

Precision in Finger Placement for Pulse Diagnosis

Abstract

This article discusses correct finger placement when examining the radial arterial pulse for diagnostic purposes in Oriental Medicine. The variations in how practitioners place their fingers at the traditional locations designated in Chinese as *cun*, *guan* and *chi* are discussed, along with the classical source material for placement. References, both textual and lineage teachings, often present conflicting standards for finger placement (see below). It is for these reasons that the author is presenting the following proposals for a revised set of standards, based on a combination of historical precedent as described in the Chinese classics and subsequent publications, rational analysis grounded in CM theory, and the author's 40 years of acupuncture practice. The author proposes that the primary anatomical determinant for finger placement should be the styloid process of the radius, whilst taking into account the relative width of the practitioner's and patient's fingers to place the other fingers. Two methods of finger placement – one that involves moving the fingers proximally from the central landmark of the styloid process, and the other, of keeping them centered on it – are suggested to represent either the yin or yang aspect of the associated element, channel or organ. A clinical vignette is included in order to illustrate the methodology.

By: Peter Eckman

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Chinese medicine, acupuncture, pulse diagnosis, *Nei Jing*, *Ling Shu*, *cun kou*, radial pulse.

Introduction

This article discusses the author's thoughts and experiences in regard to the correct finger placement when examining the radial arterial pulse for diagnostic purposes in Oriental Medicine (OM). Chinese Medicine (CM) is the most commonly practised branch of OM in the West (USA and Europe), so this article will restrict its purview to CM pulse procedures, but the author's thoughts are also relevant to the related practice of pulse examination in Korean and Ayurvedic medicine, where correct finger placement is just as crucial.¹

In CM there are multiple variations in how practitioners place their fingers at the traditional locations designated in Chinese as *cun* ('inch'), *guan* ('gate') and *chi* ('foot').² It is noteworthy that very few classical texts give more than cursory descriptions of where to place one's index, middle and ring fingers during pulse diagnosis so as to accurately reflect the energetics³ manifesting through the pulse at *cun*, *guan* and *chi*. In fact, the *Nei Jing* (Inner Classic) does not explicitly mention the *cun*, *guan* and *chi* method of radial pulse examination at all, although in *Su Wen* (Simple Questions) Chapter 17 one can find a discussion of three locations to be examined, which Unschuld translates as 'the foot long section, the central instep, and the upper instep', which correspond diagnostically to the organs and other major structures of the body, in a schema that clearly prefigures the later assignments proposed for radial pulse diagnosis. This passage is bookended by discussions of the movements of the pulse, so it is reasonable to interpret it as an early reference to radial

pulse diagnosis, although no specific criteria are given for determining finger placement.⁴ Similarly, *Ling Shu* (Divine Pivot) Chapter 10 mentions using the radial pulse at the 'inch opening' (*cun kou*) to determine if the primary channels are hollow (deficient) or solid (excess),⁵ suggesting that radial pulse diagnosis was already extant. However, pulse diagnosis via comparison of the carotid and radial arteries is also described in *Su Wen* Chapters 9 and 40 and in *Ling Shu* Chapter 9 in much greater detail, where the term 'inch opening' is also used, so that the correct interpretation of this passage in *Ling Shu* Chapter 10 cannot be known with certainty.⁶

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Historically, the *Nan Jing* (Classic of Difficulties, 2nd century CE) contains the earliest reference to *cun*, *guan* and *chi*, but its descriptions are less than comprehensive and not easily applicable in practice due to its emphasis on theoretical considerations rather specific clinical guidelines. It appears to this author that the *Nan Jing*'s explanation of pulse examination is progressively developed in three chapters following a numerological sequence, a typical characteristic of classical Chinese medical texts. Chapter 1 presents the inch opening (*cun kou*) as reflecting all the channels of the organism (corresponding to *tai ji*?), and Chapter 2 divides this

location (which it now calls 'chi cun', or 'foot inch'⁸) into inch (cun) and foot (chi) sections reflecting yang and yin respectively, while Chapter 18 presents the fully developed idea of inch (cun), gate (guan) and foot (chi) sections reflecting the differentiated energetics of the Heaven-Man-Earth trilogy as represented in the human organism's 12 conduits.⁹ Wang Shu-he's *Mai Jing* (Pulse Classic, 280 CE) gives explicit associations of the conduits that are reflected in the cun, guan and chi pulse positions, but still manages to omit specific details of where the fingers should be placed to evaluate the different pulses.¹⁰ The *Mai Jing*'s teachings are clearly reflective of those already presented in the *Nan Jing*.

