



Spiralling in the art

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The seconds ticked by slowly. Too slowly. I counted them to take my mind off the fire in my arms. Ninety-nine...a hundred. One...two...three...Is he coming back yet? ...five...six...seven... I had lost count of how many times I had reached a hundred and started again at one. He's coming! Can I rest now? My teacher, Dr. Zhu Guang, studied my single-whip posture. The last time he had come over to me, he had simply placed a hand on my drooping crane's beak arm and moved it upwards and an inch further back, sending more fire shooting along it. Then the other arm – elbow further in, tiger mouth aligned properly – and then I was left to 'cook' a bit longer. Tai chi: the gentle art?

Some twenty minutes in, a nod finally gave me permission to lower my burning limbs. Relief flooding through me, I was already moving towards a nearby seat for my well-earned rest when he said: "Now, other side."

Diving deep while standing still

So that was how it went with the tai chi... and the bagua... and the xing yi: the three great arts practised by my teacher, and by his teachers, going back several generations to the roots of his lineages. These stationary postures, I discovered, were part of the traditional training methods that sear the correct alignments into every sinew of your body and make sure that you never forget them. Fortunately, despite much initial moaning and complaining, I had enough faith in my teacher to stick with it until the plethora of unhelpful habits I had developed

during years of previous practice began to be corrected and replaced by a growing awareness of the underlying power within my own body.

Over time, the body becomes used to these uncomfortable postures. In some ways, they are often self-correcting. If we are leaning awkwardly in any direction, the resulting discomfort will soon cause us to settle more deeply into our stances, drop the tailbone, suspend the crown-point and engage the dantien. We find that we have to let go and relax into the stance. The shoulders naturally become pressed down, the weight naturally sinks into the legs and the body begins to develop the kind of dynamic, springy resilience that is a defining quality of the Chinese internal martial arts.

As Professor Wang Zhizhong, one of my teacher's teachers, says in his book *Taijiquan: Die Tradition der 13*

7 *Grundformen*, “It is as if you are at the bottom of a lake, with the great weight of water pressing down on you all the time and squeezing you inwards. At the same time, the crown-point rises and the spine lengthens, allowing the waist to turn freely so that power from the lower dantien can be directed outwards and expressed through the extremities.”

Stationary postures allow us time to explore some of the deeper dimensions and, potentially, reach the highest levels instead of just doing-the-forms, getting our heads round the order of movements and adding to our collection of moves and tricks. We can swim miles and miles on the surface, and only rarely dive down into the depths of the art.

So what are these hidden depths? In the same book, professor Wang provided his own translation of the *Treatise of Chan Sang Feng*, which I then translated from the German with the help of my old friend Google Translate – I know, right? But anyway there was one sentence that I was fairly sure I had translated incorrectly. In the third paragraph of the treatise, where other translators had spoken about ‘connectedness’, the sentence Google came up with was: ‘The most important thing is through’. After much thought, and based on several decades of my own experience, I decided to keep this sentence. I also came to regard it as one of the most important statements I have ever come across in the tai chi classics.

Pearls, strings, springs and other things

The classics encourage us to think of a thread being passed through the ‘nine channelled pearl’, reminding us to keep all our joints flexible and open to let the energy (chi) flow through, led by the mind (yi), so that we can experience the string-of-pearls effect: each body part being connected to every other part rather than the various bits moving independently.

“Internal power does not require tension”

The key to real fluidity of movement is to forget the pearls and focus on the string that passes through them. We can feel the twisting, coiling and recoiling as the imaginary thread surges through the pearls of our various body parts and all the connective tissues between them, so that they connect naturally without effort. As a result, we become more aware of the fluid interplay of yin and yang in our forms. We can study pairs of opposites, such as hardness and softness, and perhaps a mysterious third thing that is greater than the sum of its parts. We begin to realise that yang does not mean stiffness or tension and yin does not mean weakness or being as floppy as a rag doll; that there is another quality at play, a kind of elastic resilience that is both relaxed and strong at the same time.

