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Anatomical Roots of Chinese Medicine and Acupuncture

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Abstract:

The earliest historic reference to a dissection of a human cadaver is found in the biography of Emperor Wang Mang 王莽 who in 16 C.E. ordered the medical dissection of the body of a rebel named *Wang Sun-Ching*. (Occidental anatomy began only 1500 years later.) Measurements were made of his internal organs, and bamboo rods were inserted into his blood vessels in order to discover where they begin and where they end for the purpose of a better understanding of how to cure diseases. Similar anatomical dissections are mentioned in chapter 12 of the Huang-Di Nei-Jing Ling-Shu 黃帝內經靈樞 entitled *Jing-Shui* 經水. The ancient Chinese characters for body dissections given here are the same as in modern Chinese anatomy, namely *Jie Pou* 解剖. The courses of the pathways as laid out in chapter 10 of the *Ling-Shu-Jing* are basic for acupuncture and could well be the result of such dissections. Otherwise it cannot be explained why ancient Chinese physicians were able to denominate the respective viscera properly with names still in use today, how they could locate them topographically in correct position, and link them to the vessel pathways leading to the periphery of the human body. The majority of Western acupuncturists adhere to far-fetched assumptions about “meridians”, “channels”, “points” and “energy” which have never existed. That is why modern acupuncture finally needs an **anatomical nomenclature** in daily practice and scientific research for all structures involved which are still the same as some 2000 years ago.

Key Words

Classical sources of acupuncture, anatomy in ancient China, organ names in ancient Chinese books, anatomical nomenclature for acupuncturists, safer acupuncture techniques, reliable foundation for acupuncture research and successful practice of Chinese medicine.

1. Anatomy in Early China

Dissections of human bodies were seldom practised in ancient China because the human body was considered sacred. Confucius had said in his *Filial Classic*:

“Our body with skin and hair comes from our parents. We must not mutilate it 身體髮膚受之父母不可毀傷.” [1]

Accordingly, a systematic anatomical research could not yet develop in early days. However, the wish to uncover the secrets of nature could not be completely suppressed. Medical persons as well as laymen have at different times tried to find out the exact conditions of the internal organs.

The book *Huang-Di Nei-Jing Ling-Shu* 黃帝內經靈樞 says in its 12th chapter entitled Vessel Rivers (*Jing-Shui* 經水):

“It is beyond human capacity to measure the height of the sky or the extension of the earth. But it is easy to obtain surface measurements of a human being who is 8 feet tall. After death his body may be dissected to get a general idea of the appearance, the size and the capacity of his viscera, to measure the length of blood vessels, evaluate the quantity and condition of the blood and the Qi (*Xue Qi* 血氣).” [2]

The earliest historic reference to dissections of human cadavers is found in the Han Annals 漢書. Here, in the biography of the emperor *Wang Mang* 王莽, it is written that the emperor ordered the dissection of the body of a rebel named *Wang Sun-Qing* 王孫慶 who had been caught by the imperial army. The dissection was performed in 16 C.E. by the court physician *Shang Fang* in association with a “skilful butcher”. [3]

The text continues:

“Measurements were then made of the internal organs and bamboo rods were inserted into the blood vessels in order to discover where they begin and where they end for the purpose of a better understanding of how to cure diseases.” [4]

As it was conducted by a doctor, this perhaps was the first real experiment connected with anatomical dissections in medical history. A similar procedure is mentioned in chapter 12 of the acupuncture classic *Huang-Di Nei-Jing Ling-Shu* referred to above. The objective of the investigation was to determine the condition of the human viscera, of the blood, and the blood vessels. Emperor *Wang Mang* was evidently interested in anatomy. He was a reformer emperor. As he probably hoped to walk in the footsteps of his legendary prehistoric forerunner, he adopted the title of *Xin Huang Di* 新黃帝, the “New Yellow Emperor”. An interesting accompaniment of his reforms were emphasis on the study of ancient literature. One of his court scholars, *Liu Hsin*, edited many ancient texts on literature, religion, politics and medicine. We may speculate whether among these texts was a prototype of the famous medical book *Huang-Di Nei-Jing*. [2, 2a]

In the book *Pin Tui Lu* 寶退錄 from the Northern Song Dynasty (960-1127 C.E.) the following report is given:

“In Kuang-Su the robber *Ou Xi-Fan* 歐希范 and his followers were killed, and within two days 56 persons were dissected. The coroner *Wu Jian* 吳簡 inspected the bodies carefully and made drawings of them.” [5]

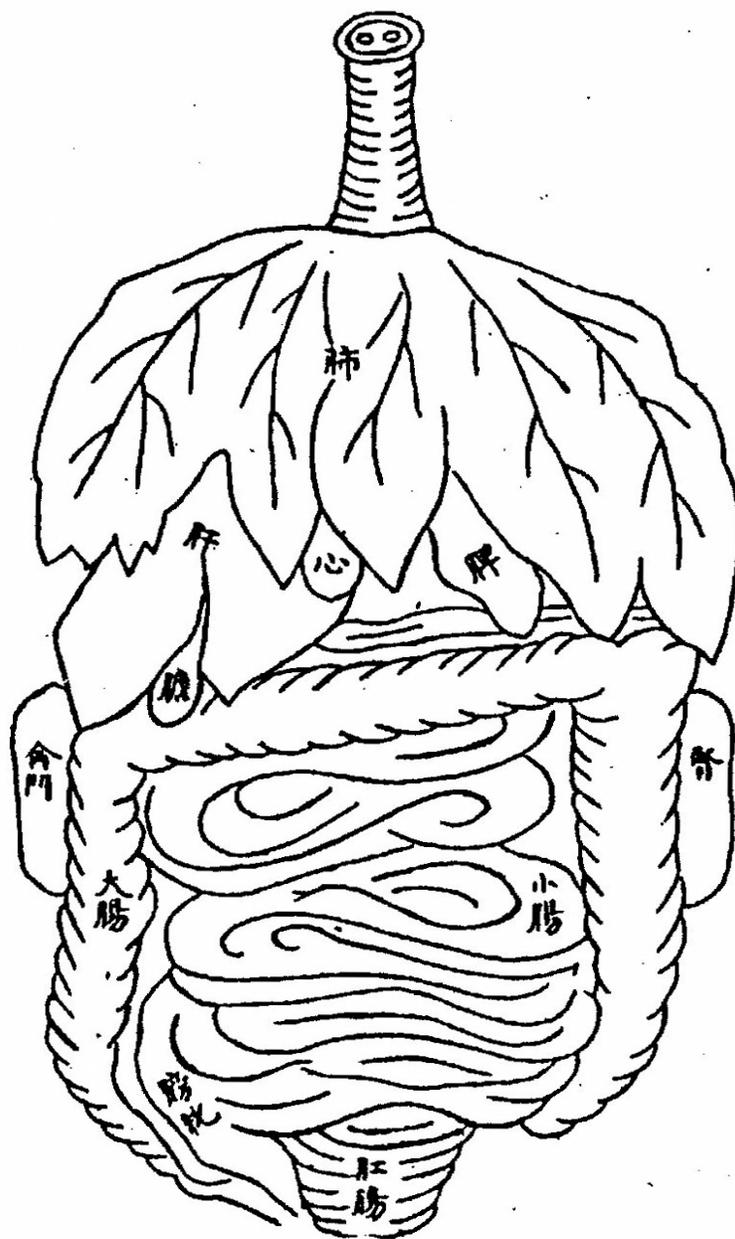
This mass dissection is mentioned several times by other historic sources. The drawings were known as “*Ou Xi-Fan`s Pictures of the Five Viscera*” 歐希范五臟圖. The captives were killed, their abdomens opened, and the kidneys and intestines cut out. The blood vessels, ligaments, tendons, muscles, organs and viscera of the bodies were gathered together and examined (see illustrations below). In his book „History of Medicine“ (1964) the Japanese medical historian, Teizo Ogawa, has mentioned the reprint of *Ou Xi-Fan`s Pictures of the Five Viscera* 歐希范五臟圖 in an ancient

