

Contemporary Pulse Diagnosis: Introduction to An Evolving Method for Learning an Ancient Art- Part 1

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I. Introduction

Knowledge of Chinese pulse diagnosis has diminished steadily during the past century. Consequently its capacity to perceive the earliest stages of patterns of disharmony and the process of disease is sharply curtailed. Increasingly Chinese medicine has lost the ability to serve its highest purposes including the power to prevent illness. The time and patience necessary to master Chinese pulse diagnosis is not synchronous with civilizations which encourage short term vision and investment of all human attributes. The material which follows and the book upon which it is based is an attempt to revive the teaching that has been passed on to me by a master of pulse diagnosis, Dr. John Shen. This work represents the integration of hundreds of pages of notes over twenty-four years into a coherent conceptual system and a growing method of teaching small groups.

This introduction is intended to reawaken an awareness of the importance of Chinese pulse diagnosis to Chinese medicine and possibly to the future of health care. This art-science has been increasingly neglected wherever Chinese medicine has appeared in our time, as revealed by my experience during the past twenty years in all parts of the world including and especially mainland China.

What is the potential value of pulse diagnosis at the end of the twentieth century? In Japan I participated in a conference the purpose of which was to explore the health care system of the future. Apparently the Japanese government has concluded that the current health care system is dysfunctional. The participants were representatives of a wide variety of 'traditional medicines' from many countries, even from the Sami Laplander culture. The stated thrust of the direction of future health care in Japan will be self-help and prevention.

The Normal pulse is a sensitive and precise measurable standard of health. It enables us to detect early deviations from health. It provides us with a preventive medicine. All of these capabilities are almost completely lacking in our modern health care system.

Increasingly people and governments are acknowledging the failure of modern medicine to provide affordable efficient health care. The drift is towards finding medical systems which emphasize the cheapest most effective medicine, wellness and prevention. Prevention depends entirely on an exquisitely sensitive diagnostic scheme which is capable of accessing the process of disease close to its inception.

In our time, the only marginally available diagnostic instrument which embodies this sensitivity is the art and science of the Chinese pulseⁱ. The Ayurvedic and Tibetan models are simply too unavailable outside of their countries of origin.

This growing recognition of the importance of what is missing from contemporary health care systems renders pulse diagnosis the most significant single body of current medical knowledge relevant to the development of an efficacious preventive medical system.ⁱⁱ

Pulse diagnosis is only as useful as the proficiency with which it is practiced. What we must acknowledge is that despite its enormous potential for good, without the skills which have been largely lost today, especially in the land of its originⁱⁱⁱ, the value of Chinese pulse diagnosis becomes irrelevant.

The object of the forthcoming book and of the workshops with which it is associated is to preserve the subtlety of this art/science so that it may serve to fulfill this potential as an instrument of early diagnosis and prevention. Furthermore, it is an attempt to pass on the most extraordinary creative augmentation of this tradition in generations by one of the great Chinese physicians of the twentieth century. His legacy enriches this diagnostic medium far beyond what is known and described in our literature or taught today in the principal centers of education of Chinese medicine.

The enormous body of knowledge which can be discerned by touch at the radial arteries would have been largely unknown to me had I not had the great good fortune to meet the master of this tradition in 1974. Dr. Shen's capacity to use the pulse diagnostically left me little choice but to follow him after our first meeting. His lifelong study of the pulse and his extraordinary ability to use it with all of the many and varied diagnostic tools at his disposal to plumb the depths of his patients, has left many observers disbelieving and certain that this wizardry is primarily intuitive.

Over the years of our association Dr. Shen has been able to demonstrate to me logically and reasonably, exactly how he arrives at his conclusions. He was quick to point out that the interpretation of the pulse is influenced by body type, history and a longitudinal viewpoint based on changes in the pulse over time. His interpretations are therefore an integration of what is at his finger tips with many other elements of perception and interaction. The mystery is how one person's intelligence can combine such global awareness of what is seen, heard and touched with a lifetime of study and practical experience to fathom the human enigma with an accurate original perspective.

Commencing with my retirement nine years ago I began the task of organizing all that I learned from Dr. Shen concerning the pulse and integrating it with my own experience and with that of other available sources in the English language. This project is nearing completion. My organization and interpretation of this material does vary from Dr. Shen's. It represents an attempt to bring his work, my experience and perspective, and the work of others past and present into a meaningful and richer blend of available clinical significance.

There is a wealth of information available from the pulse that I have found unmentioned in the literature and rarely hinted at in any current teaching institution either in the East or the West. It is my intention to share this information and the techniques required to access it with all who want it.

My hope is to further a tradition beginning before recorded history with an increased refinement of diagnostic information and with a classification more manageable for the twentieth century student. Its purpose is as a watershed in the modern application of the art and science of pulse diagnosis, to make it a more effective clinical vehicle for the modern practitioner.

II. Commentary

Though by far the richest source of physiological and psychological information on the pulse I have yet encountered, the methodology alluded to here is not the only valid system of pulse diagnosis, either within or outside of Chinese medicine. Pulse diagnosis has been highly developed in cultures other than the Chinese. The Tibetan physician Yeshe Dhonden is quoted as saying about his training: "But it was mastery of the third trunk, pulse diagnosis, that was the hallmark of a leading physician."^{iv}