Torsion versus tension

Internal power does not require tension. Tension implies stiffness and contraction of muscles rather than the relaxed flexibility that is the essence of tai chi, bagua and xing yi. Properly inflated fitballs don't tense unless the rubber has perished. They are only useful if they still have some bounce in them and they can rotate freely about an axis: two vital ingredients in push hands practice, where our springy ward off and rotating waist allow us to bounce people away or redirect their incoming force. Torsion, on

the other hand, is a whole different ball game.

Imagine screwing a bradawl into a piece of wood. You could just bash it in or press it in as hard as you can but if you twist as you press, you're likely to get it further into the wood. The turning action is called torque and it helps to generate a lot of force.

When any material is twisted along its axis, it creates torsion. If you drive a car, you may know that the torque (rotational force) generated by the pistons turning the crankshaft of an engine creates torsion in the drive shaft. This is transmitted via the axle to the wheels. The same kind of thing goes on in the propeller shaft on a ship. If such internal forces are powerful enough to move battleships across oceans, it would seem wasteful not to put them to use in our martial arts.

In tai chi, xing yi and bagua, rotational torque arises from the turning of the waist in its continual figure of eight, or infinity loop, around the lower rib cage. This creates the torsion that turns the upper torso and is transmitted through the arms to be expressed by the fingers.

As we breathe out, the tail bone drops, the dantien rolls and the waist starts to turn and we feel the torsion this produces throughout the upper trunk, magnifying and directing the power generated from the dantien.

With our shoulders pressed down, the subsequent squeezing in of each upper arm gives rise to a spiral – a drilling action – all the way to the fingertips. We can feel how the lengthening and shortening of our arms can be one continuous process, a kind of elasticity or harmonic oscillation, like a spring stretching and recoiling as it turns, without any stopping and starting. When we strike, the recoil is equally important. Our springy elasticity enables the waist and arm to withdraw the hand immediately and smoothly, without becoming floppy or losing the structure, conserving energy until it is time for it to be expressed again. That way, a strike can be delivered swiftly, like a snake spitting poison, without giving the opponent an opportunity to grab the arm.

Using the waist does not involve the sort of twisting that you would get from turning your hips one way and your shoulders the other, like wringing out a wet towel, (which is not the best way to treat your liver, kidneys and spleen), and it does not involve the twisting of (and potential damage to) your knees and ankles. To use the waist fully and safely – for example in bagua postures, where the waist may be turned so that the upper chest and shoulders are at roughly a 90° angle to the hips – the legs and hips remain stable. If we are to avoid injuring the spine by over-twisting it is important to keep it vertical, drop the tailbone and sink the weight into the legs to allow space to open up between the vertebrae, and the waist to rotate more freely. Torsion injury to the spine tends to be caused by twisting while carrying something heavy, particularly if the spine is



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also leaning or out of proper alignment.

This is particularly relevant when we are performing a tai chi roll-back (liu), during which we need to be upright, stable, sunk and rooted and maintain our own centre of gravity so that the free turning of our waist can lead the opponent into emptiness, rather than giving us a bad back. The force we are using is a resultant vector from the combined effect of the body moving backwards a little, rotating at the waist and creating a downward pressure on the opponent's arm. When applying a roll-back, we should be able to pivot quite comfortably, with minimum effort, to disrupt and divide our opponent's incoming force and thereby 'use four ounces to move a thousand pounds' without any tugging, pulling or injuring ourselves in the process.

Torsion strength in bagua

In baguazhang, you are like a whirlwind, able to sweep up an opponent in your vortex and direct your strikes in various directions as eddies off the spiral. As you walk the circle, your whole body is twisted at the waist so that your chest is facing the centre while your legs follow the circumference. In all the 'eight mother palms', you can feel the torsion through your whole body and, by keeping your shoulders down and squeezing in your upper arms, this torsion carries all the way to your fingertips. The more you relax and settle into your stance, like sitting on a chair, the more you can experience this coiling strength.

Whether or not this is obvious to you depends on how you are practising. For example, in 'hold up the heavens', you can just lift up your arms in a relaxed way as if you are shrugging and saying: "search-me?", or you can use torsion strength from your waist so that the arms stretch and coil upwards and outwards from the dantien in a drilling action with a downward pressure on the shoulders and an inward twist of the upper arms and elbows as the hands turn palm upwards. The same is true of 'repulse monkeys' in tai chi.