Japanese work, entitled *Ton-i-sho*, written and published by Shozen Kajiwara between 1302 und 1304. [6] [7]

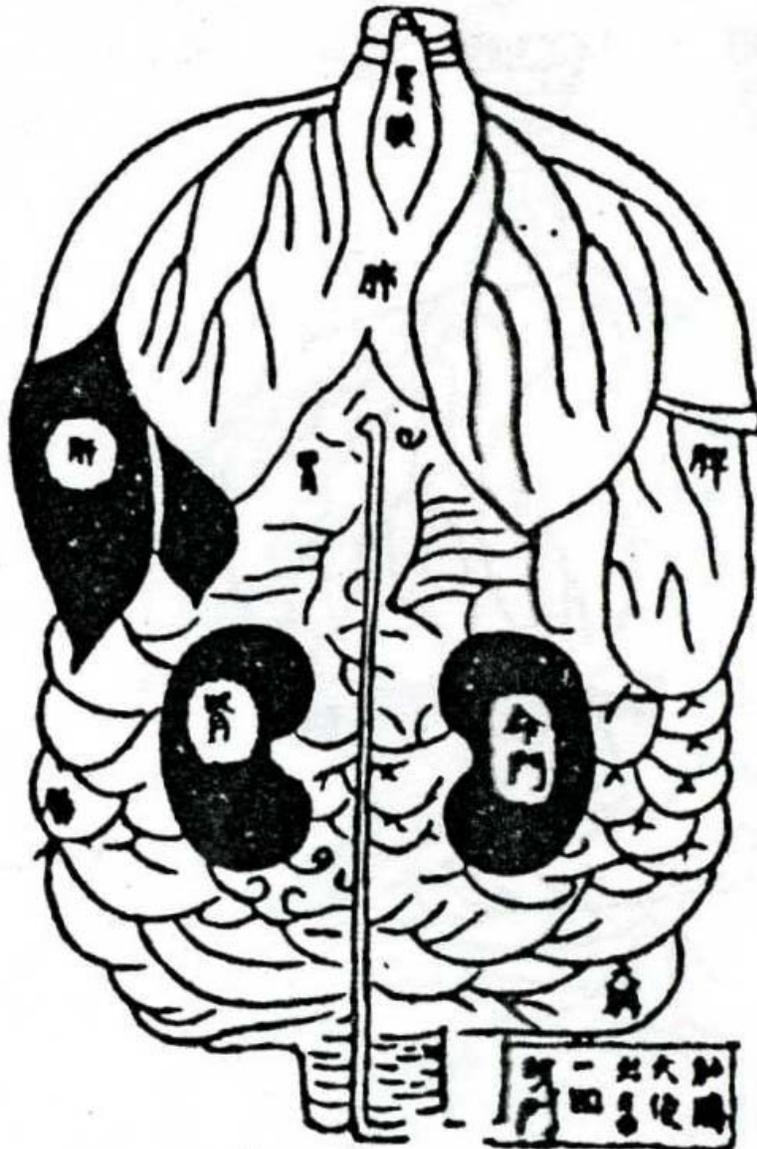
During the *Chong-Ning* 崇寧 period (1102-1106) of the Song-Dynasty many bandits were executed at Soochow. With the help of medical doctors and artists, the prefect Li Yi-Heng (李夷行) personally examined the viscera, and physicians and painters assisted him making detailed drawings of them. These pictures were edited by Yang-Jie (楊介) and called the *Atlas of Truth* (*Cun Zhen Tu* 存貞圖); they were thought to be superior to those of *Ou Xi-Fan*. For centuries this book was considered invaluable for teaching the members of the medical profession in China.

As only dead bodies of robbers and bandits were used for anatomical dissections it gave rise to the erroneous assumption that dissections were just a kind of punishment for criminals. Consequently, no one in China was willing to donate her or his body for scientific purposes. [8]

Following: Three Historic Chinese Illustrations of Dissected Cadavers [9]



Front view 1 of Ou Xi-Fan's "Five internal organs" 歐希范五臟圖
 (Visible are trachea, lung, heart, spleen, liver, gallbladder, kidney,
 small intestine, large intestine, anal canal) [9]



Dorsal view of the human torso with spleen (blackened on left side), lung, stomach, and left and right kidneys (blackened). (Illustration from about 938-943) [9]*

* Many of the labelled Chinese characters in the cited figures are not clearly recognizable probably due to the quality of original figures.

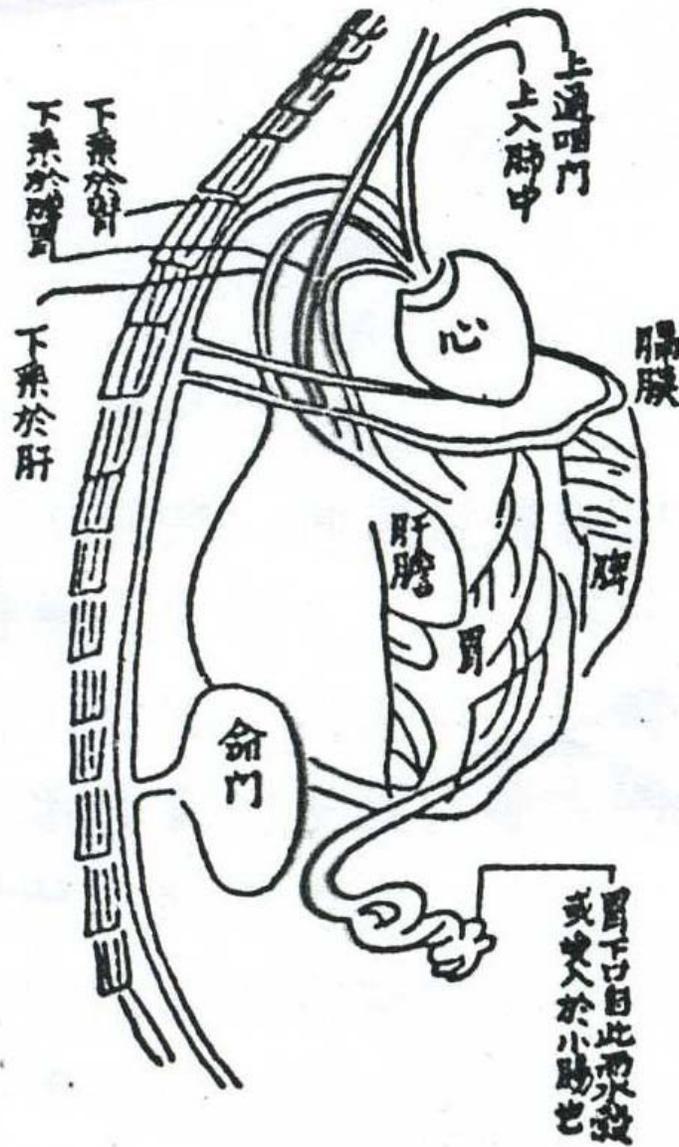


Illustration from the book “Wan An Fang” 萬安方 (Ten thousand Helpful Prescriptions) published in 1315: The heart with great vessels leading to the viscera, diaphragm, liver, spleen, right kidney (“Ming-Men 命門”), and stomach. [9]