Despite possible objections to the particular choices being proposed in this article as a theoretical basis for standardising the pulse positions, the author wishes to clearly state his belief that pulse diagnosis is a scientifically valid procedure,¹¹ and thus must rest on a solid theoretical base. The question of whether or not CM (and pulse diagnosis in particular) is science-based is better left for a more comprehensive presentation, but it is the author's conviction that the putative scientific basis for pulse diagnosis lies in the qualitative and synthetic attributes of the Chinese term 'gan ying' ('resonance'), which the author believes to be the fundamental axiom underlying CM. The energetic messages which can be detected at the cun, guan and chi pulse positions can only be meaningfully understood if they are viewed as conveying resonant information about the organism's vital functions and structures. The exact positions of these three locations are of paramount importance for obtaining interpretable and reliable information. To this end, the author is presenting a unique set of standards for finger positioning during pulse diagnosis, along with the rationale upon which the standards being proposed are based.

The guan position (at the crest of the styloid process of the radius) is the point separating the more distal section (cun) that reflects the energetics of yang from the more proximal (chi) section that reflects the energetics of yin.

Current guidelines for finger placement

If pulse diagnosis is indeed approached as a scientific procedure, the first question that needs to be addressed is, what guidelines are universally applicable as points of reference for finger placement? The majority of references to radial pulse diagnosis in CM mention two anatomical landmarks: the base of the thumb (the proximal edge of the scaphoid bone) and the crest of the radial styloid process.¹² Is either of these two landmarks of more theoretical importance than the other? The most commonly taught detailed methodology of CM pulse examination in the West is currently that codified by Leon Hammer in *Chinese Pulse Diagnosis: A Contemporary*

Approach, first published in 2001,¹³ and updated in the *Handbook of Contemporary Chinese Pulse Diagnosis*.¹⁴ On page 38 of the latter text there are two paragraphs devoted to finger placement. It is stated: 'We recommend ... using the scaphoid bone as the point of reference for the lateral edge of the index finger The middle finger is placed ... on or near the styloid process The practitioner must adjust her finger placement based on the relative size of the patient, spreading the fingers if the patient is large and compressing them if the patient is small.' This quotation clearly reflects the choice of the scaphoid bone as the primary anatomical determinant for finger placement. There is no question in the author's mind that the Shen/Hammer standards for pulse diagnosis have been extremely useful for many practitioners of CM, and they reflect a highly respected lineage of CM practice.¹⁵ However, it is conceivable that such standards could be improved if they were to offer added benefits such as increased precision, greater theoretical justification and improved clinical outcomes. It should also be pointed out that other well-respected teachers of CM pulse diagnosis, such as Jimmy Chang,¹⁶ use quite different - and often conflicting - standards for finger placement (see below). It is for these reasons that the author is presenting the following proposals for a revised set of standards, based on a combination of historical precedent as described in the Chinese classics and subsequent publications, rational analysis grounded in CM theory, and the author's 40 years of acupuncture practice.

The yin and yang of pulse diagnosis

From a theoretical standpoint, the most universally used concept in the clinical practice of CM is that of yin and yang. For this reason, it would make sense for any method of pulse diagnosis in CM to establish its point of departure based on the idea of yin and yang. There is, in fact, historical precedent for such in the *Nan Jing*, which as previously noted states that the guan position (at the crest of the styloid process of the radius) is the point separating the more distal section (cun) that reflects the energetics of yang from the more proximal (chi) section that reflects the energetics of yin.¹⁷ While the crest of the styloid process has been an important landmark in virtually all descriptions of finger placement, this classical *Nan Jing* reference is rarely mentioned, and as a result its primacy in defining standards for finger placement is easily overlooked.¹⁸ To this author, the radial styloid process is the most striking anatomical feature of the region where pulses are examined in CM, and seems to be a clear reflection of something important about the anatomical and physiological organisation of the human body.¹⁹ If we adopt this location as the primary locus of orientation (instead of the scaphoid bone for the cun position), what further corollaries might we envision?

