

East Asia

Travels and Adventures through the Amazing World of Medicinal Plants

China



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I arrived in China just months after the 'Bamboo Curtain' was let down. Most Chinese were either giddy with, or intimidated by, their new-found freedom. I traveled over-land from Hong Kong to Nanjing. I was in China to study at a World Health Organization course for Traditional Chinese Medicine (TCM) at one of the most respected colleges and hospitals in The People's Republic of China. My objective was to digest and thoroughly understand the principles TCM. and to experience what it was like to practice at the source -- mainland China.

I was astounded by how developed it was as a medical system, from acupuncture anesthesiology for surgery, to the providing access to free, top quality herbal medicine and acupuncture, all within a healthcare system that lacked dependence on pharmaceuticals.

From massive metropolises to the epic grasslands of Inner Mongolia - with deserts, towering mountains, and imperial ruins, China is about 9.6 million square kilometers of diversity; east to west is about 5,000 kilometers, from the Heilong Jiang (Amur River) to Pamir Mountains in Central Asia; north to south distance is about 4,050 kilometers, from Heilongjiang Province to Hainan Island in south. It is a cultural and historic melting pot. (Despite the Cultural Revolution and the Great Leap Forward, China has not completely eradicated its past – it is more that revolutionary enthusiasm is now being balanced

against economic pragmatism, and the old-guard communists are finally giving way to new wave entrepreneurs.) Most of the country is in the temperate belt, with climactic patterns ranging from cold-temperate north to tropical south. Yet there was no heating at all in the hospitals or public buildings North of the Yangtse river. China's terrain descends in four steps from west to east. The top of this four-step geographic "staircase" is the Qinhai-Tibet Plateau. More than 4,000 m above sea level, often called the "roof of the world." The second step includes the Inner Mongolia, Loess and Yunnan-Guizhou plateaus, and the Tarim, Junggar and Sichuan basins, between 1,000 m and 2,000 m. The third step, about 500 - 1,000 m in elevation, from north to south are the Northeast Plain, the North China Plain and the Middle-Lower Yangtze Plain. To the east, the land extends out into the ocean, in a continental shelf, the fourth step of the staircase.

In 1982, China had opened up, and visas were only just available in Hong Kong for travel throughout China. My friend and I were traveling overland into Guanzhou and then onto Shanghai, bringing us eventually to my destination, Nanjing, where I would study TCM on a World Health Organization (WHO) sponsored course. The WHO had originally sponsored the course for third-world Medical Doctors, to train them in non-pharmaceutical therapies such as herbs and acupuncture. The reasoning was that these countries could not afford to buy the Western drugs with their hard-earned foreign currency and needed to train their doctors in other natural therapies. There were doctors from the South Pacific, Central and South America, and Africa. There were also practitioners like myself from Australia, U.S.A., and England.

When we left British Hong Kong and passed over into Red China across a famous railway bridge (known from spy-novels for the swapping of captured agents by the British and the Chinese governments), we were reminded of a different time, a time of 'cold warriors' passing undetected between Chinese and British territories, and this time had just barely ended only months before. Before the 'open door' policy, tourism was only allowed in strictly controlled groups, and visas were very difficult to come by. Now here we were, passing over into China with permission to travel almost anywhere. China had never seen "back-packing" tourists before, and we were stared at everywhere we went. In fact, I remember walking down one street followed by a crowd staring and pointing in

disbelief at the size of my **six-foot four-inch** friend, who had size 11 feet! (It seems feet that size are a rarity in China.) China seemed very bleak, the people wearing drab blue and green standard “Mao suits” contrasted against the gray cold February skies. One could sense a pall hanging over the country, a specter of grief, loss, and abuse. I had heard stories of how China was ravaged by the Cultural Revolution, and what I would find in the personal stories that people would confide once I had their confidence was shocking beyond my belief. The extent of their suffering, such wrecked lives and death, has been little revealed to the West. You could see it in the cities and villages long neglected; new buildings and developments, such a part of our lives in industrialized societies cities, were conspicuous by their absence, nowhere to be seen. In fact, in 1982 the Shanghai skyline remained virtually identical to what it had been in the 1930’s, when new construction had stopped. Today, Shanghai is probably one of the fastest growing skylines in the world. Yet in 1982, after years of struggle, stagnation, and devastation by the in-fighting of the Cultural Revolution, China stood still in time, paused between the past’s devastation and the future’s promise. It felt as if 1.3 billion people of the world’s most populous nation were holding their breath. The infrastructure of the country was beginning to think about rebuilding itself, but the vestiges of Communist culture remained still strong. Throughout the North of the Yangtze, it was impossible to get fresh vegetables in the winter, even though vegetables grew in abundance in the South; there was no transportation or commerce in place to transport them North. Workers were long used to the ‘Iron Rice Bowl Policy,’ promised a job for life regardless of their performance or profitability. It was a common experience to walk into a shop and wait ten minutes while two shop assistants finished their conversation before deeming to serve you. We nicknamed them the Mrs. “Mayo’s” of China -- *ma yo* means ‘can’t-do.’ and this was heard everywhere, the Chinese man-in-the-street was just as frustrated by it as we were. It would eventually change as the commercial realities in the country changed.

We traveled slowly North, sightseeing as we went. We traveled on sleeper trains from a bygone age, steam-powered engines with potted plants and waiters serving green tea every 5 minutes. Eventually we arrived in Shanghai, the intellectual, **artistic**, and

commercial heart of China. Change was in the air everywhere you went. At the Peace Hotel, the original jazz band from the 1950's had been searched for and regrouped, and they were finally again playing to packed rooms every night. Decades ago, this band had been branded as decadent, foreign **lackeys**. They had been dispersed to the four corners of rural China, living desperate peasant-like lives for their sins of jazz, by the teenage zealots of the cultural revolution. Now they were having their last hurrah - these 70- and **80-year-old** musicians were 'packing them in'. Here in Shanghai, the cultural heart of the nation was beginning to beat again, pulsating back to life. New businesses were flourishing everywhere: night clubs, bars, restaurants, shops, **stores**, and side-walk vendors selling their wares. So it was with much trepidation that I departed for the gloom of Nanjing, in which I was preparing for three months of six-days-a-week study. Then I realized during the first week, when I had to scale the gate of my hotel -- which shut and locked its gate every night at 8:30 pm sharp -- that this was a better place to study, without the distractions of Shanghai. Nanjing was still controlled by the old-guard Maoists, paralyzed, resistant, not quite knowing how to respond to the new policies and new changes. Foreigners like myself were required by policy to stay at the 'Western Foreigners Hotel,' which just happened to be extremely expensive. The next tier in Hotels was the 'Chinese Friends hotels', where Hong Kong and Taiwanese Chinese were able to stay, cleanly and inexpensively. Lastly there was the 'Chinese Hotels': amazing, cheap and rough for the few traveling Chinese. I had dodged the expensive 'Western Hotel,' staying at the 'Chinese Foreigners Hotel'. I would speak with everyone in the Hotel including the manager in poor Chinese, and we would have a laugh and a joke. Then one day he approached me, saying that foreigners like myself, because it was official policy, were only permitted to stay if traveling through for a few days only, and that if I said I was only staying a week this would be OK. Then formally, in front of everyone at the front desk, he asked, "Are you leaving this week?" Taking the hint, I **said**, "Yes I expect so," and from that point on, as long as I stayed at the hotel (which ended up being 3 months) every Saturday he would be waiting for me and we would do our ritual, all smiles: "Are you leaving this week?" "**Yes**, I expect so."