According to Rabbi Nachman, the Kabbalah states: "Laying on of hands confers wisdom. Thus, Moses laid his hand on Joshua to give him wisdom. The Torah says, 'Joshua, son of Nun,

was full of the spirit of wisdom because Moses had laid his hands upon him' (Deuteronomy 34:9). Joshua thus became a man 'who has wind-spirit in him' (Numbers 27:18). This meant that he knew how to determine each person's wind-spirit ("*I*" *rauch*"*R*"), which is manifested in that person's pulse ("*I*"*Likutey Halakhoth, Tolaim*"*I*" 4:2). ... There are ten types of pulse. ... These ten types of pulse beats correspond to the ten Hebrew vowel points. The pulse beat is related to the shape of the vowel point ... Human life depends on the pulse. The ten pulse types parallel the types of song (see "*I*" *Likutey Moharan Tinyana*"*R*" 24). Therefore, healing requires knowing the pulses, and then knowing what song to use as a remedy ("*I*"*Likutey Halakhoth, P'ru U'R'vu*"*R*" 3:1) ...The Torah is then completed on Simchath Torah, with the verse, '...and all the mighty "*I*"*hand*"*R*"... which Moses wrought in the sight of all Israel' (Deuteronomy 34:12). This strengthens the concept of the hand.' We then immediately begin the Torah with "*I*"*Bereshith*,"*R*" the "hidden saying" ("*I*"*Likutey Halakhoth, Rosh HaShanah, Roshay Perakim*"*R*" 6:5) There are four groups of ten in this story: ten arrows, ten walls (charity), ten types of pulse (wisdom in the hand), and ten songs (power to hold back wind). ... The ten pulses parallel the Universe of Beriyah. This relates to the "*I*"*Nekudoth*"*R*" (vowel points), which are the second highest level. It also parallels the expansion SaG."^v

Ayurvedic, Egyptian and Persian, possibly Greek and Arabian medicines, also developed pulse diagnosis. One can see from the above quotes that the pulse was considered a singularly significant resource for accessing the human spirit as well as physiology in many of the ancient traditions.

III. Tradition and Revision

What I have reviewed in the literature from the best sources available to me are too frequently uncritical duplications of observations recorded two thousand years ago in language which modern practitioners find difficult to decipher. I approach Chinese medicine with the most profound respect and gratitude for tradition. However, much of what has come down to us as scripture does not stand the test of clinical scrutiny. It is as or more important to respect the messages from our own fingers with thorough confirmation by the client when those messages differ from dogma. As Dr. Shen has frequently reminded me, the people who created tradition were, after all, only people, like us.

This work, like all of Chinese medicine, is dynamic and growing as it has from its inception thousands of years ago. Chinese medicine is circular. The polarities which create the movement around and across this circle are relative and not absolute. The circle symbolizes and realizes unity, continuity, strength, dynamic fluidity, centeredness as a core of the absolute, yet has the unending capacity for expansion and contraction. For this reason Chinese medicine is mutable. It can change to meet the requirements of the new physical and psychological stresses which have accompanied the clock, the assembly line, the jet engine and the communication revolution. It is limited in its increase only by the far reaches of the expanding universe. The book from which this article is extracted is the record the participation of one man and his student in the amplification of that circle of wisdom, in and of our time.

Risking an indictment of heresy, I admonish the current and future generations to both respect, to consider, and yet to question every assertion made since antiquity including those in this article. An ongoing integration of new and old, as with Dr. Shen and others is the expedient avenue to a vital effective model of pulse diagnosis.

IV. Terminology

There is a crisis in terminology in Chinese medicine from the extreme of exact translation such as 'vacuity' for deficiency and 'replete' for excess to the Latin of Porkert. For the student, especially the American student, this crisis creates confusion and discouragement.

The classification of pulse qualities is no less bewildering. One source for instance classifies a Choppy quality as "Difficult", a term which tells nothing of the sensation or the meaning of the quality. The literature is indeed replete with terminology which is confusing, misleading and contradictory.

Students in my classes have expressed a clear preference for a less ambiguous simple nomenclature. The risk is that any attempt to create clarity in this fashion will please some, aggravate many and confound others.

There is for example the term Sinking. To most of my students the term implies a process of something moving from the surface to the depths. However the felt sensation of the Sinking quality is accessed only at the Organ depth, which is the innermost functional depth of the pulse. The pulse is therefore static at the Organ depth and not in the process of 'sinking'. Furthermore, the clinical interpretation of the 'sinking' quality implies a chronic condition that has already reached profoundly into the most crucial areas of physiology. For this reason the term Deep is substituted for Sinking.

An important task has been to correlate the many different terms for the same quality and to create a new logical terminology for our time. While attempting to clarify I have tried to include and incorporate the incredible nuances which give Chinese medicine its unique value to the world. While the subtleties may seem initially intimidating, the rewards quickly outweigh these concerns for those who persist, even for the novice.

Apart from the sheer organization of a body of knowledge which far exceeds the work of any one person on this subject the largest problem has been to reconcile Dr. Shen's English terminology with that of the previous literature. For example he uses the term Overflowing to mean what others refer to as Full. His widespread use of the term Full in our communications is not described elsewhere so I have invented a new term, Inflated to encompass the feeling sensation and special meaning of this pulse quality. This conundrum is an ongoing challenge to this presentation.

The term 'position' shall refer primarily to the individual Distal, Middle and Proximal locations on the surface of the radial pulse. It will also refer to those parts of the anatomy and physiology which Dr. Shen has discovered to be identifiable on the pulse as part of, below, medial or lateral to the regular positions.

'Level' will be used to indicate the Burner, upper, middle and lower. 'Depth' refers to the Qi, Blood and Organ, to the vertical Qi, Blood and Organ layers of the pulse from the top just below the surface of the skin to the bottom of the pulse well above the bone.

'Principal Position' shall be used to designate one of the six major traditional positions on the radial pulse such as Distal [Cun], Middle [Guan] and Proximal [Chi]. 'Complementary Position' shall be used to refer to the fifteen minor positions such as The Special Lung Pulse or the Gall Bladder.