Proposed finger placement

An easy experiment for any practitioner to carry out when learning pulse diagnosis is to use one's own body as a learning guide.²⁰ If one places one's middle finger directly over the centre of the crest of the styloid process, it is my experience that the index finger will naturally take up the remaining space between the middle finger and the scaphoid bone, thus clearly delineating the cun position. In a similar fashion, the ring finger can be placed immediately proximal to the middle finger to delineate the chi position (Figure 1). Using one's own anatomy as a standard is reasonable when examining oneself, however there is a problem when one examines someone with a different anatomy (i.e. different width of fingers and length of arm). However, using the styloid crest as the centre of the guan position makes it possible to rationally predict where to place one's fingers for examining cun and chi in an individual of different size from the practitioner. Figure 2 shows this relationship when examining an individual of greater size, and Figure 3 does so for examining an individual of smaller size. Both figures present a solution to the question of where to position one's fingers when examining individuals - regardless of their size difference in comparison to the examiner.²¹ Using this method of finger placement, it is not rare for there to be a significant difference in finger placement between the recommendations advocated here and Hammer's.¹⁴ Approximately 75 per cent of the time both methods will end up with virtually identical placements, but if one's practice includes a paediatric clientele, or if the practitioner has unusually wide or narrow fingers, then clinically significant differences will be commonplace. In approximately 25 per cent of cases in the author's practice treating adult patients there is a significant difference between the results obtained using the styloid method versus the scaphoid method mentioned above. In cases where the patient has wider fingers than the examiner (Figure 2), the index finger needs to be located somewhat proximal to the edge of the scaphoid in order to feel the cun pulse in the same location as patients would palpate it on themselves. The distance between the examiner's fingers can be seen to be twice as wide as the distance between the index finger and scaphoid bone.²²

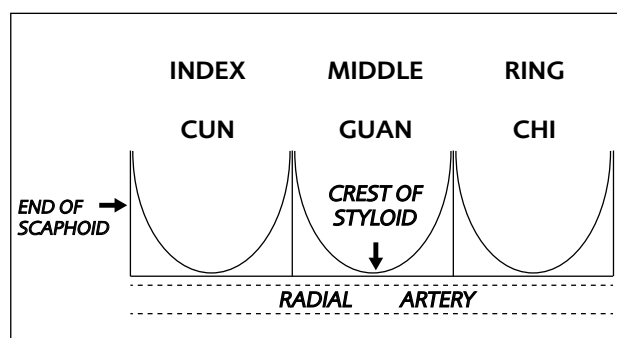


Figure 1: Self examination of the pulse

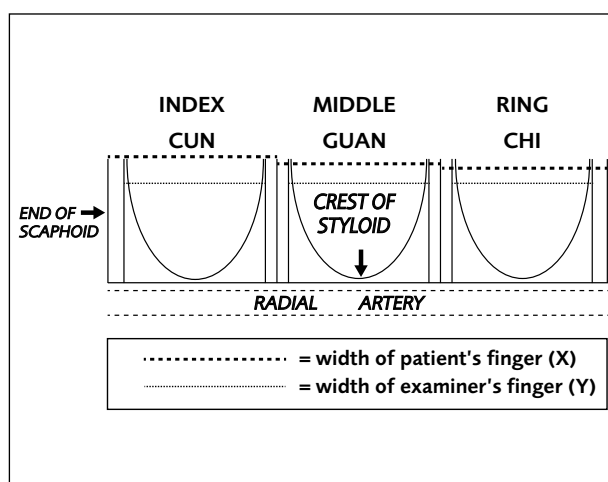


Figure 2: Patient has wider fingers than examiner

In cases where the patient has narrower fingers than the examiner (Fig. 3), the edge of the examiner's index finger needs to be located somewhat distal to the edge of the scaphoid bone in order to feel the cun pulse in the same location as the patient would palpate it on themselves. Additionally, all three of the examiner's fingers need to overlap each other. The overlap between the examiner's fingers can be seen to be twice as wide as the overlap between index and scaphoid.²³