2. Ancient Chinese Body Dissections and Modern Scientific Anatomy

Anatomical dissections in ancient China are mentioned in chapter 12 of the *Ling-Shu Jing*, entitled *Jing-Shui* 經水. Here, the imperial physician Qi Bo 歧伯 explains the fundamental structures of the human organism to the emperor Huang Di 黃帝. The physician says:

qi si ke jie pou 其死可解剖.

Translation: “After someone has died his body can be anatomically dissected (for medical investigation)”. [10]

It should be noticed that the modern Chinese characters for anatomy are still the same, namely *jie pou* 解剖; accordingly, the Chinese term for anatomy stems from this passage in the book *Ling-Shu-Jing*. For example, the title of a modern Chinese book on Human Anatomy which I have used in the following is 圖解人體解剖學手冊. [11]

Qi Bo points out that the interior of the body can be judged by measuring the structures on the outside (skin, muscles, bones etc.) of a person, and that the internal organs *Zhang Fu* 臟腑, their capacity, their contents, and the length of the blood vessels, the quality of the arterial and venous blood including the amount of *Qi*, can be evaluated by anatomical post mortem dissections. In my view, the courses of the blood vessels as laid out in chapter 10 of the *Ling-Shu-Jing*, are the result of such dissections. Otherwise it cannot be understood how the ancient physicians could name the respective viscera properly, how they could locate them in their topographically correct position and link them to the vessel pathways leading to the periphery of the body.

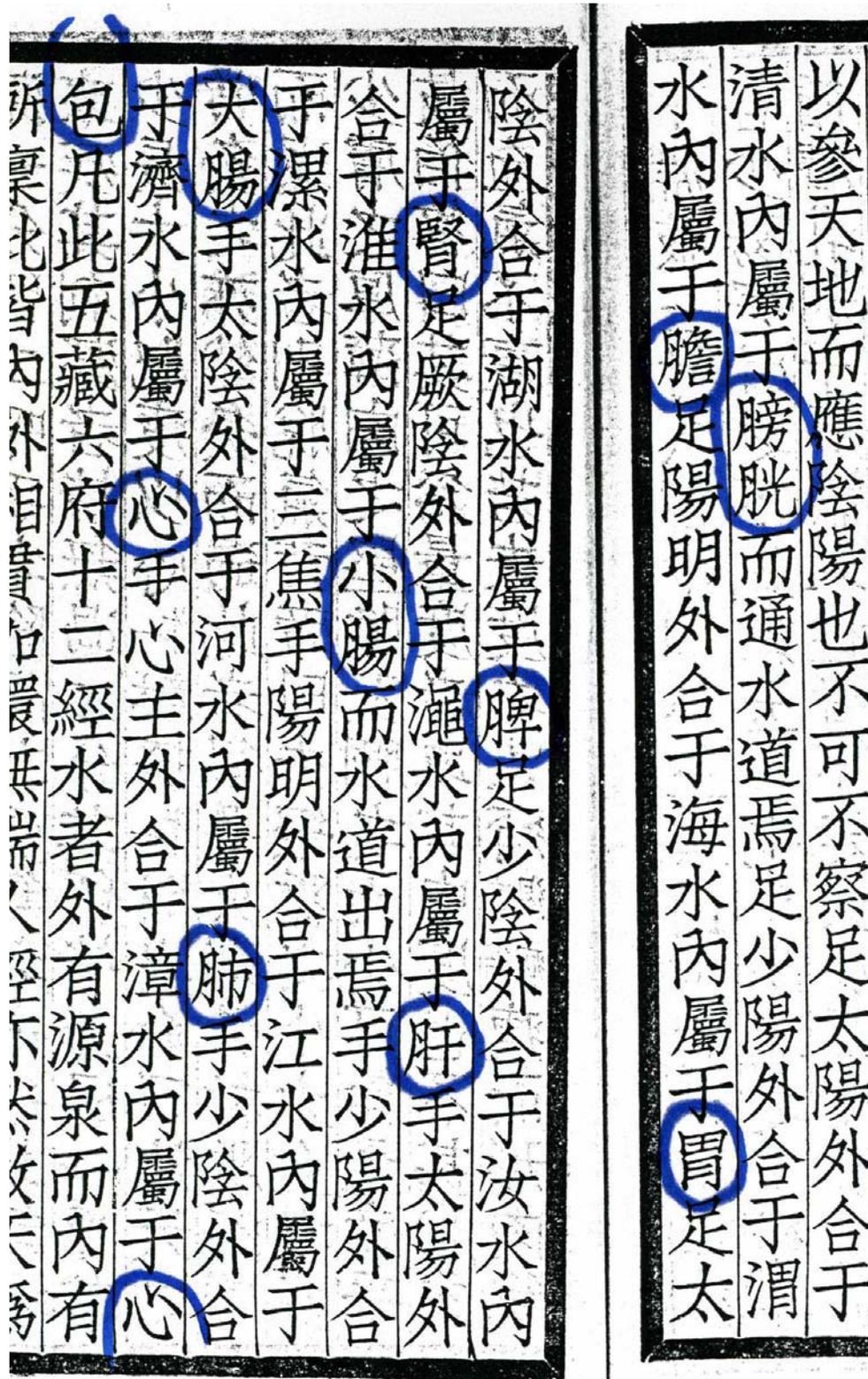
In chapter 31 of the *Ling-Shu-Jing*, entitled Intestines and Stomach (*Chang Wei* 腸胃), the figures of the following anatomical measurements of the human body are listed:

- Distance from the lips to the tongue
- Width of the human mouth
- Distance from the teeth to the vocal cords (larynx)
- Internal volume of the mouth
- Weight of the tongue
- Length of the tongue
- Width of the tongue
- Weight of the larynx
- Width of the esophagus
- Length of the esophagus
- Length of the stomach
- Circumference of the stomach
- Diameter of the stomach
- Maximum capacity of the stomach
- Length of duodenum and jejunum
- Circumference of the small intestine
- Diameter of the small intestine
- Topography of the course of the large intestine
- Circumference of the colon descendens
- Diameter of the colon descendens
- Length of gastro-intestinal tract from mouth to anus

Most of these data come quite close to modern anatomical understanding. [2]

Moreover, the names for anatomical structures (internal organs, muscles, tendons) used by modern Chinese anatomy are still the same names as used in the *Ling-Shu-Jing* (see below).

