

Medicine in China

History and transformations

Chinese Dynasties

BCE - - CE

- Shang 1600 - 1045 BCE
- Zhou 1045 -256BCE
- Qin 221 – 206 BCE
- Han 206 --220CE
- 3 Kingdoms 220 CE to 280
- Jin 265 – 420
- Northern and Southern – 420-589
- Sui 581 – 618
- Tang 618 – 907
- 5 Dynasties
and
10 states 907-960
- Song 960 1279
- Jin-Yuan 1234 – 1368
- Ming 1368 – 1644
- Qing 1644 – 1911
- Republic 1912 – 1949
- PRC 1949 - present

Earliest findings of Oracle Bones are from the Shang Dynasty.



Oracle Bones

- The shells of turtles and cow scapulae were inscribed, and then cracked with fire or heated rods. The cracks were interpreted by a diviner, or shaman, who would then advise accordingly. Some of these oracle bones relate to questions about illness, particularly royal illness.

Oracle Bones





China: Correlative Medicine

- Beginning in the late Warring States and Early imperial period (4th to 1st centuries BCE)
- Humanistic non-reductionist proto science
- Resonance between things that are alike
- Magic Astrology
- Correlative thinking v. Causative thinking

Causal Thinking = Linear

X causes Y which causes Z

Storm > high waves > flooding

Correlative Thinking

A is to B as C is to D

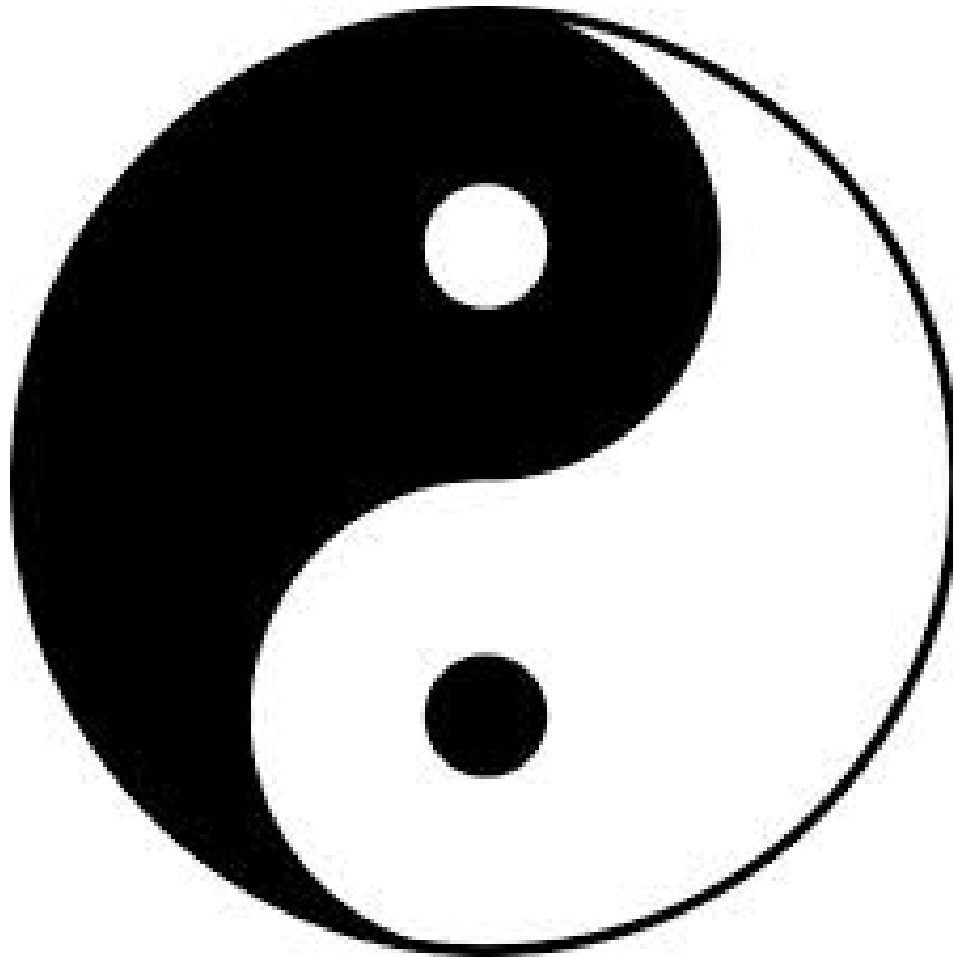
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Emperor : state :: Heart : Body

Han Medical Concepts

- Yin 陰 and Yang 陽
- Qi 氣
- Wuxing 五行 (alternately translated as)
 - 5 elements
 - 5 agents
 - 5 transformations

Yin Yang Symbol



Yin and Yang = mapping tool

- 陰 Yin = the dark side of the mountain
The valleys
- 陽 Yang = the sunny side of the mountain
The mountains

Yin and Yang label categories: Nothing is Yin or Yang in isolation
They represent complementary opposition – temporal alteration