One month into the course, to save money I was joined at the hotel, by my roommate. My friend was a gentle six foot four inches tall Texan whose legs were so long for the Chinese beds that his feet would poke out the end of the bed. He is extremely bright and had just become a Medical Doctor and while he was waiting for his residency, his curious mind decided, he would like to Study TCM. (He is now one of the brightest Ear, Nose and Throat Surgeons in Texas) While he was studying in Texas he had become friendly with a Chinese Neuro-Surgeon who was visiting and studying in Texas. That Surgeon had returned to China and became the Head of Neurosurgery for a very large slice of China and he was based in Nanjing. One day Larry told me that this Head of Neurosurgery, was coming over and would take out to dinner. I was very please to be able to break from the daily grind of studying and excited to be taken out to dinner by a famous Surgeon. I imagined a fancy chauffeured-car car picking us up and then going to a fancy restaurant that our meager student budget could ill-afford, and then eating our fill with all kinds of Chinese delicacies. What I had failed to consider was this was still Maoist old-guard controlled Nanjing. The esteemed surgeon showed up at of hotel on a bus, wore the same drab, olive green uniform that everyone wore, with very tatty worn sneakers and a blazing smile. He earned 70 dollars a month and did not have his own car, or house. He was part of a system that only a few years would have condemned his bright mind and bright smile, as an 'intellectual' and if he were lucky, would have sent him off to the fields to work as a peasant. Times were changing, now bright surgeons were being groomed, brought up through the system, promoted to head of departments to fix the decades of neglected systems, devastated by the 'Cultural Revolution'. We all caught the bus, but not to a restaurant as I had imagined, and to my stomach's disappointment, a stuffy museum. We walked around the museum, with the esteemed Surgeon strangely talking in a Texan accent to Larry about his old teachers, with Larry ducking quickly to get his tall Texan frame through tiny Chinese doorways, without leaving a piece of his scalp on the door frame. I was starting to get hungry and bored. Then I noticed, the museum was closing, and people were heading to the exits, yet we continued to move deeper into the museum. We came to a cordoned-off area, which our esteemed Surgeon promptly stepped over and sat down , on some very ancient, lacquered furniture. I was a little stunned at this uncharacteristically and distinctly un-conventional behavior. But

'when in China, do as the Chinese do' Larry and I looked at each other, stepped over the cordon and sat down too. We could start to smell some delicious, amazing aromas wafting around the corner. Within minutes delicious appetizers started to appear before us, dish after exotic dish appeared on the antique tables in front of us. The museum was now completely cleared, except for us enjoying the most amazing food in the cordoned-off area of priceless antiques..... it was very surreal. I imagined these priceless antiques may have been saved from being smashed-to-smithereens by the zealots of the Red-Guard, only a few years before. Toast followed toast of plumb wine and we found out that high office may not pay very much, and the esteemed Surgeon's monthly wage might have only been equivalent to just a meager 15 minutes of an America Surgeons wage, but office held its privileges, and we were experiencing one. After an amazing meal, at a place normally only available to such 'high Cadre', we caught the bus home and send out heart-felt thanks to our humble host.

After being in China for 4 months, I was so used to being around the Chinese that when I saw the occasional American tour group, I was shocked by the contrast in health between the two peoples. To see these American tour groups usually older retired people walking through the streets contrasted so starkly. Nearly 70 percent of the Americans were obese, many carried walking sticks, they were pale, and very tired looking. The Chinese were slim and fit looking. I remember getting lost in Nanjing, and the only way back to college was to admit defeat and flag down a peddle-rickshaw. My friend Beverly and I had the embarrassment of just sitting there for the next half hour while having a seventy-year-old rickshaw driver peddle us several miles back to the College. It was then I realized how fit this man was from his daily life, and how fit most Chinese were, in comparison to the sedentary life of excess led by most Westerners.

Nanjing College of Traditional Chinese Medicine was one of the most respected colleges in China. It had a very large campus, where students stayed in dorms, and most were part of a seven-year course that included conventional medical studies yet were based primarily around herbal medicine and acupuncture. The WHO courses were held in a separate building, which were clean, filled with wood chairs and tables, and with a few teaching aids. The medical interpreters were excellent and translated the best faculty

the college had. The experience of some of the professors was quite remarkable. In the West, where I had studied and gained a license in Traditional Chinese Medicine, the teachers were considered experienced if they had 10 years experience, as Chinese Medicine was so new to the West. Here in Nanjing, the teachers had 40 to 50 years of hard-core experience in primary care.

In the afternoons we would split into small groups for practice in one of the local TCM hospitals. I enjoyed visiting the herbal pharmacy there. Visiting a Chinese pharmacy in China is much like being inside a miniature museum of natural science. Tucked away in row after row of tidy drawers are animal, plant, and mineral products, each with a particular purpose. Among the assortment of curiosities is amber, to relax the nerves; peach pits and safflower, to improve blood circulation; Chinese ephedra (mahuang) to induce perspiration; and ginseng to strengthen cardiac function. The filling of a prescription ordered by a Chinese doctor in the hospital was a fascinating process to watch. The pharmacist selects a ten or so ingredients to make up the individually prescribed formula, from the hundreds on his shelf. These are then placed on a white sheet of paper. The herbs are taken home by the patient, boiled into a "soup", and drunk.

By far, the most prized equipment in our building were the 4 table tennis tables. Towards the end of the lectures, before the break, the translators and even some of the faculty would slowly idle their way back to the classroom door. All the students began to twist their heads towards the clock, timing the end of their lecture perfectly with the beginning of the break. Many would position themselves for a perfect exit from the room ahead of all the foreign doctors, and other Chinese staff, getting themselves to the choice table-tennis tables first! The four table-tennis tables were coveted items during breaks and after lectures; the Chinese were passionate, enthusiastic players.

