



**UNIVERSITY OF IOANNINA  
SCHOOL OF MEDICINE  
FACULTY OF HEALTH SCIENCES**

SECTOR OF CLINICAL AND BASIC FUNCTIONAL SCIENCES  
DEPARTMENT OF PHARMACOLOGY

SECTOR OF SOCIAL MEDICINE AND MENTAL HEALTH  
HISTORY OF MEDICINE

**Comparison of Traditional Botano-therapeutics  
between Far-Eastern Countries and Greece**

**Jayoung Che**

Dissertation Prepared for the Degree of  
DOCTOR OF MEDICINE

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**ΠΑΝΕΠΙΣΤΗΜΙΟ ΙΩΑΝΝΙΝΩΝ  
ΣΧΟΛΗ ΕΠΙΣΤΗΜΩΝ ΥΓΕΙΑΣ  
ΤΜΗΜΑ ΙΑΤΡΙΚΗΣ**

**ΛΕΙΤΟΥΡΓΙΚΟΣ - ΚΛΙΝΙΚΟΕΡΓΑΣΤΗΡΙΑΚΟΣ ΤΟΜΕΑΣ  
ΕΡΓΑΣΤΗΡΙΟ ΦΑΡΜΑΚΟΛΟΓΙΑΣ**

**ΤΟΜΕΑΣ ΚΟΙΝΩΝΙΚΗΣ ΙΑΤΡΙΚΗΣ ΚΑΙ ΨΥΧΙΚΗΣ ΥΓΕΙΑΣ  
ΙΣΤΟΡΙΑ ΤΗΣ ΙΑΤΡΙΚΗΣ**

**Σύγκριση της παραδοσιακής βοτανοθεραπευτικής  
μεταξύ των χωρών της Άπω Ανατολής και της Ελλάδας**

**Jayoung Che**

**ΔΙΔΑΚΤΟΡΙΚΗ ΔΙΑΤΡΙΒΗ**

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# Contents

I. Introduction .....	11
II. Developments of botanical pharmacy in China and Greece .....	16
A. Developments of Chinese therapeutic botany .....	16
B. Greek Tradition of botanical medicine .....	28
III. Medicinal philosophy in Eastern Countries and Greece .....	35
A. Introduction .....	35
B. Medicinal philosophy in Eastern Countries .....	38
C. Tradition of Greek Medicinal Philosophy .....	50
IV. Medicinal effects of 14 plants in Far Eastern Countries and Greece ....	62
V. Diagrams for the Comparison of 14 Plants .....	103
VI. Conclusion .....	130
VII. Abstract: English .....	136
Greek .....	137
VIII. Appendices .....	138
i. Diagrams .....	139
1) Restraining Cycle of the 5 Phases .....	139
2) Generating Interaction & Overcoming Interaction of Five Phases .....	139
3) Six Elements (of the World), Organs of body, Time .....	140
4) Twelve Earthly Branches: Month, Six Elements, Seasons, Zodiacs ...	141
5) The Heavenly Stems & Twelve Earthly Branches .....	142
6) Three Darks / Three Brights & Six Meridians .....	143
7) Twelve Meridians, Zodiacs .....	144
i. Figures of Plants .....	145
ii. Ancient Chinese Text .....	169
1) 證類本草 .....	169
2) 本草從新 .....	183
iii. Terminology .....	189
1) Chinese to English .....	189

2) English to Chinese .....	194
iv. Bibliography and Index .....	198
1) Primary source .....	198
a. Eastern sources and authors in Chinese order .....	198
b. Eastern sources and authors in English order .....	206
c. Western Primary sources .....	215
2) Selected secondary sources .....	216

# I. introduction

The etymology of the word referring to medicine differs between Far Eastern Countries and Greece, from which we can glimpse the social and physical divergence of the two regions.

In the Far Eastern countries, for example, China and Korea, traditionally medicine (materiamedica) has been called 'fundamental grass (本草, θεμελιώδης γλοή). 'Fundamental grass,' however, refers not only to the originating plant, but animals and minerals, merely, in proportion the former having much more gravity than the latter.<sup>1</sup> Interest in medicinal plants, it has been said, originated with Shennong (神農), a mythological personage, who taught to the people a method of agriculture. The surviving <ShennongMateriaMedica (神農本草)> is attributed to the 8<sup>th</sup> century B.C. in the period of Western Zhou Dynasty(11 C.-771 B.C.), where a great quantity of medicinal plants are referred to. Following this, lots of books on the therapeutic use of botany appeared in China without intermission, and they exerted influences on other countries in the Far East, including Korea..

The natural environment of Far Eastern countries promotes the growth of plants, having much rain in summer, while it is too cold in winter to provide the grass for animals, so that livestock farming was never developed with the exception of a few animals necessary for agriculture, such as cow for whom dried grass should laboriously be prepared from the autumn. Thus, food as well as medicine mainly consist of plants. The botany here has not been investigated for itself but for the practical use for pharmacy.

In Greece, however, the word 'theriake' is used for medicine which refers to the 'mixture of various extracts'. The etymology of the word 'theriake' is not so clear. According to one theory, it originated from 'therion' which means animal. And according to another, it means medicine which is used against the poison caused by vipers, mosquitoes, or wasps. Otherwise, it could also mean the medicine which is extracted from an animal itself. In any case, 'theriake' does not refer only to the medicine extracted from an animal, but at first includes 54 kinds of botany and a few from animals, and later, with the lapse of time over 2000 years, gradually includes the meaning of 'panacea', remedy for all kinds of illness.

Generally, the concern of the Greeks about botanical pharmacology was much less in comparison with the Far East. In Western Europe, from Aristotle (384 – 322 BC), Theophrastus (371 – c. 287 BC) and Plinius Major (23-79) in the ancient age to Linne (1707 ~ 1778) in the modern, botany was for the most part researched for itself, and its pharmaceutic use was only occasionally referred to.

Since earlier times, Asclepius, as a symbol of God of medicine, was said to use botany as medicine. However, the professional manufacturing of medicine as well as the establishment of the first medical school was done by Asklepiades (120-56 B.C.), who was an Asian of Greek origin in the 1<sup>st</sup> century B.C. After him followed Kelsos, Euphorbos and Menekrates who had been informed of the knowledge of pharmacy. And it was in the 2<sup>nd</sup> century when the so called pharmacologists, in a real sense by (Pedanios) Dioscurides (ca. 40 – 90 AD) and his contemporary, Plinius Major, came to exist.

Dioscurides, who was the most famous after Theophrastos, but who was appraised as much inferior to him, was of Greek birth from Asia. As a doctor and medicine manufacturer, he established the foundation of botanical pharmacology, and wrote five books, <On Medical Material (Peri Hyles Iatrikes; De MaterinaMedica)>, in which the property and medical efficiency of 60 kinds of botany were introduced.

On the other hand, in the Hellenistic Age when Alexandria was the political and cultural center of the Mediterranean world, toxicology was developed in Pergamon which had a great library on par with that of Alexandria. This is shown in a book authored by Nikandros Kolophonios (200-120 B.C.). He wrote *Theriake* and *Alexipharmaka*. Especially, it is said that 'theriake' was developed by the monarch of Pontus, Mithridates VI the Great.<sup>2</sup>

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<sup>1</sup> Sangwoo Ahn , "The systematic of medicinal herb books and the development history of medicinal herb study," *Korean Journal of Oriental Medicine*, vol.11, no.1 (2005), p.20.

<sup>2</sup>Mithridates VI or Mithradates VI (120-63 BC), also known as Mithridates the Great, was the King of Pontus in Asia Minor. The ambitious Mithridates engaged Rome three times in three separate Mithridatic Wars, fighting against the great Roman

The proportion botanical pharmacy occupied in human life shows differences between Greece and Far Eastern countries. And the understanding on the medicinal efficiency of some plants differs, too, between the two regions. This deviation, we could say, is mostly due to the difference between the natural, political and cultural environments.

In Eastern countries, organic agriculture was developed to require intensive labor and mutual cooperation. From ancient times, sovereign authority of kingship and bureaucracy developed more or less to preserve public order. In China, especially, after the period of Spring and autumn (春秋 i.e. Chronical History; 770-403 B.C.) and the Warring States (戰國, 403-221 B.C.), when the small city states and later seven integrated territorial states vied with each other, in the end of the 3<sup>rd</sup> century Emperor Qin Shi Huang (秦始皇帝) managed to establish a great empire, from The Yellow River (黃河) in the north to the Yangtze River (揚子江) in the south. Thence, China was mostly dominated by a despotic dynasty with the exception of intermittent periods.

The physical geography of Greece is quite different from that of China. First of all, the agriculture of wheat was not developed as much as it was in China, with the only exception of some regions like the southern part of Peloponnisos or the plain of Thessaly or Boiotia. The production of olive oil and wine, rather, promoted commercial activity from an earlier period, and nomadic pasture lands enhanced the mobility of life. The physical environment of Greece engaged the liberty of citizens of the polis. Even when a great imperial state appeared in the Mediterranean, it was not of stagnant bureaucracy similar to that of China, but of dynamic Roman imperialism based on military expansion.

The physical and social differences of the two regions results not only in a social value system and behavior pattern, but in a way of thinking in regard to the physical world (nature) as well as the human body and medicine. In Greece, anatomy and surgical operation developed, and there was much concern about antidotes for poison or for poison to hurt others, as well as endemics or epidemics.

The mobility of life caused by pasture-life or the chronic war situation between the city states increased the need for the pharmacy to cure wounds and the skill for surgery and the knowledge of anatomy. Especially, from the end of the fifth century B.C. surgical operation and anatomy developed as wars continued to occur in Greece as well as in the Mediterranean World. Moreover concern about poison was higher in the Greek world than in Eastern countries. It was used for removing political or love rivals, or recovering love. In Eastern countries also pharmacy referring to poison existed and was used for the same purpose. But proportionately it was less and more confidential in the East, where much concern was concentrated on the balance of energy of the human body.

Life for people in Greece was more energetic than in the East, as the staple food consisted of products from pastures, and socio-political or cultural situations were more dynamically based on citizenship mentality for freedom. In a society where autocratic power did not develop, political antagonism and private love-hate conflict were more intense than in the East under the despotic rule of power. Especially, in the Hellenistic age of chronic conflicts which were waged by mercenaries, the need for the knowledge required for surgery or the concern against epidemics remarkably increased.

On the other hand, the difference of physical and human geography between the two regions had an influence on the philosophy of medicine or the mentality of traditional medical practices of the people. A common way of thinking could be found in both regions, as they regarded the illness not connected only with the biophysics of the human body but natural phenomena like earth (soil), sea, stars, dawn, and wind, etc.

Moreover, the two regions have another common feature with the consideration that humankind does not only consist of a body and a spirit, but is connected with the transcendental element over the physical world. There is, however, a great difference in the concrete concept on the identity of the latter. In Far Eastern countries, the transcendental element is still related to the physical phenomena which developed to the mechanism of mysterious (geometric) numbers (數秘學). In Greece, however, this is transferred to the supernatural, daimon or the deity of religion-ethics. Needless to say, both, the mystery of numbers on the one hand, and the supernatural daimon or deity on the other, did not appear from early times but came to develop more or less in a later period.

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generals Sulla, Lucullus, and Pompey the Great, proving to be one of their most competent adversaries. He is also said to have guarding himself against poisons from an early age by taking increasing sub-lethal doses of poison until he felt he could tolerate lethal doses. This experimenting later produced a universal antidote, his *Antidotum Mithridaticum*, which consisted of several ingredients. It is rumored that when Mithridates was finally defeated by Pompey in the Third Mithridatic War, he attempted suicide by poison but failed due to his accumulated immunity to the poison and was forced to make one of his servants kill him with a sword. *Antidotum Mithridaticum* was used for the next 1,900 years under the name *theriake*. [cf. <http://www.toxipedia.org/display/toxipedia/Mithridates+VI>, Mithridates VI]

In China, the human body was understood as a micro-cosmos - as an entity of a whole, while anatomy was not much developed. Furthermore, each part of the human body corresponds to each natural matter of phenomenon, for example, Sky (天) and Earth (地), Darkness (Yin 陰) and Brightness (Yang 陽), the Five Phases[五運 Wu Yun or 五行 Wu Xing or 五常 Wǔcháng<sup>3</sup>): Wood(木), Fire(火), Metal(金),Earth(土) and Water(水)], Five(Vital) energies[五氣 Wu Qi: Wind (風), Cold (寒), (Summer-) Heat (熱), Dampness(濕), Dryness (燥)], or Six (Vital) Energies[六氣 Liu Qi: Wind (風: 厥陰 Jueyin, Faint darkness), Cold (寒: 太陽 Taiyang Great brightness), Warmth (暑: 少陰 Shaoyin, less Darkness), Dampness (濕: 太陰 Taiyin, Greater Darkness), Dryness (燥: 陽明 Yangming, Lucid Brightness), 火(火: 少陽 Shaoyang, Small Brightness)].

There is a connection between the parts of the human body and the natural matters or phenomena. On the one hand, the Five Phases (Wood, Fire, Metal, Earth and Water) had a physio-pathological relationship with the Five Internal Organs (五臟, 五藏): Wood(木)with the Liver (肝), Bile (膽) and Fire(火) with the Heart (心), Small Intestine (小腸), Pericardium (心包) and Three Foci (三焦)<sup>4</sup>, Earth (土)with the Spleen (脾) and Stomach (胃腸), Metal (金) with the Lungs(肺) and Large Intestine (大腸), and Water (水) with the Kidneys (腎) and Bladder (膀胱). On the other hand, the Five (Vital) Energies (or Substances)(五氣) [Wind (風), Cold (寒), Summer-Heat (熱), Dampness (濕), Dryness (燥)] also refer to each internal organ of the human body, that is the Liver, the Heart, the Spleen, the Lungs and the Kidneys in order respectively. [cf. According to The Chronicle (Spring and Autumn) of ??(呂氏)》(呂氏春秋)》,<sup>5</sup> The Spleen, Lungs, Heart, Liver and Kidneys in that order.

Moreover, the Five Phases and the Five Energies are associated with other factors, mostly all the natural phenomena, it could be said, which humankind could feel and know. For example, seasons (Spring 春, Summer 夏, Rainy Summer 季夏, Autumn 秋 and Winter 冬), directions (East, South, Center, West and North, 東南央西北), Colors (Blue, Red, Yellow, White and Black, 青赤黃白黑), tastes (Acid, Bitter, Sweet, Pungent, Salty), five notes (角, 徵, 宮, 商, 羽), and five numbers (Eight, Seven, Five, Nine, Six) respectively.

On the other hand, the Six Energies not only referred to the parts of the body but to their properties based on the concept of Darkness and Brightness (Yin-Yang 陰陽), each of which is classified into three categories according to degree of intensity, three kinds of Darkness (三陰) and three Brightness (三陽). Three kinds of Darkness are the first one, Faint Darkness(厥陰),<sup>6</sup> which is symbolized by Wind; the second one, Less Darkness(少陰), symbolized by Heat, King Fire (熱-君火); Greater Darkness (太陰), symbolized by dampness (濕)], while Three Brightness are Less Brightness (少陽), symbolized by Warmth-Ministerial Fire (暑-相火), which is symbolized by blocked Wind; Greater Brightness (太陽), symbolized by Cold(寒); and Great Brightness (陽明), symbolized by Dryness (燥)].<sup>7</sup>

Furthermore, the Six Energies get involved in the Ten Heavenly Stems(十天干) and the Twelve Earthly Branches(十二地支)<sup>8</sup>, to provide a much more diagrammatic and abstractive framework view of the World. The

<sup>3</sup> The Five Motions (五常 Wǔcháng) are the normal activities of the Five Phases.

