

The Fundamentals of Acupuncture Point Location

by Paul Johnson

A historical perspective

Out of all the areas of practice within acupuncture, point location can be the most contentious. Put ten acupuncturists in a room and ask them to mark Zusanli ST 36 on the same leg whilst blindfolded so that they cannot see each other's marks and the odds are that most of their marks wouldn't coincide - although (hopefully) most would cluster in a small radius.

Written and pictorial descriptions of the points have evolved drastically over thousands of years. For example, the description of the location of Biguan ST 31 in the Su Wen (Plain Questions) as "Six inches above the musculus rectus femoris" (Wu and Wu 1996, p267) is incredibly vague in comparison with Deadman, Al-Khafaji and Baker's "On the upper thigh, in a depression just lateral to the sartorius muscle, at the junction of a vertical line drawn downwards from the anterior superior iliac spine, and a horizontal line drawn level with the lower border of the symphysis pubis" (2001, p154). Historically, Chinese medicine paid scant attention to anything other than the grossest of local anatomy, and diagrams and descriptions of the channels and points were vague at best. It is probable that the point location was taught in a practical way, passed from master to disciple, with the result that individual masters were in control of the knowledge of the exact location of points (Beyens 1998, p401).

Acupuncture point charts printed from blocks probably based on the Tongren (Bronze Man) with virtually no attention to anatomical accuracy were still being printed by Imperial decree well into the Twentieth Century (Van Alphen and Aris 1995, p186), and were intended merely as memory prompts (Soulie de Morant 1994, p17). It is therefore likely that there is a rigidity to the modern location of points that never existed historically (Denmai and Brown 2003, pX).

The earliest record of the cun (anatomical inch) measurement is in chapter 14 of the Lingshu (Miraculous Pivot), entitled 'Bone Measurements' (Qiu 1996, p56). These measurements were complemented and revised by later generations and are central to modern manuals.

Modern sources such as The Seirin Pictorial Atlas Of Acupuncture (Lian, Chen, Hammes and Kolster 1999) show the location of acupuncture points in incredible detail utilising computer-generated 3D cutaway diagrams. The Cross-sectional Anatomy of Acupoints (Chen 1995) and The Anatomical Atlas of Acupuncture Points: A Photo Location Guide (Yan 2003) both contain cross-sectional diagrams and photographs showing the supposed location of points in relation to the stratified anatomy of skin, subcutaneous tissue, muscle and nerve in such a manner that we could be lead to believe that finding the exact locations of points should present no problems.

The learning process

How do contemporary acupuncturists learn how to locate acupuncture points? Literary (and increasingly electronic) sources are important, but what is essential to most of us

still is some kind of personal transmission. One can study Chinese medical theory by oneself, but point location skills must be learnt on another person, preferably guided by someone experienced in locating acupuncture points. No matter how detailed the description or diagram of an acupuncture point is, transferring that conceptual knowledge onto the actuality of a real living body can be fraught with difficulties.

When demonstrating points, the teacher usually locates them with the body in the optimum position for the student to understand how to find them; unfortunately this isn't necessarily the position a patient will be in when the points need to be needed. Sanjiao (Triple Heater) points on the forearm are best learnt with the model laying on their back, arm by their side, hand palm down, with the elbow slightly turned out. This prime position maximises the space between the ulna and radius and makes it easier for the novice to identify extensor digitorum communis clearly. In clinical practice, this channel may need to be found with the arm in a different position to allow other points to be needed at the same time. If one learns how the points feel in this prime position, one knows what one is looking for no matter how the arm is placed.

How to get to the right area

My experience of teaching point location on a day-to-day basis to literally hundreds of students at The London College of Traditional Acupuncture and Oriental Medicine over the past decade has enabled me to draw up a valuable list of do's and don'ts, and whether novice or master, it's always worth going over the basics again to ensure that we are locating our points as well as possible. I'm not going to go over the technical aspect of how to locate anatomical landmarks as this is readily available elsewhere; instead I will concentrate on explaining how to translate this conceptual knowledge into reality when finding points on a live body.

Most acupuncturists find it easier to choose one finger to locate points with; it's better not to use your thumb, which may be less sensitive. Nails should be kept short to allow the tip of the finger to rest smoothly on the patient's skin. By focusing your attention on your fingertips you can develop Zhiyan or 'finger eyes' that can 'see' what is happening below skin level.

Make sure you have an excellent understanding of anatomy. If you aren't confident in telling the head of the fibula and the lateral tibial condyle apart, it is unlikely that you will be able to find Yanglingquan GB 34 accurately every time you would like to needle it.

