions.

The following tables summarize the pathway discussions. As well as broadening our diagnostic repertoire, they further serve as potential treatment points, following the Zhen Jiu Da Cheng's principle:

*One has to examine the right and left, upper and lower {parts of the body}. . . feel and palpate the body to find something with your hands, then do some exercises and take the disease away with the {eight} points. This is the rule, according to the rule, one can remove diseases. If the diseases don't pass, one has to ask {palpate} the meeting points {and treat them}.*

If the regular treatment doesn't work, treat the meeting points on the pathways of the vessels. As we will see in the next chapter, the meeting points are probably the "he" points located around the elbows and knees. The Zhen Jiu Ju Ying seems clearly to refer to the he points, but in the Zhen Jiu Da Cheng, the reference is not so clear, the "meeting" points are just as likely intended.

## **Extraordinary Vessel Meeting or Correspondence Points**

The following tables summarize the points that are associated with the eight extraordinary vessels. Palpation and observation of these points is a significant key to the successful use of the extraordinary vessels. Some of the points listed are associated with the twelve meridians or other energetic entities. We have included these as they may be useful. However, correspondence points of the main trajectories are likely more useful.

Palpation is best done using the pads of the thumbs. First apply gentle pressure, then firmer pressure, to confirm the absence or presence of reactions such as pressure pain, tightness, tension, swelling, looseness, puffiness. Palpation along the length of the ren mai can reflect the condition of the ren mai. The abdominal and chest trajectories of the ren mai may possibly, but not certainly, reflect the du mai as well.

<b>Abdominal Points</b>	
<b>Point</b>	<b>Indication</b>
CV-1	chong mai, du mai
CV-5	ming men, triple warmer
CV-7	triple warmer, bladder, gallbladder, chong mai, du mai.
CV-10	spleen
CV-12	lung, triple warmer, stomach
CV-22	yin wei mai
CV-23	yin wei mai.
ST-30	du mai, ren mai, chong mai and possibly the zong qi
ST-12	yin qiao mai
KI-11 to KI-21	chong mai
LV-13	dai mai.
LV-14	yin wei mai.
SP-13	spleen, liver, kidney, stomach, yin wei mai.
SP-15	yin wei mai
SP-16	yin wei mai

Note that the area between the kidney and stomach meridians from KI-11 to KI-21 also reflects the chong mai.

<b>Leg Points</b>	
<b>Point</b>	<b>Indication</b>
KI-2	yin qiao mai
KI-6	yin qiao mai
KI-8	yin qiao mai
KI-9	yin wei mai
BL-57	yang wei mai
BL-58	possibly yin wei mai
BL-59	yang qiao mai
BL-61	yang qiao mai
BL-62	yang qiao mai
BL-63	yang wei mai.
GB-29	yang wei mai, yang qiao mai.
GB-35	yang wei mai

<b>Arm and Shoulder Points</b>	
<b>Point</b>	<b>Indication</b>
LI-14	large intestine, bladder, stomach, yang wei mai
LI-15	yang qiao mai
LI-16	yang qiao mai
TW-13	yang wei mai
TW-15	yang wei mai
GB-21	gallbladder, triple warmer, stomach, yang wei mai
SI-10	yang wei & yang qiao mai (large intestine).

All points on the du mai will reflect the condition of the du mai, especially GV-12, GV-13 and GV-14.

<b>Points on the Head, Neck, Back, Side</b>	
<b>Point</b>	<b>Indication</b>
GV-1	ren mai
GV-15	yang wei mai
GV-16	yang wei mai
CV-24	large intestine, stomach, du mai
BL-1	du mai, yin qiao mai, yang qiao mai
BL-12	du mai
GB-13	yang wei mai
GB-14	yang wei mai, gallbladder, triple warmer, large intestine & stomach
GB-15	yang wei mai
GB-16	yang wei mai
GB-17	yang wei mai
GB-18	yang wei mai
GB-19	yang wei mai
GB-20	yang wei & yang qiao mai, triple warmer, gallbladder
GB-26	dai mai
GB-27	dai mai
GB-28	dai mai
ST-1	yang qiao mai, ren mai
ST-3	yang qiao mai
ST-4	yang qiao mai
ST-9	yang qiao mai, yin qiao mai

## Classical Symptoms and Treatments of the Extraordinary Vessels

The texts discussing the symptoms that indicate problems treated by the extraordinary vessels are the same texts that developed their theory and pathways: the Nan Jing, Wang Shu He's Commentary on the Nan Jing and the Zhen Jing Zhi Nan, Acupuncture South Pointer. Much of this last book is repeated in the Zhen Jiu Ju Ying, Gathering of Eminent Acupuncturists and the Zhen Jiu Da Cheng, Compendium of Acupuncture and Moxibustion. There are also basic symptomologies in the Su Wen and Ling Shu. The symptom descriptions in the Zhen Jing Zhi Nan, Zhen Jiu Ju Ying and Zhen Jiu Da Cheng are listed according to the points used. The Zhen Jing Zhi Nan and Zhen Jiu Ju Ying list symptoms for each point pair with suggestions of the twelve meridians usually associated with each symptom, and suggest treating the "he" points of these meridians where appropriate. In the Zhen Jiu Da Cheng there are symptom lists for single points and for pairs of points, and lists of diseases and symptom patterns treatable by the eight master points in combination with other points. These point combinations, which address both the root and local levels of the condition, are suitable for specific problems, and expand the clinical use of the extraordinary vessels.