The source of most of this information is the contribution of Dr. Shen and my own experience with his teaching. A review of the literature available in English has been as complete as possible. Except for rare exceptions endnotes will accompany only those contributions made by sources other than Dr. Shen and myself.

All of the qualities and Chinese medical terminology will be rendered with capitalization of the first letter. This includes terms specifically used by Dr. Shen such as 'Qi Wild' and 'Heart Nervous'. Most of these are referenced to chapter fourteen of *Dragon Rises Red Bird Flies* which is the only one which discusses his concepts.

I believe that even for the expert it is best to employ that classification which organizes by the most immediate and relevant felt message from patient to clinician in the act of using touch. The nomenclature used here is therefore based on sensation rather than clinical interpretation.

We access the pulse through our senses first before our mind makes associations with those sensations. We perceive Tight before we think deficient Heat, though with experience the two become almost synonymous. Furthermore before we make the diagnostic leap we usually consult other signs such as the tongue, eyes and color as well as the symptom picture before attaching final meaning to what we feel.

One example is the category 'Big' or 'Large'. Descriptions of the sensation of these qualities emphasize the width. For example Wu Shui Wan^{vi} says "It is twice as wide as a normal pulse". The terms 'Big' and 'Large' do not clearly convey that width is the principal identifying sensation. Therefore instead of 'Big' I have decided to use the term Wide which categorizes more accurately according to the sensation. When someone feels a Wide quality they will know more clearly where to look for an explanation.

In an effort to achieve a coherent system I am therefore using Wide and Thin to describe the qualities which are subsumed under the aegis of Width. The latter ties the two extremes of sensation in terms of width and only incidentally the two extremes in terms of excess and deficiency of blood.

Most sources list between nineteen and twenty eight qualities. I have encountered and can demonstrate approximately sixty-nine qualities reflecting disharmony, not including the four anomalies and the many different types of Rapid and Slow pulses.

While this may seem excessive, evoking initial and understandable trepidation in the student, I have found and have been able to demonstrate over the years the value of these finer diagnostic differentiations and discriminations to a more rational and successful treatment program. Furthermore students have absorbed these distinctions with less difficulty than anticipated and with a growing and lasting appreciation of their clinical applicability. In contradistinction to his published and spoken statements on the subject of the pulse, what is included here is a record of what Dr. Shen actually did and demonstrated to me on a day to day basis. This took place in an extensive clinical practice over a period of eight intensive and sixteen less intensive years, seeing thirty or more patients a day.

Written material on this subject is meant to be used in connection with a small group practical workshop, for which by itself it could never be a substitute. The object of the workshop is to establish the parameters of the Chinese pulse on the radial artery, to identify qualities, to establish priorities in observation, to interpret qualities, to clinically relate qualities depths and positions, to ultimately integrate pulse diagnosis with other forms of diagnosis, and to study patients, conditions and pulse configurations in greater depth.

V. Potential of Pulse Diagnosis

Even while assuming that neither palpation of the pulse or for that matter any other single diagnostic technique represent the only vehicle to the truth, let us examine the kinds of

information an experienced practitioner of pulse diagnosis can expect to obtain using this methodology.

In terms of the past one should be able to learn something about the persons constitution, about the course of their life, about their previous illnesses, about their emotional state, and about their habits e.g., work, exercise, nutrition, drugs and sex. In terms of the present, one should be able to say something about lifestyle and habits; the total body condition or True Qi; strong or weak confirmation; balance in terms of the relationship of the various organ systems to each other and between, them and external factors; whether Hot or Cold, active or passive, internal or external, deficiency or excess, stagnation or weakness are the significant pathological issues to the patient; the extent that the problems that confront the person are due more to the amount, balance, rhythm and/or circulation of fundamental substances such as qi, yin, blood, fluid, Essence or Spirit, and the stage of disease. It should tell us about the function of what Dr. Shen refers to as the Nervous System, Circulatory System, Digestive and Organ Systems.

The pulse should tell us much about the mind and the spirit, in terms of mental status and behavioral style, methods of coping, stability, worry, guilt, fear, depression, mania, tension, and frustration, recent and past emotional and physical trauma, recent and past sadness, psychotic and/or epileptic tendencies, disappointments, and unexpressed anger^{vii}. Central nervous system diseases can sometimes manifest as signs on the pulse.

The pulse, because it reveals so much immediately on an emotional level, has been, for my patients, an objective reading of their emotional state which bypasses the usual resistance to interpretation that one encounters in psychotherapeutic practices.

Most importantly, for the future, one should be able to practice preventive medicine by extrapolating from what one has felt from the past and the present and reasonably predict future body conditions and possible diseases even many years hence. At the other end of the spectrum the pulse is capable of indicating imminent death.

New diseases, new problems associated with a modern civilization so very different from the agricultural society which spawned the original Chinese medicine have begun to show consistencies in pulse diagnosis. The 'ceiling dripping' Scattered pulse of Aids and the various Qi Wild pulses related to Multiple Personality and Sexual Abuse are among the few recently identified syndromes which seem to have characteristic pulse pictures. Hopefully with the information provided in this book and the skills developed in pulse workshops, practitioners will be equipped to explore new worlds, expand the purview of Chinese medicine and serve future generations.

VI. Limitations of Pulse Diagnosis

What are some of the limitations of pulse diagnosis? The pulse is an individually-developed art form, a blend of learning skills, intuition, a form, actually, of meditation, of being in touch simultaneously with the deepest parts of oneself and another. It requires an ability to trust one's senses and years of practice, especially with a master.