<sup>4</sup> Three Foci (三焦), one of Six Bowels (六腑 Six Bu: ), consists of the Upper Focus (上焦) the Middle Focus (中焦) and the Lower Focus (下焦). The Upper houses - the Heart and Lungs; the Middle - the Spleen and Stomach; the lower - the Liver, Kidneys, Urinary Bladder, and the Small and Large Intestines. They symbolize the summation of the organs of the Bowels (臟腑), and also contribute as passage ways of Energy (氣)and Fluids.

<sup>5</sup> *Lu Shi* (呂氏)'s *Chronicle (Spring and Autumn)* (呂氏春秋)》 was authored by Lu Buwei (呂不韋; d. 235B.C) in the Qin (秦) Dynasty, in cooperation with 3,000 scholars.

<sup>6</sup> Faint Darkness (厥陰) is the final stage of development, being the turning process to Yang Phase.

<sup>7</sup> The pairs of counterpart between Darkness and Brightness are: Less Brightness (少陽) ↔ Faint Darkness (厥陰 Jueyin, the First Yin), Lucid Brightness (陽明) ↔ Less Darkness (少陰), Greater Brightness (太陽) ↔ Greater Darkness (太陰). [otherwise, Less Brightness (少陽) ↔ Faint Darkness (厥陰 Jueyin, the First Yin), Greater Brightness (太陽) ↔ Less Darkness (少陰), Lucid Brightness (陽明) ↔ Greater Darkness (太陰)]

<sup>8</sup>Cf. The Ten Heavenly Stems (十天干 - 天干): 甲, 乙, 丙, 丁, 戊, 己, 庚, 辛, 壬, 癸.

Ten Heavenly Stems (十天干) and the Twelve Earthly Branches(十二地支) make a cycle of sixty's days (), which makes up a foundation of the philosophy of a renowned Chinese classic, < the Book of Changes (周易 Zhou Yi)>.<sup>9</sup>

Regarding the difference between the Five Energies and the Six Energies, it should be noted that the Five Energies are not yet concerned with the more or less abstractive and uniformed conception of Darkness and Brightness, but with the concrete and real matters or sensibilities. Even if both the Five Energies and the Six Energies appear in the <Internal Canon of the Emperor (皇帝內經)> in earlier periods, the standardized concept of Darkness and Brightness became more reinforced as time passed..

In Eastern botanical pharmacology, the theoretical paradigms, which connect the organization of the human body with external physical matters or phenomena, are either applied or not to the descriptions of its medicinal efficiency. The more we go backwards to earlier times, the more the importance of concrete clinical experiences increases. Especially, since the period of the Song Dynasty, when Neo Confucianism (性理學) was developed on the discussion of the relationship of Reason (理) and (Vital) Energy (氣), the abstractive and uniformed theory of Darkness and Brightness exerted a great influence on the understanding of the medicinal efficiency of botany. Furthermore, not only natural phenomena but the ethics of society came to be involved with medicinal therapy, to increase its abstractive and theoretical tendency.

In Western Europe including Greece, too, we could see social values affect medicinal practice. An example is shown in the ethics of Good and Evil and how they influenced the understanding of the cause of disease as well as medicinal efficiency as Christianity prevailed in the Middle Ages. However, there is a considerable difference in world view between the East and Greece.

The Eastern theoretical paradigm, which connects the diseases of the human body with natural phenomena like Darkness and Brightness, the theory of the mystery of numbers (數秘學), or social values, does not define humans and nature or the human body and diseases are contradictive with each other, but in a correlative connection. But in Greek traditional popular medicine, diseases were personified, and the relation between disease and human body was symbolized as a conflict among different volitions. A personified disease is confronted by a curer or exorcist. The latter threatened the former to retreat. Magic incantation goes side by side with the cross, the magic being merged with religion. Magic-religious behavior or incantation is a result of determinism of cause and effect regarding nature.

Moreover, in the past, not only in Greece but everywhere, we could discern similar phenomena. Mpimpi-Papaspyropoulou, referring to Carl Jung, said that in traditional popular medicine psychological elements play much more important roles in human beings, who could be defined as a 'totality' of soul.<sup>10</sup> He is motivated not only by the need of the body and human soul, but the supernatural spirit (Pneuma, Geist). As Mpimpi-Papaspyropoulou insisted, in traditional medicine, the supernatural spirit (pneumatika) and the human soul

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The Twelve Earthly Branches(十二支, 地支): Rat (子), Cow(丑), Tiger (寅), Rabbit (卯), Dragon (辰), Snake (巳), Horse (午), Sheep (未), Monkey (申), Chicken (酉), Dog (戌), Pig (亥).

Connections between the Ten Heavenly Stems (天干) and the Five Zang (五臟: Liver, Heart, Spleen, Lungs, Kidneys) and the Six Fu [六腑: Stomach 胃、Bile 胆、Three Foci 三焦、Bladder 膀胱、large intestine (intestinum crassum 大腸)、small intestine (intestinum tenue 小腸): 甲-膽(Bile), 乙-肝(Liver), 丙-小腸 (small intestine), 丁-心 Heart), 戊-胃 (stomach), 己-脾 (Spleen), 庚-大腸 (large intestine), 辛-肺(Lungs), 壬-膀胱 (Bladder), 癸-腎 (kidneys).

The Connections between the Five Phases (五運 or 五行) and the Ten Heavenly Stems (十干 - 天干): 甲己-土 (Earth), 乙庚-金 (Metal), 丙辛-水 (Water), 丁壬-木 (Wood), 戊癸-火 (Fire).

The Connections between the Five Phases (五運), the Six Energies (六氣), and the Three kinds of Darkness (三陰) and the Three kinds of Brightness(三陽): 陽明燥金, 太陽寒水, 少陽相火, 厥陰風木, 太陰濕土, 少陰君火.

The Connections between the Twelve Earthly Branches(十二地支) and the Five Phases (五運), the Six Energies (六氣): 卯酉陽明燥金, 辰戌太陽寒水, 寅申少陽相火, 巳亥厥陰風木, 丑未太陰濕土, 子午少陰君火.

<sup>9</sup><Book of Changes (周易)> [also named <Canons of Changes (易經)> by Chu Hsi (朱熹) in the Song (宋) Dynasty ] is the oldest book among the Five Canons of China. Its philosophy is based on odd (Brightness 陽) and even (Darkness 陰) numbers, and when these two numbers mixed three times, its number of cases attains Eight Gua (卦). Then, eight overlapping results in Sixty-Four Gua (卦). <Book of Changes (周易)> is to explain everything and changes in the universe with these numbers. According to tradition, Eight Gua was made by Fu Xi (伏羲: one of the earliest legendary rulers of China), and Sixty-Four Gua by Shennong (神農: one of the earliest legendary rulers of China), or King Wenn (文王) of the Zhou (周) Dynasty.

<sup>10</sup>Aglaias Mpimpi-Papaspyropoulou, *Paradosiaki Iatriki stin Peloponniso* (Athina, 1985) [Dissertation, University of Athens, Philosophic School] p.420.



(psychologica) cooperated with the carnal and organic phenomena. The third element which exerts outside influence on the human body and soul, could be defined not only by a religious phase of Christianity or Greek traditional deities, but by various phases of shamanistic spirits or evil. Referring to Greek deities, according to the same Mpimpi-Papaspyropoulou,<sup>11</sup> Homer attributed the cause of disease to Zeus or Apollo. I wonder if, Asklepios, the symbol of God of medicine, could also be involved in this category, when he cured patients by letting them sleep in the temple of a deity.

In Far Eastern countries, too, there were, and more or less still are, shaman rituals to exorcise evil spirits or disease from a person, which could be defined also as a personification of disease, the exorcist being opposed to disease, and two volitions were confronted. However, there was a peculiar, highly abstractive, theoretical philosophy of physical phenomena, like the concept of Darkness and Brightness or the manipulation of mysterious numbers (8, 64), which has not been found in Greek tradition. On the contrary, in Greece, since early times, even of Asklepios, surgical operation developed more or less.

On this theoretical basis, this work is to compare the use of pharmaceutic botany between Eastern countries centering on China and Korea, and Greece. Needless to say, there are some common elements as well as deviations. It will be shown that the latter originated in the difference of physical and social environments and thence the way of thinking. The common elements are found much more in the concrete clinical appliance of botany. However, the more the theoretical basis is enforced, the more the deviations increase.

The quantity of the use as well as the surviving knowledge of pharmaceutic botany was comparatively less in Greece than in China. As a supplement for the Greek information, the medicinal practices of the middle ages of Europe are referred to, as the latter has been influenced more or less by the Greek tradition of medicine. The situation is not quite different from Far Eastern countries as the Chinese tradition of medicine has survived more or less until today.<sup>12</sup>

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<sup>11</sup> Aglaias Mpimpi-Papaspyropoulou, *Paradosiaki Iatriki stin Peloponniso*, p.423.

<sup>12</sup> In the midst of the influence of Western medicine, Koreans have still held fast to 'Korea's traditional medicine(韓醫學)'. As both exist independently with each other, sometimes a kind of antagonism occurred between them. On the other hand, the Chinese have tried to fuse traditional and Western medicine, while the Japanese authorized only Western medicine, prohibiting the traditional ones. Korea had been under the yoke of Japanese colonization (1910-1945) and was liberated at the end of the Second World War. Under the influence of Japanese policy, traditional Eastern medicine had not been officially recognized in Korea in the period at the end of the 1950's, when firstly with the establishment of the Department of Korean (Eastern) Medicine in Kyung-Hee University in Seoul (former Seoul University Korean traditional Medicine), modern history of traditional medicine officially began to produce physicians of traditional medicine. For the history of Kung-Hee University of Korean Medicine see, cf. <http://kmc.khu.ac.kr/v2/01/03.php> [2015.4.10 searched]

## II. Developments of botanical pharmacy in China and Greece

### A. Developments of Chinese therapeutic botany

#### 1. General Review

'Therapeutic botany (本草 Herbal or Materia Medica)' refers to all kinds of medicinal materials used in the East including herbal medicines as well as that of animals or minerals. However, it is so named simply because most of the medicinal materials were botanical.<sup>13</sup> The oldest book of therapeutic botany is *Shennong Herbal Classic* <*Shennong bencao Jing*, 神農本草經>.<sup>14</sup> Shennong (神農), a traditional sacred man, is said to have begun the teaching of the knowledge of medicinal botany. In the <Guide for Training 修務訓> of <*Huainan Zi* (淮南子 *Writings of Prince Huainan*)>, it is said that 'in old times, people gathered grass, drank water, picked the fruits of trees, and ate the flesh of turban shells or clams, but disease and poisoning broke out. Shennong initiated to teach the agriculture of five kinds of grain ....., and tasted hundreds of grasses and the water of many ponds, letting people know those to be eaten and those to be avoided. At that time he tasted seventy medicines per day.

The record for blended medicine also has significance in the development of medicine. Yi Yin (伊尹), minister of the Chou (周) Dynasty, wrote <*The Classic of Soup* 湯液經>, referring to which Huangfu Mi (皇甫謐) wrote <*Zhenjiujiayijing* (*Classic of Acupuncture and Moxibustion* 鍼灸甲乙經. The introduction (序)> says that 'Yi Yin had talents which vied with that of a saint, basing on the Shennong Herbal Classic, to expand the contents of the *The Classic of Soup* to publish many books, the effect of which was excellent. *The Classic of Soup* is also referred to with the title, <*Materia Medica of Soup* 湯液本草>, in the 'History of Medicinal Prescriptions (歷代醫方) of <*Dongyibaojian* (東醫寶鑑 *Eastern Physicians' Venerable Text*)>.

*The Classic of songs* (詩經), published in the Western Zhou (西周) Dynasty, was the oldest book where the knowledge of medicine was recorded. It includes traditional medicinal information on plants and animals of the former Shang Dynasty (商代 1400-1027 B.C.), and the record of plants contained 50 different kinds. *ShanHaiChing* (山海經 *Classic of Mountain and Sea*, Author Anonymous) also includes 63 kinds of animals, 52 kinds of plants, 4 kinds of minerals, and 2 unknown kinds, for a total of 121 kinds.

At the beginning of The Western Han (西漢) Dynasty (B.C 205 - 8 A.D) the knowledge of materia medica was already spreading widely to the people. In the Record of Emperor Ping (平帝記) of the *Book of Han Dynasty* (漢書), it is said that already by 5 A.D. (Yuanshi 元始 the fifth year), there were teachers for astronomy, mathematics, of various methods and techniques (方術), and materia medica in the capital city. In the Eastern Han (東漢) Dynasty (25-220 A.D.), according to the medicinal books, (<五十二病方 52 Prescriptions against Illness> <治百病方 Prescriptions Curing Hundreds of Illnesses>) were excavated in the Mawangdui Tomb (馬王堆墓), including medicines of 243 kinds, even though it was not a book which dealt exclusively with the materia medica. *Shennong Materia Medica* (*Shennong Herbal Classic* 神農本草經) came to be published based on the traditional medicinal knowledge, to establish the foundation for the development of later periods.

*Shennong Materia Medica*<sup>15</sup> is the oldest book surviving today on the subject. This book is regarded to have been published in the 1st century A.D., not by one but the hands of many physicians. The title 'Shennong'

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<sup>13</sup> Ahn, Sangwoo, "The systematic of medicinal herb books and the development history of medicinal herb study," *Korean Journal of Oriental Medicine*, vol.11, no.1 (2005), p.20.

<sup>14</sup> Cf. The contents below whose origin being not specified are mostly based on Jun-yong Lee, <A Study of Herb books before 『(證類本草)』>, >. Dissertation of Master. Dongshin University. S. Korea (2011).

<sup>15</sup> This was Originally called <*Materia Medica* (本草經)> or <*Classic* (本經)>. It is regarded to had been published already either in the Warring States (戰國) period, or in the Qin and Han (秦漢) Dynasties. The original had earlier been lost, the



was borrowed from the name of a traditional saint, just as <Classic for Inside (內徑)> borrowed the name of a traditional Emperor, to be called <Yellow Emperor's Classic for Inside (黃帝內徑)>. According to the 'Guide for Training (修務訓)' of <Huainan Zi (淮南子 Writings of Prince Huainan)>, 'people had a high regard for the the traditional, and a contempt for the contemporary, so scholars developed their theories borrowing the name of Shennong or the Emperor. *Shennong Materia Medica* was used for 500 years, the original having been lost, but the contents of which survived in the book for materia medica. Today's *Shennong Materia Medica* has been preserved by assembling the fragments since the Ming (明) and Qing (清) dynasty.