A few of the extraordinary vessel symptoms described by Li Shi Zhen, where he indicated the use of acupuncture, have been included, though his treatment style was predominantly herbal, with some adjunctive acupuncture. While Li Shi Zhen did use some acupuncture to treat the extraordinary vessels, he had a different view than the author of the Zhen Jiu Da Quan. He did not, for example, use the eight master points we use today. However, his mastery of extraordinary vessel theory is clear and practical consideration should be given to his treatment ideas.

### Diagnostic Methods

Some of the signs listed by the texts are determined or verified by palpation. Most modern practitioners use palpation to find pressure pain, tension, tightness, looseness, swelling, flaccidity, weakness, knots or lack of elasticity. When palpating, it is best to use the fingers to steady the hand and palpate with the thumbs. Always strive to be consistent. Begin with gentle pressure and if no reaction is elicited, employ firmer pressure to confirm that the point is not reactive. In the older texts cryptic suggestions to "investigate the ren mai," or any of the extraordinary vessels, or to "choose a point," become more useful when interpreted as instructions to palpate the meridian pathway.

The lists of symptoms for each of the vessels include indications; from these it is obvious that treating these vessels has a broad effect. Many problems may be treated using the few points described. These lists of indications also demonstrate the physical and structural effects of extraordinary vessel treatments. For example, the du mai treats rigidity of the spine; the dai mai treats an imbalance of one side of the body from the ribs down to the legs; the yin and yang qiao mai treat relative tension and looseness of the medial and lateral aspects of the legs. The yang qiao mai also treats tightness of the lumbar area and back when bending and a feeling of fullness or swelling on one side of the body. The topological nature of the extraordinary vessels has been recognized for a long time.

It is useful to combine the symptomology of the vessels with palpatory diagnosis and topological relationships. Palpation was recommended by the Zhen Jing Zhi Nan, Zhen Jiu Ju Ying and Zhen Jiu

Da Cheng, among other books. These instruct us to examine the upper, lower, left and right parts. However, these books give us no clear or systematic description of the palpatory and topological relationships to use. Modern practitioners such as Dr. Manaka and Mr. Ito do give clear descriptions that help us understand the older books.

Another addition to the diagnostic information of the extraordinary vessels are the "meeting" or "correspondence" points on their pathways. These are the points that describe, as Dr. Manaka says, "the dividing lines of the body," and have great diagnostic and therapeutic usefulness. As the Zhen Jiu Da Cheng states:

*One has to examine the right and left, upper and lower {parts of the body}. . . Feel and palpate the body to find something with your hands, then do some exercises and take the disease away with the {eight} points. This is the rule, according to the rule, one can remove diseases. If the diseases do not pass, one has to ask {palpate} the meeting points {and treat them}*

The meeting points discussed could be interpreted as either the he points, found around the elbows and knees, or the meeting points of the extraordinary vessels. The same character is used in either case. Given the context of this discussion from the Da Cheng, it is more likely that this rule refers to the extraordinary vessel meeting points. However, similar discussions in the Zhen Jing Zhi Nan and Zhen Jiu Ju Ying make more sense when seen as referring to the he points, becoming more obvious in context:

*Make the upper and lower parts connect, make {the patient} comfortable, talking away the suffering or pain.*

Dr. Manaka's treatment procedures clearly adopt these recommendations. He uses palpatory diagnosis; he also uses therapeutic exercises. He connects the upper and lower parts using the extraordinary vessels and emphasizes the importance of the patient's comfort and relaxation during treatment. The meeting points are a further step in his treatment style that may be used as required. This treatment model is easy to use and has the advantage of approaching the problem from a variety of different directions.

## **Treatment Techniques**

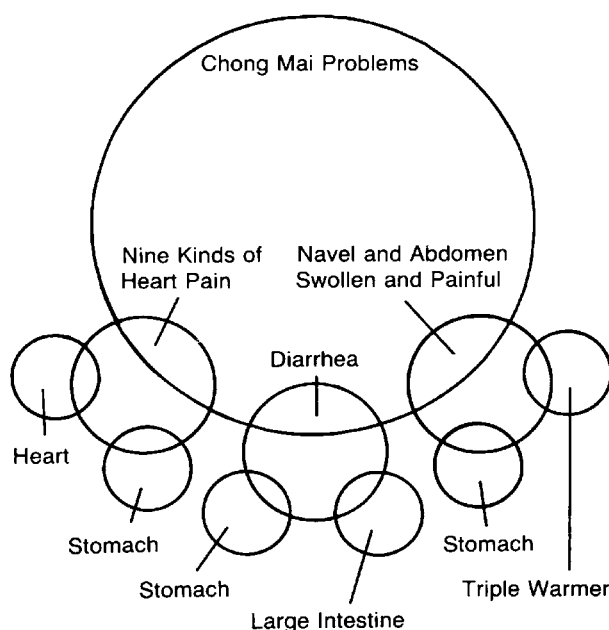
When treatments for the extraordinary vessels were described in the old books, there were, unfortunately, few descriptions of the needle or moxa techniques recommended. In the Zhen Jiu Da Cheng, for example, there are descriptions of needle and moxa techniques for tonification and dispersion, but no indication that these techniques are to be applied to the extraordinary vessel points. Since there is no reference to tonifying or dispersing the eight points, knowing exactly what needle technique to use is difficult. Similar difficulties are encountered when examining the polarity of needle application. Most texts refer to inserting the master point first, then the coupled point. However, it is not clear whether this is done bilaterally, contralaterally or ipsilaterally. There are some hints that the needles should be oriented according to the side of the body affected, location of the problem or according to what is found by palpation of the "right, left, upper and lower parts." It seems that both