It is not subject to the western scientific model, and it is, perhaps, in some ways, the most fickle of all the diagnostic modalities. It is more affected by ephemeral influences than the tongue diagnosis or other forms of diagnosis. It can be affected transiently by emotion, by pernicious influences or acute illnesses, by activity, by medication, by diet, a full bladder, an imminent or concurrent menstrual flow, and by the biorhythms, seasons of the year, and even the time of the day. The quality of the practitioners energy can have a fleeting influence. I wish to

emphasize the transient nature of these influences through which the experienced practitioner can find the enduring qualities and message.

Furthermore, the quality which will appear on the pulse depends on the body condition at the time of the event which caused the quality to appear, the degree of the event, its location in the body and the time which has passed since it occurred. For example a trauma to the chest might create an Inflated Pounding pulse in a strong person and a Flat pulse in a weaker person in the upper burner. If however the trauma was overwhelming even the strong person would show a Flat pulse, and with time and/or diminishing body condition, both the Inflated and Flat pulse would ultimately become Feeble-Absent.

Another consideration is that the meaning of a quality may be different depending on where it is found on the pulse. Slipperiness in the left middle position can mean a Liver infection; in the Blood depth it can be a sign of blood toxicity or excess viscosity [elevated cholesterol]; on the entire pulse it could signal pregnancy. The interpretation may vary even in the same position depending on the other qualities and conditions which accompany it. A Slippery pulse, for example, on the left distal position (Heart and Pericardium according to my tradition) will vary in its clinical meaning depending on the following factors. If the Slipperiness in the Heart pulse is rather general, and the pulse Rate is normal or a little Slow most likely you are dealing with a condition of Phlegm 'blocking the orifices of the Heart'. In western medical terms we might encounter depression, epilepsy and/or schizophrenia. If the pulse is Slippery and Rapid the condition might be Phlegm-Fire which is associated with mania. If the Slipperiness is acute, the pulse is very Rapid and the patient exhibits a high fever, the person may have myocarditis. If the Slipperiness is felt only, let us say, in one small area on the lateral side of the pulse in the left distal area, rather than generally throughout this position, one is more likely dealing with a Heart mitral valve defect.

Since the pulse is affected by so many ephemeral influences, one must, in the beginning, stay with the pulse of any individual for a long period of time. I reiterate that pulse diagnosis is a meditative process. The more one empties ones mind with steady serene concentration on the sensations at ones finger tips the closer one comes to reality. Take the pulses of many people and ask many questions. It is only with experience that one can quickly evaluate a pulse in terms of being able to differentiate the enduring from the transient aspects of what one is feeling.

The workshops I have conducted have demonstrated to me that the interpretations which are listed in the literature and in my book are greatly limited in terms of the amount we have yet to learn about their meaning. Each class enlarges my awareness as I listen to the new information emerging from the practitioners about their patients which I can correlate with qualities previously never suspected. Though that information can be unique to a specific person, it can possibly also apply to many.

One must always keep in mind that no single modality was ever meant to be used by itself alone. The practitioner integrates the pulse with other guides to diagnosis, with looking, listening, asking, and all the other forms of touching. In fact wherever one finds a great disparity between the pulse and other sources of diagnostic information one is usually dealing with a more serious situation.

Despite all of these conundrums, the pulse is ultimately the most important diagnostic tool available to a practitioner of Chinese medicine, if one is willing to focus, to practice, to search, and to be patient.

As I move around the country with my fingers guiding others to discover pulse qualities, the most frequent comment I hear is "Boy, that is subtle". Yes, that is the message I wish to leave

wherever I go, as to how much more subtle Chinese medicine is than the student ever previously imagined. No lifetime is long enough for even the most talented to discover all that the pulse has to teach.

VII. Position and Historical Considerations

Opinions regarding the significance of the six positions of the pulse have varied from the Nei Jing over the course of the last 2500 years to the present time. The accompanying Figure 2, demonstrate some of the progression and change over this period of time. The two principal differences concern the existence of either two or three depths and their interpretation, and the representation of exact locations of different Organ Systems and areas of the body on the six positions on the wrists.

In Europe and in America pulse diagnosis has been most influenced by the writings of Wang Shu He's Classic of Pulse, written in 280 C.E.^{viii} In this system the deeper pulse on any position reflects the Yin Organ of that element and the superficial pulse represents the Yang Organ of that element. One sees this somewhat reflected in the work of Zhang Jie Bing's Complete Book, published in 1624 A.D.^{ix} The principle stated above with regard to interpretation was carried through by Zhang in conformity with Wang Shu He in the left and right Middle pulse, and the left distal pulse to some extent. In essential agreement with Wang Shu He, though expressed somewhat differently in terms of the six divisions as first recorded in the Shang Hun Lun^x, is the form attributed to the classic text of the Nan Jing.

It seems, however, that the interpretations of the Nei Jing^{xi} and by Li Shi Zhen^{xii} place the emphasis almost entirely upon the Yin Organ as the significant energetic factors to be considered in diagnosis. Here the importance of the Yang Organ is relegated to a minor place in the spectrum of energy with regard to health and disease. This is in keeping with my own view of the Yang organs as conduits to and from the Yin organs on a material, mental and spiritual level.

In the latter part of the Twentieth Century we find two prevailing schools of thought one, again in Western Europe, which favors the Wang Shu He interpretation, and another on mainland China and, for the most part, in the Orient, which reflects the position of Li Shi Zhen. The pulse positions, as interpreted by Dr. Shen^{xiii} and illustrated in Chart IV, upon which this work is based, tend to lean more towards the work of Li Shi Zhen, with some concepts reflecting the interpretations of Zhang Jie Bing and some from the Nei Jing.

Having used Wang Shu He's reference field for four years prior to encountering Dr. Shen, I feel that I have some basis for comparison of the two methods. Students who have been exposed to Dr. Shen's interpretation of the pulse likewise seem to agree generally that what may be learned, at least, from the physical, mental and emotional status of the patient using this method is different, more clinically accurate and far richer in content from that learned with the method used by Wang Shu He.