Towards the end of three-month stay, we were wondering how we could thank our lecturers and teaching doctors, interpreters, and staff. We were pondering what we could do for them that would be an appropriate party. They were not allowed in the new, fancy Western hotel, just built, which towered over Nanjing. (When this new hotel development switched on the air conditioners for the first time, it blacked out the whole

of Nanjing and the surrounding power grid.) Then I had the idea of a table tennis tournament. It was a hot sweaty Sunday afternoon. We had special tee-shirts made for each of the four teams. We had rearranged the lecture halls for spectator seating, making it look as much like an Olympic table tennis tournament as we could. We even paid for beer and food to be delivered (not an **easy task** to accomplish at that time). They were completely shocked and the usual reserve between teacher and student dissolved into an amazingly enjoyable afternoon. Of course, we all sweated **profusely**, and the foreign Doctors were beaten soundly, some even might say overwhelmingly, but main goal had been accomplished we all had a party no one would soon forget.

Traditional Chinese Medicine History

“Chinese medicine” includes all healing traditions emerging from East and Southeast Asia that have their origins in China. The traditions of Japan, Vietnam, **Taiwan**, or Korea all have their roots in Chinese Medicine. It is a complete medical system treating a very wide range of conditions. It includes herbal therapy, acupuncture, dietary therapy, and exercises in breathing and movement (*tai chi* and *qi gong*). Chinese herbal medicine is one of the greatest herbal systems of the world, with an unbroken tradition going back to the 3rd Century, B.C. The *Huang Di Nei Jing*, the “Yellow Emperor’s Inner Canon,” dates from around 200 B.C., but certainly contains much older material. Most of its two parts, 81 chapters of each, discuss diseases, their origins and therapy. This text is based on the detailed observations of nature and her natural laws. It contains concepts of how these laws govern all living things. It lays out the central principles that still govern T.C.M. to this day, Yin-Yang and the law of the Five Elements, developing the concept of how nature effects health. For thousands of years, the Chinese have documented more than 7,000 kinds herbs that possess healing properties. The written records (Shen Nung Ben Chao) started from (3494 B,C.). Shen Nung, the emperor, and his administration examined many kinds of herbs to discover their healing properties. Later, the government of the Song Dynasty (1,000 years ago) reviewed thousands of herbal formulations and published approximately 2,000 nontoxic herbal formulations for public use. Zang Zhongjing who wrote several classics during this fertile period of the second century AD. When Chinese Medicine was starting to thrive including the venerated

| *Shang Han Lun*, the “Treatise on Being Affected by Cold” and the *Jingui Yaou Fang*, “Summarized Prescriptions from the Golden Case.” Throughout its unbroken written history, Chinese Medicine has continually developed, sustained by research and constant refinement in every aspect of its use. In the fourth Century, pulse diagnosis was already well developed; it was discussed in detail in the *Majing*, “Classic on the Mai,” written by Wang Shuhe

Chinese herbal medicine along with the other components of Chinese medicine, are based on the concepts of Yin and Yang. According to this theory, everything holds two opposite forces: "Yin" (negative) and "Yang" (positive). The balanced body achieves harmony, which in turn gives strength to fight against disease and disharmony. T.C.M. aims to understand and then treat the many ways in which the balance and harmony between *Yin* and *Yang* may be undermined and the ways in which a person's 'Qi'(Energy/ Life-force) or vitality may be weakened or blocked. Clinical strategies are based upon diagnosis of patterns of signs and symptoms that reflect an imbalance. According to Chinese Medicine, 'Qi' is said to be that which differentiates the dead from the living, | the animating spark, the vital force of the body, the force of the seasons, the planet, and the universe. From non-solid gaseous ethers to gross dense matter, all is composed of and defined by its Qi. *Qi is matter on the verge of becoming energy and energy on the verge of becoming matter.* Many cultures have developed similar concepts of energy within the body and universe. *Prana* is an almost identical concept employed by the Ayurvedic medicine of India, which seeks to harmonize “pranic” energies within the body. Pythagoras of Ancient Greece, the father of Hellenic medicine, spoke of healing energy called *pneuma*. Hippocrates, the father of Western medicine, described the natural healing force of nature, which he labeled *physis*. The father of homeopathic medicine, Dr. Hahnemann, spoke of bioenergetic energy called “vital force.” Mesmer’s “animal magnetism,” Bergson’s *elan vital*, Burr’s L(Life)-Fields, and Nordstrom’s “biologically closed circuits” are all labels for energy within the body.

From ancient Chinese to modern science, the refining goes on. Today, new research speaks of bio-electromagnetic energy. Most schools agree that the body/mind has energy; if this energy is weak, the body’s natural healing capacities don’t respond. We

can sometimes forget that the so-called “magic pills” of biochemical medicine only aid our body’s systems to heal themselves. Chinese medicine, herbs and acupuncture brings no magic, but rather reduce excess or helps the body to create more energy in a natural non-toxic way to aid the body’s ecology. Many martial artists of the internal schools are able to control their Qi flows. A most graphic episode was shown on the public television series, *Ring of Fire*: a healer in Indonesia demonstrated his control over his energy by projecting his Qi towards a piece of crumpled newspaper and setting it afire. Fifty million *qigong* practitioners practice every dawn in China for their own health, and many masters treat a wide variety of illnesses by manipulation of energy using only their hands. One of the best views was from my room, high up in the hotel along the river in Shanghai, looking down along the river in the early morning: I could see thousands and thousands tai chi and *qigong* practitioners doing their exercises. External *qigong* exercises are promoted for patient self-care in China. Inside the body there are many different expressions of ‘Qi’ with specific functions. For example, through careful observation, the ancient Chinese noticed that the energy from absorbed nutrients in food and water is produced by the digestive system, and they called it “*gu qi*.” “*Zong qi*,” pectoral or ancestral energy, is the Qi that provides basic rhythmic beats of the heart. Our modern equivalent is the contractile and rhythmic properties of cardiac muscle tissue. “*Wei qi*” is the protective Qi, the system of Qi that produces our first line of defense from disease. *Wei qi* flows under the skin; some say it is equal to the immune and lymphatic system in modern terms. Qi flows through “meridians.” Meridians are the “Highway for Qi.” These channels or pathways carry the Qi throughout the body. These circuits of Qi link together all the systems and organs of the body. The meridians are highways of energy that are connected internally and externally by many web-like minor roads. If we could see this invisible energy, we would see an amazing three-dimensional energy body interfacing with our biochemical body. There are twelve major meridians and eight “extraordinary” meridians. The meridian circuitry is like a three-dimensional energetic road map with “acupoints” on the surface at various junctions and rotaries. At these control points we can exert a regulatory influence on the flow of traffic coming from or going to the vital organs. Each of the twelve primary meridians serves as an energy conduit for a particular organ from which the meridian takes its name. For

example, *Qi* that flows through the Heart meridian helps to regulate its energy field and the organ. Six yin organ/meridian systems and six yang organ/meridian systems form a crucial dynamic relationship of balance within the body. Disharmonies in an organ may cause disease in the meridian. For example, pain along the Heart meridian, down the inside of the arm and hand, may be caused by 'stagnant Qi of the heart.' In this case *Salvia (dan shen)* would be an herb that would help reduce the stagnation. *Salvia* is a "blood vitalizing" herb, used to improve circulation. Recent research in China and Japan indicates that this herb can improve the condition and functioning of the cardiovascular system. Organ disharmony may show up on the meridian and disorder or blockage in the meridian may show up by deranging flow further along the meridian.