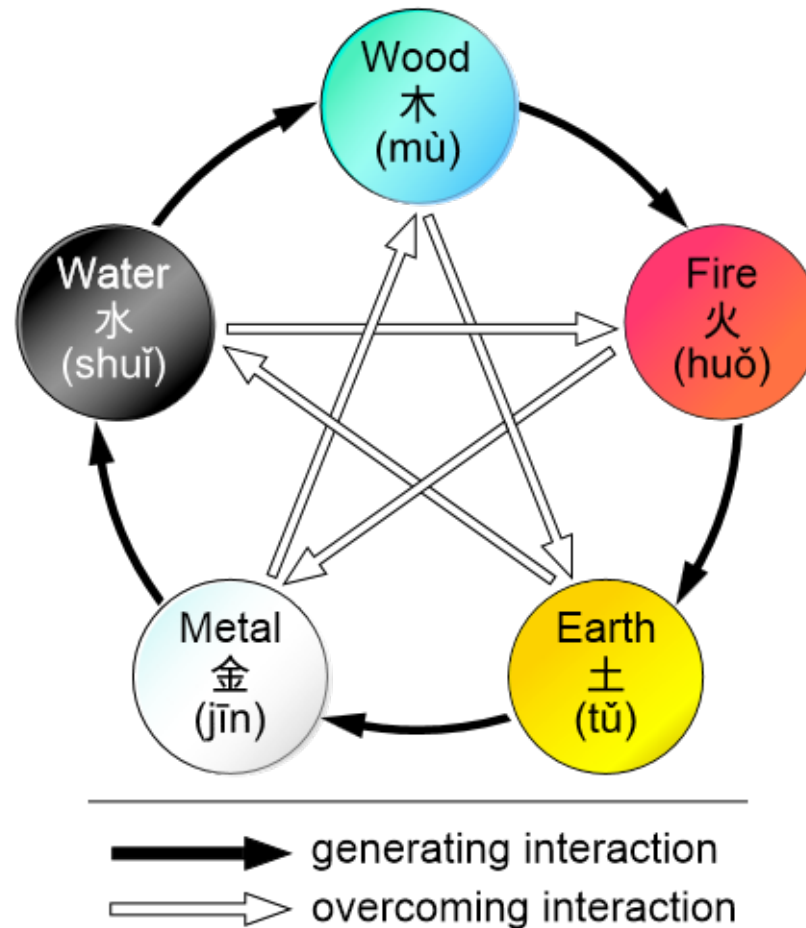
Yin and Yang in medicine

Yang	Yin
Outer	Inner
Upper	Lower
Dorsal	Ventral
<i>Qi</i> 氣	<i>Xue</i> 血 (Blood)
Vital function	Material Substrate
Stimulation	Restraint
Increase, Growth	Decrease, Decline
Ascent	Descent
Outward Orientation	Inward Orientation

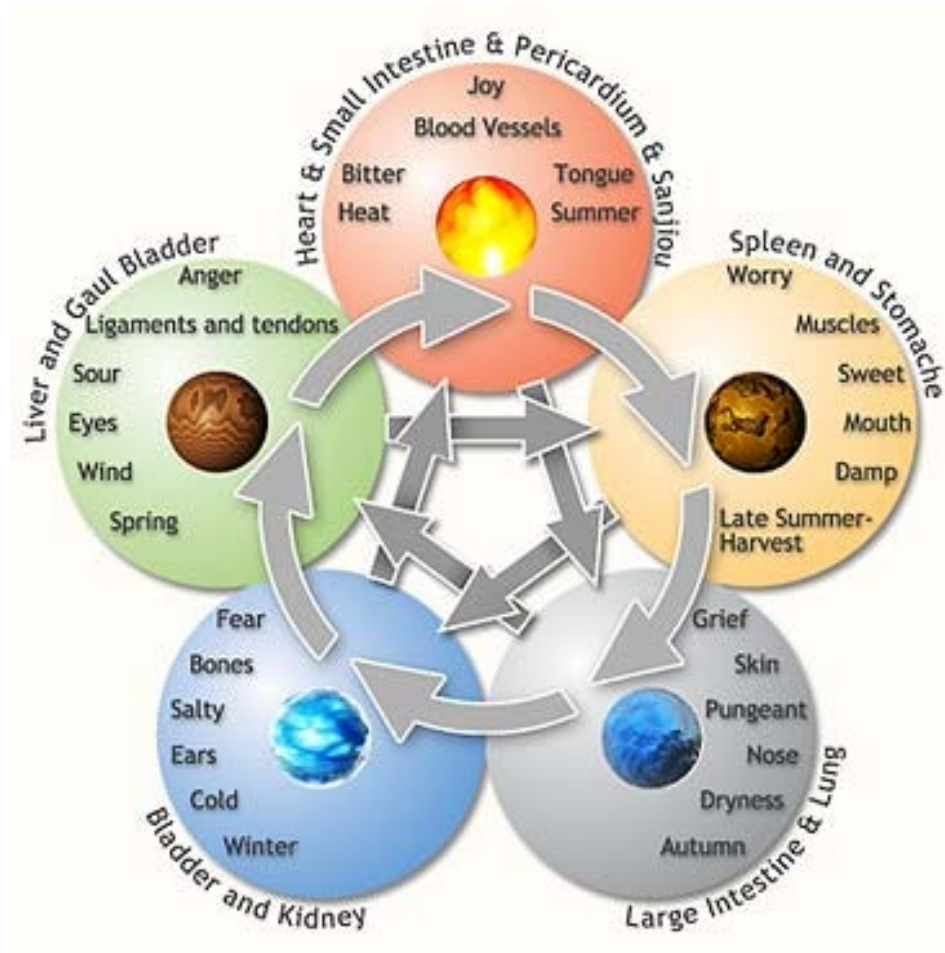
**QI: the outer part of the character
depicts a pot and steam rising
inner part depicts rice or grain**