The 11 internal organs heart, lung, liver, spleen, kidney, pericardium, small & large intestines, gallbladder, stomach, urinary bladder, in addition to the *San Jiao* (Tripler Heater), which represents the three main levels of the trunk, are expressly mentioned in chapter 12 of the *Ling-Shu-Jing* entitled *Jing Shui* 經水 (The Vessel Rivers) as follows:



Two original pages from chapter 12, Vessel Rivers (*Jing-Shui* 經水), of the *Huang-Di Nei-Jing Ling-Shu*. [2]

Here, the respective 11 viscera are the body structures where the blood vessels (or “channels”) either lead to or from where they originate. The Chinese characters for the 11 organs involved are:

膀 胱 Pang Guang (Urinary Bladder)

膽 囊 Dan Nang (Gallbladder)

胃 Wei (Stomach)

脾 Pi (Spleen)

腎 Shen (Kidney)

肝 Gan (Liver)

小, 大腸 Chang (Small and Large Intestines)

肺 Fei (Lung)

心 Xin (Heart)

心包 Xin Bao (Pericardium)

These ancient characters are the same organ names as used in modern anatomy and medicine which means that the ancient and modern organs are at least anatomically identical. [2]

3. Early Chinese Embryology

The basic text of Chinese acupuncture, the *Huang-Di Nei-Jing Ling-Shu* 黃帝內經靈樞, compiled during the *Han-Dynasties* (about 200 B.C.E. until 200 C.E.), has remained vital to this day. It contains a multitude of useful information for the practising physician, as well as an amazing lot of contributions to general medical understanding. In its 10th chapter, entitled “The Pulsating Blood Vessels (*Jing Mai* 經脈)”, the development of the human embryo is described. Here, the Chinese emperor Huang-Di explains the generation of the human being after the combination of a female ovum (egg cell) *Jing* 精* with a male sperm (*Jing* 精). When the two have united, the brain *Nao* 腦, and the spinal cord *Sui* 髓 (which in my view both correspond to the ectoderm of the three germ layers of embryology) unfold. Then, the bones *Gu* 骨 and the blood vessels *Mai* 脈 containing blood *Xue* 血 and *Qi* 氣 come up. The vessels transport nutrients (*Ying* 營) as well as immune defence agents (*Wei* 衛). The emperor points out that blood and *Qi* (*Xue-Qi* 血氣) circulate continuously within the embryonic vessels without a beginning and an end. I mention in passing, that this Chinese source is the first one in medical history referring to the human blood circulation. Thereafter, the tendons *Jin* 筋 and the muscles *Rou* 肉 appear. They both protect the internal organs *Zang Fu* 臟腑. Finally, the skin *Pi* 皮 and the hair *Mao* 毛 come up and then the new human being is completed. [2]

* The modern Chinese term for the female egg cell is *Luan Zi* 卵子.



Illustration of Fertilisation and Embryology according to Chapter 10, *Jing Mai* of the *Ling-Shu-Jing*. Showing the pubic hair, the vaginal opening, the embryo, and the right kidney (“Ming-Men 命門”). (Drawing from about 938-943 C.E.) [9]

經脈第十
 雷公問於黃帝曰禁脈之言凡刺之理經脈爲始
 營其所行制其度量內次五藏外別六府願盡聞
 其道黃帝曰人始生先成精精成而腦髓生骨爲
 幹脈爲營筋爲剛肉爲牆皮膚堅而毛髮長穀入
 于胃脈道以通血氣乃行雷公曰願卒聞經脈之
 始生黃帝曰經脈者所以能決死生處百病調虛
 實不可不通肺手太陰之脈起于中焦下絡大腸
 還循胃口上膈屬肺從肺系橫出腋腋下循臑內
 行少陰心主之前下肘中循臂內上骨下廉入寸
 口上魚循魚際出大指之端其支者從腕後直出
 次指內廉出其端是動則病肺脹滿膨膨而喘欬

Original page of the onset of chapter 10 (*Jing-Shui* 經水) from the *Ling-Shu-Jing* explaining the development of the human embryo and the significance of human blood circulation [2]

In this text Huang-Di emphasizes that a physician who is familiar with the blood vessels and blood circulation in the organism can determine life or death of a person, diagnose all different sorts of diseases and, as a consequence, can treat and heal them well. For this diagnostic reason pulse diagnosis was developed and applied in China, namely as a measurement of the intensity of blood flow within the body vessels.

By a proper translation of this text the ordered structures, the organs and functions of the human embryonic development of the organism become evident. In fact, the vessels of the book *Ling-Shu Jing* are the vascular, nervous and conductive pathways of the human organism, described here as pulsating blood vessels *Jing Mai* 經脈.

Because the brain and the spinal cord are mentioned, we may assume that the central nervous system plus the peripheral nerves were incorporated in the designation “vessel 經脈”. Thus, the pathways and bundles of the organism are completely involved. They transmit the effects of needle therapy and of moxibustion (*Zhen-Jiu* 鍼灸). Accordingly, the pathways, which in the West have so far been erroneously called “meridians” or “channels”, appear in a completely new light because they turn out to be the neurovascular bundles of conventional medicine. European sinologists and other non-medical translators of Chinese acupuncture texts have because of their medical ignorance obscured such elementary Chinese medical knowledge. They are, therefore, the ones who must be blamed for the lasting confusion in contemporary Western acupuncture circles. The correct interpretation of the original texts according to early Chinese anatomical studies allows for a relatively simple morphological and physiological identification of the erroneously so-called “meridians”. It offers, at the end, a sensible scientific explanation of the effects of a needle insertion, of moxa burning, of

blood-letting and of cupping via the muscles, vascular and nervous structures including their regulatory centers in the brain and the spinal cord (CNS). [12,14]

“Meridians”

The Western term “meridian” originates from geography. Geographic meridians are related to the station of the sun at noon and are named *Zi Wu Xian* 子午綫 in modern Chinese. They are not an aspect of medicine. On the contrary: Immaterial “meridians” or “channels” as pretended by Westernised acupuncture are in fact the well-known and all along scientifically identified structures of modern anatomy and of conventional orthodox medicine. Chapter 10 of the *Ling-Shu Jing* explicates that the 12 *Jing Mai* 經脈 run deep inside the human organism, namely inside the muscles *Rou* 肉, and that they are not visible on the body surface.

Accordingly, such original *Jing Mai* 經脈 have nothing to do with the (more or less) superficial Western acupuncturists` denominations for such body lines and for acupuncture “points” which are, in fact, at best mnemonic underpinnings for medically retarded brains simulating such questionable lines drawn on the surface of the human skin which do, in fact, not exist and have never ever existed in medical history. Such mystical structures are endlessly dwelled upon by Thousands of illiterate Western acupuncturists and para-medical Chinese physicians in the West, some of them are Sinologists, most of them medical laymen, by authors (encouraged by the greed and stupidity of ill-advised Western Publishers) of widely spread acupuncture texts and, consequently, by the initiators and dumb interpreters of a Westernized “Foundation of Chinese Medicine” which has nothing at all to do with the authentic roots of Chinese medical history. It would mean too much honour quoting the names and books of these irresponsible pretenders in the

context of this paper.