The following quote from lesson thirteen of the course given by the North American College of Acupuncture offers the opinion that Wang Shu He developed his system of pulse diagnosis based on a theoretical misinterpretation of what he felt. "As a student, you are probably wondering how there can be more than one system of pulses, and why we use the Li Shi Zhen method over the Wang Shu He. In the Wang Shu He method, the assigning of a Fou organ to the superficial pulse and Tsang organ to a deep pulse was based on a theory as to the positions that they received on the wrist. The Li Shi Zhen method on the other hand, has evolved through practical experience and the anatomical positions of the Three Burning Spaces. As has been

mentioned before, the pulses were originally meant to reveal the condition of the five Yin organs or viscera. A Tsang which suffers from a lack of Yin or an abundance of Yang will show a floating pulse. If Yang is damaged however, the pulse will be sunken (Yin) when considering the husband/wife relationship of the Zang/Fu (which matches a Yin Zang with a Yang Fu) it can be seen how Wang Shu He decided that the superficial pulses belong to the Fu and the deep pulses to the Zang"^{xiv}

The pulse position between the Upper and Middle burner which Dr. Shen describes as Diaphragm, is implied by the Nei Jing system, where left distal pulse refers to the sternum and the left middle refers to the diaphragm in the superficial positions. Zhang Jie Bei lists the sternum as the superficial pulse in the right distal position. These pulses and their interpretation by Dr. Shen have been clinically reliable during my practice over the past eighteen years.

There are according to Dr. Shen two general types of individual positions which I have labeled the Principal Individual Positions and the Complementary Individual Positions. The Principal Positions are the six traditional ones with three at each wrist. The Complementary Positions are included in the following discussion.

In addition to the Diaphragm, I have also found Dr. Shen's position of the Heart Valve and Large Vessels, the Special Lung pulse, the Large Intestine, the Small Intestine, and the Lower Body [pelvis, low back, uterus and prostate], as well as the Gall Bladder, Pancreas, Spleen and Duodenum to be clinically extremely accurate. It is interesting to note that Zhang Jie Bing's notation places the Large Intestine in relationship to the left proximal pulse and the Small Intestine in relationship to the right proximal pulse, though in a more superficial position. It is also of interest that Dr. Shen's positioning of the Pericardium is also somewhat in agreement with Zhang Jie Bing.

The position of the Special Lung Pulse has been an exceptionally rich source of information concerning the past and present condition of the Lungs unobtainable from the regular Lung pulse in the right distal position. This area, unmentioned as far as I know in any reference other than Dr. Shen will be more broadly elaborated upon under the section related to the right distal position in Chapter Sixteen of the book. Its position is illustrated in the accompanying diagram [Figures 3 & 4] as running at an angle from approximately Lung 9 more distally towards a point on the center of the ventral part of the pulse to approximately the acupuncture point Pericardium 7. Since the vessel which carries this pulse is anomalous, its position is highly variable within this area.

The qualities on the Middle Burner dominate the pulse. On the right side the qi in the Stomach is gas which is expansive; on the left side the Liver stores the blood and moves the qi which is, more often than not, stagnant with Heat. For these reasons the qualities in this position normally tend to overflow into the other positions. If one puts one's finger flat on the pulse especially in the distal position one is actually reading the Middle position. In order to accurately access the qualities in the Upper Burner it is necessary for one to roll one's finger distally away from the Middle up to and almost under the scaphoid bone. The actual quality in the distal positions is felt by the radial edge rather than the flat part of the index finger.

The strategy indicated in Figure 3 shows Dr. Shen's system of pulse location, in which one rolls the finger in the position of up and down and sideways. This is one that is not shown on any of the charts or in any of the books with which I was familiar until I came upon excerpts from Soulie De Morant's works, as passed on to me by Dr. Van Buren. These pages, parts of which are included in the following endnote, indicate the extent and degree to which this strategy is deleted from Chinese medicine and is apparently, a lost art.^{xv} Another very brief highly

limited reference is by Porkert.^{xvi} A significant part of the practicum of the beginning workshop is devoted to learning to identify the special positions on Dr. Shen's chart by the technique of rolling ones fingers.

These special positions are either medial and lateral to, between, or at the distal and proximal parts of the six Principal positions. The Special Lung pulse, the Spleen, Pancreas, Pericardium, Large Vessels, Heart Valves and Engorgements of the Liver should have no quality under normal conditions. The others, the Gall Bladder, Diaphragm, Large and Small Intestine, Duodenum and the Lower Body/Pelvis positions under normal circumstances have the same quality as the regular position. The many diagrams of the exact locations are too numerous to be included here and will be included in the book.

The question has been raised as to why the Yang Organs such as the Large Intestine and Small Intestine are sections of a Yin Organ position and do not have a position of their own such as the Stomach which occupies the right middle position. This question is asked in light of the Nan Jing and Wang Shu-He two depth system in which the Yang Organs have their own superficial positions contiguous to the deeper Yin Organs.

The answer is simply experience. My own, for example, varies slightly from Dr. Shen in that I find that qualities in the right middle position which suggest stagnation and Heat are more closely related to the Stomach, and those representing deficiency to be signs of Spleen deficiency. I also correlate the left proximal generally with both Kidney Yin and/or Yang depending on whether the quality is harder or more Yielding, and the right proximal with Kidney Yang unless there are signs of a more acute process in which case I will consider disharmony in the Bladder, Large and Small Intestines or genital organs.