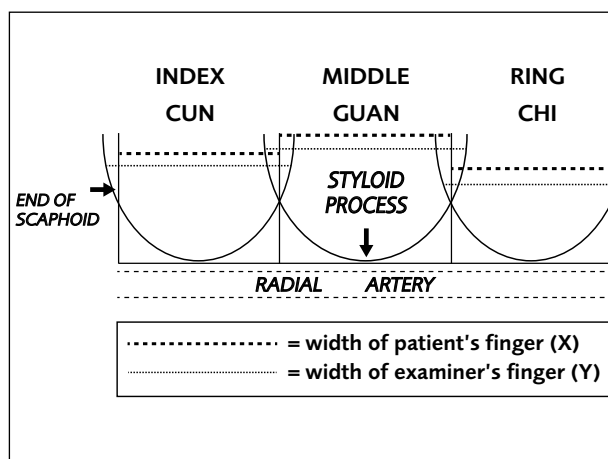


Figure 3: Examiner has wider fingers than patient

Given the standard of using the patient's own fingers as indicative of correct locations, it is easy to see that if a practitioner's fingers are thinner than the patient's fingers, locating the cun position using Hammer's method (with the index finger against the scaphoid bone) would lead to the examiner's index finger ending up in too distal a position. These are admittedly small differences in most circumstances, but in exceptionally large or small people (and children) - whether patient or practitioner - the difference can be dramatic. Hammer's recommendation to spread the fingers for larger individuals can be

understood in this context, but by how much should they be spread? This question can be answered precisely, as shown in these two figures. In practical terms, for larger clients, after placing the middle finger over the crest of the styloid, the correct position for the index finger should be such that the space between the scaphoid and the edge of the index finger is half as wide as the space between the edges of the index and middle fingers. The ring finger should be placed as far away from the middle finger as the index finger. For individuals with smaller fingers than those of the examiner, the analysis is similar. The index and ring fingers need to be placed in an overlapping relationship with the middle finger, as illustrated, with the overlap between the index and middle fingers being twice the width of the overlap of the index finger past the edge of the scaphoid bone. This set of standards assures that the centre of each of the examiner's fingers is in the centre of the cun, guan and chi positions as they would be determined if the patient were to be checking their own pulse.

Other finger placement methods: yin and yang pulse positions

As mentioned earlier, the prominent pulse teacher Jimmy Chang maintains that the standards proposed here (as well as Hammer's standards and those proposed by most other CM teachers) are wrong, because in his experience the guan position should be located proximal to the crest of the styloid process, not at its centre. One presumes that Chang and his students get good clinical results using his standards. How can that be possible? The answer is quite simple, and once again is based on the primacy of yin and yang as theoretical guidelines. The finger positions described above (with the guan position centred on the crest of the styloid) are what I call the 'yang pulse positions', as it is my experience that they reflect (resonate with) the yang aspect of their corresponding element (xing²⁴) as it manifests in each of the two organs and channels of that element. Moving all three fingers proximally an equal distance, so that the crest of the styloid process is now between the index and middle fingers, gives a new set of locations that I call the 'yin pulse positions', which reflect the yin aspects of their corresponding element, pair of organs and channels (see Figs. 4 and 5).

The explanation and justification for identifying separate finger positions to evaluate the yang and yin aspects of each element have been described in my 2014 text, and will not be detailed here, but in short, yang has a more mobile quality than yin, and can therefore be expected to propagate further from its origin in the heart.²⁵ A few brief examples should clarify what I mean by the yin and yang of each element, organ and channel. The Liver is the yin organ of the wood element, but there exist both Liver yang and Liver yin aspects. The Liver yang can be evaluated best via examination of the left guan yang pulse position.

This pulse position resonates with the yang aspect of both organs of the wood element, so both Gall Bladder yang and Liver yang are reflected there. If an abnormality is detected on this pulse, one needs to use additional methods of diagnosis to discriminate if the Liver or Gall Bladder (organ or channel) yang aspect requires treatment. The Stomach is the yang organ of the earth element, but there exist both Stomach yang and Stomach yin aspects. The Stomach yin can be evaluated best via examination of the right guan yin pulse position. This pulse position resonates with the yin aspect of both organs of the Earth element, so both Stomach yin and Spleen yin are reflected there. If an abnormality is detected on this pulse, one needs to use additional methods of diagnosis to discriminate if the Stomach or Spleen (organ or channel) yin aspect needs treatment.