The Chinese term *Jing Mai* 經脈 means “blood vessel“. The radicals and components used in the pictograph *Jing* 經 are

1. Silk 糸,
2. The surface of the body 一,
3. Underground water courses 川,
4. To examine the underground veins (the respective radical is not 工 *Gong*, but *Ting* 壬) (13).

The second pictograph, 血脈 *Mai*, or 脈 (脈, 脉, 血永) is constructed with the components of

1. Flesh 肉(月),
2. Blood 血,
3. A watery stream in the veins 派 [12,13].

Accordingly, the meaning of *Jing Mai* 經脈 is: “The silk-like network of blood vessels (veins) running underneath the surface of the body, which can be examined by pulse diagnosis”. (13)

These *Jing Mai* 經脈 vessels include:

- The blood vessels 血脈 *Xue Mai*,
- The central nervous system with the brain 腦 *Nao*, and
- The spinal cord 髓 *Sui* including the spinal nerves,
- The peripheral nerves 神經系統 *Shen Jing Xi Tong*,
- Other nervous pathways 神經道 *Shen Jing Dao*, in addition to
- Tendons and muscles 筋 (肌肉) *Jin (Ji Rou)*.

The blood vessels (chin. *Jing-Mai* 經脈) transport blood

(*Xue* 血) and oxygen (*Qi* 氣), nutrients (*Ying* 營), immune defence agents (*Wei* 衛), and body liquids (*Jin-Ye* 津液).

A short summary of the vascular design of original Chinese acupuncture:

The Chinese term *Jing Mai* 經脈 refers to the “pulsating blood vessels underneath the body surface”, deep in the interior of the organism. These *Jing Mai* 經脈 comprehend well-known structures of conventional modern anatomy and physiology, namely:

- The blood vessels in a narrower sense, *Xue Mai* 血脈,
- The central nervous system with the brain *Nao* 腦, and
- The spinal cord *Sui* 髓 (in conjunction with the spinal nerves),
- The peripheral nerves *Zhou Bian Shen Jing Dao* 周邊神經道,
- Other pathways of the nervous system *Shen Jing Xi Tong* 神經系統, in addition to tendons *Jin* 筋 and muscles *Ji Rou* 肌肉 (explained in detail in chapter 13, *Jing-Jin* 經筋, of the book *Ling-Shu Jing*, see below).

The blood vessels (*Jing-Mai* 經脈 in Chinese) transport arterialised blood (*Xue Qi* 血氣) which is supplied with air and oxygen (*Qi* 氣) by breathing, in addition to filling with nutriments (*Ying* 營), agents of the immune defence (*Wei* 衛) and body liquids (*Jin-Ye* 津液) also referred to as water *Shui* 水. This classical Chinese description corresponds, though roughly and in a preliminary way, with basic facts of modern physiology.

4. Anatomy in Ancient China and in the West

In 1027 the Imperial physician Wang Wei-Yi 王惟一 constructed the famous Copper Man (*Tong-Ren* 銅人)* by order of the then reigning Song emperor. The statue was meant to be used for teaching acupuncturists and for examining them on needle techniques, topography and the structures of the human body. It was the oldest model of the human body for medical education in the history of medicine.

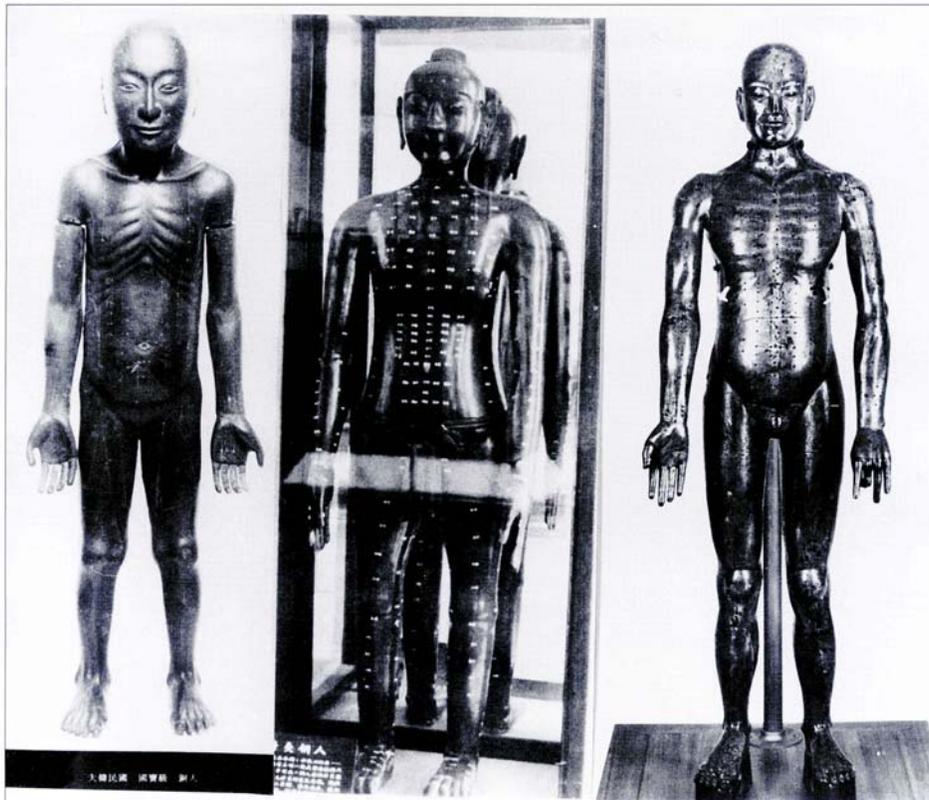


Abb. 1-4: a Koreanischer Kupfer-Mensch. Er wurde im Jahr ca. 1600 n.Chr. gebaut, ist 86 cm groß und befindet sich im Chang-De-Palast in der südkoreanischen Hauptstadt Seoul