Acupoints

Acupoints are specific sites along the energy meridians where the energy can be manipulated. They are located on the surface of the body, at junctions or highway intersections with other meridians, and they facilitate the flow of energy. The T.C.M. Doctor is trained to diagnose where there is deficiency or excess energy and then select prescriptions of herbs and acupoints to **open** a traffic jam, or slow speeding traffic down. **Organs.** The twelve major meridians connect to twelve organs. The Chinese do not view organs in isolation, but rather see each organ as an energy field with an associated energetic function in relationship to other organs via functions that affected the psyche as well. These basic concepts are inherently holistic and serve to guide the astute practitioner to consider the whole of the patient and not merely his/her symptoms. For example, the function of the small intestine is to 'separate pure from impure' in the body and in the psyche as well. When under-functioning, we may dwell on the negative or impurities in the mind instead of eliminating them and keeping a positive focus. A dysfunction in the organ/meridian field could manifest in the body and the mind; the ancient Chinese made no distinction between the two. **Of course**, modern TCM, even though superbly systematized by the communist Chinese government, **downplays**, or even suppresses many of the original Buddhist and Taoist influences upon Chinese Medicine and how it views mind and spirit.



The organ/meridian fields are not static and inert; rather, they resemble a living rhythmic pulsation with energy increasing and decreasing function in a wavelike flow.

These rhythms are affirmed by ancient treatises and confirmed by pulse diagnosis and **present-day** bio-energetic testing. Within every 24-hour time span, each organ meridian field has a wave of energy that lasts for two hours and then fades. Qi flows through the circuitry of the organ meridian fields in a sequence. There is great emphasis placed upon prevention as a system of Chinese Medicine, a glaring oversight, in my opinion, within modern 'disease-focused care' so prevalent in industrialized nations.

“The fine Doctor acts even before there is anything wrong”

--Huangdi Neijing, The Yellow Emperor’s Inner Canon, Chapter 2, Suwen, 200BC.

This classic quote from 2,200 years ago underlines the emphasis placed on prevention. Care with regular tai chi or *qigong*, meditation, preventative self-medication, and self-care of maintaining a healthy diet, living in harmony with ourselves emotionally and with our society and Gaia or the laws of nature are what creates and sustains health.

Traditional Chinese Medicine and the Mind and Body Connection.

Both Western and communist thinking tend to separate mind from body and spiritual from material. Descartes said, “There are two substances, mind and matter. They can’t influence each other because they exist in different realities.” He also proposed “that animals are machines and humans, machines with minds, and that mind cannot interact with matter.” Only in the last few decades have these chains been lifted from scientific inquiry, yet these principles are still deeply ingrained in conventional medicine. In Chinese medicine and thought, *no absolute contrast exists between the body and the mind*. Chinese medicine as a system recognizes that emotions play a part in both illness and health. The physiological effect of different emotional states on **bioenergy** and bodily substances has been accepted and studied for thousands of years within Chinese medicine. To the ancient Chinese 4000 years ago, it was clear that certain mental or emotional states produced physiological effects that contributed to illness. As stated in the classic *Nei Ching*, the central classic of Chinese medicine, illness may be caused by six pernicious influences: wind, cold, heat, dampness, dryness, and fire, as well as the

seven emotions: joy, anger, sadness, grief, pensiveness, fear, and fright, in excess or deficiency. The Emperor Huang Ti asks, "I know that all the sicknesses are owed to a disturbance of the energy, but do the emotions have a repercussion on the energy?" The physician Chi Po answers: "Anger makes the energy climb toward the upper part of the body. Joy procures tranquility, the yang energy circulates easily, therefore the energy is then peaceful." Chi Po continues, "Anguish provokes constriction of the heart and dilation of the lungs; the energy of the upper triple burner no longer circulates and the yang energy, no longer being able to circulate, is dispersed little by little. Fear provokes closing of the upper triple burner; the energy of the triple burner no longer being able to pass, the abdomen distends because the energy of the organism no longer circulates. Physical overworking provokes excessive dispersion of the energy; intellectual overworking blocks up the circulation of energy. The *Nei Ching* identifies seven emotions that particularly affect the body and that are still considered most important: joy, anger, sadness, grief, pensiveness, fear, and fright. The differences between sadness and grief, fear and fright, appear to be of degree; sometimes these pairs are combined as one emotion. It is only when the emotion is excessive or deficient over a long period of time, or when it is suddenly and powerfully invoked, that it can disrupt normal flow of energy and bodily substances. Internal energetic disharmony can cause unbalanced emotions: "Excessive joy is associated with slow and scattered Qi; excessive anger induces the Qi to ascend; excessive sadness and grief, weakens Qi; pensiveness generates knottiness or stuckness; excessive fear induces chaotic Qi. The seven emotions are thought to correlate with the five Yin organs: joy with heart, anger with the liver, sadness and grief with the lungs, pensiveness and overthinking with the spleen, and fear or fright with the kidneys." The two organs considered most susceptible to emotional disturbance are the heart and the liver. A major function of the heart is to store the *Shen* (spirit). Disharmonious emotions can lead easily to disturbances of the *Shen*, resulting in insomnia or muddled thinking, inappropriate crying or laughing, and in extreme cases, fits, hysteria and insanity. The liver harmonizes the emotions through its sprinkling-of-Qi function. Thus, 'liver Qi' going in the wrong direction can be a result of excessive anger or the source of it. Disharmonies of liver Qi and anger accompany one another. Stagnation of liver Qi may be associated with any emotional frustration, or with

inappropriate and extreme mood changes.” In addition to external disease influences, internal *emotional factors may cause disease*. Disruptive sensations may come about **because of** joy, anger, pensiveness, sadness, grief, fear, and fright. Oriental medicine maintains that pain sensations are associated with the activities of a person’s spirit. The ancient Chinese maintained that pain sensations are caused by a disturbance or blockage of energy streams and that the balance and flow of energy streams are connected to the condition of the spirit. Strong emotions cause strong electro-magnetic **storms** or disruption in the body’s energy flow. If experienced often enough, this can create an imbalance within the organ/meridian functioning of the body/mind. Although this can become a chronic disposition, it can be treated by herbal medicine and acupuncture. The **tradition, like** Ayurvedic medicine, places great emphasis on lifestyle management **to** prevent disease before it occurs. Chinese medicine recognizes that health is more than just the absence of disease and it has a unique capacity to maintain and enhance our capacity for well-being and happiness

Peace is easily maintained

Trouble is easily overcome before it starts.