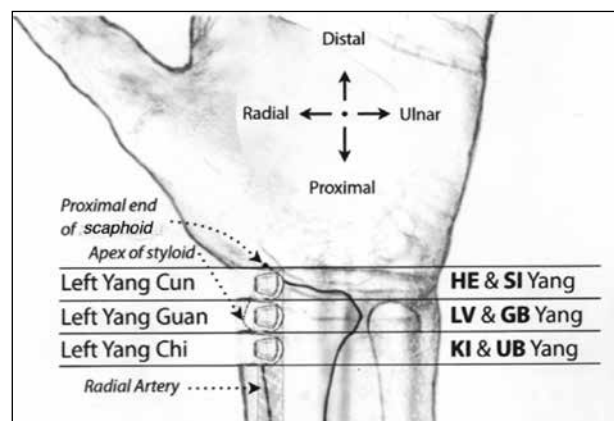


Figure 4: The yang pulse positions

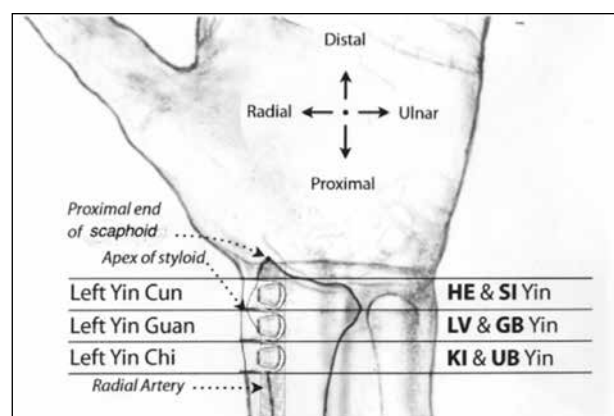


Figure 5: The yin pulse positions

What are the resulting clinical changes from using this dual set of standards for locating the yang and yin pulses? In my acupuncture practice, I find that the clinical results are consistently improved by distinguishing whether the imbalance in a patient's qi is primarily in the yang or yin aspect of each element that is out of balance.

Clinical vignette

Mr. X is a 68 year old survivor of surgery, chemotherapy and radiation treatment for prostate cancer, who has been receiving treatment at my practice since 2001. Over this time he has been in good health, but has had intermittent episodes of low back pain. In June 2015 he came for a recurrence of low back pain that had lasted for more than a month. I had previously been treating him as being constitutionally deficient in the Kidney, with good success. On this occasion there were abnormal findings in pulses palpated in both the yang and yin locations. The yang location pulses showed that imperial fire²⁶ (specifically the Small Intestine) had its widest impulse at the water element depth (just above the bone) as the only abnormality.²⁷ The yin location pulses showed that the water element (specifically the Bladder) had its widest impulse at the fire element depth as the only abnormality. My diagnosis was Bladder yin deficiency and Small Intestine yang excess. Since the Bladder is a yang channel, I chose its 'grandmother point'²⁸ Weizhong BL-40 and its front-mu point Zhongji REN-3, both treated with tonification to supplement Bladder yin. I also treated the Small Intestine channel's sedation point, Xiaohai SI-8 with dispersing technique to diminish Small Intestine yang. This simple treatment resolved the back pain in one session.²⁹

The treatment formulation for either yang or yin imbalances can be quite different, and while a complete exposition cannot be given here, several examples expanding on the above vignette should suffice to illustrate this approach to treatment. The easiest part to explain is the choice of either a back-shu point or a front-mu point for each imbalanced element. By using the criteria of *Nan Jing* Chapter 5 (widest depth of the pulse at each position, expressed as varying beans of pressure exerted by the practitioner in palpating the pulse), it is possible to decide if any element is out of balance according to either the yang or yin pulses. If the yang pulse is imbalanced in a given location, the back-shu point of one of the two organs associated with its element should be treated (it is still necessary to determine which organ/channel is affected, and whether tonification or sedation is the appropriate technique

to apply). If the yin pulse is imbalanced at a given location, it is the front-mu point of the corresponding element's organ/channel that needs treatment.³⁰

A more advanced level of treatment involves using transfers of qi to restore balance. This transfer methodology is taught in the five element tradition, but was originally part of the curriculum of all the acupuncture schools in the UK that were established in the 1960s. The transfer methodology was not however a European innovation, but can be traced to traditional Chinese sources as documented by Thambirajah,³¹ who gives explicit directions for choosing points to accomplish this type of qi transfer. I must point out that the most effective point to choose differs depending on whether it is an imbalance of the yang or yin aspect of any particular channel. The 'grandmother point' is used to tonify the opposite polarity from the channel's own nature, as illustrated in the vignette, where Weizhong BL-40 is chosen to tonify Bladder yin.