The use of anatomical landmarks in point location fall into two categories:

- 1) Fixed, unmoving landmarks such as the nipple, nail or eye.
- 2) Moving landmarks which appear only when the body or limb is kept in a certain position to reveal a crease in the skin or depression in a muscle; the bony cleft that Yanglao SI 6 sits in, for example, only becomes palpable when the palm faces the chest.

Flexing a muscle against resistance to identify its contours may be very helpful, but always remember to relax the muscle before you go about marking or needling the point.

Mark the point in the position you will use it – BL 15 marked with the patient laying down will be wildly inaccurate when they sit up.

A common mistake in locating anatomical landmarks is to prod too vigorously with the fingertips. This isn't going to work. The kind of touch required to identify anatomical structures below the skin changes with different parts of the body and different physiques.

When locating the prominence of the greater trochanter, for example, it is better to use the flat of the palm and rock it around the general area to identify exactly which part of the tuberosity really is the most prominent.

When locating the free end of the eleventh rib, gently squeeze the patient with your palms on both sides of the torso where you might expect the free end of the rib to be; using two hands means that the body does not move away from you, and your palms can gather information from both sides of the body to help you 'triangulate' where the rib end might be. Don't forget that the anterior end of the tenth rib may feel as if it is floating; if it does, the cartilaginous attachment at the 'free end' of the tenth often makes the rib feel flat and spatula-shaped unlike the rounded end of the true eleventh rib.

Pressing too hard whilst looking for a point may obliterate sensitivity in the fingertips, so only press as hard as you need to. In people with a lot of excess weight, it can often help to press more lightly than one would normally do: you will be surprised how different fat laying over muscle or bone feels. Finding the inter-vertebral spaces on someone overweight can actually be much easier using this method, as it is easily apparent where fat is laying over bone.

It can be useful to palpate over an area using the fingertips of the index and middle fingers of both hands placed close together to take an 'x-ray' of what is going on below skin level. When a required landmark is found, one hand can stay still whilst the other goes off to search for more information. This technique can be particularly useful when locating intervertebral spaces. Using four fingers together allows a larger area to be palpated than with one finger; leaving two fingers over an intervertebral space whilst the other hands goes off to look for the next space prevents confusion – novices often locate a space multiple times as they stretch skin back and forth over a single space.

Cun measurements only apply to the part of the body you are working on – so a cun measurement on the leg will be very different from a cun measurement on the head.

Remember that cun measurements from front-to-back and from side-to-side on the head are very different.

The oft-cited idea that the length of one phalange or the width of the thumb is the equivalent to one cun, the width across the middle and index finger is 1.5 cun, and that the width of all four fingers held together at the interphalangeal joint is three cun (Lian, Chen, Hammes, and Kolster 1999, p11; Jarmey And Bouratinos 2008, p41) is very approximate, and should never be relied on. This can be a useful tool when a point is found quickly such as Sanyinjiao SP 6 – using the width of the patient's hand should tell you instantly if you are in the correct region or not. I sometimes see students marking Sanyinjiao SP6 as high as 5 cun proximal to the prominence of the medial malleolus, a mistake which is easily avoided if one takes the time to do a simple double check.

It is crucial, of course, to use the patient's fingers (not your own), to do these rough measurements.

Lateral cun measurements on the abdomen and torso should move medially and laterally to reflect the flow of the torso. A line drawn at four cun lateral to the anterior midline should not look like a ruler running from the top of the torso to the bottom; it should move to reflect the dynamic change of body's shape which is, after all, a reflection of the way that Qi has sculpted the body's physique.

When counting intercostal spaces, make a small mark with your pen in each one; if you take your hands off the patient you will still be able to see where the spaces are and will be less confused when returning to count them.

When palpating back along an intercostal space (to find Dabao SP 21, for example), place your finger flat into the space and worm your way along; this ensures that you stay in the space. If you use just a fingertip you may hit the lower border of serratus anterior and be deflected out of the intercostal space without realising it.

When locating points on the skull, remember that the anterior hairline is an imaginary line drawn horizontally around the head at the level of the most anterior place where the hair grows (or where the hair used to grow). Points on the head are located in relation to the underlying anatomical features of the skull, not the hair itself.

Some points appear to be energetically larger than others. Fengshi GB 31, for example, seems to be active within a one cun diameter, where as other points need to be found with much more accuracy. Points located only half a cun apart such as Shenmen HT 7, Yinxi HT 6, and Tongli HT 5 need to be located with pinpoint accuracy, although Pirog (1996, p292) famously claims that "these points are so close together that it seems pointless to detail a differential comparison of their properties".