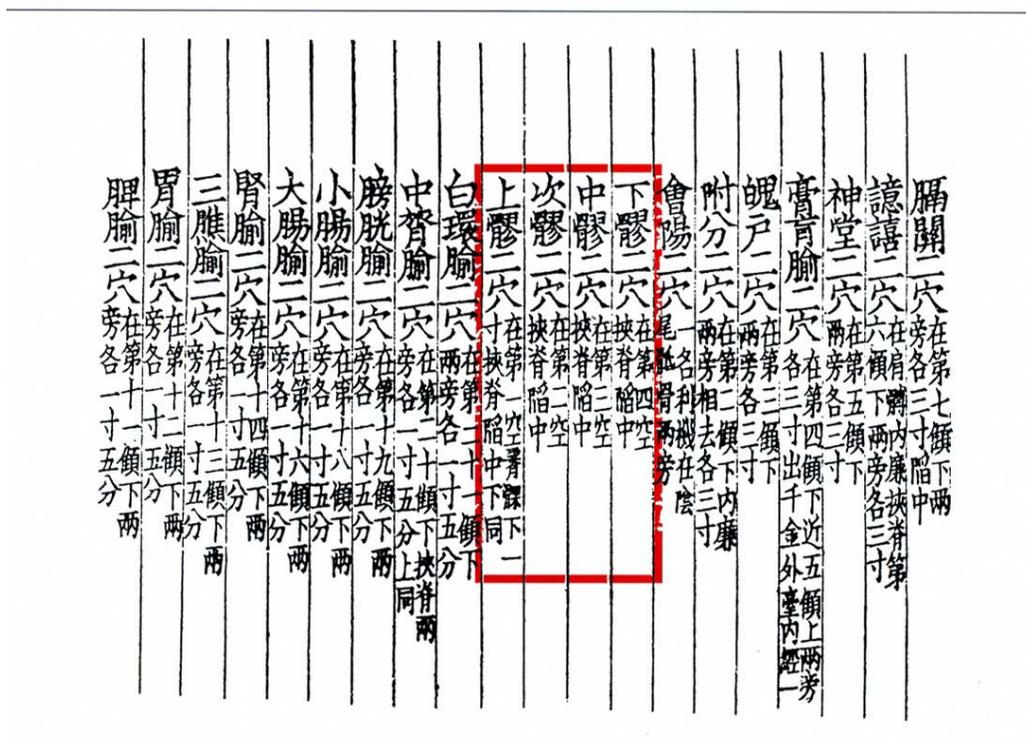
b Kupfer-Mensch aus der Ming-Dynastie. Er wurde im 8. Jahr des Ming-Ying-Zong Zheng-Tong (1443 n.Chr.) konstruiert und befindet sich im Staatlichen Museum für Geschichte Peking, China

c Song-Tian-Sheng Tong-Ren (Kupfer-Mensch aus der Zeit „Song-Tian-Sheng“ Regierung). Diese männliche Figur zur Akupunktur und Moxibustion hat menschliche Lebensgröße, sie befindet sich im Staatlichen Kaiserlichen Museum in Tokio, Japan

Left: Korean Copper man constructed about 1600;
Center: Copper man from the Ming-Dynasty (1443);
Right: Original Chinese Copper man (1027). (14)

* Sometimes called Bronze Statue of Acupuncture

The original Copper Man (right) is modeled accurately according to modern anatomical standards according to the neuro-anatomist Prof. Hongchien Ha, M.D., China Medical University, Taichung, Taiwan, Republic of China. The points visible on its surface are in fact open holes (foramina). Together with the statue Wang Wei-Yi published a textbook on topographic and anatomic features of the vessel courses and acupuncture foramina. This text was chiselled into stone plates that were rediscovered in Beijing in the early seventies when a new subway tube next to the old Imperial Palace was under construction. (15)(16)



A page from the Tong-Ren textbook with description of the topography of the 8 sacral foramina (*Ba Liao* 八膠). (17,18) The meaning of the pictograph Liao is “a hole in the bone”. In today’s Western terminology the *Ba Liao* are named “Points Bladder 31-34” which is a widely meaningless rendering of their original and scientific significance.

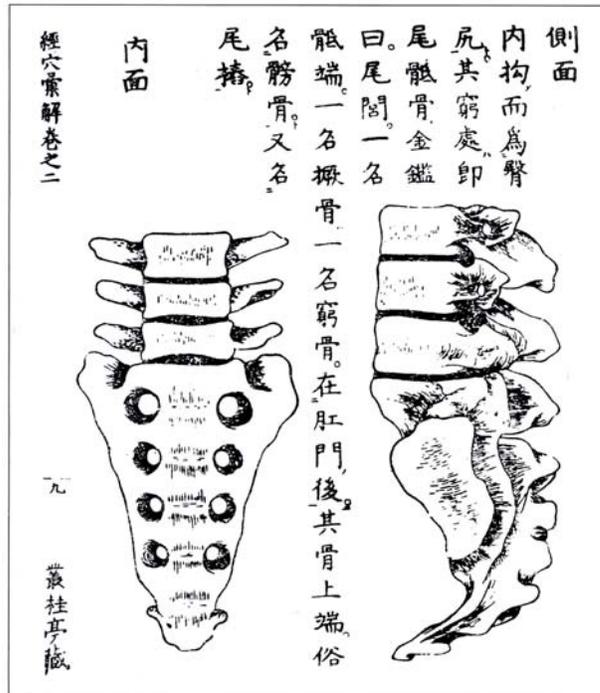


Abb. 1-2: Originalseite aus dem klassischen Werk „Jing-Xue Hui-Jie“, (3. – 5. Lendenwirbel und Os Sacrum mit Foramina sacralia von ventral und lateral)



Abb. 1-3: Originalseite aus dem klassischen Werk „Jing-Xue Hui-Jie“, (3. – 5. Lendenwirbel und Os Sacrum von dorsal)

Chinese illustration of the 8 sacral foramina from the acupuncture book *Jing-Xue Hui-Jie* 經穴會解 published in Japan in the early 19th century in Chinese language. (19) The structures depicted are identical with those of the sacral bone given in modern anatomical books, e.g. in Gray's Anatomy.