Conclusion

In summary, I have described standards for placing the examiner's fingers to palpate the cun, guan and chi positions of both the yang and yin sets of radial pulses. Of course there are many other aspects of pulse diagnosis that have not been addressed in this article, and which can contribute to decisions about treatment, but the important note to emphasise is that the method being described is applicable to the treatment of any abnormality: it is equally useful for dealing with pain, organ or tissue diseases as well as non-localisable complaints such as emotional distress and difficulties with mental functioning. This reflects once again the primary importance of resonance in understanding and applying CM.

Peter Eckman MD, PhD, MAc (UK), has practised acupuncture in the San Francisco Bay Area since 1973. His latest book, The Compleat Acupuncturist, was recently published by Singing Dragon.

Endnotes

1 Application of the ideas presented in this article to those disciplines can be extrapolated to material in *The Compleat Acupuncturist*: see Eckman, P. (2014). *The Compleat Acupuncturist*. Singing Dragon Press: London.

2 The English translations I employ in this article are those used by Unschuld: inch, gate and foot for the Chinese terms cun, guan and chi, which are the locations for placing the examiner's index, middle and ring fingers during radial artery pulse diagnosis.

There are many other possible translational choices, but as I have cited several of Unschuld's texts further on in the article, therefore it will be less confusing if I simply follow his terminology.

3 It is impossible to have a one-to-one translation from Chinese

to English that conveys all of the appropriate connotations of the term 'qi', therefore 'energy'/'energetic' is used in this article in the absence of a better alternative.