氣

The five agents or transformations, sometimes known as the five elements



The Five Transformations with their corresponding organs and associations



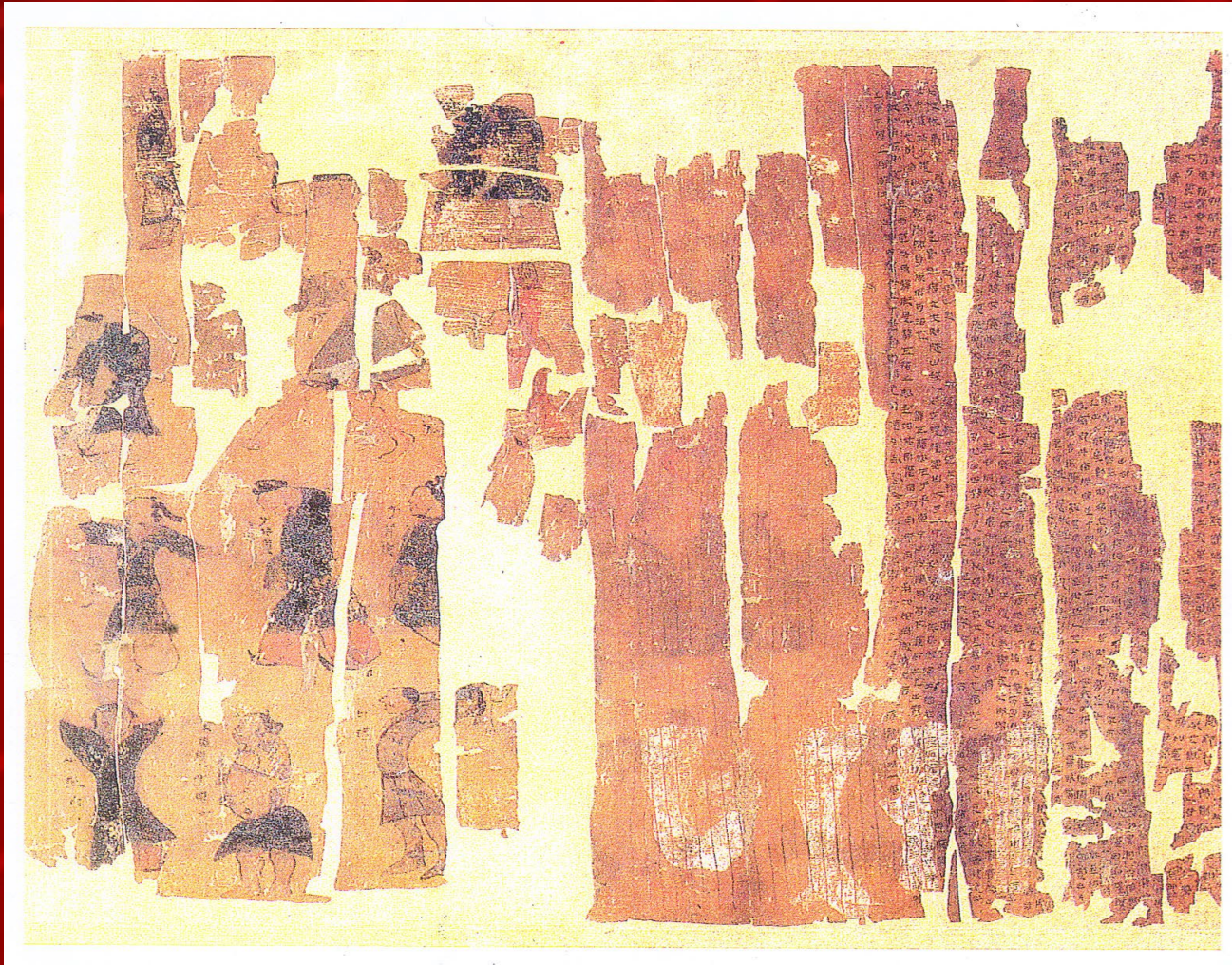
The Mawangdui Manuscripts

- Found in 1973, these are among the burial artifacts of a tomb sealed in 168 BCE, in Changsha, China.
- Among the artifacts is a medical text, the Wushi'er Bingfang, or Recipes for Fifty-two ailments. It shows early development of Channel theory.
- The tomb texts do not mention Yingyang, the Five Phases, or acupuncture.