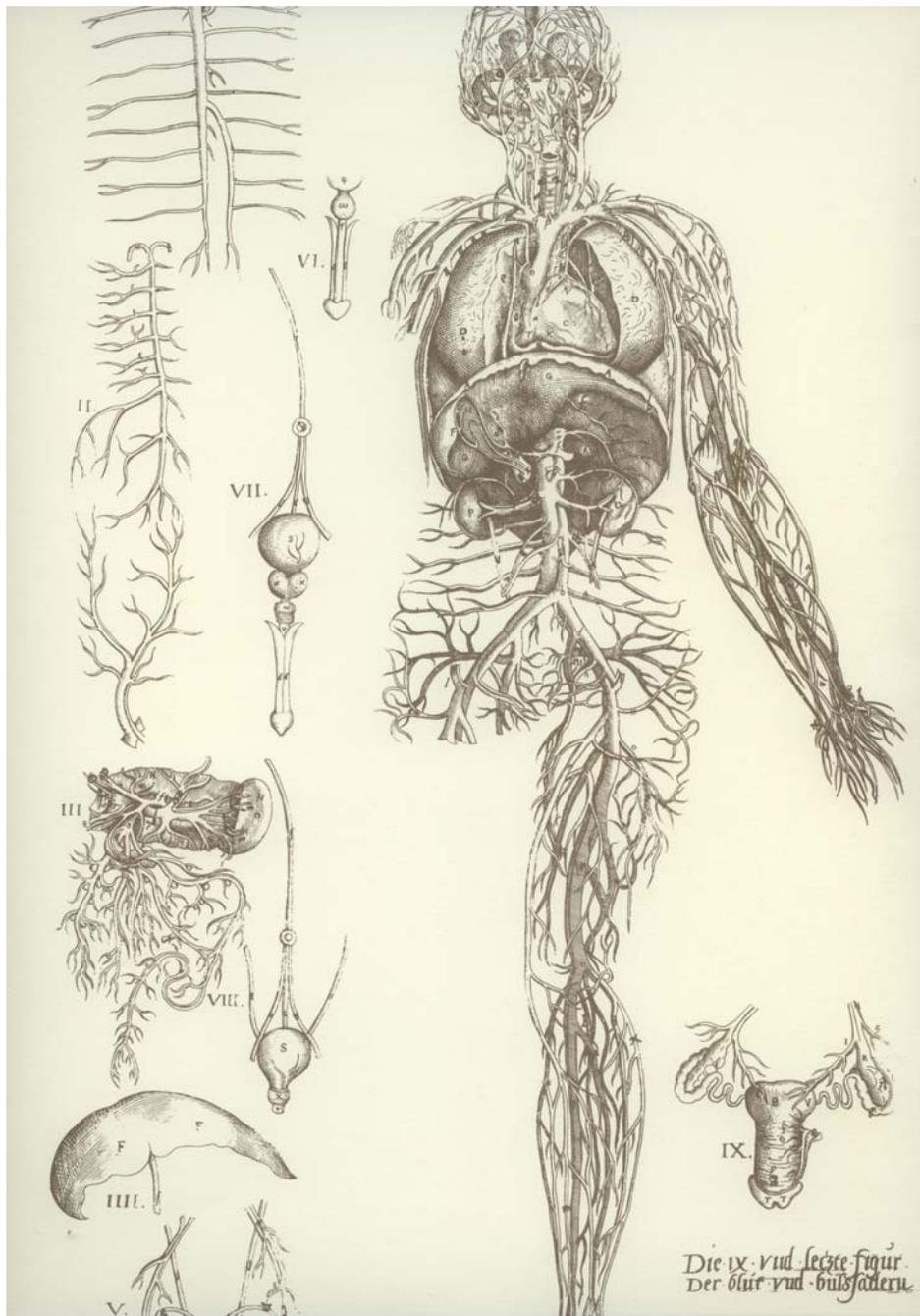


Abb. 7: The diaphragm with internal organs above and beneath. From Andreas Vesalius „De Humani Corporis Fabrica“, Basel, 1543. [20] The topography depicted here corresponds roughly to that described in Chapter 10 of the Acupuncture Classic *Ling-Shu-Jing*. [2]

3. Practical Consequences for Clinical Acupuncture

When we pierce the point named “Large intestine 4” with a needle as shown on the following illustration we are dealing with well defined body structures, namely:

- The skin and the subcutaneous tissues,
- The venous network on the dorsum of the hand,
- The dorsal digital nerve (a branch of the radial nerve),
- The dorsal metacarpal artery,
- The first dorsal interosseous muscle,
- The first palmar interosseous muscle,
- The adductor muscle of the thumb,
- The main artery of the thumb surrounded by the palmar metacarpal veins.

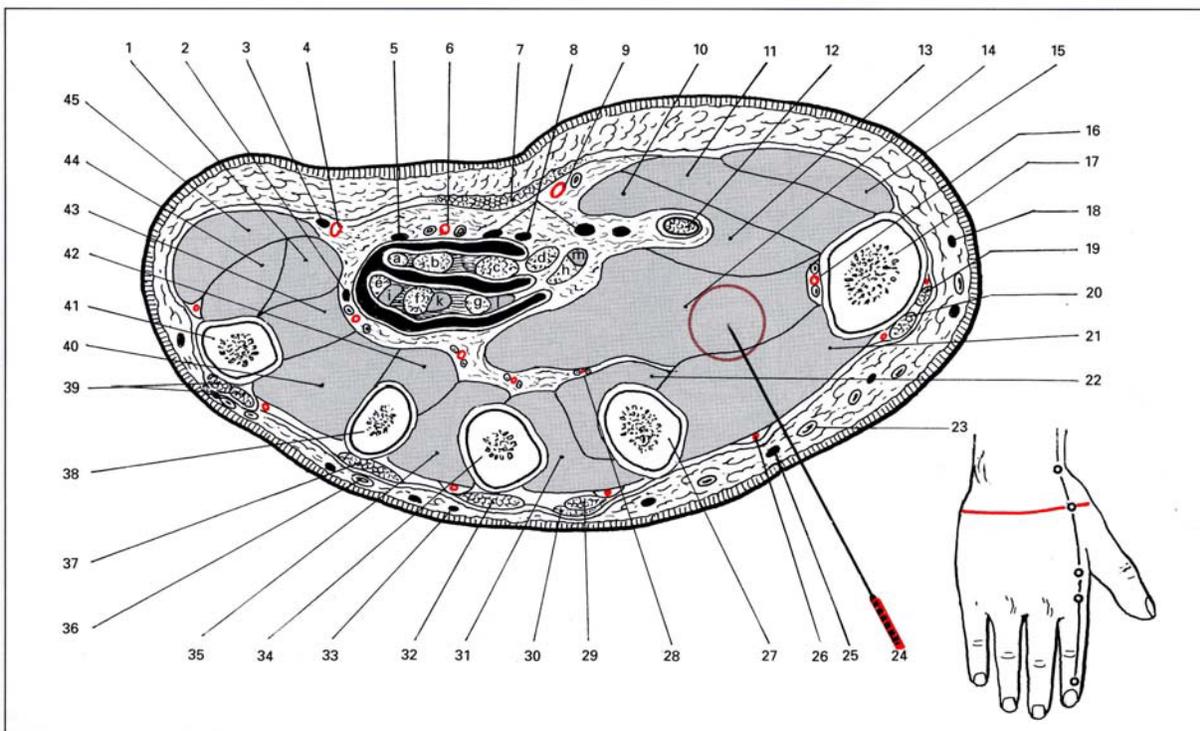
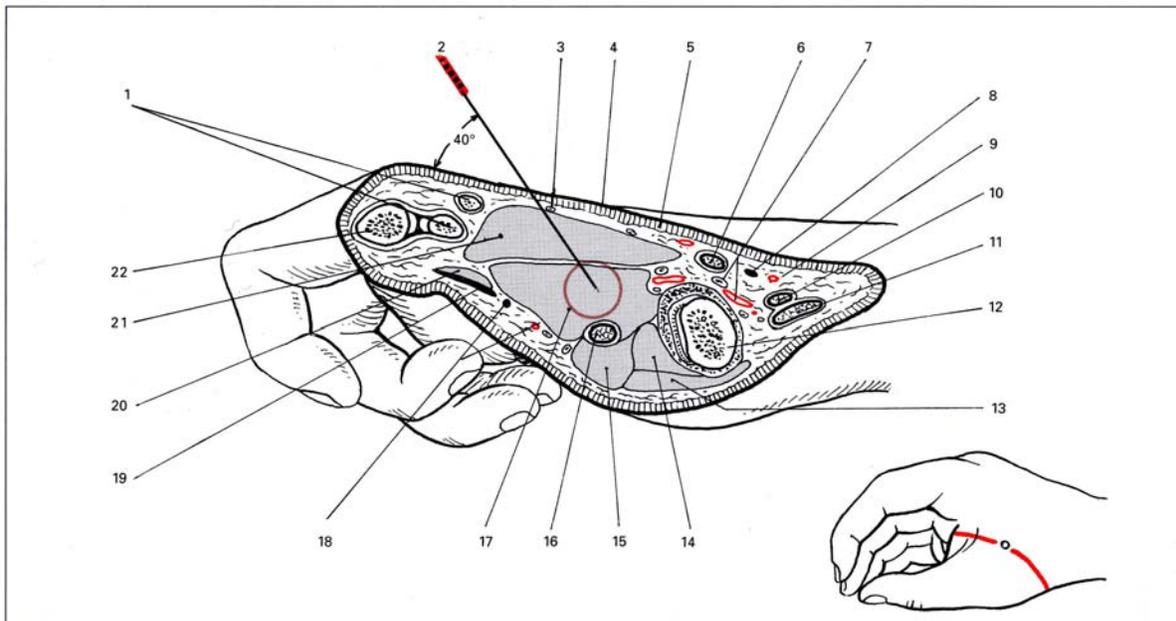