The interpretation of the pulse positions to which I subscribe here is based on the work of Dr. John Shen as recorded in the accompanying figure 4. It varies from the chart in his book^{xvii} which is a simplified version of what appears here. As mentioned above, Li Shi Zhen and to some extent Zhang Jie Bing and the Nei Jing seem to be the known antecedents of this orientation.

VIII. Special Considerations

A. The Pulse and Chinese Physiology

The signs accessed from the Chinese pulse are several steps ahead of the physiology of the organism in terms of the process of disease. The pulse is thereby an instrument for prediction and prevention. For example, if the left proximal pulse related to Kidney function is completely Absent the projection of this sign to physiology of Kidney function is only that while Kidney energy is significantly diminished, the Kidney Organ System is still performing and has not absolutely vanished. While the Absent quality does not mean that the Organ is operatively absent, it does alert us to examine and correct the process before the Organ function is permanently altered.

The pulse is a precise instrument transmitting signals about the organism of which it is a part, and is not gainfully contemplated as a logical expression of energetic physiology. For example one can find a Hollow quality by increasing finger pressure from the Qi to the Organ while at the same time the Blood depth will fill out as one releases pressure from the Organ to the Qi and give us a Blood Heat or Blood Unclear quality.

B. Whole Pulse and Small Segment Pulse Signs

Whereas we will study individual positions and qualities in depth, I cannot overemphasize the importance of concentrating first on large segments of the pulse to access and understand the most immediately significant issues for the patient.

The broader segments of the pulse include the Rhythm, Rate, Stability, as well as uniform qualities on the entire pulse, at one or another Burner or on one side. They include also the Qi, the Blood and Organ depths on the entire pulse.

The tendency to focus on individual positions and qualities, rather than to look at the pulse in terms of the larger divisions is a fundamental error in the teaching and practice of pulse diagnosis. The qualities of the smaller segments are unreliable signs until the larger picture is addressed clinically. Until then, the other readings are basically unreliable. It is, of course, still important to study in detail the individual positions and the individual qualities, but "chunking up", in Neuro-linguistic language, to the larger aspects of the pulse as a diagnostic tool is the key to therapeutic success.

If one is not able to encounter and deal with these broader aspects of the pulse and their messages, one will not be considering what is most immediately important to the patient. The larger focus is a most immediate related manifestation of a person's condition and the most significant in terms of its effect on the entire organism.

With regard to the larger picture, Rhythm, Rate and Stability are clinical issues which takes precedence over any other quality or combinations of qualities in terms of diagnosis and treatment. Deviations from the normal of these parameters of the pulse are generally the most critical of all signs in terms of seriousness of disharmony and order of treatment.

The treatment of any other finding will prove superfluous if Regularity, Stability and a normal Rate are not achieved first. Once an Irregular pulse is regulated, the other qualities and findings will probably automatically change.

1. Rhythm

Rhythm is the most significant measure of Heart and Circulatory function. Instability in the emperor (Heart) is tantamount to chaos in the empire and anarchy among ministers and subjects. Unless Rhythm is attended to first, all other efforts may be in vain. As we see, irregularity of Rhythm is considered in terms of whether it occurs at rest or during movement, whether or not the Rate can be obtained, whether the changes in Rate are small or large, and whether it irregularity occurs constantly or occasionally.

2. Rate

Classically, Rate has been correlated with conditions of Heat and Cold. Thus, a uniformly Rapid pulse is interpreted as a Heat condition or hyperactivity, and a uniformly Slow pulse is usually indicative of a Cold condition and hypoactivity. The pulse increases with acute External Pathogenic Heat and less so in generalized Yin deficiency states; it decreases with acute External Pathogenic Cold and in chronic qi and yang deficiency conditions.

In my experience, however, alteration from a normal Rate is more often a sign of significant and far-reaching processes than just Heat and Cold-- it is most frequently associated with the Heart and the Circulation. Hence, changes in Rate from normal are more often the result of either a shock to the Heart *in utero*, at birth, and emotional shock during life, and/or some alteration in the Circulation of blood and qi due to factors outside of but ultimately affecting the Heart. When there are conditions of great deficiency, it is important to remember that the pulse can sometimes be very Rapid, especially with exertion due to the instability of the qi, particularly the qi of the Heart.

3. Stability

By stability we refer to the capacity of an organism to return easily to equilibrium after stress and to its capacity to maintain operational parameters within optimally functional limits over time. Apart from the regularity of the pulse, stability is associated with the steadiness of the amplitude, intensity, qualities, as well as the balance of Yin and Yang and of the balance between pulse positions.

Under Stability, qualities in which Yin and Yang are in contact and those in which Yin and Yang are not in contact need to be considered. One way of understanding deficiency is to distinguish between deficiency that occurs with "Yin and Yang in Contact," and deficiency that is more severe, in which "Yin and Yang are Not in Contact." The qualities that fall under these categories can occur on the entire pulse or in one position.

An example of a quality in which Yin and Yang are still in contact is the Feeble quality. This is a sign of significant deficiency wherever it is found, whether in one position or on the entire pulse. A quality in which Yin and Yang are out of contact is the Empty quality. When this quality occurs in only one position, it is a sign of extreme dysfunction of the Organ represented by that position. When the Empty quality is found on the entire pulse, Yin and Yang are out of contact in the entire organism. This condition is referred to as 'Qi Wild', one in which the person is at great risk for serious debilitating diseases such as cancer or a degenerative disease of the central nervous system. While the 'Qi Wild' state applies to the entire organism, "Yin and Yang Out of Contact" qualities in one Organ will generate this chaos throughout the total system, and lead to ultimate disorder of Stability, such that the 'Qi is Wild'.

a. Quality Changes

When the qualities are changing in one position, it is a sign of extreme dysfunction in the Organ which that position represents. When palpated in many positions, it is a sign of a serious imbalance in which the patient is at great risk. I have often observed the latter in seriously mentally ill patients who are on heavy medications.

b. Intensity and Amplitude Changes

Because I cannot consistently differentiate these two qualities with my fingers, I feel I must place them together, though I feel that they are physiologically distinct. They are both classified under the general rubric of Volume.