The Mawangdui Medical Manuscripts

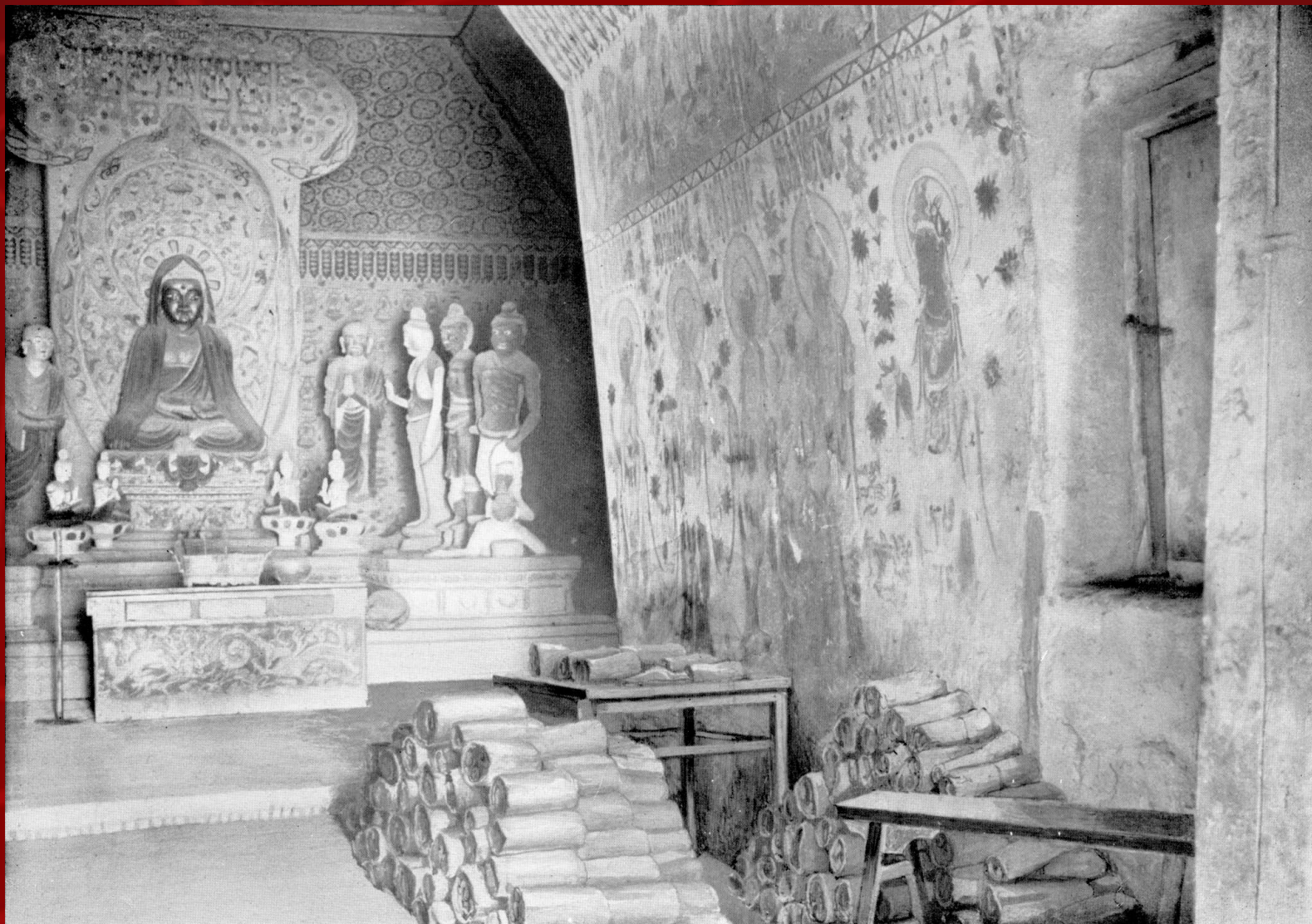
Thirty manuscripts with texts
inscribed on bolts of silk and slips of
bamboo treatises on philosophy,
astronomy, geography and politics

Seven medical manuscripts



Dunhuang Manuscripts

- In the early 20th century, Daoist Monk Wang discovered documents in the Mogao Caves in Dunhuang, Gansu, western China. He then sold, them to western explorers.
- Documents date from the 5th to 11th centuries, and among the varied manuscripts are medical texts with treatments for illnesses, Moxabustion charts, and a fragment of the *Shennong Bencaojing* 神農本草經 – a very early Chinese pharmacology text.







Han Dynasty Texts

- During the Han Dynasty, the medicine of correspondences flourished and became quite sophisticated. Three of the canonical texts of Chinese medicine were written in the Han.
- The Yellow Emperor's Inner Canon [Huangdi Neijing] 黃帝內經
- The Classic of Difficulties [*Nan Jing* 難經]
- On Cold Damage [*Shanghan Lun* 傷寒論]
by Zhang Zhongjing 張仲景

Han Physicians

Three of the most famous Han physicians

- Bian Que - a legendary physician depicted as a human-headed bird. He was considered to have supernatural powers.
- Chunyu Yi – the earliest example of a physician compiling case histories.
- Zhang Zhongjing – author of the canonical Cold Damage Treatise.