Always go with local anatomy over cun measurements: Zusanli ST 36 is best found in relation to the inferior border of the tibial tuberosity rather than at exactly 13 cun superior to the prominence of the lateral malleolus (Wang and Robertson 2008, p426). In the middle of the length of a limb there may be no real anatomical landmarks, so with a point like Tiaokou ST 38, for example, one can just start looking for the point at the correct cun.

If using a literary source, note the difference between points that are described as 'at X cun' and points described as 'at approximately X cun'; this is giving a clue to the importance of local anatomy. Lander describes Jingqu LU 8 as "... approximately 1 cun proximal to Lu 9 (wrist flexure). Level with the and medial to the prominence of the styloid process of the radius", whilst Kongzui LU 6 is "... on the line connecting Lu 5 to Lu 9. 7 cun proximal to Lu 9 (wrist flexure)" (2006: p15; 10).

It is often worthwhile standing back from the area of the body being worked on to check if the location of a point looks right.

Locations tend to be learnt in terms of regional anatomy, but it is essential to remember the overall trajectory of the meridian being worked on. I frequently see Xuehai SP 10 and Liangqiu ST 34 marked way off line; a simple step back and an appreciation of the meridian pathway makes this kind of error easy to correct.

Trying to find the depression between the inferior border of gluteus maximus and the hamstrings to locate Chengfu BL 36 is difficult if there is no clear transverse gluteal

fold; however, stepping back allows one to see quite easily where the buttock becomes the leg, and hence the location of the point.

Stepping back to see the big picture is particularly important when locating points on the back and sacrum.

Dazhui Du 14 is located inferior to the spinous process of C7, where the neck joins the body. Visualising the space necessary for a rib to come off of T1 can help us when the traditional methods for locating C6, C7 and T1 yield confusing results.

The sacrum is often described as being 'approximately the size of the patient's fist' (Lander 2006, p271), but this can vary greatly. Once again, stepping back to see the back in its entirety can be useful in helping to evaluate where the lumbar vertebrae terminate and the sacrum commences.

Triangulating the top of the sacrum by using the height of the iliac crest to find the break between L3 and L4 can be wildly inaccurate depending on the amount of adipose tissue that is present. Pangguangshu BL 28, located at the medial border of the sacroiliac joint at the level of the inferior and medial borders of the posterior superior iliac spines (PSIS), is a stationary and reliable landmark. If you know that it is on a level with the second sacral foramen, it becomes easier to guesstimate the superior border of the sacrum.

It is useful to have a good understanding of the spatial relationships of the meridians and points in local areas. Finding points below a swollen knee can be difficult, but is made easier if you understand that Yinlingquan SP 9 and Yanglingquan GB 34 should be at about the same level, with Zusanli ST 36 about 1 to 1.5 cun anterior and inferior to Yanglingquan GB 34, typically at about an angle of about 30 degrees below the horizontal. Knowing where to expect several points to be in an area helps with triangulating individual points.

When I first learnt point location, I was encouraged to use a 'cun locator' – a plastic device for dividing up the length of a limb. Focks (2008, p31) suggests using a prepared elastic tape marked up in regular units to stretch over the area being divided up. Personally, I don't allow my students to use such devices and would advise against them generally. The difference between putting a piece of plastic or elastic up against a part of a patient's body to measure it and physically dividing it up with one's hands and fingers is enormous. Using your hands to measure with is the gentle start to the interaction that occurs between you and your patient's Qi and which culminates in needling.

How to actually locate the points

Although point location atlases give detailed written descriptions of where a point is and how to get to it, one should never forget that this description is merely guiding the acupuncturist to the correct area, the point must then actually be found. This last step is the most difficult to achieve – and teach. I have frequently been confronted with complete novices telling me that they've marked a point a cun away from where it should be because 'they felt the Qi there'. This is always a difficult one – yes, the finger does feel differently when on a 'live' point and the patient may well experience a Qi sensation just from palpation, but this ability to feel or transmit Qi with the fingertips typically takes years to master.

Acupuncture points are frequently (although not always) found in depressions in muscles and bones and are frequently tender to pressure (Ellis, Wiseman and Boss 1991, p67). Modern meridian therapists (Denmai and Brown 2003, p5; Birch and Ida 1998, p34; Pirog 1996, p4) eschew fixed locations for the points, preferring to look for 'active' areas that are depressed or protrude close to the area where one might look for a point. This notion is also upheld by many biomedical acupuncturists who believe that "acupoints are pathophysiologically dynamic entities" (Ma, Ma and Cho 2005, p17), moveable and with a neurogenic definition, but still distinct from trigger points which are myofascially defined (painful palpable nodules of taut bands of skeletal muscle fibre). Others such as Mann (1998, p65) deny the existence of the points altogether, believing only in 'acupuncture areas'.