Intensity is the spirit, strength and buoyancy of the pulse wave. It is an expression of the condition of the qi, blood, essence, and shen (Spirit) of the organism. A strong Intensity is a sign of healthy qi, blood, essence, and shen. Diminished Intensity indicates deficiency in one or all of these fundamental energetic resources.

Amplitude is the height to which the pulse is generated from Organ to Qi Depth or beyond and is a measure of the Yang force, which is roughly equivalent to basal metabolic functional heat of the organism. A high amplitude reflects a strong Yang force and a low amplitude is a mark of diminished Yang force and basal metabolic Heat.

Consistent ongoing changes in Intensity and Amplitude can involve the entire pulse, as well as specific areas. On the entire pulse, this sign is indicative of either circulatory and/or Heart problems, the etiology and implications of which are discussed in Chapter seven of the book. For now, we can say that they may be divided into two general categories, one in which the instability in Intensity is always present (Blood Circulation and the Heart), and the other, when the instability in Intensity is not consistently present (Qi Circulation and the Liver).

In one position Changes in Intensity are usually a sign of qi deficiency of the Yin organ associated with that position. [More rarely it is a sign of transition in the energy of that Organ or area, from better to worse or vice versa.]

C. Modifying Conditions Affecting Qualities

1. Body Condition and History

The diagnostic significance of each quality is modified from its standard interpretation by other issues such as body condition and history.

a. Body Condition

The positions at which a problem will appear, given the same behavior, depends to some extent upon the vulnerability of the Organs. The disharmony will occur in the most deficient Organ. If, for example, a person does heavy physical work after eating, the Inflated or Flat quality will appear in either the Stomach or the Intestines depending upon which Organ is weakest. Likewise if a person is angry and the Lungs are weaker than the Liver which is commonly associated with anger, the Lungs will be affected first.

b. History

A Flat pulse in the Distal position may result from a birth delivery complicated by the presence of the umbilical cord around the neck after the head is out side of the mothers body. With this scenario the left proximal Kidney position would probably be Feeble-Absent. A search for history of birth trauma is frequently fruitful.

It could also mean that the person had a trauma to the chest when they were in relatively poor physical condition. Pain and/or a horizontal red line under the eyelid and/or purple sore on the edge of the tongue would, for example, be a sign of physical trauma.

A Flat pulse there could also mean that the person's Heart has closed due to a severe emotional trauma about which he is in a state of denial or at a stage in his growth when the body was still immature and unable to cope with the emotional trauma. The loss of a parent or other significant person at an early age is an example. The identification of the real etiological event can be determined by history and by the use of other diagnostic signs and symptoms in conjunction with the pulse, and is significant in terms of intervention.

The treatment of a past emotional shock which usually affects the Heart is significantly different from treatment of a past physical shock to the overall circulation, or of an event which occurred during delivery which almost always involves treating Kidney energies as well other relevant interventions.

2. Position and Sensation

The qualities feel somewhat differently depending on the position. For example a Tight Pericardium pulse at the left distal position feels more like a sharp point sticking the finger compared to a more string like Tight sensation on the left middle position.

3. Position and Interpretation

The same quality sometimes has a different meaning from position to position. A Slippery quality can mean infection on the left middle position, Blood flowing backwards on the Mitral Valve position on the left distal, Phlegm on the main body of the left distal position, Spleen Damp or stagnant food on the right middle, pregnancy or elevated lipids on the entire pulse and toxicity in the Blood when found at the middle depth.

E. Organs Systems and Body Areas

As a general rule, pathology in areas of the body such as the chest, abdomen and pelvis are distinguished from disharmony in a Yin or Yang Organ alone when the same quality appears

bilaterally at the same position or between the distal and middle positions. Both can of course occur simultaneously.

F. Origin of Disharmony

A useful and very general guide to etiology is that the Organ that has a Feeble-Absent quality or where there is greatest chaos [Qi Wild] is where the problem began. And the Organ that has a hard [Taut, Tense, Tight, Wiry] quality is where the problem is presently. The latter has affected and created disharmony in the former as for example when the Liver is attacking the Spleen. In that situation the pulse at the left middle position might have Changing Qualities and/or Intensity while the right middle position could be Tight.

G. Lung and Special Lung Pulse

When evaluating the right distal position [the Lung] one must always also consider the quality of Special Lung Position. The presence of a Special Lung Position always implies pathology, usually from an early age. If the right distal position [regular Lung pulse] is normal the presence of the Special Lung Pulse is a sign of either constitutional weakness or previous disease which is not completely resolved but insufficient to interfere with function capable of causing current symptoms. If both the Special Lung Position and the right distal position [regular Lung pulse are abnormal] this is a sign of current disease beyond the existence of earlier pathology.

H. Overlapping Pathology and Qualities

The various successions in the process of disease as from Qi stagnation to the various stages of Qi and Blood deficiency and from Qi stagnation to progressive Yin deficiency can and more often do accompany each other. Changes in all of our principal pulse categories based on sensation, Rhythm, Rate, Volume, Depth, Size, Width, Length and Shape, take place simultaneously, reflecting concurrent ongoing stresses in the real world. It is possible and necessary to delineate each from the other, and to understand their interrelationships.

I. Consistency

Qualities which are considered signs of serious pathology are generally to be so interpreted only if they are found consistently. If they are found inconsistently, the meanings can be very different, and are usually less serious.