Bian Que

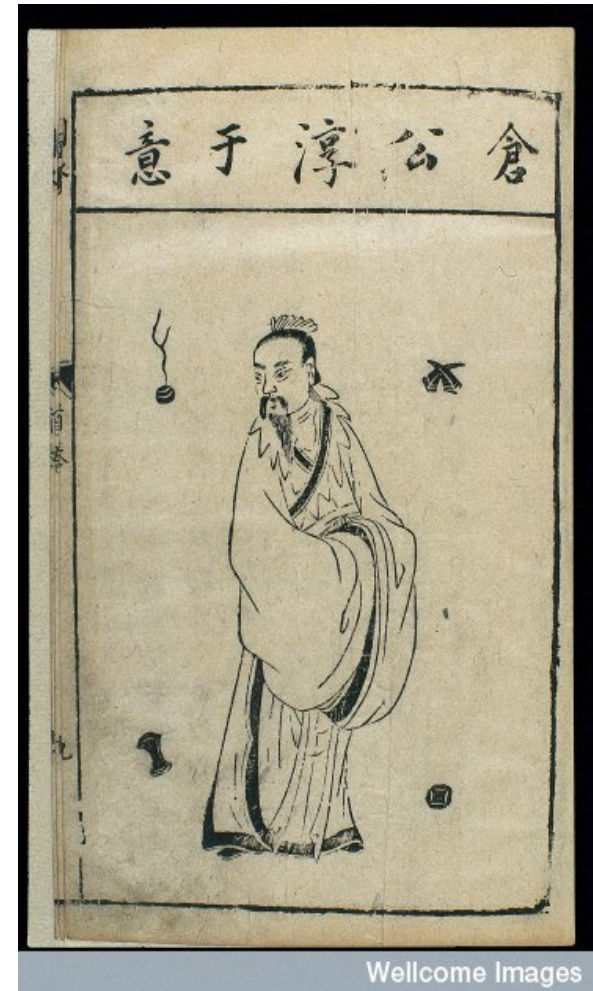


- One day, Zhang Sangjun [his teacher] said to Bian Que, 'I have a prescription that I had hoped to pass on to my son when I grew old. If you take some of the prescription from this cup, and drink it with the water from this pool, in thirty days you will have knowledge of things.' Bian Que did as he said, and from then on, when he examined a patient, he was able to see into the viscera



Chunyu Yi

- Chunyu Yi was arrested for having refused to treat a patient. While imprisoned, he was made to give an account of his treatments. These first case records, 25 in number, are included in the *shiji* 史記, the records of the Han dynasty.



Zhang Zhongjing



- In the preface of the *Shanghan lun* 傷寒論 (Treatise on Cold Damage) we learn that Zhang composed it in response to an epidemic that wiped out most of his family and village. The original text is lost, but it was edited by Wang Shuhe in the Jin period (265-420). A copy from the Song dynasty (960-1279) is the oldest extant text.
- The *shanghan lun* is considered the basis of drug prescription therapy in Chinese medicine.
-

Pulse diagram, 4th century



Alternative Pulse sites

Umbilical Pulse



Ankle and instep pulses



Other Diagnostic Views

Diagnosis was multifaceted during the Han. Bian Que is noted for his magical vision and mastery of Pulse diagnosis. Chunyu Yi is also noted for Pulse mastery and diagnosis using complexion colours. Zhang Zhongjing describes levels of disease progression with Pulse presentation, body temperature and location of symptoms in his treatise On Cold Damage.

Tang Dynasty (618-906)

- An official materia medica was published with text and drawings
- State examinations for physicians were instituted
- The presence of sugar in the urine of patients with 'wasting and thirsting disease' was documented.
- Thyroid glands of sheep and pigs were used to successfully treat goiter.
- The Tang's most famous Physician was Sun Simiao

Sun Simiao, father of medicine

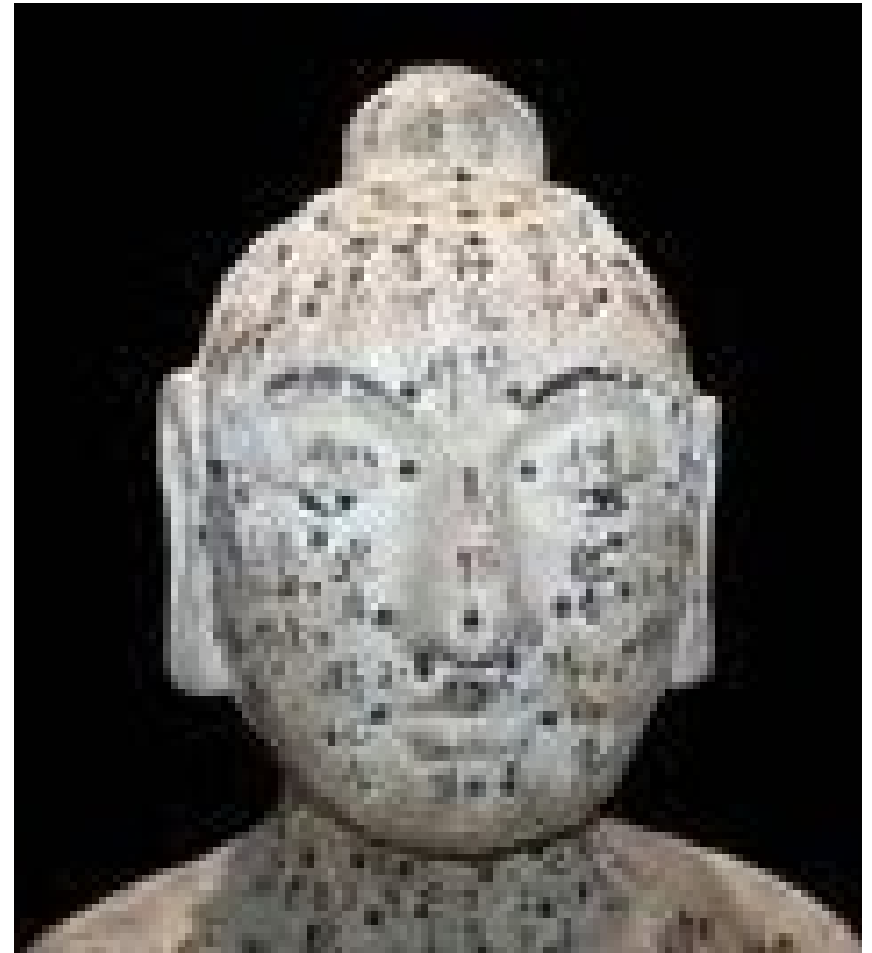
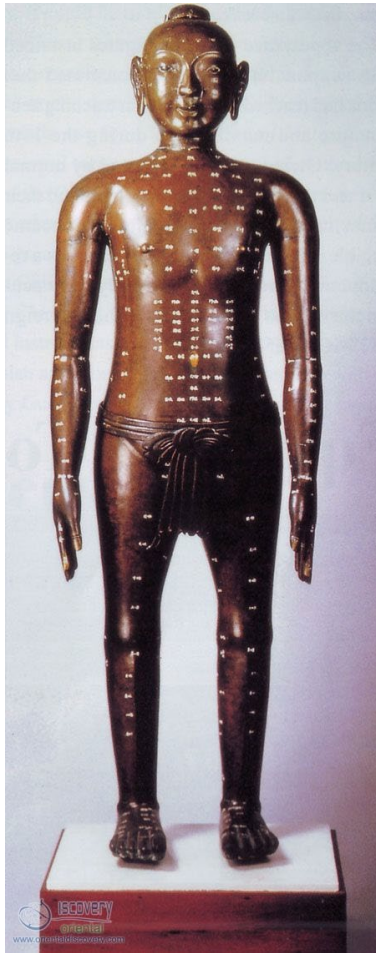