In *Shennong Materia Medica*, 365 kinds of medicines are recorded, among which 252 are botanical, 67 are from animals, and 365 are mineral. It classifies the medicines into three categories, upper, middle and lower levels (3 品). The upper level medicines contain 120 kinds, which, have little or no poison, and are for recuperating vitality. The middle level medicines include those that either are poisonous or are not, most of which are used to combine functions for recuperating and remedying actively. The lower level medicines are mostly poisonous and are absolutely used as curing medicines. This book briefly introduces the function of each drug according to the relative role of monarch, minister, assistant and employed worker (jūn chén zuǒshǐ 君臣佐使), as well as Seven emotions (七情), Four Causes (四端), and Five Tastes (五味), and recorded each drug's name, nickname, place of production, efficiency, season for collecting, process of medicine making (炮製) and the method of reservation. In this book there are 170 types of diseases addressed, and the descriptions of their efficiency are mostly very exact.

This book seems to having come into Korea before the era of Three Kingdoms. (ca. 18 B.C.-668 A.D. Ko-Ku-Ryo, Bae-Jae, Sin-La). However, the Koreans did not accept it without reservation, as it was exotic to them. For example, Wormwood (艾, a kind of Artemisia) and Garlic (蒜),<sup>16</sup> which had a great significance in Korean traditional mythology, does not appear in this book. Moreover, the efficiency of the medicine, which was described <BaeJae New Collected Prescription (百濟新集方)> or <Sin-La Master Prescription (新羅法師方)>, is not the same as that of *Shennong Materia Medica*. In the period of King Ko-Zong (高宗) in the Koryo (Korea) Dynasty (918-1392), Choe Zongjun (崔宗峻) published <Important Prescriptions Assembled by the King's Physicians 御醫撮要方> (1226), whose introduction, having been written by Li Gyu-Bo (李奎報), included in the latter's Literary Collection, <East Country Li Sangkuk Collection 東國李相國集>, in the 21st Book. There is a part on Materia Medica, which might have been influenced by an older book, such as *Shennong Materia Medica*, transmitted from the period of Three Kingdoms.

Later, according to <The Record of Chosun Dynasty 朝鮮王朝實錄>, in the 12th year of King Tae-Zong (太宗) (1412), the <*Shennong Materia Medica Picture* 神農本草圖> as well as other books of medicine were offered to the King, which were taken from the 'Chung Zu History Archive (忠州史庫)'. The <*Shennong Materia Medica Picture* 神農本草圖> is supposed to be the Edition with Pictures of <*Shennong Materia Medica*>, but has been lost. (Choe, Suhan, Chosun Encyclopedia of the biographical notes (通考) of Medicine (Beijing: Chinese Medicine Publication, 1996, p.184; 최수한, 조선의적통고, 북경: 중국중의약출판사). And in the 'History of Medicinal Prescriptions (歷代醫方)' of Heo Zun (許浚) <(Eastern Physicians' Venerable Text (東醫寶鑑)>, it is said that 'Materia Medica was written by Shennong,' and in the beginning of the book refers to some traditional medicine books such as <Selecting Proper Medicine 採藥對>, <Special Record of Selecting Medicine 採藥別錄>, and <Medicine of Roasting and Moxibustion 藥性炮灸>. Lei Xiao (雷斅) <Theory of Roasting (炮灸論)> had been lost earlier, but in the *Eastern Physicians' Venerable Text*, three items are referred to under the abbreviated name Lei Gong (雷公). Agian, in the 'History of Medicinal Prescriptions (歷代醫方)', the <Teaching Theory (至教論)> written by Lei Xiào is recorded, but now lost, too.

By the end of the Chosun Dynasty (1392-1910), in Hwang Doyeon (黃道淵)'s <Doctor's Prescription of Loss and Addition 醫宗損益>,<sup>17</sup> <*Shennong Materia Medica* 神農本草> was first quoted, which proves that the latter was much regarded as a classic book of medicine.

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contents of which, however, survived by the quotations of later generations in the <*Species Certification of Materia Medica* (證類本草)> published by Tang Shenwei (唐慎微) of the Northern Song (北宋) Dynasty and others.

<sup>16</sup> Artemisia (艾) and Garlic (蒜) are very important in Korea's traditional mythology. A long time ago, at the first mythical stage, a son of the Sky, Huan-Ung, came down into the world to a Great Mountain named Baekdu in the North part of Korea. He was married to a woman, who had originally been a bear but, eating a bundle of Wormwood (an Artemisia) and 20 cloves of Garlic in a cave, she metamorphosed into a woman, They had a son, named Dan-Gun-Wang-Geum, who is said to be the progenitor of the Korean people.

<sup>17</sup> Published in 1868. A kind of compendium of *Dongyibaojian* (東醫寶鑑 *Eastern Physicians' Venerable Text*) of Heo

## 2. Publication of <Herbal Classic Variorum 本草經集註> and arrangement of Materia Medica

In the Northern and Southern Dynasties (420-581), Tao Hongjing (陶弘景, 452-536) published <Herbal Classic Variorum 本草經集註>, which arranged again the whole Materia Medica. In addition to 365 kinds of medicine included in *Shinnong Materia Medica*, there are an additional 365 new kinds for a total of 730 kinds. The newly added items were named <Famous Doctor' Special Record (名醫別錄 Mingyi Bielu)>. This book changed the method of classification from the previous three categories (upper, middle, lower) to seven new categories: treasure stone (玉石), grass and tree (草木), insect and beast (蟲獸), fruit (果), vegetable (菜), grain (米食), and some listed by name but not used (有名未用). It contains more developed details referring to the nature, place of production, collecting, shape and appraisal of Materia Medica, and especially the nature of the medicines are classified in detail into eight categories: Cold (寒), Slightly Cold (微寒), Very Cold (大寒), Lukewarm (平), Warm (溫), Warmer (微溫), Very Warm (大溫), Hot (大熱). And Materia Medica are described categorically according to each disease, amounting to eighty kinds. For example, as a medicine for curing paralysis, Saposhnikovia (防風), Stephania tetrandra (防己), and Ligusticum are advised, and for jaundice, artemisia, gardenia and Purple shrimp are recommended.

The original <Herbal Classic Variorum> was lost, and the one surviving Edition of Dunhuang (敦煌殘卷本), whose main content is transmitted in fragments is quoted in the later works, <Species Certification of Materia Medica 證類本草> and <Materia Medica Classification 本草綱目>. Tao Hongjing' <Herbal Classic Variorum 本草經集註> and <Famous Doctor' Special Record> seem to have been transmitted to Korea in the era of the Three Kingdoms. It is said that, in the period of the King Píng-Yuán (平原王) of Go-Gu-Ryo Kingdom, Zhi Chong (知聰) of Wu kingdom of China went over to Japan with 164 medicine books including <The Code of Inside and Outside (內外典)>, <Book of Medicine (藥書)>, and <Ming Tang Picture (明堂圖)>, in which, it is believed that, Tao Hongjing (陶弘景)' <Herbal Classic Variorum 本草經集註> was also included.

## 3. <Newly Revised Materia Medica 新修本草> and the following books published in the Tang Dynasty

<Newly Revised Materia Medica 新修本草> was the first officially compiled Materia Medica, completed in 659 by Su Jing (蘇敬), Li Ji Shi (李世勣), Kong Zhiyue (孔志約) and others, about 20 medicine officials, under the order of Emperor Gao Zong (高宗) at the beginning of the Tang Dynasty. It is comprised of 54 Books in total, consisting of three parts: 20 Materia Medica, 25 Drug Diagrams (藥圖), 7 Picture Books (圖景), and two catalogue books. There are 850 kinds of medicine introduced. This book became widely distributed by the middle of the 10th century. when it was replaced by <Kai Bao Materia Medica 開寶本草>.

On the other hand, other writings of medicine followed sixty years after the publication of the <Newly Revised Materia Medica>, as it seemed that the latter need to be supplemented. Under the Tang Dynasty Chen Cangqi (陳藏器)'s <Transmission of Materia Medica (本草拾遺)> was published in 738, in order to improve weak points in the books of Tao Hongjing (陶弘景), Su Jing (蘇敬), and others. The original edition has been lost, however some of its contents survived in the <Species Certification of Materia Medica (證類本草)> (published in the Song Dynasty). According to the appraisal of the <Materia Medica Classification 本草綱目>, which was published in the Ming Dynasty, <Transmission of Materia Medica> referred to all of the widely known medicinal books of that period, and arranged medicines in detail according to each category, pointing out their mistakes and supplementing them with even then unknown facts.

<Dietetic Therapy of Materia Medica 食療本草> was written by Meng Shen (孟詵) in the Tang Dynasty. The content consisted of information regarding diet as well as the use of medicine. Its original edition is lost, while a part of its content has been preserved in the <Species Certification of Materia Medica (證類本草)> and the <Medicinal Heart Prescriptions (醫心方)>.

In addition, <Herbal Diet 食性本草> contributed to the development of medicine. And <Materia Medica of the Sea (海藥本草)>, written by Li Xun (李珣) in the Tang Dynasty, mostly dealt with medicines produced in

the region of the South Sea, i.e. places of production, quality and major functions. The original edition has been lost, but parts have been preserved in several books of *Materia Medica* for posterity.

<*Materia Medica with Four Tones* (四聲本草)>, published by Su Bing (肅炳), marked four tones of the names of medicine. The original edition has been lost, a part of which is transmitted in the <*Species Certification of Materia Medica*>.

<*Proper Medicine* 藥對>, consisting of two books, was issued by Xu Zhicai (徐之才) in the Kingdom of Northern Qi (北齊 550-577). This work was made on the basis of his own previous writing <*Lei Gong Proper Medicine* (雷公藥對)>, and is very detailed in the use of each medicine, by classifying their functions, according to relative roles into four categories, 'monarch, minister, assistant and employed worker (jūn chén zuǒshǐ 君臣佐使)', while according to their qualities again into four categories, 'Fear, bad, proper, envy (畏惡宜忌).

With regard to Korea, it is said in the 'Memoirs of Governmental Organization (職官誌)' of the <*Historical Record of Three Kingdoms* (三國史記) that in the first year of King Hyo-So in the Sin La Dynasty (692 A.D.), the King established the school of Medicine, and let two doctors teach <*Classic of Materia Medica* (本草經)>, <*A & B Classic* (甲乙經)>, <*Classic of Simple Question* (素問經)>, <*Classic of Moxibustion* (針經)>, <*Classic (or Merician) of Pulse* (脈經)> <*Ming Tang (Bright House) Classic* (明堂經)>, <*Classic of Predicament* (難經)>,<sup>18</sup> etc. It is not so evident what kind of book the <*Classic of Materia Medica* (本草經)> refers to. However, a Korean scholar, KIM Duzong has proposed that the Sin La Dynasty imitating the institution of the Tang Dynasty, introduced the system of medicine, <*Classic of Materia Medica* (本草經)> might refer to the <*Newly Revised Materia Medica* (新修本草)> published under the order of the Emperor Gao Zong (高宗) in the Tang Dynasty, rather than by Tao Hongjing (陶弘景 452-536)'s <*Materia Medica Variorum* (本草集註)>.<sup>19</sup> As a proof of his opinion, he pointed out the fact that the above reference in the <*Historical Record of Three Kingdoms* (三國史記) was made thirty six years after the publication of the <*Newly Revised Materia Medica*>, and that already in 751 A.D., seventy two years after its publication, its copied manuscript was found in Japan. At the present time, the original edition of <*Newly Revised Materia Medica*> is lost, while the surviving books remain in block-carved or block-printed editions, and fragments of its contents are only preserved in the books of materia medica as well as the Recipe books of posterity. A part of the contents of the original edition is found in the manuscripts of the <*Newly Revised Materia Medica*> recently having been restored in China, which are known as the 'Tunhuang Stone Cave (燉煌石窟) Survived Edition' and 'Renhe Temple Edition (仁和寺本)'.

According to the <*Historical Record of King Tae-Zong* (太宗實錄)> of the Chosun Dynasty (1392-1910) in Korea, in 'Chung Zu History Archive (忠州史庫)' there is the anonymous <Chen Lang' Poem for the Denomination of Chinese Medicine (陳郎中藥名詩)> and Zhang Wen Yi (張文懿)'s <*Assembled Essence of Materia Medica* (本草括要) (907-960 년경), who was a member of the Kingdom of the Later Shu (後蜀) (era 934-965 A.D.), which has now, however been lost. The 'History of Medicinal Prescriptions (歷代醫方)' in the <*Eastern Physicians' Venerable Text* (東醫寶鑑 *Dongyibaojian*)> published in the middle of Chosun Dynasty, refers to Meng Shen (猛詵)'s <*Dietetic Therapy of Materia Medica* 食療本草; abbreviated as '*Dietetic Therapy*', lost> and Chen Cangqi (陳藏器)'s <*Transmission of Materia Medica* (本草拾遺), lost>, Xu Zhicai (徐之才)'s <*Proper Medicine* (藥對). lost> and Zhen Liyan (甄立言: b.545, Liang (梁) Kingdom of the Southern Dynasty)'s <*Pronunciation and Meaning of Materia Medica* (本草音義:) lost>. In his book, <*Secret Box for Wide Relief* 廣濟秘笈>(1790), Li Kyunghwa (李景華) put emphasis on the therapy of diet, 'when it is not cured by diet, then use medicine (食僚而下愈, 然後藥用)'with regard to Meng Shen (猛詵)'s <*Dietetic Therapy of Materia Medica* 食療本草>, as well referred to the Editions of *Materia Medica* in the Tang (618-

<sup>18</sup> *Classic of Predicament* (難經) was a Chinese medicinal book written by the famous physician, Bian Que (扁鵲), in the Chin (秦) Dynasty. This was the explanations for the most difficult words and awkward questions presented in the 'Simple Question (素問)', 'Spiritual Pivot (靈樞)' in the <Emperors' Classic for Internal Organ (皇帝內經)> .

<sup>19</sup> KIM Duzong, *History of Korean Medicine*, Seoul (Tamgu-Dang, 1981), p.67.

907) and Song (960-1127) Dynasties, including <Materia Medica with Four Tones (四聲本草)><sup>20</sup> and <Standby Materia Medica (本草備用)>.<sup>21</sup>

Chen Cangqi (陳藏器)'s <Transmission of Materia Medica (本草拾遺)> (lost: its fragments preserved in the <Species Certification of Materia Medica (證類本草)> and others) (Introduction (序例) 1 book, Transmission (拾遺) 6 books, Conclusion of Discussion (解紛) 3 books), 10 books in total, are referred to in the 'Records for Arts and Literature (藝文志)' in the <Book of Tang Dynasty (唐書)>. Chen Cangqi suggested the Theory of Ten Agents [十劑說: dispersing (宣), ventilating (通), tonifying (補), purging (by diarrhea) (泄), light (輕), heavy (重), astringent (澀), lubricating (滑), dry (燥), and damp (湿)].