4 Unschuld, P. and Tessenow, H. (2011). *Huang Di Nei Jing Su Wen* Vol 1. University of California

- Press: Berkeley, pages 295-297. In footnote 96, Unschuld discusses the controversy regarding whether this passage refers to pulse examination or inspection of the skin, and concludes that the answer is unclear. I have indicated why this passage should be interpreted as referring to pulse examination, and conclude that 'fu' (膚), the term Unschuld translates as 'instep' would be better rendered as 'bordering on it', so that following 'foot long section' (chi), would be 'centre bordering on it' (i.e. guan) and 'upper bordering on it' (i.e. cun). The primary meaning of the character 'fu' (Mathews' Chinese English Dictionary, #1924) is 'near to', and 'bordering on' is also mentioned, while instep is not mentioned at all. As cited in the article, this passage is bookended by passages that discuss movements of the pulse. To interpret this passage as referring to the skin on the instep of the foot seems to me to be a clearly inferior choice than to translate it as continuing the discussion of pulse phenomena.
- 5 See Wu, J. (trans.) (1993). *Ling Shu*. University of Hawaii Press: Honolulu, Chapters 9 & 10, pages 42-65 (see also endnote 6).
 - 6 See Wu, J. (trans.) (1993). *Ling Shu*. University of Hawaii Press: Honolulu, Chapters 9 & 10, pages 42-65. For example, page 61 states: 'The major channels cannot be seen. Whether they are hollow or solid, one must use the Inch Mouth pulse to know.' Wu annotates these chapters as referring to both carotid/radial pulse diagnosis and inch, gate and foot pulse diagnosis on pages 48-49. For the *Su Wen* chapters see Unschuld and Tessenow, op. cit. pages 183-184 and 611.
 - 7 Tai ji is the origin, sometimes referred to as great primal beginning or great ultimate. Everything manifest originates from it. In the same way, cunkou (i.e. Taiyuan LU-9, 'Great Abyss') is known as the meeting point of all the vessels – all of the vessels are understood to emanate from it (consistent with the Lung being the first channel enumerated in most classical texts).
 - 8 My interpretation is that Chapter 2 looks at the inner structure of 'the great meeting point of the vessels' as having two parts, and proposes a new name to reflect this level of description. See endnote 9 for further explanation.
 - 9 Unschuld, P. (1986). *Nan Jing*. University of California Press: Berkeley. Chapter 1 states: 'The inch opening constitutes the great meeting point of the vessels.' Chapter 2 states, 'The foot and inch (section) is the great important meeting point of the vessels. From the gate to the foot ... is ruled by the yin. From the gate to the fish-line ... is ruled by the yang ... Hence, the yin comprehended from a one-inch section ... the yang comprehended from a 9 fen section ... The total length of the foot and inch extends over one inch and nine fen.' This passage appears to me to indicate the crest of the styloid as the gate (guan), and in this early description, the gate has no length, it merely separates the foot (chi) and inch (cun) sections of the pulse, which together occupy 1.9 cun. Hua Shou's gloss states: 'The gate is the dividing line formed by the elevated bone behind the palms. It lies behind the inch and in front of the foot as a borderline between the two areas of yin and yang.' This preliminary chapter does not describe the finger positions corresponding to cun, guan and chi. If any interpretation can be made of this passage, it would appear that the inch proximal to the crest of the styloid would overlap what is subsequently designated as the location of the guan pulse position. Thus one can see that the meaning of the term 'cun' (as well as the meaning of guan and chi) depends on context, and varies in the chapters under discussion. Chapter 18 provides the first differentiation of three sections of the radial pulse for examination: 'The vessels appear in three sections; each section has four conduits ...' This translation by Unschuld is accompanied by 17 glosses of Chapter 18, none of which seem satisfactory to me. I would argue that the four conduits represented at each pulse position are as follows: the cun section has resonance with the Heart, Small Intestine, Lung and Large Intestine conduits, the guan section has resonance with the Liver, Gall Bladder, Spleen and Stomach conduits, and the foot section has resonance with the Kidney, Bladder, Pericardium and San Jiao conduits. Unschuld also notes (page 257) that Kato Bankei has proposed that the material on cun, guan and chi in Chapter 18 should be considered as being part of Chapter 3 (implying that the original text was later rearranged, an interpretation that supports this author's presentation).
 - 10 Wang Shu-he (1997). *The Pulse Classic* (Yang Shou-zhong trans.). Blue Poppy Press: Boulder, Book 2, Chapter 7.
 - 11 By 'scientifically valid' I mean 'reflecting natural law', which implies something based on observation rather than revelation. Observations are subject to independent verification (the essence of science), whereas revelation is inherently a personal and non-verifiable experience (thus not within the realm of science). For further discussion see Eckman, P. (2014). "Traditional Chinese Medicine – Science or Pseudoscience? A Response to Paul Unschuld", *Journal of Chinese Medicine*, 104, 41-46.
 - 12 Alternative landmarks are advocated by some sources. In *Acupuncture. A Comprehensive Text*, by the Shanghai College of Traditional Medicine, translated and edited by O'Connor and Bensky (Eastland Press: Chicago, 1981), it is stated on page 28 that 'The middle position is parallel with the lower knob on the posterior side of the ulna (ulnar styloid process)'. This also happens to be the location taught by Jeffrey Yuen, a Daoist lineage acupuncture teacher, in classes attended by the author.
 - 13 Hammer, L. (2001). *Chinese Pulse Diagnosis: A Contemporary Approach*. Eastland Press: Seattle
 - 14 Hammer, L., and Bilton, K. (2012). *Handbook of Contemporary Chinese Pulse Diagnosis*. Eastland Press: Seattle
 - 15 Hammer's mentor was John (Ho Fen) Shen, of the Menghe-Ding lineage of pre-TCM Chinese physicians who were well-known and highly respected in Shanghai at the end of the 19th and beginning of the 20th Centuries.
 - 16 Chang, J. & Brinkman, M. (1995). *Puls synergy*. Lotus Institute of Integrative Medicine: City of Industry
 - 17 See endnote 8.
 - 18 See, for example, the quote from *Acupuncture. A Comprehensive Text* by Bensky & O'Connor given in endnote 11. This 'Shanghai text' is often regarded as reflecting orthodox TCM dogma.
 - 19 The uniqueness of the radial styloid process relates to its location adjacent to the Lung channel, which has a special relationship to the circulation of qi.
 - 20 In the Shanghai text cited above, it is stated on page 28: 'The doctor's fingers should be placed where the patient's would; that is, if the patient's hands are smaller than the doctor's, the doctor will have to move her fingers closer together.'
 - 21 The concept of proportional measurement to determine point location in individuals of different size (variously referred to as 'cun' or 'anatomical Chinese inch [ACI]', has been attributed to the great Master Sun Simiao of the Tang dynasty. See Buck, C. (2015). *Acupuncture and Chinese Medicine: Roots of Modern Practice*. Singing Dragon: London, page 163.
 - 22 Algebraically, the space between the examiner's fingers equals (Y-X), while the space between the index and scaphoid equals ½ (Y-X).
 - 23 Algebraically, the overlap of the examiner's fingers equals (X-Y), while the overlap distance of the index and scaphoid equals ½ (X-Y).
 - 24 Element is often translated as 'phase' in English, but not by practitioners of the five element style of acupuncture. Both translations of the Chinese term capture some of the multiplicity of meanings the word connotes.
 - 25 Mobility is classified as relatively yang, while inertia is classified as relatively yin.
 - 26 In this context, imperial fire (jun huo) refers to the fire element resonating with the left cun pulse position, while ministerial fire (xiang huo) refers to the fire element resonating with the right chi pulse position.
 - 27 In CM there are several paradigms for interpreting the depth of pulsations felt by the examiner. In this article I am using only the interpretation discussed in *Nan Jing* Chapter 5, where the depth reached by exerting pressure of increasing force (described in terms of the weight exerted by an increasing number of