- His ***Qianjin Yaofang*** was not merely a collection of formulas (of which there were an astonishing 4,500), but a treatise on medical practice that reviewed the work since the Han Dynasty, starting with the concepts of the ***Huangdi Neijing***). He included treatises on acupuncture, moxibustion, massage, diet, and exercises. So comprehensive in scope was this treatise that later authorities declared it the first encyclopedia of clinical practice.

Song Dynasty (960-1279)

- The Imperial Medical College included acupuncture in its curriculum
- The Song government sought to systematize acupuncture knowledge and bronze acupuncture figurines were cast by Wang Weiyi for teaching and examination purposes in the 11th Century.
- The bronze figurines clearly displayed channel pathways and each acupuncture point, both of which remain recognizable to current practice.

Bronze Acupuncture Figurines from Song Dynasty



The four pillars of diagnosis

- **Looking** tongue inspection, colour assessment, body size, shape and mannerisms
- **Touching** pulse taking, point and channel palpation
- **Asking/Listening**
questioning, assessing sound of voice
- **Smelling** noting odours and correlating to the five phase correspondences

Diagnosis by looking

- During the Han [220 BCE-212 CE] and until the Tang [600-800] diagnosis by looking remained a principal method of diagnosis.
- By the Song Dynasty facial observation gave rise to detailed facial mappings and charts.
- The Face was seen as a microcosm of the body and a reflection of the order of the cosmos. It was an important focus of observation.

Figure 3: 120 actions reported along 13 horizontal vertical.
 D'après le Shenxian quarrier, repris par le Jiujin tashu