Dispersing (宣), ventilating (通), tonifying (補), purging (by diarrhea) (泄), light (輕), heavy (重), astringent (澀), lubricating (滑), dry (燥), damp (湿): the category of the Ten Agents is a very important criterion of classification. However previous classics did not refer to these classifications at all, and thus their posterity was not maintained. At last, in the case of making soups and pills by mixing (medicinal materials), there is a preservation of this kind of knowledge. For example, to remove blocking ([壅]) by a dispersing agent [宣], such as Ginger [薑] and orange [橘]; to remove indigestion [滯] by a ventilating agent [通], such as Tetrapanax papyriferus (通草) or Stephania tetrandra (防己); to reduce weakness [弱] by a tonifying agent [補], such as Zinsent and mutton; to remove [閉] with a purging agent [泄], such as Lepidium Apetalum (葶藶)과 Rheum officinale (大黃); [to remove fullness [实] with a lightening agent [轻], such as Ephdra Vulgaris (麻黄) and the root of kudzu vine (葛根); to remove timidness [怯] by weight [重], such as magnets (磁石) and iron powder (铁粉); to prevent the removal [脱] (of hair) with an astringent agent [澀], such as Ostrea Gigas Thunberg (牡蠣) and Dragon Bone (龙骨); to prevent sticking [着] with a lubricating agent [滑], such as Malva Crispa Linn (冬葵) and Elm bark(榆皮)<sup>22</sup>; 습함[湿]을 없앨 수 있으니 with a drying agent [燥], such as Morus Alba L. (桑: the peel of the dried root) and Red Bean (赤小豆); To remove dryness [枯] with a damp agent [湿], such as Fluorite (紫石英) and Quartz (白石英). Thus, everything assumes a proper function if pharmacists investigate carefully the details,<sup>23</sup> medicinal knowledge would not be lost.<sup>24</sup>

The <Materia Medica Classification 本草綱目> comments on Chen Cangqi (陳藏器)'s <Transmission of Materia Medica (本草拾遺)> that 'the latter, inquired a great deal into books and investigated several types of medicine in detail, thereby correcting mistakes made in the past and discovered knowledge unknown up until then. Actually Chen Cangqi (陳藏器) supplemented many types of medicine which had been missed and integrated into the practical appliance of medicine. However, he often suggested immoderate opinions such as (bloody) diarrhea (痢疾) could be cured with human flesh, and one should cure his parents' disease by cutting out his own flesh.

<sup>20</sup> *Book of Materia Medica* published by Xiao Bing (肖炳) in the Tang Dynasty(618-907, which is referred to in the 'Records for Arts and Literature (藝文志)' in the <History of Song Dynasties (宋史)>.

<sup>21</sup> <Species Certification of Materia Medica (證類本草)>. Original Edition was of Tang Shenwei (唐慎微) in the Song dynasty. Even if it was abbreviated as <Species Certification of Materia Medica (證類本草)> or <Standby Materia Medica (備用本草)>, as <Species Certification of Materia Medica> it only provides a sample, and it is newly revised, it should be called <Standby Materia Medica>. It was completed in 1082, but it was not immediately published. In 1108 (the 2nd year of the Emperor Dai Guan in the Song Dynasty) published under the name, <Historical Species Certification of Dai Guan's Materia Medica (經史證類大觀本草)>. Again, in the 6th year of the Emperor Zheng He, revised the name to <Zhenghe's Newly Revised Historical Species Certification of standby Materia Medica (政和新修經史證類備用本草)>, which was called in Chosun (Korea) <Zhenghe's Materia Medica (政和本草)>.

<sup>22</sup> Cf. Citation of the article: 滑可去着, 即冬葵榆皮之属是也. 涩可去脱, 即牡蠣龙骨之属是也. →Original Text: 涩可去脱, 即牡蠣龙骨之属是也. 滑可去着, 即冬葵榆皮之属是也. (The order of words corrected ('滑, 澀' → '澀, 滑') by means of Chinese Search Engine Site <Baidu (<http://fanyi.baidu.com/#zh/en/%E6%97%8B%E8%A6%86%E8%8A%B1>)>.

<sup>23</sup> Cf. Citation of the article: 用药考审而详之. → Original text: 用药者审而详之. (Corrected based on Chinese Search Engine Site Baidu),

<sup>24</sup> 宣通補泄輕重澀滑燥湿, 此十種者, 是药之大體, 而本经都不言之. 後人亦未述. 遂令调合汤丸, 有昧于此者, 至如宣可去壅, 即薑橘之属是也. 通可去滯, 即通草防己之属是也. 补可去弱, 即人参羊肉之属是也. 泄可去閉, 即葶藶大黃之属是也. 轻可去实, 即麻黄葛根之属是也. 重可去怯, 即磁石铁粉之属是也. 澀可去脱, 即牡蠣[砾]龙骨之属是也. 滑可去着, 即冬葵榆皮之属是也. 燥可去湿, 即桑白皮赤小豆之属是也. 湿可去枯, 即紫石英白石英之属是也. 只如此體, 皆有所属, 凡用药考[者]审而详之, 则靡所遗失矣.



<Zhong-Guangying-Gong's *Materia Medica* 重廣英公本草> [ also called the <Shu *Materia Medica* (蜀本草)>] was issued by Han Baosheng (韓保升) of the Later Shu kingdom (後蜀 934-965) in the era of The Five Dynasties and Ten Countries (五代十國: 907-979). It was compiled by the order of Meng Chang (孟昶), the ruler of the Later Shu kingdom, two hundred years after the publication of the <*Transmission of Materia Medica* 本草拾遺>. It is a compilation of 20 books in total, which was heavily supplemented and annotated on the basis of the <*Newly Revised Materia Medica* 新修本草 = *Tang Materia Medica* (唐本草)>.

<*Materia Medica of Sea* (海藥本草)> was written by Li Shu (李晌) in the Tang Dynasty. It is said to have been a compilation of either 5, 6 or 2 books. Li Shu, his nickname (字) being Derun (德潤), was a writer as well as botanist in the period at the end of the Tang Dynasty and the Five dynasty period, or from the end of the 9th century to the beginning of the 10th century. He originated in Zizhou [梓州: today's Sichuan Province, San Tai (四川省 三臺)], while his birthplace was in Iran. The title of this work is cited in the 'Summary of Arts and Literature (藝文略)' in the <*General Records* (通誌)>.<sup>25</sup> It describes miscellaneous the best place for the production of, efficiency, and major functions of medicine produced chiefly from the seaside of the southern provinces, but whose original edition has been lost and where only a part of the contents are cited in later works of medicine.

<*Dietetic Therapy of Materia Medica* 食療本草> was published in three books by Meng Shen (孟詵) in the Tang dynasty. It deals with disease which could be cured through botany. It is said that Meng Shen was the prefectural governor (刺史) of Tungchow (同州) in the Tang Dynasty. During the years of Emperor Kai Yuan (開元) in the Tang Dynasty, Zhang Ding (張鼎) supplemented 89 kinds of botany, and divided them into 227 terms. The original edition is lost, while its contents are partly preserved in the <*Species Certification of Materia Medica*>. In 1907, some of its partially surviving books were found in Tunhuang (敦煌) (Copy of Tang Edition 唐印寫本), the former and latter part of which have disappeared, and the surviving portion is concerned with 26 botany flavors from pomegranate to taro. Today's edition is from the printed edition of 1934 issued from <Da-Dong Publisher 大同書局> of Shanghai.<sup>26</sup> Another book on botany is <*Herbal diet* 食性本草> in 10 books, which was published in 934 by Chen Shiliang (陳士良).

<*Materia Medica with Four Tones* (四聲本草)> was written by Xiao Bing (肅炳) in the Tang Dynasty. It was arranged by title, and according to Four Tones [level, high, departing, entering (平上去入)], to make searches more convenient. The original edition is lost, but the contents are cited in the <*Species Certification of Materia Medica*>.

<*Wu-Yue Rihua-Zi's Collection* (吳越日華子集)> was written by Rihua-Zi in the 6th century, and contains 20 books, in total. Rihua Zi, was a botanist of the The Northern Qi (北齊 550-577) Kingdom of the northern and Southern Dynasties (南北朝時代). According to Zhang Yuxi (掌禹錫), who was a famous physician of the Song Dynasty, this work attained 600 kinds of medicine, which were classified into Jade and stone (玉石), Grass (草), Wood (木), Beast and Bird (獸禽), Insect and Fish (蟲魚), Fruit (果), Vegetable (菜), Rice (米), etc. The original edition was lost, but it is said its content was partly cited in the <*Kai Bao Materia Medica* (開寶本草)>, <*Jia-You Materia Medica* (嘉祐本草)> as well as <*Historical Species Certification of Dai-Guan's Materia Medica* (經史證類大觀本草)> and <*Zhenghe's Newly Revised Historical Species Certification of standby Materia Medica* (政和新修經史證類備用本草)>.

#### 4. Publication of <*Species Certification of Materia Medica* (證類本草)> and the knowledge of *Materia Medica* in the Song Dynasty

In the Song Dynasty, printing skills were remarkably developed and many intellectuals began to engage in medicine, thus a great deal of medicinal books appeared.

<*Kai Bao's Highly Detailed Set Materia Medica* 開寶神詳定本草> (abbreviated as *Kai Bao Materia Medica* 開寶本草) was officially compiled in 973, at the beginning of the Song Dynasty under Emperor Taizu's order to revise the contents of the <*Newly Revised Materia Medica* (新修本草)> which had been issued by Su

<sup>25</sup> Cf. 嚴世雲 主編, 中國醫藥通考2 (Seoul: Ei-Sung-Dang, 1993), p.1255.

<sup>26</sup> Cf. 嚴世雲 主編, 中國醫藥通考2, p.1269.

Jing (蘇敬) and others under the supervision of the Tang Dynasty. They carried out the revision on the basis of the <Newly Revised Materia Medica> and the <Shu Materia Medica 蜀本草> (issued in the Shu (後蜀 934-965) Kingdom), referring also to Chen Cangqi (陳藏器)'s <Transmission of Materia Medica>. Thus, they added 139 additional kinds of medicines to the original 844 in the <Newly Revised Materia Medica (新修本草)>, to complete the draft of the <Kai Bao's Highly Detailed Set Materia Medica>. Later in 974, it was revised again to be published in 21 books, named <Kai Bao's Reset Materia Medica (開寶重定本草)>. This work survives until today, under the name of <Kai Bao Materia Medica (開寶本草)>.

In 1057, the era of Jia You (嘉祐), Emperor Injong (仁宗), the officials began to supplement other medicine to the <Kai Bao's Reset Materia Medica (開寶重定本草)>, and in 1061 they published <Jia-You's Supplement of Notes for Materia Medica (嘉祐補註本草) or Jia-You's Supplement of Notes for Shennong Materia Medica (嘉祐補註神農本草經)>(abbreviated as <Jia-You's Materia Medica (嘉祐本草)>: lost), which consisted of 21 books. They consulted the previous <Shu Materia Medica> and <Rihua-Zi on Various Theories of Materia Medica (日華子諸家本草)>, <Discussion of Medicine (藥性論)> and others. There are 1082 kinds of medicine, 99 more than in the <Kai Bao Materia Medica (開寶本草)>. Especially, this work quoted more than 50 works of medicine which gives useful information relating to the history of bibliography. The original edition is lost, while its contents have been preserved in later books of medicine including the <Species Certification of Materia Medica (證類本草)>.

On the other hand the <Picture of Materia Medica (圖經本草)> (lost) was issued at the same time as the publication of the <Newly Revised Materia Medica 新修本草> in the Tang Dynasty. The number of medicines increased day by day, however, in 1058 the government of the Song Dynasty ordered Ting Xiangquan (廷向全) to collect medicine samples and pictures throughout the whole country. And, with the help of others, in 1061 the <Picture of Materia Medica > was issued as a compilation of 20 books and 1 catalogue. This work includes 780 kinds of raw materials of medicine, 635 medicaments and 933 pictures. It also describes the clinical experiences referring to a prescription with one material (單方). In a later period, Li Shihchen (李時珍) of the Ming Dynasty appraised the research of this work to be quite precise. The original edition is lost but its content are preserved in the <Species Certification of Materia Medica>.

In 1092, <Zhong Guang's Supplement Note for Shennong Materia Medica including Picture (重廣補註神農本草並圖經)> (lost) was issued by Chen Cheng (陳承) who lived in Sichuan Province (四川省), Langzhong County (閬中縣). While in government service, he investigated the books of prescriptions, and based on the models of <Jia-You's Materia Medica (嘉祐本草)> and <Picture of Materia Medica (圖經本草)> he issued 23 books of medicine. Its contents are quoted in the <Dai-Guan's Materia Medica (大觀本草)> and <Materia Medica Classification (本草綱目)>.

<Historical Species Certification of Emergent Materia Medica (經史證類備急本草)> [abbreviated as <Species Certification of Materia Medica (證類本草)>] was authored by Tang Shenwei (唐慎微) near the end of the 11th century.<sup>27</sup> It included 1558 kinds of medicaments and illustrations. He consulted the <Jia-You's Materia Medica (嘉祐本草)> and the <Picture of Materia Medica (圖經本草)> together, and referred widely to the information of the medicine in the book of taoist tradition, <Collected Taoist scriptures (道藏 Dao Zang)> as well as the <Transmission of Materia Medica>, <Dietetic Therapy of Materia Medica> and other popular applications of prescriptions with single materials (單方). There are about 3000 kinds of prescriptions with single materials (單方) and more than 1000 kinds described for medicament.

This work, having been recognized for its quality, was published several times by the government. In 1108, when it was revised by Ai Sheng (艾晟), Chen Cheng (陳承) added a special explanation (別說), which was issued under the title, <Special Explanation of Materia Medica (本草別說)>, and, in the era of Huizong (徽宗, 1107-1110), Song Dynasty, again issued with the title of <Historical Species Certification of Dai Guan's Materia Medica (經史證類大觀本草)>. Afterwards, however, in 1116 and 1159 it was revised twice as <Zhenghe's Newly Revised Historical Species Certification of standby Materia Medica (政和新修經史證類備用本草)> and <Shaoxing's Revised Historical Species Certification of Emergent Materia Medica (紹興校訂經史證類備急本草)>, respectively. The latter, supplemented in the era of Shaoxing (紹興), amounted to 1,746 kinds of medicine.

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<sup>27</sup> There is some disagreement as to the publication year of *Species Certification of Materia Medica*, 1108, 1082, or between 1907-1100. Cf. Jun-yong Lee, <A Study of Herb books before 『(證類本草)』>, p.22.

In the Song Dynasty, there was a great change not only in the collection and arrangement of medicine, but the research for the property and understanding of its functions. A typical example was the <Original Meaning 本初衍義>, which was issued by Kou Zongshi (寇宗奭) in 1116, in 20 books with 460 different kinds of materia medica. Properties, methods of discrimination, and practical applications of medicine were described in detail, and it was advised that physicians treat patients according to the principle and nature of medicine, as well as considering his or her personal condition, i.e. their age, strength, and the age of the disease.

There were also other publications in the Song Dynasty: Pang Anchang (龐安常)'s <Supplemented Transmission of Materia Medica (本草補遺)> (lost) and <Rihua-Zi Materia Medica (日華子本草)> (lost). [also named <Da Ming's Materia Medica (大明<sup>28</sup>本草)>]. According to Zhang Yuxi (掌禹錫), the <Rihua-Zi Materia Medica> was written at the beginning of the Song Dynasty, in the era of Kai Bao (開寶) [Emperor Tai Zu (太祖)], but the author and the year of publication were not specified. However, its probable publication date is between 968 and 975. It classified materia medica into 9 categories: Cold, Warm, Property (性), Taste (味) Flower, Fruit, Insect, Beast and botany. The original edition has been lost, but its contents are partly preserved in the later <Species Certification of Materia Medica> and <Materia Medica Classification>.