J. Restoration

The qualities mentioned in what follows are only a sample of all the possibilities within the category being discussed.

All of the qualities are a sign of the attempt of an organism to reconstitute itself, or of its failure to do so. A Rapid or Pounding pulse can be a reflection of overwork in an attempt to compensate for a body that has gone beyond its energy in one way or another. An Empty pulse is a sign that the compensatory measures are failing.

The early stages of disease are almost entirely due to some interference with normal function which we call stagnation and which frequently goes unobserved. Taut, Tense, Flat, Inflated, Choppy, Slippery, Floating and Cotton are some of the qualities associated with stagnation. If a constitutional deficiency precedes the stagnation the signs of stagnation will be mitigated by signs especially of Diminished Substance, Diminished Qi Depth, Spreading and Diffuse.

The middle stages are attempts at recovery and would include the Rapid, Pounding With Force, Blood Heat and Thick, slight Full-Overflowing among others that represent the organism's attempt to eliminate the heat which is a consequence of lingering stagnation.

Some examples of qualities associated with the later stages of Qi deficiency would be Pounding Without Force, Deep, Feeble, Absent, Empty, Scattered, Yielding Hollow Full-Overflowing, Rough Vibration, Interrupted and Intermittent. The Thin pulse is a sign of significant blood deficiency, and a Tight or Wiry pulse advancing Yin deficiency. Muffled is a more serious sign of great stagnation in the presence of chaotic qi and blood.

K. Balance

Finally we come to the issue of balance. For example whenever one finds a great disparity between the pulse and other sources of diagnostic information one is usually dealing with a more serious situation. Also, it is preferable under ordinary circumstances to have a completely Feeble-Absent pulse than to have one in which each position and each depth has a different quality. A general Feeble-Absent pulse indicates vulnerability. Chaos is disease.

Chaos is the most serious of all conditions. It is encountered with alterations of Rhythm either on the entire pulse, or in one position where it experienced as Instability, with frequent changes in Amplitude, Intensity and/or Qualities, with widely varying qualities from one position to another, and where Yin and Yang have lost functional contact with each other. [Qi Wild pulses such as Empty, Scattered, Yielding Hollow Full-Overflowing].

ⁱIlsa Veith; The Yellow Emperor's Classic of Internal; Ppg. 42

ⁱⁱJayasuriya, Anton; The Textbook of Acupuncture Science; Chandrakanthi Industrial Press, Dehiwala, Sri Lanka, 1981; Pg. 516

" Pulse diagnosis is a time-consuming and extremely difficult art to master but perhaps it is well worth the effort. Many obscure ailments are due to some kind of imbalance in the body energy which are difficult to detect by the usual methods of Oriental and Western diagnosis and pulse diagnosis may be very helpful in the diagnosis of such obscure disorders."

ⁱⁱⁱPorkert, Manfred; The Essentials of Chinese Diagnosis; ACTA Medicine Sineeeenis Chinese Medicine Publications LTD, Zurich, 1983; Pgs. 224,225

^{iv} Tibetan Medicine: The Science of Healing; Pg.144

^v Rabbi Nachman's Stories; Translated by Rabbi Aryeh Kaplan; Breslov Research Institute, New York and Jerusalem, 1983; Pg. 416, 417, 420, 421

^{vi}The Chinese Pulse Diagnosis; Pg. 34

^{vii}Ibid. Pgs. 151, 152, 195, 215, 216, 221

^{viii}Wang Shu He; Wang-Shu He's Classic of the Pulse; 280 C.E.

^{ix}Zhang Jie Bing; Zhang Zie-Bing's Complete Book; 1624 C.E.

^xZhang Zhong Zhing; Shang Han Lun; Oriental Healing Arts, Institute, Los angeles, 1981

^{xi}Nei Ching; 168, 208

^{xii}Li Shi Zhen; Pulse Diagnosis; Paradigm Publications, Brookline, Mass.,1981

^{xiii}Shen; Chinese Medicine

^{xiv}North American College of Acupuncture; Chapter 13, Pg.2

^{xv}Soule de Morant; "COLON :The distal part corresponds to the anus and rectum, the middle to the transverse colon, the proximal the the ascending coon and caecum.

LUNGS: Medial prt of artery: left respiratory passages and pulmonary lobes. Lateral part of artery: right respiratory passages and pulmonary lobes. Proximal: upper respiratory lobes, throat, trachea, bronchi. Distal part of artery: basal lobes. Middle: middle section of lungs."

LIVER: Lateral border of artery corresponds to the anterior lobes of the liver. The medial border of the artery corresponds to the posterior lobes of the liver.

Bladder: At the distal extremity of the pulse there is a little pointed pulse: the sphincter; below this the prostate may be felt when edematous.

KIDNEY: Lateral side of artery: left KI. Medial side of artery: right KI.

PANCREAS: Middle Position

SPLEEN: Deep Position

CIRCULATION-SEX: Circulation-Middle Position

Sex-Deep Position; The lateral border of the artery corresponds to the organs on the right; the medial border to the organs on the left. The distal part of the pulse corresponds to the inferior organs [female, uterus; male glans penis], the middle part to the organs in the middle [female, ovaries; male testis, epididimus].

SMALL INTESTINE: The distal part corresponds to the jejunum and ileum, the proximal part to the duodenum.

HEART: The lateral border of the artery corresponds to the left auricle and ventricle. The medial border of the artery corresponds to the right auricle and ventricle. The proximal part corresponds to the ventricles, the distal to the auricles.

^{xvi}Porkert, Manfred; The essential of Chinese Diagnosis; Pg. 236

^{xvii}Shen, John; Chinese Medicine; Educational Solutions, N.Y., 1980, Pg.