In a double-palm strike, the more the shoulders and upper arms press down and squeeze in, the more powerful the forward blast of energy, and in push front and back, the shoulders stay down and the hands push along the circumference of the circle while the chest faces the centre, again producing that relaxed torsion all the way through the body. A common mistake is to face the direction you are walking in and just 'push to the front and behind' with 90° angles between the torso and limbs. By turning the upper body to face the centre, you get a smooth path through the body from one hand to the other, as if you are almost pressing sideways. You can feel that connectedness through the waist and dantien and generate whole body power through your limbs.

In 'dragon palm' or 'push mill', the upper arm spirals out and squeezes in so that the elbow is

in line with the shoulder and hand as the palm reaches towards the centre of the circle like a tiger's claw. Holding this as a stationary posture may feel very uncomfortable until all your muscles and connective tissues become accustomed to it but the power that this develops is phenomenal and well worth the initial suffering.

Torsion strength in xing yi

In xing yi quan, your powerful legs launch you forwards like a missile with barely any effort at all, but it is not all about the legs. The coiling is still there, like a head of steam, spiralling upwards and outwards from the dantien kettle. In 'pi chuan', for example, there is the drilling action of the pointed fist as it shoots upwards and forwards before opening and chopping forwards and downwards, perhaps to intercept and trap an opponent's arm as you step towards them and your other fist comes through to strike. The drilling action comes not from the fist but from the arm, which in turn is driven by torsion from the waist





and power from the dantien.

This drilling, corkscrewing feel to the arms and the distinct twisting of the waist are present in each of the 'five elements' and '12 animals'. There is an instant of yang at the moment of contact but it is not the same as hardness, stiffness or tension. It is alive and dynamic, yet this aliveness derives, paradoxically, from the long hours of training in stationary postures. For example, in the fundamental 'san ti' posture, as we were taught it, one shoulder is back so the upper body is sideways on to your attacker. Front knee and foot are in a straight line towards the attacker, the back thigh is squeezed in and energy from the dantien is projected all the way through to the fingertips. By standing for a long time in this position, your body will explode like lightning into the next one with the full force of the 180° turn as you step through and launch yourself forwards.

A difficulty with xing yi is that so many people appear to practise it with the whole trunk simply facing forwards and the arms held out directly in front, without any twisting at the waist or squeezing in of the outer thigh and arms or pressing down of the shoulders. Again, what's needed is torsion, not tension, all the way through the relaxed yet primed body. It acts like a high tensile steel cable that is strong and resilient yet fluid and responsive enough to adapt and change with the situation, so you keep your ting jin ('listening energy' or sensitivity and responsiveness) and are able to go with the flow.

In all the internal martial arts, tension and stiffening make you static and easy for your opponent to 'read' and possibly over-committed to a movement. "Be like water, my friend", as the great man said. Having said that, being like water does not mean being unstable. There is no rocking about or hip swaying: you are rooted to the ground, the dantien is engaged and the whole body is primed with peng jin so that you are able to express fajin if you choose to. If the hips become unstable, dantien power is lost, precision is impossible and the whole thing just becomes an empty exercise. The root and stability are the keys to the whole lot.

Torsion strength in tai chi

In tai chi, you have all of this and more. To discuss all the qualities, energies or jins involved in tai chi chuan would take several books so let's just focus for a moment on the twisting, coiling, drilling actions in our tai chi forms and applications, using just one Yang style version of white crane spreads wings as an example.

How you practise this movement is entirely your own choice. As the top arm rises it can simply be lifted gracefully into the air. In a real fight, however, it can coil around to strike the side of the opponent's head with the back of your hand like cracking a whip, or it can spiral upwards and outwards, powerfully intercepting and redirecting an opponent's arm as it does so, while the bottom hand takes the opponent's other arm downwards and outwards towards the opposite diagonal, creating a

disorientating splitting action. This works especially well if it is combined with a rotation at the waist, resulting in a three-dimensional movement which then allows

the top hand to spiral in towards the assailant's head, delivering a powerful strike to the jaw, face or neck with the palm, fist, fingers or side of the hand.