As to the Chinese medicine books published in the Chosun Dynasty (1392-1910), there were Kou Zongshi (寇宗奭) <Extended Meaning of the Original 本初衍義> (abbreviated as *Extended Meaning* (衍義), <Historical Species Certification of Dai Guan's Materia Medica (經史證類大觀本草)>, <Zhenghe's Newly Revised Historical Species Certification of standby Materia Medica (重修政和經史證類備用本草)>, and <Shaoxing's Revised Historical Species Certification of Emergent Materia Medica, Picture (紹興校訂經史證類備急本草, 畫)>. The <Collection of Indigenous Medicinal Prescriptions (鄉藥集成方)> issued in the Chosun Dynasty of Korea mostly followed <Historical Species Certification of Dai Guan's Materia Medica 經史證類大觀本草> in the method, arrangement and descriptions of medicines.

#### 5. The Medicine of the Jin (金 1115-1234) and Yuan (元 1206-1368) Dynasties and its theory of Materia Medica

With the appearance of the so called Four Great Masters of the Jin-Yuan (金元) Dynasties,<sup>29</sup> the theory of Materia Medica turned in a new direction. In the Jin Dynasty Zhang Yuansu (張元素) wrote the <Perl Sack 珍珠囊>. The first book describes 113 kinds of materia medica, its Cold or warmth, efficiency, major functions, Correspondent Relationship Theory between medicine and the organ or meridian of the body (歸經),<sup>30</sup> taboo, the role of Monarch, vassals, assistant and messenger, Taste (氣味) and processing of medicament (炮製). This work provides valuable guidance for clinical information. The original edition is lost, while posterity turned it into a type of verse, among which there is the <Dongyuan Perl Sack (東垣真珠囊)>. In 1289, Wang Haogu (王好古), a physician of the Yuan Dynasty, wrote <Materia Medica of Soup 湯液本草>,<sup>31</sup> the third book of which described 238 kinds of materia medica, and explains efficiency on the basis of Special Correspondent Relationship Theory (歸經). This work contributed to the description of the quality and efficiency of materia medica, for example, Energy, Taste, Dark and Bright (氣味陰陽) on the one hand, and Ascending, Descending, Floating and Sinking (昇降浮沈) on the other.

There were also other books of materia medica in this period, Wu Rui (吳瑞)'s <Daily Materia Medica (日用本草)>, Zhu Zhenheng (朱震亨)'s <Supplement of Extended Explanation for Materia Medica (本草衍義補遺)> (1367), Wang Haogu (王好古)'s <Note for Curing Carbuncle (癰疽). Ear (耳), Eye (眼目) (療癰疽耳眼目草要鈔)>.

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<sup>28</sup> According to Li Shizhen (李時珍) of the Ming Dynasty, 'Da Ming (大明)' refers to the famous (名) four physicians - writers of this work, who all had the same last name, 'Da (大)'. Cf. <http://blog.daum.net/youngseok41/3410> [April 15, 2015 searched].

<sup>29</sup> Liu Wansu (劉完素), Zhang Congzheng (張從正), Li Gao (李杲, his nickname: Dongyuan 東垣), Zhu Zhenheng (朱震亨).

<sup>30</sup> (Special) Correspondent Theory presupposes that a definite medicine has a special effect on a correspondent internal organ (臟腑) or meridian (經絡 line, vessel of Energy or Blood) of the body.

<sup>31</sup> It is a different work from Yi Yin (伊尹)'s *Materia Medica of Soup* in the Tang dynasty.

In the Chosun Dynasty of Korea, Wang Haogu (王好古)'s <Materia Medica of Soup (湯液本草)> was published and was widely used. It belonged to the first rank of medical publications and had a great effect on the Chosun Dynasty. It is cited in the 'Catalogue of Books quoted (引用諸書)' of the <Collection of the Sorts of Prescriptions 醫方類聚>. <sup>32</sup> The <Eastern Physicians' Venerable Text (東醫寶鑑)> and Hwang Doyeon (黃道淵)'s <Doctor's Prescription of Loss and Addition (醫宗損益)> still made use of Wang Haogu's *Materia Medica of Soup*.

There were other works published in the Chosun period based on the works of the Yuan (元) Dynasty, Wu Rui (吳瑞) <Daily Materia Medica (日用本草)>, Zhu Zhenheng (朱震亨)의 <Supplement of Extended Explanation for Materia Medica 本草衍義補遺>, Dongyuan (東垣, 李杲 Li Gao) <Dongyuan's Pearl Sack (東垣珍珠囊)> and <Dongyuan's Pearl Sack for Prescription, Medication and Medical Arts (東垣處方用藥指掌珍珠囊)>. <Daily Materia Medica> was quoted in Lee Kyunghua (李景華)'s <Secret Box for Wide Relief 廣濟秘笈>(1790), but its bibliography was not clarified in detail. Xu Yanchun (徐彥純)'s <Effect of Materia Medica (本草發揮)>, having been issued at the beginning of the Ming Dynasty in three books, came to be published in the Chosun Dynasty in Korea. This work recorded and analyzed the medicinal theory of Four Great Masters of the Jin-Yuan (金元) Dynasties and their practical experiences as well. This work makes it possible to understand the outcome of the Jin-Yuan (金元) Dynasties, as, being a disciple of Zhu Danxi (朱丹溪), Xu Yanchun reported objectively without personal argument.

In the "Lecture of Materia Medica Science (藥物學講義) (3rd Lecture)", <Eastern Medicine 東洋醫學> vol. 1, n. 3 (1955), Sin Gilgu (申佶求) appraised the result of medicinal research in the Jin-Yuan (金元) Dynasties as follows:

“There are Wang Haogu (王好古)'s <Materia Medica of Soup 湯液本草>, Wu Rui (吳瑞)'s <Daily Materia Medica (日用本草)> (1328-1332), Hu Shike (胡仕可)'s <Song Collection of Materia Medica 本草歌括>(1280-1330), Zhu Zhenheng (朱震亨)'s <Supplement of Extended Explanation for Materia Medica 本草衍義補遺>(1367 년), etc. then, the <Song Collection of Materia Medica 本草歌括> consists of composed songs with the quality, pictures and materials of the medicines, to allow new scholars easy access, and the <Supplement of Extended Explanation for Materia Medica> supplemented the theory of Kou Zongshi, attaining 200 kinds of medicines increased, many of which were newly discovered. .... However, it is no more than a farfetched interpretation to connect each medicine to the theory of the Five Phases (五行). This is the realities of medicine in the Jin and Yuan Dynasties.”

In the Jin and Yuan Dynasties, Research of materia medica attained a great accomplishment relating to the practical experiences, efficiency and taste (氣味) of medicine and the Processing of Medicament (炮製), but Correspondent Relationship Theory between medicine and the organs or meridians of the body (歸經) and the allotment of each medicine to one of Five Phases were not actually based on positive proof but more or less a diagrammatical theory.

#### 6. Appearance of <Materia Medica Classification (本草綱目)> in the Ming Dynasty (1368-1644) and the expansion of Encyclopedic knowledge

In the Ming Dynasty, as the various fields of economy, agriculture, commerce and industry and overseas trade, increased, the medicaments as well were augmented in kind, and the research for materia medica accelerated, and the books arranging them according to categories greatly increased,

<Materia Medica Classification (本草綱目)>, published in 1590, was a model of materia medica in this period. Its author Li Shizhen (李時珍), going around the whole country and collecting many traditional prescriptions scattered throughout the country, after 20 year research completed the work in 1578. <Materia Medica Classification> consisted of 52 books in all. The number of materia medica attained were 1,892 kinds, among which 1,518 kinds already existed, and newly added by Li Shizhen were 374 kinds, including attached prescriptions (附方) the whole work contains 11,096 kinds of medicine, and 1,000 pictures.

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<sup>32</sup> The <Collection of Sorts of Prescriptions 醫方類聚> was issued in the Chosun Dynasty as a work of a long period, 1437-1477, under the supervision of the Kings. 254 books survived among the 365 books of the original edition. Today the surviving books are in the custody of Japan, as they took possession of it during the Korea-Japanese War in 1592 and 1597).



This work, following the example of <Historical Species Certification of standby Materia Medica (經史證類備用本草)>, described in detail the taste, place of production, morphology, method of collection, properties of medicine, processing of Medicament (修治法製),<sup>33</sup> and compounding prescriptions. Classification was fulfilled with the 'Class (綱 Gang)' as the upper level of division, and as a subdivision, Order (目 Mu). Attached prescriptions (附方), being located after the description of the related medicine, allowed one to be informed of its practical efficiency.

<Materia Medica Classification> categorized materia medica into 16 fields: Water (水), Fire (火), Earth (土), Mineral (金石), Grass (草), Grain (穀), Vegetable (菜), Fruit (果), Wood (木), Clothes and Utencils (服器), Insects (蟲), Fish (鱗), Clam (介), Bird (禽), Beast (獸), and Humankind (人), each of which is subdivided into several kinds. For an example, Wood is divided into six kinds of subdivision: Fragrant Wood (香木), Tall Tree (喬木), Shrub (灌木), etc., and the grasses are divided into 11 kinds of subdivisions: Mountain Grass (山草), Fragrant Grass (芳草), Wet Grass (濕草), etc. comprising 62 kinds in total. This method of minute classification is much more developed than the previous.

The description of medicinal efficiency is also divided into internal (oral administration) and external applications. The former is subdivided into sweating (發汗), diarrhea (瀉下), harmonizing and alleviating (和解), vomiting (探吐), Warming and Tonifying (溫補), Consuming (消導), Ventilating Energy (行氣), Harmonizing Blood (和血), Expectorant (祛痰), Pacifying Cough (鎮咳), Relaxing Nerves (安神), Relaxing Convulsions (鎮驚), Diuretic (利尿), Modifying Water and Damp (行水), while the latter is subdivided into Nasal Blowing and Nasal Fumigation (熏鼻), Scrubbing Teeth (擦牙), Vomitting phlegm (吐痰), Sticking (貼囑), External Application (外敷), Avoiding and Protecting (辟穢), Evacuating (洗滌), Coating (敷貼), Fume Plastering (熨壙), Fumigation and Washing (熏洗), Beating (傳撲), Muddy Plastering (塗点), and Fuming Moxibustion (熏灸).

Furthermore, the <Materia Medica Classification> not only synthesized the existing results of research up to the 16th century, but modified the mistakes of previous medicinal books. For example, the illusion for perennial youth and long life by taking Metal Pills (金丹), and for being demi-deified by taking Coptis (黃蓮), Liver of Bear (雄黃) and Daphne (芫花).

Before long and after publication, the <Materia Medica Classification>(1590) spread around the world, not only within Asian countries including Korea and Japan, but to the West as well, being translated into English, German, French, and other languages.

As to other works, the <Essential Collection of Materia Medica 本草集要>(1492) was written by Wang Lun (王綸). It rearranged the existing records of materia medica, with 545 kinds of materia medica which were classified into 10 kinds: Grass (草), Wood (木), Vegetable (菜), Fruit (果), Grain (穀), Stone (石), Water (水), Metal (金), Insect and Fish (蟲魚), and Humankind (人). Each medicine is described based on the theory of the Seven Emotions (七情): Taste (性味), Ascending and Descending (昇降), toxicity, Corresponding Theory (between a medicine and a part of body)(歸經), Major Function (主治), Efficiency, Attached prescriptions (附方)을 기록하고, and according to its property the medicines are divided into 12 fields (門): Energy (氣), Cold (寒), Blood (血), Fever (熱), Phlegm (痰), Damp (濕), Wind (風), Dryness (燥), 창(瘡), 독(毒), Women, children, each of which is sorted again into several subdivisions.

<Essentials of Materia Medica Goods Collection 本草品匯精要>(1505), comprised of 42 books in total, was completed by Liu Wentai (劉文泰), a physician in the service of the Great Hospital (太醫院), and others under the supervision of the Ming Dynasty. 1,815 kind of materia medica were introduced and for each medicine, detailed descriptions and a color picture very similar to the real objects were produced, so that it provides important information for medicinal research.

<Expediency of Materia Medica 本草蒙筌>(1565), comprising 12 books, was written by Chen Jiamo (陳嘉謨). It loaded 742 materia medica with general explanations, and for each one, Taste, Property of Ascension or Descention, Toxicity, Place of Production, Method of Collection, Correspondent Relationship Theory (歸經), Practical Prescriptions, etc. In addition, it narrated in detail the method of description by picture, property and application of each medicine as well as the manner of processing the materia medica.

Lots of other works for materia medica were published in the Ming Dynasty: Li zhong Li(李中立)'s <Original Materia Medica 本草原始>(1612), Li Zhong Zi (李中梓)'s <Knowing Essentials of Materia Medica

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<sup>33</sup> Processing of Materia Medica in order to improve efficiency, by roasting, boiling, simmering, removing unnecessary parts, etc.

本草通玄>(1667, the end of the Ming Dynasty) and <Materia Medica Essentials Assembled 本草徵要>(1637), Miu Xiyong (繆希雍)'s <Commentary for Shennong Materia Medica (神農本草經疏)>(1625년), He Yue (賀岳)'s <Abstract of Materia Medica 本草摘要>. With regard to dietetic materia medica, there were Ning Yuan (寧原)'s <Food Lesson of Materia Medica 食鑑本草> and Wang Ying (汪穎)'s <Herbal Materia Medica 食物本草>(1620).

Regarding the situation in Korea, Wang Lun (王綸)'s <Essential Collection of Materia Medica 本草集要> is occasionally quoted in the 'History of Medicinal Prescriptions (歷代醫方) of <Eastern Physicians' Venerable Text (東醫寶鑑)>. with 7 items under the title of 'Vegetarian Festival (節齋)'. Rather than this work, Lu He [盧和, the original author; redacted by Gao Li (李杲)]'s <Herbal Materia Medica 食物本草> was published and more widely read in the Chosun period, the contents of which equals that of Xue Ji (薛己)'s <Summary of Materia Medica 本草約言>(1520), book 3 and 4, 'Botanical Materia Medica (植物本草)'. This work is abbreviated as <Botany (植物)> in the <Eastern Physicians' Venerable Text (東醫寶鑑)>, containing 22 items of which are quoted. Wu Lu (吳祿)'s <Collection of Food Materials 食品集>(1537) in two books was published during the Chosun period before the Imjin Korea-Japanese War (1592), the contents of which is also similar to this..

## 7. Positive research of Materia Medica in the Qing (清) Dynasty

In the Qing (清) Dynasty, the research works were to be published in order to supplement the <Materia Medica Classification (本草綱目)>, an example of which was the <Transmission of Materia Medica Classification 本草綱目拾遺>. the latter, consisted of 10 books, was issued in 1765 by Zhao Xuemin (趙學敏) after the effort of 30 years of research. It included medicines which had not been previously introduced and supplemented explanations when it seemed necessary. The medicine was categorized into 18 fields in total: Water (水), Wood (木), Metal (金), Fire (火), Stone (石), **Husbandry (牧)**, Grass (草), Rattan (藤), Flower (花), Vegetable (菜), Fruit (果), Various Grain (諸穀), Various Vegetables (諸蔬), Utensils (器用), Bird (禽), Beast (獸), Fish (鱗), clam (介), and Insect (蟲). The existing field, 'Parts of human beings (人部)' disappeared, 'Metal and Stone' separated respectively into 'Metal' and 'Stone', and two fields, Rattan and Fire were added. The medicines attained 921 kinds in total, among which the number of newly added kinds were 716, which had not been introduced in the <Materia Medica Classification>, and for 161 kinds the contents were supplemented to that of the <Materia Medica Classification >. Zhao Xuemin added <Transmission (拾遺)> as the title to <Materia Medica Classification>, to the effect that he had referred to various bibliographies as well as collecting traditional applications of medicines among the people.