三十部位總要圖

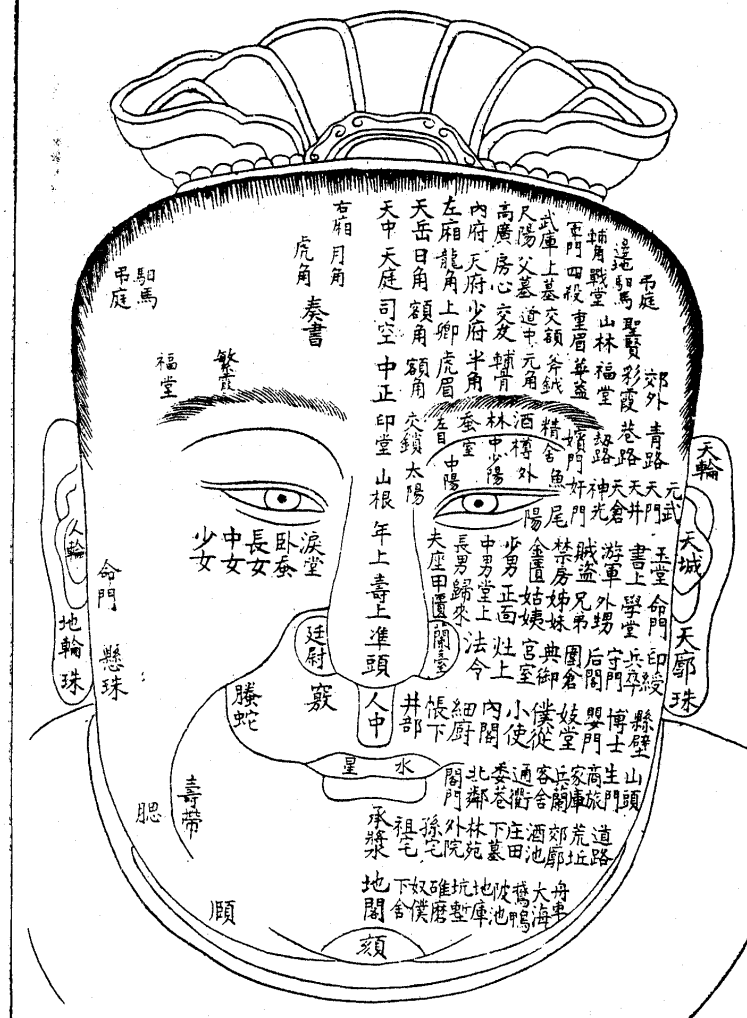


figure 1

Song Dynasty Physiognomy Chart



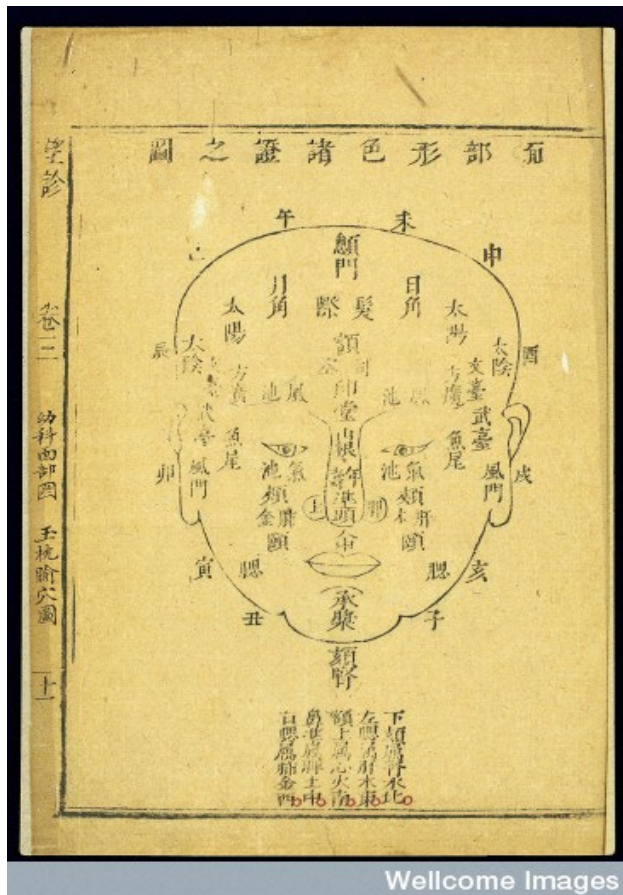
"When the complexion shows green like fresh grass, it is a sign of death; yellow like *poncirus trifoliata*, it is a sign of death; black like coal, it is a sign of death; red like coagulated blood, it is a sign of death, white like dry bones. These are the inauspicious manifestations of the five colours.

When green shows like the wings of a mandarin duck, it is a sign of life; red like the cockscomb, it is a sign of life; yellow like the belly of the crab, it is a sign of life; white like pork fat, it is a sign of life; black like a crow's wing, it is a sign of life. These are the manifestations of the life of the five colours^[i]."

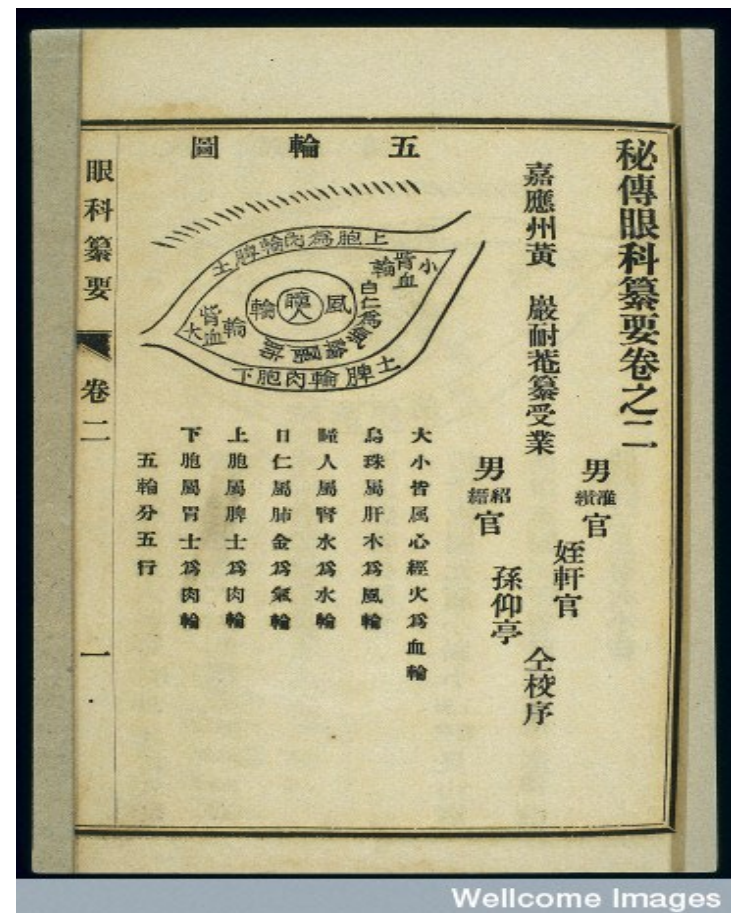
^[i] *Suwen*, *juan* 3, chap. 10 « Wuzang shengchang pian», 62.

Diagnosis through observation

Pediatric complexion chart



Eye diagnosis chart





Jin-Yuan Dynasty

Four schools of thought reconsidering disease causation and treatment strategies flourished

- **Cooling School:** Liu Wansu (1120 – 1200), advocated using cooling drugs, lowering heart fire and nourishing kidney water.
- **Purgation School:** Zhang Congzheng (1156 – 1228) Advocated purgation methods to remove evils within the body.
- **Spleen/Stomach School:** Li Gao (1180-1251) advocated treating the Spleen and Stomach, as he believed most illness originated with damage to these organs.
- **Nourishing Yin School:** Zhu Danxi (1281 – 1358) believed that the cause of most disease was internal fire, and it had to be controlled by nourishing kidney yin.