beans) resonates with the five elements in the order from superficial to deep of metal, fire, earth, wood and water. This *Nan Jing* passage cites the associated zang organ and its corresponding tissue, but does not mention the fu organs. I have expanded the purview to include the corresponding fu organs, as the concept underlying this passage is that the elemental qualities are what are manifesting at each depth. Clearly this is a different paradigm for interpreting pulse depth than is expressed in other text passages and lineages, such as Worsley's five element methodology, where the superficial pulses are associated with the fu organs and the deep pulses with the zang organs. The Shen/Hammer tradition uses neither a five-depth nor a two-depth discrimination, but rather a three-depth evaluation corresponding to qi, blood and organ patterns (going from superficial to deep). It is a hallmark of CM that apparently contradictory theories such

as these can all be seen as reflecting aspects of reality without invalidating each other. Each provides a lens through which to evaluate the meaning of pulse depth. The lens used in this article is that of *Nan Jing* Chapter 5. This brief chapter does not mention using the widest pulse as being indicative of where the resonant effects are manifesting. In the clinical vignette the water element pulse is widest at the fire element depth and thus expressing the movement proper to the fire element. This is an abnormal state, and thus indicates an imbalance.

- 28 Grandmother points are an aspect of five element theory. Using the creative cycle (xiang sheng), the grandmother point is the distal transport (shu) point whose element controls the treated channel. In this example Weizhong BL-40 is an earth element point and earth controls water, the element of the Bladder channel. The specific nature of grandmother points is that they affect the

opposite polarity of the channel on which they are located. The Bladder channel is a yang channel, so Weizhong BL-40 is the best point to treat Bladder yin. Analogously, Taixi KID-3 (also an earth point) would treat Kidney yang, while Shaohai HE-3 treats Heart yang, Yangxi L.I.-5 treats Large Intestine yin, etc. The reference for the use of grandmother points in this fashion is in endnote 30.

- 29 In my methodology, the discrimination of which channel of an imbalanced element is affected, and whether its abnormality is on the patient's left or right side, involves the use of Ayurvedic pulse diagnosis, but there are no doubt other ways that practitioners can make this distinction. Based on this, the points in the vignette were treated unilaterally. My approach to Ayurvedic pulse diagnosis is described in the text cited in endnote 1.
- 30 The use of back-shu and front-mu (mo in Japanese) points

was an important component of the clinical teachings of Mme. Hashimoto Masae, one of the earliest Oriental medicine teachers to conduct clinical workshops in Europe, as detailed in the book by Georges Ohsawa describing their co-taught seminar series, *L'Acupuncture et la Médecine d'Extrême Orient* (Vrin Paris, 1969). Hashimoto's use of the shu and mu points is one of the aspects of Sawada Ken's style of acupuncture, which in turn was the inspiration for the development of the Meridian Therapy style in Japan under the leadership of Yanagiya Sorei.

- 31 Thambirajah, R. (2010). *Energetics in Acupuncture*. Churchill Livingstone: Edinburgh