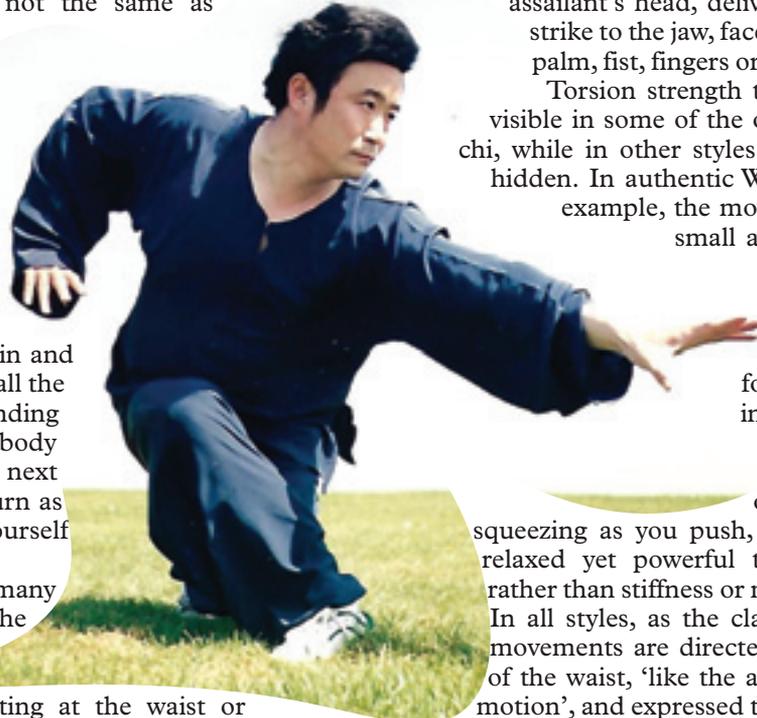
Torsion strength tends to be most visible in some of the older styles of tai chi, while in other styles it may be more hidden. In authentic Wu Hao style, for example, the movements are very small and compact, but

a considerable amount of energy can be produced by follow-stepping into the close personal space of the opponent and squeezing as you push, again using this relaxed yet powerful twisting strength rather than stiffness or muscular tension.

In all styles, as the classics tell us, the movements are directed by the turning of the waist, 'like the axle of a wheel in motion', and expressed through the arms,

hands and fingers.

Once you know it is there, and you have experienced that awesome connectedness and power for yourself, this twisting, coiling torsional strength can be found wherever you look for it in your tai chi, xing yi or bagua. Knowing that the polar opposites of hard and soft are not the only choices available in our martial arts, we can relax yet be primed like an inflating balloon. We can stretch and withdraw, surge out and reel in, twist and coil as we sense, neutralise and redirect an opponent's incoming force and release our own power. Instead of hard blocks, we can parry, intercept, ward and drill in spirals as we stick, connect, redirect and issue. We can be firm and strong without being tense and stiff, or weak and floppy. Stable and rooted yet constantly changing, we can be as pliant and responsive as a willow tree in a breeze yet as alive and powerful as a python. We can wave hands in clouds like winding in a heavy cable, using power from the waist and dantien. We can strike like a power drill or a pressure hose. Being like water, with your mind as vast and still as an ocean as it rests in wuji, you can choose to be as soft as a ripple or as hard as ice but, in a fight, it is useful to remember that you always have within you the power of a tsunami. 🌊



Gaynel Hamilton, (known to her students as "G"), became interested in tai chi in 1970 and has been teaching it since 1986. Having had the privilege to train with some excellent teachers, notably Robert France and Dr. Zhu Guang, she has worked as an international competition judge and, with her husband, Colin, founded the Yiheyuan Martial Arts school in 1992. For three decades, they have dedicated themselves to developing and teaching the internal martial arts and have co-authored a wide range of home study materials, including *The 7 Steps Towards Mastery* series of books. In recognition of her work as a long-serving member of the executive committee, she was made an honorary president of the TCUGB.