The brittle is easily shattered;

The small is easily scattered

Deal with it before it happens.

Set things in order before there is confusion

--Lao Tsu, ‘Tao Te Ching’

The mind states affect the body’s energy and vice versa. For example, stagnation of “liver Qi” can lead to depression. Likewise, depression can lead to stagnation of liver Qi. To a T.C.M. Doctor, emotional disharmony is seen as 1) a sign of an organ/meridian field disharmony; and 2) as a factor originating from organ/meridian field disharmony. Once the disharmony has been diagnosed, often with questioning, **pulse**, and tongue diagnosis, then a formula of herbs or a formula of acupoints are prescribed.

Formulas are Herbs in Harmony

“It has become vital to educate the medical and scientific establishment and show that there are some features which are unique to **phytotherapy**, and which contribute both to efficacy and safety. One of these is the concept of synergy, in that a plant extract is more than the sum of its parts, ... This is already accepted by patients and practitioners, but we now have an opportunity through further testing to prove that it is a true phenomenon which should be appreciated and **utilized** for therapeutic benefits”.

--Dr Elizabeth M Williamson, ‘Synergy: Interactions within Herbal Medicines’

European, traditional Chinese medicine and Ayurveda generally believe through practice and experience that synergy between herbs is happening and is a central part of their philosophy. This synergy is the harmony created by the individual as part of an orchestra or a team. Formulations of herbs are normal and may be either historical formulations, which have been developed by empirical observation or are **custom designed** for an individual patient. Science may not have the tools yet to confirm the super-subtle synergistic interactions and increased efficacy of ancient formulation practices. A recent case in point occurred at the London Royal Free Hospital England in the early 1990’s. During trials to study a Chinese herbal formula for eczema, researchers were astonished when the addition of ‘one extra herb’ was added to a formula containing 10 herbs. It resulted in a dramatic improvement in previously unresponsive patients. According to Dr. Williamson of the School of Pharmacy University of London, England “The approach taken by herbalists to skin disorders such as eczema differs radically from conventional treatment, which usually involves topical application of corticosteroids with their inherent disadvantages, and may lead eventually to the use of cytotoxics in refractory cases. In contrast, the multi-targeted approach of the herbalist must surely be preferable, and the Chinese herbal remedy containing multiple ingredients used to treat eczema is a good example of this.” She also goes on to say there are several reasons holding science back from the study of formulation synergy, “the main one being the difficulty of proving such effects, since to do so would necessitate the testing of each individual constituent and comparing the activity with an equivalent dose in the mixture. This is an immense undertaking and prohibitively expensive in terms of time and

money.” Also, the present methodology for investigating botanicals is flawed: “If a combination of substances is needed for the effect, then the bioassay-led method of investigation, narrowing activity down firstly to a fraction and eventually a compound, is doomed to failure, and this has led to the suggestion that the plants are in fact devoid of activity.”

The mechanism of action of most herbs is still unknown yet to science due to expense, and present methodologies yet there are ‘proven’ instances where a **total herb formula** work better than an equivalent dose of an isolated compound, for which we have no real rationale.

In a study published in the *International Journal of Oncology*, PC-SPEs, an herbal mixture used by prostate cancer patients as an alternative form of treatment, was investigated; previous published studies have shown this formula to be effective for prostate cancer. Since PC-SPEs is derived from eight individual herbs, each with distinct as well as overlapping properties, this study investigated whether a particular herb in the formulation principally accounts for the biological properties of PC-SPEs. They concluded: “Lack of concordance between changes in prostate cell growth and prostate specific gene expression makes it unlikely that the activity of a single herb can account for the overall effects of PC-SPEs.”

In other words the team (formula) was greater than its individual parts. In one final example a double-blind, crossover trial using 20 young, healthy volunteers, taking a formula containing ginseng, *Panax ginseng*, and ginkgo *ginkgo biloba* was recently demonstrated to be more effective in improving cognitive function than either alone, (Scholey and Kennedy 2001).

The Wisdom of TCM Organizing Principles for Herbal Formulas

When did Chinese Medicine start to develop and record these synergistic effects of herbal formulas? Around two thousand years ago, one of the early Chinese Emperors was entombed along with many artifacts, giving us a snapshot picture of the society and medicine of that time. When the tomb was opened, many scrolls were found. One of the best-preserved manuscripts, called *Wushier Bing Fang*, written on silk, described prescriptions for treating 52 illnesses. It is believed it was compiled around 900 BC,

nearly three thousand years ago! It showed that a sophisticated system of formulation of herbs to increase their efficacy was already beginning. This 3,000-year-old document contained 170 formulas, made of two or more ingredients. It shows us just how long-ago herbal formulation was beginning its development, and how the experience of treating all that suffering was beginning to be refined and recorded. Half of those formulas were for inflammatory conditions such as urinary tract infections and skin diseases; the other half were for traumas, injury, hernias, and animal bites, not the usual shamanic or magical conditions one would expect for that era. Over sixty percent of the 250 ingredients were plant medicines; the rest were of animal origin.

Every herb has a downside; good formulas knock the hard edges off the “star player”, with the philosophy that “the team is greater than its star player.” The whole is greater than the sum of its parts. The combination of individual components in a formula produces a new therapeutic agent that treats more effectively and completely the cause, as well as the symptoms, of a health problem. These principles have been proven and refined over thousands of years of written clinical experience and refinement. There are organizing principles that govern the combining of thousands of active ingredients in plants to create a harmonized, effective team. The foundations for the organizing principles, which I use in my practice today, were laid down in the first or second century in the Chinese medical text, *the Yellow Emperor’s Inner Classic*.

In the seventy-fourth chapter of the basic questions, (*Su Wen*), it is stated, “That [ingredient] which primarily treats the disease is the Chief, that which aids the Chief is the Deputy, that which is bound to the Deputy is the Envoy/Messenger.” Through centuries of practice, these Confucian-like roles are expressed in an ancient political organization of the State, and have come to be defined as follows:

Chief /King/ Emperor herb: Produces the main effects, in treating the cause or the main symptoms of a disease. It dominates the whole formula with greatest dosage, and is the chief ingredient, the primary therapeutic agent. One or two herbs will focus the purpose of the formula. For instance, Chinese Rhubarb, *Da Huang*, used in large dosage as a ‘Chief’ will exert a laxative effect through the predominance of anthraquinones, purgative compounds, yet when relegated to a lesser role or dosage, its tannins predominate and contributes, overall, a stool-solidifying effect.