Illustration of the He-Gu Foramen with a needle in situ. (14)

The red circle shows the so-called target structure for the needle insertion. Transmitting pathways of needle stimulation are the radial, the median and the ulnar nerves, in addition to autonomous nerve fibres surrounding blood vessels.

Neither “meridians” nor “points” are to be seen on this illustration. Why? Because such structures simply do not exist. We know that some acupuncturists have injured some of the structures mentioned above, a negligence resulting in vascular injury with hematoma, or in neural injury leading to an impairment of nerves, as a neuritis with persistent pain on the site of the needle insertion. Why? Because such people knew nothing about the anatomical structures they were actually dealing with.

The majority of Western acupuncturists still adhere to far-fetched theories about “meridians”, “channels” and “points”. They assume that “energy” circulates within an imaginary tube system inside the human organism which modern Western medical research has still failed to detect.



On this illustration of the He-Gu (14) the following structures can be distinguished:

- The 2nd metacarpal bone,

- The lesser multangular or trapezoid bone,
- The tendons of the short and long extensor muscles of the thumb,
- The tendon of the long abductor muscle of the thumb,
- The first dorsal interosseous muscle,
- the adductor muscle of the thumb,
- The short flexor muscle of the thumb,
- The opposing muscle of the thumb,
- The first lumbrical muscle,
- The radial artery and veins,
- The radial nerve,
- The common palmar digital nerve I,
- The proper palmar digital nerve I.

How does acupuncture work then? The answer is: Via these well-known anatomical structures.

By the way, the original Chinese name for the body structures mentioned above is He-Gu 合谷, to be translated as “Meeting place in the Valley” which refers to the connection between the 1st and 2nd metacarpal bones, to the first dorsal interosseous muscle, the first palmar interosseous muscle, the adductor muscle of the thumb, in addition to all other anatomical tissues involved. Western abbreviations for acupuncture structures like Lung 5, Large Intestine 4, Stomach 36, Liver 3, or Spleen 6 may help the student to memorize the order and the sequence of acupuncture structures, but they do not convey the slightest factual and morphological let alone scientific information to the practitioner. This is another reason why we definitely need an anatomical nomenclature for all acupuncture sites and the structures we apply in daily practice. This will certainly ensue in a safer and more successful application of acupuncture in the West. It comes, in addition, much closer to the intention of the original historic acupuncture sources.

Selected References:

1. Han Annals *Han Shu* 漢書, Biography of *Wang Mang*, quot. after K. Chimin Wong and Wu Lien-Teh, History of Chinese Medicine, Being a Chronicle of Medical Happenings in China from Ancient Times to the Present Period, 2nd ed, National Quarantine Service, Shanghai 1936, p. 194 ff.
2. *Huang-Di Nei-Jing Ling-Shu*, 黃帝內經靈樞, original edition, Wuhan/China, 1852 (and modern editions).
- 2a. *Huang-Di Nei-Jing Su-Wen*, 黃帝內經素問, original edition, Soochow/China, 1892 (and modern editions).
3. Han Annals *Han Shu* 漢書, Biography of *Wang Mang*, quot. after K. Chimin Wong and Wu Lien-Teh, op. cit., p. 196 f.
4. Ibid.
5. Ibid.
6. Teizo Ogawa, The Beginnings of Anatomy in Japan, Okajimas Fol. anat. jap., 52: 59-72, 1975.
7. Teizo Ogawa, History of Medicine, 1964 (in Japanese).
8. K. Chimin Wong and Wu Lien-Teh, History of Chinese Medicine, loc. cit.
9. Zhonghua Yishi Zazhi, 中華醫史雜誌, Chinese Journal of Medical History, Beijing, April 1994, vol. 24, number 2, p. 68-74.
10. *Huang-Di Nei-Jing Ling-Shu*, 黃帝內經靈樞, op. cit.
11. Heinz Feneis and Wolfgang Dauber, Tu-Jie Ren-Ti

- Jie-Pou-Xue Shou-Ce 圖解人體解剖學手冊, Handbook of Human Anatomical Science (in Chinese), Thieme/Ho-Chi, Stuttgart-New York-Taipei, 2001.
12. Donald Kendall, DAO of Chinese Medicine, Understanding an Ancient Healing Art, Oxford University Press, Hong Kong-New York, 2002.
 13. Leon Wieger, Chinese Characters. Their Origin, Etymology, History, Classification and Signification. Paragon Book Reprint Corp., New York; Dover Publications Inc., New York, 1965.
 14. Claus C. Schnorrenberger, Compendium Anatomicum Acupuncturae, Textbook and Atlas of Anatomical Structures of Acupuncture (in cooperation with Professor Hongchien Ha M.D.) (in German), Walter de Gruyter Verlag, Berlin 1996.
 15. Hongchien Ha, personal communication.
 16. Hongchien Ha, A Survey on Bronze Statue of Acupuncture, China Medical College Annual Bulletin, vol. 14 (1988).
 17. Claus C. Schnorrenberger, Morphological Foundations of Acupuncture, an Anatomical Nomenclature of Acupuncture Structures; Acupuncture in Medicine, Journal of the British Medical Acupuncture Society, November 1996; 14(2):89-103.
 18. Wang Wei-Yi, *Tong-Ren Zhen-Jiu-Shu-Xue-Tu-Jing*, The Classical Text Attached to the Illustrations of Acupuncture and Moxibustion Points on the *Tong Ren*, around 1027 in the Northern Song-Dynasty (960-1126). Incorporated in: *Zhong-Cuo Yi-Xue Da-Cheng* (The Great Collection of Chinese Medicine), Shanghai *Da-Dong Shu-Ju* (Shanghai Bookstore of the Great East), Shanghai 1936-1937.
 19. Jing-Xue Hui-Jie 經穴會解, Summary and Explanation of Acupuncture Vessel Points, Japan 1854 (in Chinese) Author: Yuan Chang-Ke, Gu-Ji Chu-Ban-She, Beijing, October 1982, p.102ff
 20. Andreas Vesalius, *De Humani Corporis Fabrica*, Basel 1543.

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