The <Review on Plant Name and Picture 植物名實圖考> was compiled by Wu Qijun (吳其浚), following the paragon of <Transmission of Materia Medica Classification 本草綱目拾遺>, issued in 1848. It consisted of 38 books, including 1,714 kinds of botany, which is classified into 12 fields: Grain (穀類), Vegetable (蔬流), Mountain Grass (山草), Wet Grass (濕草), Stone Grass (石草), Water Grass (水草), Creeping Grass (蔓草) (덩굴), Fragrant Grass (芳草), Poisonous Grass (毒草), Groop Grass (群草), Fruit (果類), and Wood (木類). For each of the botanical items, form and color, taste, application, place of production, etc. are described in detail, and accompanied by a picture. This was done to verify the process of the actual proof of the medicines which are of the same objects but with different denominations, or different objects with the same denominations, as well as other mistakes which appeared in previous medicinal works.

The general trend of the medicinal research in the Qing Dynasty mostly refers to two orientations of methodology: Clinical experiences and textual proof (考證). In this way, Wang Ang (汪昂) issued the <Essentials of Materia Medica 本草備要> in 1694. It consisted of eight books, and introduced approximately 470 kinds of medicine, generally dealing with the taste and application of the medicines. In 1695, Zhang Lu (張璐)' <Feng-Yuan Classic (本經逢源)> was published in 4 books containing approximately 700 kinds of medicines, most of which, originated in his own experiences, came by way of posterity into common use. In 1757 Wu Yiluo (吳儀洛) issued the <New Materia Medica 本草從新> which consisted of 18 books. Referring to the methods in the <Materia Medica Classification>. it includes 720 kinds of medicines, the explanation of each being comparatively evident and practical.<sup>34</sup> In 1769 Huang Gongxiu (黃宮繡)'s <Medicine for Truth

<sup>34</sup> Dal-young Kim, The study on the herb part (草部) of Bonchojongshin (本草從新). Dissertation. Dept. Korean Herbology, Graduate School, Daegu Haany Univ. (2013); Dal-young Kim, The study on the herb part (草部) of Bonchojongshin

本草求真> was published, which includes 436 kinds of medicines. It combined the explanations for taste and property of each medicine with practical appliances for prescriptions (醫方).

As to other works for materia medica of this period, there were Yang Shitai (楊時泰)'s <Essentials of the Materia Medica Narration 本草述鉤玄>(1842),<sup>35</sup> Chen Xiuyuan (陳修園)'s <Reading Materia Medica 本草經讀>(1803: the original title being *Reading Shennong Materia Medica* 神農本草經讀), Zhang Zhicong (張志聰)'s <Worship of Original Materia Medica 本草崇原>(1767), Zhou Yan (周巖)'s <Records of Speculation on Materia Medica 本草思辨錄> (1904), and Tang Zonghai (唐宗海)'s <Questions and Answers on Materia Medica 本草問答>(1893).

In the Chosun period in Korea, however, the <Materia Medica Classification> as well as other books of medicine issued since the end of the Ming Dynasty and after were not readily accepted, as the relationship between the Chosun and Qing governments was mostly negative. After many years, as a modified title, <Shennong's Materia Medica Classification (神農本草綱目)>, appeared in the 'Catalogue of quoted books' of Zhou Mingxin (周明新)'s <Treasure Lesson of Medica 醫門寶鑑>(1724), and later also in the 'Catalogue of quoted books' of Li Kyunghua (李景華)'s <Secrete Box of Wide Relief 廣濟秘笈>(1790). These two books were not officially compiled but privately published. In Seo Yu Gu (徐有榘)'s <Record of Forest Economy (林園經濟志)>, there were rich contents relating to medicine, such as 'records of human relief (仁濟志)' and 'Records of Supplementing nutrition (保養志)', where the <Materia Medica Classification (本草綱目)> and other books for materia medica were quoted. This proves that newly acquired encyclopedic knowledge prevailed within Chosun's scholar-bureaucrat class.

In the Chosun period, positive materials such as <Materia Medica Classification>, songs of materia medica in Xi Tingxian (襲廷賢)'s <Rejuvenation by curing All Disease 萬病回春 Wanbinghuichun>, Zhang Jingyue (張景岳)'s <Precise Materia Medica 本草正> and Li Ting (李梴)'s <Introduction of Medicine (醫學入門)>(1573) were much more preferred. Then, Chinese books provided a model for Chosun's songs of medicine. From Kang Myung-gil (康命吉)'s <New Book for Relieving People (濟衆新編)>(1799), through Hwang Doyeon (黃道淵)'s <Doctor's Prescription of Loss and Addition 醫宗損益>(1868), to the <Prescriptios and Medicine Combined Book 方藥合編>(1884), Songs of Medicine (藥性歌) were a distinctive feature of Chosun Dynasty' medicine.

At the end of the Chosun Dynasty, in Hwang Do Yeon's <Doctor's Prescription of Loss and Addition 醫宗損益>(1868) the Chinese works at the end of the Ming Dynasty and the beginning of the Qing dynasty were cited, such as <Materia Medica Classification>, Miu Xiyong (繆希雍)'s *Commentary on Shennong Materia Medica* 神農本草經疏 and Wang Renan (汪詡庵)'s <Essentials of Materia Medica 本草備要>. The works of materia medica since the middle of the Qing Dynasty, even if they tended to be based on positivism, were not introduced to Chosun's physicians until the end of the Chosun Dynasty.

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(本草從新), The Journal of Applied Oriental Medicine, 13-1 (2013), pp.1-11; Dal-young Kim, The study on the herb part (草部) of Bonchojongshin (本草從新). Dissertation. Dept. Korean Herbology, Graduate School, Daegu Haany Univ. (2013).

<sup>35</sup> Cf. Sorting the essence from <Narration of Materia Medica (本草述)> of Liu Ruojin (劉若金).

## B. Greek tradition of botanical medicine

### 1. Development of botanical medicine

#### 1) Archaic and classic epoch

The medicine in ancient Greece mostly depended on botany, i.e. alcohol (liquor), opium, chashish. The Father of Medicine was Asklepios, a deified, mythological entity, and so called Asklepiades who are identified as a group of physicians.<sup>36</sup> According to Homer, Asklepios acquired lots of knowledge of botany from Cheiron, a Centauros. And potentially he got in touch with the priests of Egypt. Some of medicinal botany was familiar not only to Greece but to Minor Asia or Near East,

It has also been suggested that the mythical witches, such as Hecate, Medeia, and Cyrce made use of hypnotic agents, such as Strychnooides [Solanaceae], alcohol. In the garden of Cyrce, Mandrake, Mpellandona, Hyskyamos, and Skopolia grew, and the transformation of man to pig is explained by the use of alcohols (atropine, mandragorine, hyoskyamine, scopolamine). On the other hand, Pythagoras (ca. 570-476 B.C.) and his posterity, Empedocles (ca. 495-436 B.C.), Demokides Diagoras (5C. B.C.), and Herodikos (ca. 420 B.C.), all of them referred to the botany of India and Persia.

Then, Hippocrates (ca. 460-377 B.C.), who was an Asklepiades, founded the science of medicine and pharmacology. He arranged the botany which Pythagoras had already referred to, treated about 200 kinds of medicinal botany and their applications. However, he did not actually advise the application of pharmacy, as his medical treatment mostly consisted of prevention of disease by physical therapy of diet as well as paying regard to environmental conditions.

In the second half of the 4<sup>th</sup> century B.C. Aristotle (384-322 B.C.), even though he was not actually a medicinal botanist, began to research nature and biology including botany. And Stageirites, the philosopher, authored a book for pharmaceutical botany, which has been lost. His disciple was widely known: Theophrastos (ca. 371 -287 B.C.; born in Lesbos), the so called the father of botany.

In the Hellenistic epoch after Theophrastos, however, research of botany, moving its center from Greece to Alexandria, developed more or less (i.e. not so much degree) under the protection of the Ptolemaic Dynasty of Egypt. It should be noticed that this period developed the mixed pharmacy of various materia medica to increase its efficiency. And new botany was introduced more or less from Persia and India, as two worlds of different traditions came more frequently in contact with each other. This trend of development was guided mostly by the Empirical School.

According to Hippokrates, exercise (*gymnastike*) is opposed to therapy (*iatrike*) in nature. Exercise is available to the healthy who does not need to alter the existing condition, while therapy is to alter the pathological state.<sup>37</sup> All the medicine, too, is used to change the existing state. Whoever does not want alteration by means of medicine would take foods (*trophe*). And when disease is not severe, strong medicine should not be applied. In the Hellenistic Age, however, pharmacology as well as anatomy was more developed in comparison with Hippokrates.

Far reaching research of botany or medicinal material<sup>38</sup> began by Theophrastos (Tyrtamos. 370~285 B.C.) the Greek in the 4<sup>th</sup> century BC, and developed later in the Hellenistic-Roman era by the Greek Dioscurides (*De Materia Medica*) and the Romans Celsus (c. 25 BC – c. 50 AD. *De Medicina*) and Plinius the Elder (AD 23 – August 25, AD 79. *Naturalis Historia*) in the 1<sup>st</sup> century AD.

Theophrastos was a disciple of Aristotle, the initiator of biology. He was a native of Eresos in Lesbos,<sup>39</sup> and the name Thephrastus was given to him, it is said, by Aristotle to indicate the grace of his conversation.<sup>40</sup> Medicinal

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<sup>36</sup> Cf. S. Geroulanos, *Traumata* (Athina, 1998). p.36. Asklepios had not been yet a Deity in the epoch of Homer, but just an excellent physician. And it was at the end of the 6<sup>th</sup> century B.C. that he came to be deified, and the physicians who followed his practice be called 'Asklepiades.'

<sup>37</sup> Hippokrates, (*Peri topon ton kat' anthron*), 45. It is said that the quantity of a dose varies according to the situation of disease as well as physical condition of patient..

<sup>38</sup> Development of Medicinal history could be categorized to medicinal material, medicinal terms and medicinal use, etc. Until the terms 'pharmacognosy' since 1829, and 'pharmacology' in 1815 appeared in Germany, medicine could be defined as a science of medicinal material, which refers to the tendency to make use of natural material for medicine. On the contrary, 'pharmacognosy' includes not only the natural but chemically metamorphosed extracts. And 'pharmacology' was initiated by François Magendie (1783~1855) and Rudolf Buccfiem (1820~1879), referred to all the material which operates biologically, irrelevant to disease. Cf. Alain Touwaide. La Thérapeutique Médicamentouse de Dioscorede à Galen : du Pharmaco-Centrism du Médico-Centrism. in *Galen on Pharmacology : Philosophy, History and Medicine*. p.257.

<sup>39</sup> Cf. Strabon, 13; Diogenes Laertius, 5.36f.



knowledge is mentioned in the 9<sup>th</sup> book of *Enquiry into Plants*.<sup>41</sup> Theophrastos succeeded the materials from Aristotle after the latter died, and was influenced by the works of Diokles of Karystos. Through the writings of Theophrastos, it has been known that there were professional drug-dealers (pharmakopolai) who made and sold drugs by cutting plants' roots.

## 2) Greek botanists in the Hellenistic Age

Nikandros Kolophonios (200-120 B.C.), who was known to be an expert in poisonous drugs, authored two hexameter poems, <*Theriake (Pharmacy)*> and <*Alexipharmaka*>. He was born in Klaros near Kolophon at the seaside of Lydia, on the west coast of Asia Minor, at the end of the 2<sup>nd</sup> century. Not much is known about his life and he was not as erudite in botany as Theophrastos.<sup>42</sup> Originally, 'theriake' consisted of not only some kind of botany but various animals. However, as time passed through over 2000 years, today it came to mean 'medicine of panacea'.

In the lifetime of Nikandros, Pergamon, 70 miles to the north of Kolophon, was the political center of the Greeks (Hellenes) who dominated Asia Minor. It lasted to the reign of Attalos III, who submitted to Roman supremacy. Attalos III was much interested in medicine and already researched it for many years before he ascended to the kingship.<sup>43</sup> He was known to be an expert in poisonous botany, animals, insects,<sup>44</sup> and devised a kind of available gyps (emplastra).<sup>45</sup> Moreover, in the Hellenistic Age, knowledge of poison was considerably progressed especially in Pergamon of Asia Minor, whose library was on the same level with that of Alexandria, poison being applied to get rid of every kind of enemy, political or amorous, or to recover love.

Nicandros' <*Theriake*> was a poem in dactylic hexameter, which consisted of 958 lines. It describes the nature of poisonous animals and the effect that the poison results in, as well as correspondent antidotes. In this book, 14 kinds of poisonous snakes and 125 kinds of botany were described. And Nicandros was the first man who described medicinal use of leeches.

The <*Alexipharmaka*>, which consisted of 630 lines in dactylic hexameter, refers generally to poison, analyzing 19 kinds of poison, 8 from (for) animals and 11 from botany, while at the same time describing the prescriptions for antidote. The important part of <*Alexipharmaka*> is found today in the Monastery of Byron in the Agion Oros. The physician Apollodoros is the main source of the information for Nicandros.

Later Nicandros' <*Theriake*> came to be redacted by Andromachos Presbyteros (1 C. A.D.), a native of Crete and physician in charge for the Emperor Nero. It includes 31 kinds of botany and 32 animals. He engaged in Mithridatism according to the order of Nero, and manufactured lots of tablets including viper (echidna) and other venoms. His book was called <*Theriake of Andromachos (Theriaca Andromachi)*>, but he himself called it <*Peace (Galene)*>, cause of its therapeutic efficiency.

The Romans themselves were not much interested in medicine. Prophets and diviner mostly played the role instead of physicians. Collecting botany was committed to servants. When the Greeks moved into Rome, Asklepiades of Bithynia, a Greek native from Asia, (ca. 120-56 or 124-40 B.C.) founded technique of medicament (compounded medicine) as well as the first medicinal school. His influence continued until Galen began to practice medicine in Rome in 164 AD. He opposed the humoral doctrine of Hippocrates and, instead of it, taught that disease results from the constricted or relaxed conditions of solid particles, a theory derived from the atomic theory of the 5th-century philosopher Democritos. Asklepiades believed that harmony would be restored through fresh air, sunshine, proper diet, hydrotherapy, massage, and exercise. As a pioneer in the humane treatment of mental disorders, he had insane persons freed. Following him, physicians provided with medicinal knowledge appeared, such as Celsus, Euphorbos, Menekrates.

In the 1st C. B.C. Krateuas (ca. 100–60 BC) was devoted to digging up roots, collecting botany, and cultivating therapeutic botany. He wrote the first book on botany with colored pictures entitled <*Cutting Root*

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<sup>40</sup> Cf. Strabon, 13; Diogenes Laertius, 5.38.

<sup>41</sup> Cf. Theophrastos' main works are *Enquiry into Plants (Περὶ φυτῶν ἱστορία)*. From 10 books nine survive), and *On the Causes of Plants (Περὶ φυτῶν αἰτιῶν)*. From eight books six survive)

<sup>42</sup> Medicinal material in Theophrastos' botany was quite simple in relation with the detailed one of later period, shown in Nikandros, Dioscurides and Galenos. In Theophrastos, silphion, myrrh and frankincense were not included to medicinal material. Cf. John Scarborough. *Pharmacy's Ancient Heritage : Theophrastus, Nicander and Dioscorides*. p.11.