Deputy /Minster herb: A “deputy” or “minister” has the primary function of helping to strengthen the effect of the “chief” or “king” herb, and secondarily it treats symptoms that accompany the disease that the king herb is treating. Added to assist the primary effect of the chief or king. **Usually**, one to five herbs are added to work with the leaders to emphasis magnify or broaden their effects.

Assistant herb: The idea of an “assistant” has, since the *Su Wen* was written, been incorporated into standard TCM practice. It is added to treat symptoms, or to lessen the hard edges of the chief. For example, it may cool the overheating effect of the chief. The assistant herb performs this function by opposing the irritating property of the king herb without lowering its therapeutic effects. They may counteract side effects or modify the overall energy of the formula from warm to cool or visa versa.

Envoy/Messenger/Servant herb: This herb directs and guides the chief or smoothes the way for its use. It may help transport active constituents into the body for the best possible absorption and circulation throughout the body. This functions also traditionally included binders for pills. The “messenger” may also lead the other herbs in the prescription to the affected site in the body.

Chinese Medicine and Ayurvedic medicine have the oldest continuous written traditions of herbal medicine on the planet. Both traditions place great emphasis upon using combinations of herbs, formulas. Gaia herself places great value in her eco-systems design upon diversity and production of complex combinations of her chemistries to fight bacterial overgrowth without them developing resistances to the plant antimicrobials. I believe that the hundreds of compounds in any one plant, when formulated with nine others should produce one thousand compounds (10 x100 =1,000), yet in actual fact, **one hundred new compounds are produced from interactions of compounds upon each other , therefore 1,100 total ,ay be produced by a formula giving each formula a totally unique ‘signature’ that is not possible just from the sum of its parts, the Whole is greater.** The Chinese have believed for thousands of years that these combinations, were more effective than any single herb by itself and they developed guidelines for the formulation assigned roles to the herbs. The energetics of

the plants were assessed to consider their therapeutic action and help in their assignments into formulas.

A Holistic, Energetic approach versus a symptomatic approach

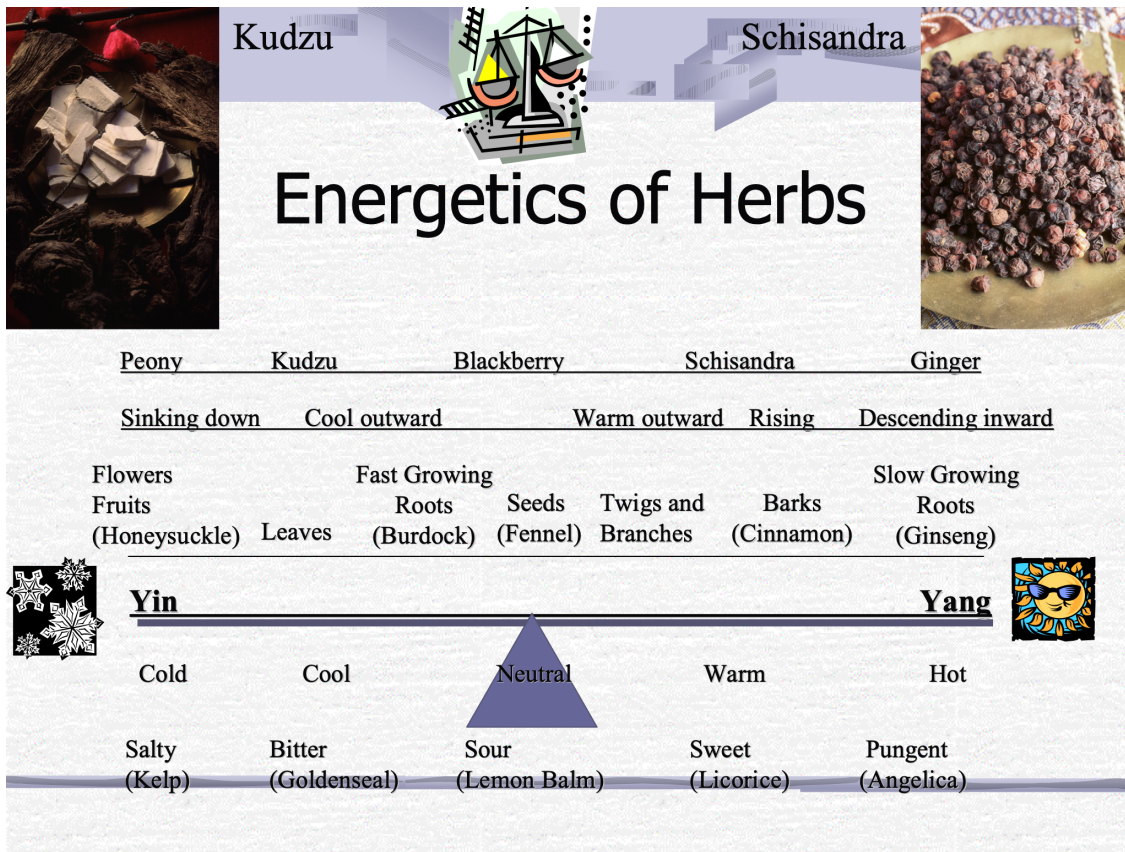
A difference between Western and Eastern herbal traditions is the ‘symptomatic’ versus the ‘holistic approach’. For example, let’s look at both approaches to a herbal treatment of an inner ear infection. While in the West, just taking *Echinacea* may be recommended. While echinacea does boost up the immune system and aid it in fighting off the bacteria or yeast infection of the inner ear, it does not address the more holistic perspective of shifting the environment of the “host” that supported the thriving of the ‘guest’ bacteria or yeast. Many underlying conditions such as food allergies, seasonal allergies or trapped water after swimming create a hot bed for infection and should be addressed.

One of the main differences in the holistic TCM approach to a **health problem** is that TCM energetics would employ a “Herbal Shotgun” approach to boost the immune system while also working on ridding the body of the underlying cause of the illness. For example, from the TCM perspective a damp, “swampy” environment in the ear can become a hot bed for bacterial growth. Wax produced from an imbalanced constitution or from cleansing toxins increases the swamp-like condition and may allow recurrent infection. To break this chronic cycle, a TCM practitioner seeks to change the damp environment. The **Formula**, *Long Tan Xie Gan Tang*, “Gentiana Combination Formula” accomplishes this by using drying and cooling herbs such as gardenia, gentiana and scutellaria that target damp heat in the upper torso. Yet, given our contemporary knowledge of other herbal traditions as well as biomedicine, we can also add echinacea and fo-ti help to fight infection and support the immune system. The Eastern approach is to shift the “damp heat” swamp-like environment of a waxy, watery-exudate ear, that allows the “guest” to thrive while combating infection. A “drying-cooling” herbal formula, directed to the ear, can **include** echinacea and contain berberine ingredients to go after a staphylococcus, or staph, infection, yet it also works to shift the environment that supports it. This is the holistic wisdom I bear in mind with every formulation.