classical and modern practitioners had their own treatment approach to the extraordinary vessels. Most seem to use some idea of polarity or topology, but these were not always clearly defined.

The use of the extraordinary vessel points in combination with other body points also varies according to different authors. The Zhen Jing Zhi Nan, which first described the eight points, and the Zhen Jiu Ju Ying, which reiterated the Zhi Nan treatments, both specify treating the master points first followed by the coupled points. Selection of the master point was presumably determined by the examination of symptom complexes and possibly oriented according to the findings of palpation or the location of the problem. Once the points were inserted, both texts specify "Dao Yin," Daoist breathing exercises. Then, if the problem was not cured, the practitioner was advised to select the corresponding he points. When the patient was comfortable and relaxed, the needles were removed. Presumably, the he points were selected from the meridians that corresponded to each symptom. For example, SP-4, which indicates the chong mai, was related to these symptoms:

Symptoms	Meridians
nine kinds of heart pain	heart, stomach
diarrhea that won't stop	large intestine, stomach
umbilicus and abdomen swollen and painful	triple warmer, stomach

To clarify these relationships we can conceptualize these correspondences as "sets":



All the symptoms belong to the larger, more general set of conditions that may be treated through the chong mai. Each is also a member of a subset of conditions related to a particular meridian that could be treated through the chong mai, the particular meridian he points or both. Gao Wu, the author of the Zhen Jiu Ju Ying, summarizes this idea with a simple analogy:

*If we think about this treatment style, it is really broad, it's like trying to catch a single rabbit in a field with a massive net.*

The extraordinary vessel is the massive net, the symptom the rabbit. To continue the analogy, we can imagine the associated meridian he point as a hand net. This series of correspondences is historically interesting as these were possibly influential for the later development of differential diagnosis, symptom complexes and point selection.

There are no clear statements of the treatment techniques employed. We can only recommend the insertion of needles to the needle depths generally specified for each acupoint. However, in the Zhen Jiu Da Cheng, the approach is different. When treating just the extraordinary vessel points, the Da Cheng specifies treating the master point first, then the coupled point. The decisions regarding which point was to be the master point and what would be the polarity of the treatment seems to have been made in a manner similar to that described in the Zhi Nan and Ju Ying. However, the Zhen Jiu Da Cheng describes symptom complexes with specific sets of treatments that combine the extraordinary vessel points with other body points. These combinations always require treatment of the master point followed by the rest of the points in sequence. In other words, it seems to have been the experience of Da Cheng author that the master point in combination with the other body points was sufficient, the coupled points were not necessary.

When treating just the extraordinary vessel points, the Da Cheng refers to exercises, though not specifically Dao Yin exercise, followed by treatment of the he points. However, we believe this reference to the he points implies the correspondence or meeting points of the eight extraordinary vessels rather than the meridian he points. In short, be aware of the treatment considerations of the source. The style associated with the Da Cheng is an essential, if not totally clear, element of the information. Note also that occasionally a point will appear twice in the Da Cheng lists of points. This seems to indicate that the points are to be treated in sequence with in-and-out needle techniques and not simultaneously while retaining the needles. Examine the main effects of the points given in the Da Cheng descriptions. The four yin points treat mainly organ, deeper, more yin problems. The four yang points treat mainly non-organ, superficial, yang problems.

Regarding needle and moxa techniques, using the techniques of modern acupuncture is sufficient. Note, however, that the modern extraordinary vessel treatment styles generally use shallow insertions. Barely insert the needles; it is not necessary to "get the qi", particularly not the "dull, heavy, aching, distended" sensation associated with some modern methods of standing insertion. Since some practitioners feel that the technique employed is able to change the effect of the point needed, it is worthwhile to consider this aspect of treatment carefully. Successful modern practitioners use shallower insertion methods; it is worth considering that the classical practitioners also may have found a less assertive technique more successful.

Finally, there are passages in both the Da Cheng and Ju Ying where the problem itself is unclear. Remember that in the history of medicine diseases that no longer exist, or that are much less common, often appear. In this circumstance we have rendered the disease as a series of symptoms that describe the problem. Where possible we have tried to give some clear western disease names.