<sup>43</sup> Galenos, *De compositione medicamentorum secundum locos (Compound Drugs Arranged by Kind)* x, XIII, 416, 12ff. : 420, 1ff. etc.

<sup>44</sup> Plutarchos, *Demetrius*, XX, 3 ; Galenos, *De simplicium medicamentorum temperamentis ac facultatibus libri*, XII, 251, 4ff. : *De compositione medicamentorum secundum locos*, x, XIII, 416, 12ff. : *De antidotis*, ii, XIV, 2, 4.

<sup>45</sup> Galenos, *De compositione medicamentorum secundum locos*, x, XIII, 428, 1ff. : 431, 12ff. : 436, 10ff. : 438, 17 : 439, 9ff. : 446, 1ff. etc. ; Plinius, *Naturalis Historia*, XXXII, 87 ; Celsus, V, xix, 11.

(*Rizotomikon*)>, which arranged therapeutic plants according to alphabetic order, accompanied by colored pictures and descriptions of its efficiency. His work has been lost, but its fragments survived in the <Dioscurides> of Constantinople Codex.

And there were lots of physicians and writers of botany who were called 'root cutters (*Rizotomos*)'. Many of them, however, exploited superstition to arouse people's attention to their work. Opinions of contemporary physicians, including Hippocrates, Galenos etc., differed on whether or not they could be regarded as the forerunner of druggists.

Krateuas, who was the doctor in charge of Mithridates VI (120–63 BC), the king of Pontus, also was an expert in poison as well as detoxifying medicine. It seems that his knowledge was made use of by eliminating political enemies, and so called Mythrinateion referred to poison itself, and detoxifying material as well. It was said that Mythrinate himself took poison everyday little by little, in order to have immunity against poison.<sup>46</sup> Drugs related to poison developed first by the need of everyday life such as curing beast or insect-biting poison, but came to be exploited for every kind of intrigue and political conflict as the society became complicated.

Ailios Promotos, in the 1st century BC. or late in the second half of the 1st century AD, wrote several Greek medical works, which are still to be found in manuscripts in different libraries in Europe. He wrote a pharmaceutic-therapeutic guide, <*Dynameron [Peri Dynameos ton Pharmakon (About Pharmaceutic Efficiency)] Medicinalium Formularum Collectio*>.<sup>47</sup> The treatise <*On venomous beasts and poisonous drugs*>, attributed to Ailios, was last published in 1995.<sup>48</sup> He is most probably the same person who is quoted by Galen simply by the name of Ailios.<sup>49</sup>

On the other hand, the more improved anatomical surgery and gynecology, such as use of bandage, correction of disarticulation, eradicating tumefaction, abortion (*katarraktes*) and eliminating gallstone medicine, the more medicine developed. For example, in the 2<sup>nd</sup> century BC, Heracleides Tarantinos, an empiricist and expert in surgery, was an excellent medicinal botanist, and precursor of describing definite medicinal use.

### 3) Botanists in the Hellenistic-Roman epoch

(Aulus Cornelius) Celsus (c. 25 BC – c. 50 AD), the Roman, wrote *De Medicina* (all 8 books), the 5<sup>th</sup> and 6<sup>th</sup> books of which refer to medicinal treatment, diet and surgery as well. In the Introduction of the same book, there is a short guidance for the home treatment. As it seems that he lived in the reigns of the first Emperors Augustus and Tiberius, his work might reflect the tendency at the end of the Hellenistic Era.

In the middle of the 1<sup>st</sup> century, Pedanios Dioscurides (ca. 40-90 A.D., a native of Anazarbus, Cilicia), wrote <*On Medical Material (Peri Hyles Iatrikes; De Materina Medica)*>, which describes the properties and features of 60 kinds of botany. He was the most widely known after Theophrastos, but estimated being inferior to him. He had a great influence on the Romans, and afterwards his prescriptions were copied in lots of official manuals of druggists, being used until the 18<sup>th</sup> century, being the precursor to pharmacopeias.

Dioscurides practiced medicine in Rome during the reign of the emperor Nero. His career as a military surgeon has not been certificated, but is surmised from the short six words in the introduction of his book, 'As you know about my life in the army'. He supposedly served in the expedition into Armenia which had begun 54 AD., being attached to the Eastern Legion in the reign of the Emperor Nero. Even if his career as a military surgeon is not certain, it is sure that he was a wandering physician who traveled widely around the Nile river collecting medical botany.

Dioscurides tried to arrange medicine systematically, regarding the existing medicinal knowledge as too disorderly scattered.<sup>50</sup> He established genealogy of medicinal botany, matching together similar kind of plants, so that he is nowadays estimated as a initiator of pharmaceutics as well as drug affinity which equals today's pharmacognosy. His point of view differs from the theoretical humor pathology, as he described the application of each plant, i.e. which medicinal plant is useful to which disease, with a high degree of exactitude based on objective observations on the plants including the degree of growth according to the season. His <*Medical Material*> influenced posterity for 1900 years as a classic, not only the

<sup>46</sup> Cf. Plinius, *Naturalis Historia*, XXV, 26 : Celsus, *Naturalis Historia*, V, 23, 3.

<sup>47</sup> Cf. *Elio Promoto alessandrino, Manuale della salute*, a cura di Daria Crismani (Hellenica 9), Alessandria 2002.

<sup>48</sup> Cf. S. Ihm, *Der Traktat peri tōn iobōlon thirion kai dhlighirion farmākōn des sog. Aelius Promotus*. Serta Graeca 4. Wiesbaden: Dr. Ludwig Reichert Verlag, 1995. <http://books.google.com.au/books?id=IL8rAAAAYAAJ>

<sup>49</sup> Galen, *De Compos. Medicam. secund. Locos*. iv. 7, vol. xii. p. 730. Cf. [http://en.wikipedia.org/wiki/Aelius\\_Promotus](http://en.wikipedia.org/wiki/Aelius_Promotus) [April 1, 2015. searched]

<sup>50</sup> John Scarborough. *Pharmacy's Ancient Heritage : Theophrastus, Nicander and Dioscorides*. Kentucky; 1984. p.66.

Greeks but Latins, Arabs, Armenians, Syrians, Persians. It deals with 600 kinds of botany, more than the 450 kinds in Hippocrates, 550 kinds in Theophrastos, and 300 kinds in Nikandros

(Serbilios) Damocrates (1 C A.D.) was a Greek physician at Rome. He may have received the praenomen 'Servilius' from his having become a client of the Servilia gens. Galen calls him a noble physician (aristos iatros), and Pliny says he was 'e primis medentium,' and relates his cure of Considia, the daughter of Marcus Servilius. Damocrates wrote several pharmaceutical works in Greek iambic verse, of which there only remain the titles and some extracts preserved by Galen.

Plinius the Elder (Presbyterus) (23-79 A.D.), a contemporary of Dioscurides, which, committing lots of mistakes, is evaluated as an imitation (eranisma) of the work of Dioscurides. It could be said, Plinius in the 1<sup>st</sup> century, such as Dioscurides, included the tradition of Hellenistic Age. Among 37 vols. of Plinius' *Naturalis Historiae* (*Natural History*) including 800 plants, medicinal botany is mostly referred to in vols. 20-22. However, he did not cite Dioscurides, the great medicinal botanist, at all.

In the 2nd century, Galenos (121-201 AD) appeared following the medicine of Hippocrates. A native of Pergamon of Asia Minor, he studied in Athens, Alexandria, etc. Prescriptions of compounded medicine were called 'Galenos' Medicaments', as it was considerably developed by him.

#### 4) Byzantine epoch

In the Byzantine epoch, medicinal knowledge was based on the old lessons of Hippocrates, Dioscurides and Galenos. The physicians who influenced medicine and medicaments were Oreibasios (ca. 326-403) in the 4<sup>th</sup> century, Nestorios (386-450 AD) in the 6<sup>th</sup> century, and Paulos Aiginites and Stephanos Athenaios in the 7<sup>th</sup> century.

Oreibasios, a native of Ionia, studied in Alexandria and Athens, and became a private physician for the Emperor Julianos, who reigned from 361-363 AD. His other works had been lost, and among his work <Collectiones>, which had originally consisted of 70 or 72 Books, 25 works of which survived and 5 among them refers to diet.

Nestorios (386-450 AD), the patriarch of Constantinople under the reign of the Emperor Theodosius II, was accused of heterodoxy, and banished to the Upper Egypt. Syrian Christianity seceded from Greek Orthodoxy, and the Nestorian church was established to extend its influence into Persia and India. Lots of Nestorian monks performed medicinal practice and translated the works of Hippocrates, Dioskurides, Galenos, and Oreibasios into Persian and the Syrian-Aramaic language.<sup>51</sup>

Alexandros Trallianos (525-605 AD), a native of Tralleis of Lydia (South to Smyrna) [brother of Anthemios, the architector], learned from Stephanos, Indikopleustes. He wrote <Twelve Books (Dodekabiblon)>, which included, however, superstitious belief. Paulos Aiginetes (7 C), a native of Aigina, studied in Alexandria, wrote <Summary of Medicine (Epitomi Iatrikis)> [or <Hypomnima (Memorial)>], which refers to Galenos and Oreibasios. Stephanos Athenaios authored the <Hypomnemata for Ippokrates, Aristotleles and Galenos>, and the work for the <Efficiency for Materia Medica>.<sup>52</sup>

Afterwards, during 2 centuries, medicinal activity shrieved remarkably. In the 10<sup>th</sup> century, however, the Emperor Constantinos Porphyrogenetos was concerned about the propagation of the books of past ages. Theophanes Nonnos (911-959) was a chief doctor of Constantinos Porphyrogenetos. The Emperor requested him to edit the medicinal encyclopedia, <Summary of All the Medicinal Technics (Epitomin tis Iatrikis Apasis Technis)>, 279 books in total. And actually it was edited on the base of the work of Oreibasios, Alexandros Trallianos, and Paulos Aiginites, which succeeded an old Greek tradition.

Symeon Sythes (from the second half of the 11<sup>th</sup> century), a native of Antiocheia, was the physician, astronomer and translator of Arabic. In the last years of his life, secluded in a monastery of Olympos, he wrote <Collection According to Constituents about Power of Food (Syntagma kata Stoicheion peri Trophon Dynameon)>. This work describes the functions of food, and includes the catalogue of 228 kinds of plants and animals. And he firstly proposed to use foreign plants, and other Arabic medicinal practices.<sup>53</sup>

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<sup>51</sup> M. Μαρσέλος, Η συμβολή του Βυζαντίου στην Ανάπτυξη της Φαρμακοθεραπείας, σ.12.

<sup>52</sup> M. Μαρσέλος, Η συμβολή του Βυζαντίου στην Ανάπτυξη της Φαρμακοθεραπείας, σ.12 f.

<sup>53</sup> M. Μαρσέλος, Η συμβολή του Βυζαντίου στην Ανάπτυξη της Φαρμακοθεραπείας, σ.14.

In the end of the 13th century, Nikolaos Myrepsos [or Aktouarios, or Alexandrinos], a private physician of the Emperor [Doukas Ioannes III Batatzes (and, maybe, Theodoros Laskares) of the Nikaian Byzantine], wrote a massive book for botany, <*Dynameron (Efficiency of Pharmacy)*>, where description of botany is classified to 24 chapters according to the numbers of alphabets, including 2,656 receipts.

In addition, M. Psellos made poems of trimetric related to medicine. It has been said that he was a Platonist. There are also other records that refer sporadically to botany, such as in the works of Kosmas Indikopleustos and Michail Glykas.

## 5) Byzantium and Europe of Greek medicinal tradition

The Middle Ages (395-1453 AD) of the West, especially during the 4<sup>th</sup> -11<sup>th</sup> centuries, was of darkness in the academic world, and reading and writing were exclusively carried for society by the clergy. There were schools for the clergy, but they were not taught physics and biology. And grammar, rhetoric, philosophy, music, mathematics, astronomic and geometry were taught in the Latin language. Benedictus, who founded the Monastery in Monte Casino, in 529 AD, equals to the Greek, St. Basileios, in intelligence. However, until about 1,000 AD the monks of the West used to be prohibited to teach the common people outside, or even to research medicine or physics.

The pharmacy made from animals was already, more or less, developed by Galenos as well as Xenokrates Aphrodisia, a native of Kilikia. However, in the Middle Ages when prejudice and superstition prevailed everywhere, whether East or West, more disgusted medicine (theriaka) was extracted mostly from animals, i.e. dog dung, human' and animal's urine, pith, hair, horn, gall, ants, scorpions, earthworms, ears of donkeys, etc.

On the other hand, however, the tradition of Greek medicine was transmitted the Western Europe. First of all, <*Dynameron*> of Myrepsos was transmitted to Sicily, the palace of Robertus I, by Pietro d'Abano (1257-1315 AD), who, physician and professor, taught at the University of Paris in France and Padua in Italy. The <*Dynameron*> copied by Kosmas Kamilos, the priest, in 1339 AD, was presented to the king of France, François I (codex 2243; National Library of France). And Ianos Laskaris (1445-1535 AD) translated it to the West (Codex 171 and 83 [Library of Oxford of England and El Escorial of Madrid]).

There were Latin translations of <*Dynameron*>, <Nikolai Myrepsi Medicamentorum Opus> (Basel in Switzerland 1549 AD, Lyon in France 1550 AD) by Leonhart Fuchs, a native of Bavaria, who was botanist, professor, and the president of the University of Ingolstadt in Germany. In this way, Latin translation of <*Dynameron*> prevailed in Central Europe almost 200 years (1549-1734 AD).<sup>54</sup>

Valerius Cordus (1515-1544 AD), botanist and physician, born in Erfurt, taught botany in the Universities of Marburg, Leipzig and Wittenberg. He published <Historia Plantarum> in 4 books, where he cited the work of Dioskurides.

In these circumstances of Europe influenced by Greek tradition of medicine, St. Hildegardt of Bingen (or 'Sibyl of the Rhine'), German Benedictine Abbess, following the paragon of Megalos Basileios and proving exactness of the knowledge of physics, dealt with 300 plants in her book.

In the East, too, influenced by the expelled Nestorian Christians, the Muslims were much interested in medicine and physics. They annotated on the works of Aristotle, Hippocrates, Dioscurides and Galenos. As famous Arab botanists, there were Razes (872-923 AD), so called Galenos of Arab, Prince Abikennas (980-1037 AD), who wrote medicinal books on botany to expand the knowledge of botany to the Western World, and Aberoes of Cordova. Influenced by the Muslims, universities were founded in Salerno in Southern Italy and Montpellier in Gallia.

Paracelsus (1493-1541), a Swiss in the age of the Renaissance, was one of the last alchemists in the 16<sup>th</sup> century. Rejecting the tradition of Arabic medicine and Galenos, he admired the great power of pharmacy. According to him, every mountain, field, and ravine are God's archive of pharmacy. He is called Father of Pharmacy, as after him chemical pharmaceuticals began to be manufactured.