Tongue Diagnosis

In a Ming Dynasty text, we see for the first time a system of diagnosis that is lacking in the classic texts.

Tongue ***Diagnosis*** is a system. Early texts take note of occasional tongue presentations, but there is no system of diagnosis until at least the Jin-Yuan era.

Ming Dynasty

- The development of movable type and innovations in the printing process allowed an unprecedented circulation of medical texts.
- The number of Imperial examination candidates exceeded the number of civil posts available and the failure rate was high.
- Medicine came to be seen as a scholarly and respectable profession for the literati, and old lines between hereditary physicians and scholarly physicians blurred.



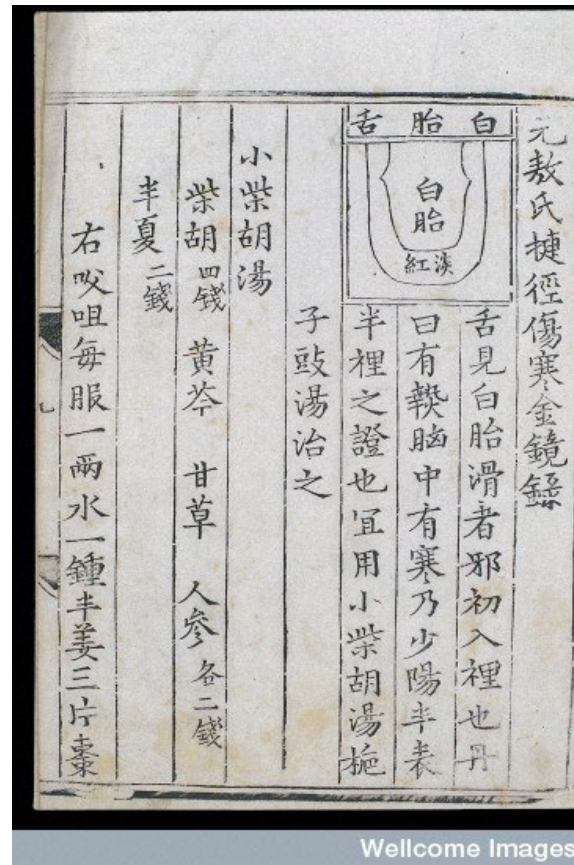
Ming epidemics

- With increased population migrations, epidemics ravaged China in the Ming.
- An imperial physician, Xue Ji 薛己, inserted an obscure text into his case record compilation, which was devoted entirely to the inspection of the tongue. It was a copy of the *1341 Ao Shi Shanghan Jinjing Lu* 敖氏傷寒金鏡錄
- This text connects drawings of tongue presentations with drug recipes, most of which were useful in febrile illness.

Tongue Illustration



Tongue Illustration



Tongue Illustration



一原本既經辨駁不能概錄以省繁文

一原本以舌分類不以病分類未能盡合鄙意惟不欲大

反前規故諸舌次序悉依原本宜參看醫學答問憑舌辨證之法

一原本繪舌雖多有不常見者有常見而或遺漏者閱者

以意會之勢不能一一申說

一各條所論有前後重複者有言不盡意者閱者諒之

一舉世但知外症有腐壞之狀不知內科諸症藏府經絡

亦多有發熱處或腐壞處舌色改變腹中之惡狀可想投

以溫補滋補非益其熱而促之爛乎故非重剷苦寒不可

言之駭聽泥古者必以為非閱歷深者或自悟乎

舌鑑辨正卷一

茂名梁玉瑜傳

秀水陶保廉錄

全舌分經圖



舌根主腎命大腸應小腸舌

中左主胃右主脾舌前面中

間屬肺舌尖主心心包絡小

腸膀胱應大舌邊左主肝右

主膽舌尖統應上焦舌中

應中焦舌根應下焦

Pulses and Tongues

- Pulse taking is personal, intuitive, and the result of years of training and practice. The physician can be questioned, but not easily challenged as to the diagnosis.
- Tongue diagnosis is objectively observable and relatively easy to learn. The colour, shape, moisture and coating are not debatable.

Qing Dynasty

- During the Qing, tongue diagnosis becomes a prevalent method of diagnosis, working well with the new *Wenbing* 溫病 (warmth illness) school of thought and treatment strategy that had been developing through the late ming. It established that not all febrile illness came from exposure to cold, and that this illness could be transmitted from person to person, or from place to person.
- Western medicine became pervasive in China and conflict is set up between 'modern' and 'traditional' modes of practice.

Republican China

- Proponents of modernisation attempt to make traditional Chinese medicine illegal
- This threat unites traditional practitioners as never before and a delegation of traditional physicians successfully lobbies the Nanjing government for recognition in 1929.

Local associations galvanise The 1929 delegation to Nanjing



People's Republic of China

- After 1949, the Communist government was faced with very little in the way of a medical infrastructure or pharmaceuticals.
- Having promised health care for the masses, the value of existing traditional doctors with local medicines became obvious.
- In the 1950's, the first academies of traditional medicine were set up in Beijing, Shanghai, Chengdu and Nanjing.
- The new government was eager to modernize, and it set about standardizing content, practice and transmission of traditional medicine.

1956: Mao with the first director of the Academy of Chinese Medicine, Beijing



Chinese Medicine today

- Chinese traditional medicine in practice utilises acupuncture, massage, herbal prescription, moxabustion, dietary therapy, exercise therapy, meditative practices.
- Global
 - Among Issues and questions it deals with:
- Standardized?
- Traditional or Scientific?