Personally, I think that the best course of action for novices is to stay as close as possible to the described location of the points. A small amount of deviation along the course of the channel (and not off) is acceptable, reflected in the Chinese practitioner saying "What is important is to be on the meridian" (Beyens, 1998, p401). Crucially, one always needs to bear in mind that point location is about clinical efficacy; stray too far towards another point or meridian and the body may become confused about what is being asked of it. The clearer the message given by the practitioner, the more likely the body is to respond in the way intended.

Advanced practitioners

Once a person has had a lot of experience locating points by anatomical landmarks and cun locations, I encourage them to palpate the channel carefully with their eyes closed to see if they can feel an energetic difference where the points are. It can be an interesting exercise to mark up the Lung channel, for example, with the eyes closed and then find the points in the traditional way to see how closely the two sets of marks coincide.

During my first few years of practice I used to carry out an annual points 'audit' to see which points were getting used all the time, and which ones weren't. I think that this can be a useful tool as it can remind us of points that may have dropped out of our repertoire. Rechecking their locations can inspire us to use points that may be appropriate for our patients but are avoided because of their difficult location, such as Chongmen SP 12. It is even worthwhile going over the location of commonly used points with your colleagues if your treatments aren't giving you the results you expect as is quite common for a practitioner's points to drift once they have graduated.

The making of 'How to Locate Acupuncture Points: the Definitive DVD'

Learning the locations of the points can be an arduous task; there is so much to remember that anything short of a photographic memory is bound to initially miss much of the material. Where I teach at the London College of Traditional Acupuncture and Oriental Medicine there were numerous requests to video point location demonstrations. This was done very successfully on an amateur basis so the decision was taken to produce a professional DVD.

'How to Locate Acupuncture Points: the Definitive DVD', produced by Silence Speaks, has a four hour running time and contains detailed footage of how to locate all the points of the twelve primary channels, Ren, Du, and many of the Extraordinary points. It shows how to accurately divide up cun measurements, and has training tips on

finding intercostal spaces, sacral foramina, and individual vertebra. In addition, it has animated descriptions of the channel pathways, and a computer-generated virtual tour of the body emphasising the surface anatomy landmarks so crucial for the accurate location of points.

In order to complete the project we consulted as many sources as possible, including Ellis, Wiseman and Boss (1991), Deadman, Al-Khafaji and Baker (2001), Lander (2006), Lian, Chen, Hammes and Kolster (1999) and Yan (2003); see note 1 for the full list. Different authors describe the locations of points in a variety of manners, but for the most part these different descriptions take one to the same actual location on the body. Seeing this academic material brought to real life on a model can make some of the most torturous location descriptions such as Deadman, Al-Khafaji and Baker's Tianzong SI 11 "On the scapula, in a tender depression one third of the distance from the midpoint of the inferior border of the scapular spine to the inferior angle of the scapula." (2001, p241) seem straightforward. As the footage is intercut between three different camera angles the DVD is able to capture in detail all the little tips that we as a college point location unit have been able to identify over the past fifteen years.

Initially designed as an educational tool for under graduates, we have been surprised by the number of purchases made by qualified professionals, and the excellent feedback we have received from them. As a point location teacher, I go over this material time and time again every year, and the points always seem fresh and alive to me. For someone in practice who may only use Tianchuang SI 16 or Huiyang BL 35 once every couple of years, looking at footage with detailed visual and verbal instructions on how to find the points can mean the difference between clinical success and failure

Biography

Paul Johnson LicAc, MBAcC, LicOHM, MRCHM, BA (Hons), AHEA has been involved in teaching point location skills for nine years. Paul initially trained as a fine artist and was a successful self-employed illustrator and music journalist for 15 years. Having acupuncture was a life-changing experience for Paul and he decided to retrain as an acupuncturist and herbalist. A previous co-owner of the Oasis Health Clinic in London's Covent Garden, Paul runs the Point Location unit on the BSc (Hons) Acupuncture course at the London College of Traditional Acupuncture and Oriental Medicine (LCTA) as well as supervising in their teaching clinic. Along with his colleague Tessa Whittaker, Paul is co-presenter of "How To Locate Acupuncture Points: The Definitive DVD", released by Silence Speaks in 2009 and available from the Chinese Medicine Times web site.

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Note 1 – full list of references used in the creation of “How To Locate Acupuncture Points: The Definitive DVD”

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