Traditional Chinese Medicines Energetics of Herbs

According to Chinese legend, Shen Nung, the Chinese father of agriculture and leader of an ancient clan, took it upon himself to test, one by one, hundreds of different plants to discover their nutritional and medicinal properties. Many of these turned out to be poisonous to humans. Over the millennia, Chinese have used themselves as guinea pigs in this same way to continue testing plants for their properties of inducing cold, heat, warmth, and coolness. Given that the Buddhists monasteries were involved in the use of herbs for the poor and needy and the Taoist obsession with longevity herbs, it has been said that a lot of these guinea pigs, were monks and priests. Both spiritual paths placed great emphasis upon rigorous meditation and mind-body awareness techniques such as 'Qi Gung' and 'Tai Chi Chan'. Many of these Priests and Monks were finely tuned human beings, who had access to altered states through their strenuous perusal of meditation and mind-body enhancement techniques. Both the Buddhists and Doaists were extremely involved with medicinal plants and examining upon their own bodies and minds the effects and properties of these herbs. Imagine if you would over the course of thousands of years the lifestyles of these amazingly committed Priests and Monks, supported by their communities fasting, meditating many for weeks on end, purifying their bodies and minds, **focused** upon just one goal at the end of their religious activities, to observe the action of a particular herb or a **particular combination**, upon their own body. They would have had detailed knowledge of the meridian systems and organ fields with in their body and direct experience through their practices, with the laser like focus of an altered state these amazing guinea pigs, through there own direct experience of their subtle energy flows They helped classified the medicinal effects of the plants on the various parts of the body, and determine their toxicity, what dosages would be **beneficial** and what would cause side effects, **etc.**

TCM herbal medicine and other mature systems throughout the world apply herbal ‘energetic’ effects on the body and mind. Within TCM, the energy of the plant has several aspects that give it its unique personality. To organize a good herbal formula, a Chinese herbalist **must** know which characteristic elements and which organs are the beneficiary of which herbs. Each according to their herb should be classified **based on** a number of classifications, e.g., Yin-Yang and Five Elements, so the sum of all herbs in a formula will be the total harmonious effect of the formula. The “Four Energies” are classified as Hot, Warm, Cool, Cold or Neutral. The “Five Tastes” are pungent, sour, sweet, salty, bitter. These tastes help to classify herbs further, including their effect on certain meridian/organ systems throughout the body. The “Four Directions” help to classify the tendency of the herb with respect to area of effect in the body. This helps select herbs to target certain parts of the body, or to facilitate the movement of other active compounds in the formula such as **the Envoy/Messenger/Servant** herbs, e.g., sinking, or floating outward to the surface or **downward**, or rising upward.



A Classic Traditional Chinese Formula Example:

•**Chief /King/ Emperor herb:** For example, ginseng has been known to energize the body. It also causes strong side effects when used alone. Ginsenosides in ginseng make the arteries become constricted.

•**Deputy /Minster herb:** Astragalus serves to broaden and tonify energy.

•**Assistant herb:** Combining ginseng with other herbs, such as kudzu, balances the side-effects of arteries becoming constricted. The proper combination of herbs increases the potency in the desired direction while balancing the undesired effects allowing ginseng to energize the body.

•**Envoy/Messenger/Servant herb** the combination of bitter orange and ginseng with other herbs relaxes muscles for the delivery of energy. It also helps with muscle aches and an abnormal digestive tract caused by poor Qi circulation. Bitter orange also has the effect of stimulating Qi (vital energy) circulation.

One of the uses for this formula is to increase vital energy. The energy level is for individuals who need to strengthen the body's Qi.

The Wisdom of TCM Formula Organizing Principles and Energetic assessment of herbs, a foundation for 'World Herb' Formulas

Using the wisdom of T.C.M. as a base, I build the formula using the best herbs from many continents and cultures. Blending these 'World Herbs' into formulas using the sophistication and wisdom of TCM formula organizing principles and the TCM energetic classification herbs I believe makes for more effective use of herbs. The effectiveness and wisdom of Chinese herbal medicine is not in the herbs themselves, but the gem is in their principles and energetics. Once understood, I believe we can employ any of the healing herbs on our planet according to these principles. Important herbs from all over the world and from many healing systems can be utilized and guided by the formulation principles of the classical Chinese medicine to bring a new perspective to herbal medicine. This perspective, developing consciously or unconsciously among modern herbalists, I call the 'World Herbs' school. I believe in bringing the best most effective herbs from around the world using the principles of Traditional Chinese Medicine and scientific verification. It is time to share and combine the treasures from all cultures.

What ancient Chinese herbal master **would not** have been ecstatic to use the North American herb *Echinacea* or the Polynesian herb *kava kava* in their formulas if they had known of its existence? What would Europeans have done with *ginseng*? By trying to understand the herbal traditions from different parts of the world, we can gain a broader perspective from which to employ a more targeted use of plants for healing. For example, Traditional Chinese Medicine (TCM) gives us an "energetic" picture of the herb, while the resurgence of Western scientific interest gives us a deeper understanding of its biochemistry. I believe in uniting these various dimensions of understanding plants to better use them as healing agents. TCM has the longest recorded written history of any herbal medicine, over twenty-five hundred years of tradition. Chinese herbs are no more potent than the ones growing in your backyard; however, they have been better observed, both energetically and biochemically, and used in every formula configuration possible. The World Herbs perspective that I formulate and use in my practice is developed by using superior herbs from all the traditions guided into formulas using the wisdom of TCM. Using Traditional Chinese Medicine's botanical wisdom as a **foundation and** adding to that the wisdom of modern scientific research, Ayurvedic, European, North American, and South American herbal traditions, we come to a very powerful perspective and the basis for World Herb formulas.

A Modern Example of a 'World Herb' Formula, for Ladies' Support

This is a modern formula for the treatment of PMS, combining Chinese herbal guidelines and herb energetics with some scientific information. For the treatment of PMS, or premenstrual syndrome, is also often referred to as premenstrual tension (PMT). It is a recurrent disorder that disrupts the emotional and physical aspects of many women's lives for up to 2 weeks out of every month. Symptoms can range in intensity from mild to incapacitating. The most common symptoms are sudden mood swings, weight gain, breast pain, irritability, anxiety, and, frequently, a sense of feeling out of control. An estimated 30 to 40% of women between the ages of 25 and 50 experience mild to moderate symptoms of premenstrual syndrome. *Ladies' Support* is an example of using herbs from all over the world combined using the wisdom of TCM for Ladies' Support.

Vitex , (Agnus-Castus) Chief /King/ Emperor herb

Energetics: Bitter and Pungent taste, a bit astringent, neutral with both cooling and warming potentials, dry, relaxing and stimulating, harmonizes menstruation, relieves pain, promotes menstruation, and relieves amenorrhea, tonifies menstruation, fertility and sexuality.

Used for centuries in Europe, this herb is now understood to exert a balancing action on the hormones to gently regulate menstruation. The greatest use of vitex lies in normalizing the activity of female sex hormones, and it is thus indicated for **dysmenorrhea**, premenstrual stress and other disorders related to hormone function. It is especially beneficial during menopausal changes. And in a similar way, it may be used to aid the body to regain a natural balance after the use of the birth control pill. It is found to have a strong effect on the corpus luteum, which increases progesterone. Scientists think that it regulates the pituitary gland, which detects increased estrogen levels and tells the ovaries to make less. Recent findings confirm that Vitex helps restore a normal estrogen-to-progesterone balance. It can not only ease, but with time, **cure** premenstrual syndrome, which has been linked to abnormally high levels of estrogen, especially if symptoms tend to disappear when menstruation begins. European herbalists also use it today to treat fibroid tumors and other female complaints. Vitex is commonly known as the Chaste Tree Berry, has been used for centuries to help women with menstrual problems. It has now been documented by medical science through clinical study that vitex is a safe and effective treatment for PMS (premenstrual Syndrome).

170 women (average age 36) diagnosed with PMS participated in this randomized, double-blind placebo-controlled study. The women received either one 20 milligram tablet of Vitex extract or a placebo pill each day, at the start of their **menstrual** cycle. After 3 months of treatment, the women's symptoms were assessed both by the participants themselves and by their physicians with an assessment called clinical global impression. The results showed that 52% of the women taking Vitex had significant improvement, **compared** to 24% in the placebo group. The greatest benefit was seen in reductions of irritability, mood changes, anger, headache, and breast **fullness**. (Reported in the British Medical Journal 2001)

Black Cohosh (*Cimicifuga Racemosa*), Deputy /Minster herb:

Energetics: Pungent, bitter, sweet; cool dry, relaxing, calming, anti-inflammatory, stimulating and restoring, it circulates uterine energy, promotes menstruation and estrogen, stops discharge and bleeding.

Used by Native Americans and American colonists to treat gynecological and menopausal complaints. Black Cohosh Root also relieves headaches and muscle pain and stops irregular bleeding. Clinical studies from Germany demonstrate that black cohosh decreases Luteinizing Hormone (LH), which can be responsible for hot flashes and other problems. widely used in Europe and the US to relieve the symptoms of PMS.

Black Cohosh is commonly used for PMS and menopause (particularly hot flashes, menstrual cramps, changes to the vaginal lining and even depression). Assists in minimizing cramps from PMS. Ease menstrual cramps. Black cohosh has antispasmodic properties that may lessen menstrual discomforts. In addition, by possibly increasing blood flow to the uterus, it may reduce the intensity of particularly painful cramps. By stabilizing hormone levels, the herb's phytoestrogens may even benefit women with premenstrual syndrome (PMS)

Licorice, (*Glycyrrhiza glabra*) Envoy/Messenger/Servant herb

Energetics: **Very sweet**, neutral, moist, restoring, relaxing, softening; increases digestion and absorption of the formula, restores endocrine function.

Licorice is the most frequently used herb in Traditional Chinese Medicine (TCM) and has been extensively studied. TCM classifies licorice as a sweet, mild herb and uses it to supplement the body, clear "latent heat," regulate stomach functions, expectorate the lungs, and invigorate the spleen. It has been used as an antipyretic, detoxicant, and anti-inflammatory. Many TCM formulas use licorice as a corrective adjunct and harmonizing ingredient.

Vervain, (*Verbena officinalis*) Assistant herb:

Energetics: Bitter, slightly pungent, cool, neutral, **stimulating, dispersing, relaxing** and restoring, circulates and promotes energy flow, loosens constrained energy, and relieves pain. Vervain is a herb that will strengthen the nervous system whilst relaxing any

tension and stress. It can be used to ease depression and melancholia that can accompany PMS.

Ginger, (*Zingiber officinale*) Assistant herb:

Energetics: Very pungent, slightly sweet, hot, dry, **stimulating**, and relaxing.

Helps warm the formula, which would otherwise be overcool, and promotes digestion of herbs that might be difficult to digest when too cold energetically. As the Assistant, it is added to treat symptoms or to lessen the hard edges of the chief. For example, it may warm the overcooling effects of the chief and the deputy and others.

TCM Today

“In China today there is a clear effort to realize and create a medical infrastructure going beyond a simple reliance upon two divided systems TCM and Western medicine.

There exists in fact a three-tiered medical system comprising traditional medicine, biomedicine, and integrative medicine”

--Cai Jing –Feng ‘Oriental Medicine’

After a stormy beginning to the twentieth century where TCM was banned by the Government in favor of conventional Medicine, it was nourished back to thriving health by a Communist government desperate for affordable healthcare. Currently, TCM still predominates in rural areas where it is responsible for up to 60 percent of healthcare. In the cities, however, conventional care is mainly predominant. Healthcare is based upon the patient’s choice of which system to use. Chronic conditions are referred towards TCM and acute care towards Western Medicine. However, there seems to be a place where they meet and work together and that is developing into “integrated” care, using one to support the other. For instance, with some cancer, life expectancy increases when both systems are utilized. This kind of integration is the fertile field of a new medicine for industrialized nations that are being crippled with pharmaceutical costs for elderly and chronic care. This in my opinion is where the next breakthrough will happen in the healthcare of the Industrialized Nations of the West and Japan.

Conclusion

I left China in awe. As I sailed out of Shanghai Harbor on a cruise ship heading towards Hong Kong, I was savoring all the luxuries missed over the last 4 months (hot baths, good plentiful food for dinner). With our feet up on the rails of the deck, we raised our glasses of plum wine to the full moon overhead and toasted China and the sophisticated wisdom of her millennium old healing arts. As we glided peacefully through the balmy summers' night, toward the China Sea, I reflected on the hard work of the last few months and on good friends made. It seemed to me that China had developed a super-sophisticated system of natural health care and had integrated it successfully with Conventional Medicine. I knew that in the years to come, this would be a central theme that I would dedicate my life towards.