## 2. Alteration of medicinal use according to the epoch

Different trends could be discerned in relation to the development of medicine. One is traditional application of medicine for practical need of everyday life, such as defecation, diet, urination, antidiarrheal, abortion, contraception, pregnancy,

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<sup>54</sup> Μ. Μαρσέλος, Η συμβολή του Βυζαντίου στην Ανάπτυξη της Φαρμακοθεραπείας, σ.25.



every kind of women's disease. 300 kinds of medicine introduced in the Corpus of Hippocrates are to recover from abnormal physical conditions.

As time passed, however, functional medicine for a definite purpose developed. Medicine spread in the Hellenistic period, such as antibiotic ointment applied for a definite part of body such as eye salve, as well as poison and detoxifying agent, differed from that of Hippocrates to return to the natural condition of whole body. For example, Herophilus (335–280 or 255 BC) was well known for inventing ointment from the excrement of crocodiles. And more than 270 bottles labeled eye salve were found until now.<sup>55</sup>

Moreover, the progress of anatomy and medicine realized in the Hellenistic period was closely connected with current requirements of the age. First of all, frequent military conquests produced the need for surgery or medicine curing the injured, and conflicts for political power fostered conspiracies which brought about the use of poison to remove enemies. Medicine came to be used not only for disease but for military conquest and political competition. Its conspicuous example is the ointment applied for wounds not to be festered, and poisonous drugs to eliminate opponents.

Every botanist-pharmacologist, Theophrastos, Celsus, Nikandros, Dioscurides, Plinius, as well as the famous physician Galenos, was on intimate terms with politicians of power, or had a career having served for the conqueror on military expeditions. Theophrastos, one of disciples of Aristotle who instructed also Alexander the Great, stayed in Macedonia and accompanied Alexander the Great on his Eastern expedition. Nikandros of Kolophon who lived in the 2<sup>nd</sup> century was supposedly connected with Attalos III of Pergamon (170~133 BC). His hometown, Kolophon, lies 70 miles to the south of Pergamon where Attalos stayed, and Attalos was known to be interested in poison.<sup>56</sup> Dioscurides is also supposed to have accompanied the Roman expedition to Armenia at the beginning of 54 AD. Besides, he wandered over Egypt, Antiochia and other places, and was known to devise the medicine to bring down the fever of soldiers. Plinius served as soldier or military officer since 47 AD in the reigns of Nero and Vespasianus, and had the opportunity to make a trip to Germania, Galia, Ispania, and the west coast of Africa. Galenos (129~199 AD), a native of Pergamon, worked from the age of 25 as a physician for gladiators of Pergamon and Rome, and later served as a physician in charge for the Emperor Marcus Aurelius and his co-emperor Lucius Verus.

When the military camp in Novaesium (Neuss: Rheinland) was destroyed, Patavius says, many people around the military hospital (Valetudinarium) were saved by medicinal botany. There were also, it was said, lots of medicinal botany efficient for wounds<sup>57</sup> According to Plinius,<sup>58</sup> in the expedition into the German seaside of the Baltic Sea 15/16 AD, the marine soldiers suffered disease similar to Scorbuto (disease due to deficient nutrition during navigation). It is not incidental that medicine bottles and excavations related to medical practice has been exhumed along the Roman military camps and attached residents in the Limes. The physicians who served in the fleet were called 'duplicarii', which meant 'double', i.e. double paid. Celsus said that the staff who served in the 'big hospital (ampla valetudinaria)' could not take care of one by one, and took advantage of common (communia) elements.<sup>59</sup> 'Communia' most likely refer to standardized treatment. Sure the hospitals were not always big, nevertheless military hospitals to cure the wounded used to be large in scale.

In addition, Roman hospitals were established for the health, relaxation, and healing of servant workers. The space for the workers' relaxation was the 'Valetudinarium', which means 'restore strength.' Columella referred to this in *De re rustica* (*About the rustic*).<sup>60</sup> The medicinal treatment for the wounded in the army was not greatly different from this. The hospitals for curing soldiers or servant workers were not similar to the temple or another healing place of Asklepiades. For example, in the temple the patient stayed outside and at the moment of treatment they entered into the temple. Moreover, the treatment was realized privately, not 'collectively (communia).

Even in Greek cities there were 'public physicians' who took care of the wounded and disabled staying in the city.<sup>61</sup> With the expedition of Alexander, however, the situation was changed and the physicians themselves accompanied the force expedition. According to Celsus, the physicians who were fond of learning went to the army to have opportunity enough to treat the injured.

In the reign of the Julio-Claudian Dynasty of the 1<sup>st</sup> century AD, Antonios Musas (Antonius Musa) and Stertinios Xenophon were the physicians in charge of the Emperors. Antonios Musas was a Greek botanist and the Roman Emperor Augustus's physician, and disciple of Asklepiades of Bythina (c. 124 or 129 – 40 BC). His brother, Euphorbos, was also a famous physician. These two physicians were much interested in medicinal botany. Euphorbos was the physician in

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<sup>55</sup> E. Künzl. 'Zum Verbreitungsgebiet der Okulistenstempel'. *Ztschr. Papyrol. u. Epigr.* 1986 (65): p.200-202. Cf. M. Feugère, & E. Künzl & U. Weisser, 'Les Aiguilles à Cataracte de Montbellet (Saône-et-Loire): Contribution à L'étude de L'Ophtalmologie Antique et Islamique; Die Starnadeln von Montbellet (Saône-et-Loire); Ein Beitrag zur Antiken und Islamischen Augenheilkunde', *Jahrbuch des Römisch-Germanisches Zentralmuseum*, 32 (1985), pp.436-507.

<sup>56</sup> Cf. John Scarborough, *Pharmacy's Ancient Heritage : Theophrastus, Nicander and Dioscorides*, p.25.

<sup>57</sup> K.-H. Knörzer, *Römerzeitliche Pflanzenfunde a Neuss. Novaesium IV (Limesforschungen 10)* (Berlin, 1970). P.137.

<sup>58</sup> Plinius, *Naturalis Historia*. XXV, 6,20.

<sup>59</sup> Celsus, *Prooemium*, 65.

<sup>60</sup> Columella, *De re rustica*, XI,1.

<sup>61</sup> Arrianos, *Anabasis*, II, 7,1.

charge of Juba II, the king of Mauretania (52/50 BC – AD 23; kingship 25 BC-23 AD), and the king named the poisonous drug ‘euphorbion’, taking after his name.<sup>62</sup>

Stertinios Xenophon, a native of Kos, belonged to the family of Asklepiades.<sup>63</sup> He had Roman citizenship and was ‘Dignified Doctor (Medicus Augusti)’. When he accompanied Claudius the Emperor to Britain in 43 AD, his position was not as physician, but a kind of military officer (Tribunus Militum). And, as Claudius was murdered in 54 AD, he was suspected of having murdered him.<sup>64</sup> In an inscription found in Kos, he was honored as a person of military and political authority, and the most competent physician as well.<sup>65</sup> In connection with poisonous drugs, not only Mythrdateion and Euphorbion, but Celsus<sup>66</sup> also wrote about the manufacture of poisonous drug sby compounding various substances at a fixed rate.<sup>67</sup>

Functional medicine also referred to perfume and an agent facilitating sexual desire. These kinds of drugs were introduced from early days, but spread out much more since the Hellenistic age when the social gap between the upper and the lower classes widened. Furthermore, from Plinius to Galenos the object of medical treatment mostly consisted of the upper classes. And medicinal substances were even introduced from afar off foreign lands, such as bronze from Cyprus and balsamo (Hypericum Perfolatum) from Syria. Plinius’ book XII is almost all focused on perfume.

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<sup>62</sup> Plinius, *Naturalis Historia*, XXV, 38,77.

<sup>63</sup> Cf. Xenophon in the 3<sup>rd</sup> century BC, a famous physician and anatomist, disciple of Praxagoras, might also belong to the same family with Stertinios Xenophon.

<sup>64</sup> Tacitus, *Annales*, XII, 67.

<sup>65</sup> Dittenberger, *SIG*<sup>3</sup>, II, 804.

<sup>66</sup> Celsus, V, 23,3.

<sup>67</sup> Cf. According to Ktesias, physician a native of Knidos and contemporary of Hippokrates, his father said that Heleboros (Ranunculaceae) is poisonous, so that it was very carefully applied to patient not to be harmed. It proves that they did not know exactly the divergence in quantity between medicine and poison. (Cf. Oreibasios, Littré ed, I, 69). Lat botanists refers to Heleboros as a medicine to influence body and mind, to break with dreamy state, so to cure psychological disease (cf. Dioskourides, IV, 149 ; Celsus, III, 18,17;20).

### III. Medicinal Philosophy in Eastern Countries

#### A. Introduction

Various opinions have been suggested on the origin of difference between the Western and the Eastern traditional practice of medicine. As one of them, G.E.R. Lloyd suggested that Western intellectual life was marked by more vigorous and radical debate, whereas Chinese thinkers tended to place greater weight on canonical texts and authorities. And such phenomena were mostly due to the difference of social and political environment between the two worlds.<sup>68</sup> According to him, in both ancient China and ancient Greece there was widespread use of analogies between the macrocosm and those two microcosms. He argued that ideas about the human body mirror themselves after, and themselves are mirrored in, ideas about the human body politic: the macrocosm, in turn, is often thought to tally with the microcosm of the body and the state. And he advanced to review Chinese and Greek ideas about the body from the point of view of what we could learn from them about the aims and presuppositions of Chinese and Greek investigators, and the modalities of the interactions and modes of operation in either society. He raised the questions, who claimed special knowledge of the body and on what basis, and how they used the knowledge?<sup>69</sup>

Relating to China, Lloyd discusses two texts, *Lu Shi* (呂氏) *'s Chronicle (Spring and Autumn)* [呂氏春秋 20.5:1373] and *Simple Question, Emperor's Classic for Inside* [皇帝內徑, 素問, 8.1-2, 28]. Both texts emphasize the importance, medically, politically, and cosmically, of everything being in its place and fulfilling its given function. The image in both texts is one of free flow and coordination and well-being in every domain depends on interaction. The Greek views about the human body, however, show a cacophony of opinions. By Greek standards Chinese theories display greater agreement on what they are talking about.<sup>70</sup> For example, according to Lloyd, that is true of the roles of the main viscera, both of their association with either yin or yang functions, and of the correlations that eventually came to be proposed between viscera and the Five Phases. In Greece, by contrast, the topic of the internal body is one of intensely idiosyncratic speculation, where one writer after another sets himself up as a special authority in the field.

In addition, Lloyd suggested two criteria of ideas, on the base of which comparison between Greek and China could be processed: (1) the analogy between the body and the body politic, and (2) the roles of advisers. The powers of persuasion that Chinese advisers exercised were increased by their drawing on a comprehensive

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<sup>68</sup> G.E.R. Lloyd, *Adversaries and authorities: Investigation into ancient Greek and Chinese science* (Cambridge/N.Y., 1996), p.45f.; for medicine in particular, G.E.R. Lloyd, "Epistemological arguments in early Greek medicine in comparative perspective," & N. Sivin, "Texts and experience in Classical Chinese medicine," in Don Bates ed., *Knowledge and the Scholarly Medical Traditions* (Cambridge, Cambridge University Press, 1995), 25-40, 177-204. Cf. On the contrary, however, Guriyama commented that such generalities Lloyd suggested teach us little about the problem at hand. And he proceeded to raise the question referring to the tradition of China, that why the awareness of traces and similarities, i.e. the unquenchable thirst for clarity like that which so decisively shaped European pulse taking, did not engender in the palpation of 'Pulse [of Chinese concept]', *qiemo* [氣的脈 '氣(energy) of 脈(stream)' or '氣(energy) in the 脈(stream)']. According to him, writings on palpation (*qiemo*) in China emphasized on the one hand that fine distinctions were indispensable to accurate diagnosis, and conceded on the other that language offers no more than vague "traces and likenesses". And, to answer the question, he suggested, it is necessary to analyze more carefully the nature of the thirst of Europe, and to ponder how lucid description of the West differs from Chinese obscurity. In conclusion, instead of the difference of social environments Lloyd referred to, Guriyama turned his concern towards the difference of language of life or expressive way of words between China and Western [Sh. Kuriyama, *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine* (N.Y., 2002), p.74.]. On the other hand, Nathan Sivin had insisted that Chinese conception is not anatomical but physiological and pathological [Nathan Sivin, *Traditional Medicine in Contemporary China* (Michigan, 1987), pp.120-121]. For example, in China, the Five Viscera and Six Bowels (Retainers) do not refer to physical organs, but to the role assuming health and disease). Guriyama, even if he recognized Sivin's observation is accurate, advanced to introducing other points of divergence related to the views and the way of expression of each world.

<sup>69</sup> G.E.R. Lloyd, *Adversaries and Authorities: Investigations into ancient Greek and Chinese science* (Cambridge Uni. Press., 1996) [Ideas in context Series], p.190f. Cf.

<sup>70</sup> G. Lloyd, *Adversaries and Authorities: Investigation into ancient Greek and Chinese science*, p.192ff.

learning, encompassing body, state and cosmos. Chinese advisers are generally ‘ministers.’ While ministers had many responsibilities, and especially, precisely, for giving the ruler, the prince or emperor, good advice, it was not their role, but that of the ruler himself, to rule. There is no question of any need to legitimate the right of ‘rulers’ to rule, that is, of rulers ‘as such’ to do so.<sup>71</sup> Furthermore, the learning that Chinese advisers displayed, whether about the body or about the state, was not claimed to be based on ‘certain knowledge’. Here is the most surprising feature of the Greek medical analogy of all. In Greecem by contrast, where what political regime was best, and who was best fitted to rule, were intensely debated, and the doctor as expert served to bolster the ‘rulers’ position (rather than that of an advisers).<sup>72</sup>

Between ancient Greece and ancient China, Lloyd states, it is true that we find some remarkable similarities. Three of the most noticeable are: (1) analogies between the body and the state and between both and the cosmos as a whole are highly developed both in Greece and even more especially in China; (2) the body is used, in both, to convey notions of orderly relations and an idea of the value of order; (3) knowing about the body is an important way of knowing, paradigmatic of at least one prized kind of learning.

Yet, the same, Lloyd continues, in each case, generic similarities, when examined, reveal underlying differences. (1) In Greece, there were radical disagreements in all three areas, cosmology, politics, and anatomy, and these are the topic of intense rivalry and dispute between competing would-be experts. To be sure, it was not as if there was complete unanimity, in China, on ‘all’ these subjects, though there was, substantially, on political ‘ideals’. However, on the body, as on most other topics, the bid to arrive at something of a consensus among the learned is marked, and the idea of claiming to outdo everyone else’s theories with your own would rightly have been considered extravagant.

(2) For the Chinese, the ideal is one of ‘free flow’, interaction, and intercommunication between parts, with each fulfilling its due and proper function. That applies to the bureaucracy of the state, and the interrelation of parts of the living organism is conceived similarly bureaucratically. Even while the Greeks studied processes, to be sure, they looked for stable structures. Anatomical research was directed at disclosing such structures, each with its own distinct form. The emphasis was not, or not so much, on their interdependence or interconnectedness, as on several of their own essences. The notion of the food that the body used to convey was, at least in one prominent – teleological – strand of thought, that of the beauty and intelligibility of nature as a whole.

(3) Finally, so far as knowing about the body goes, the Greeks’ frequent ambition to deliver certainty is apparent both in Galen’s picture of the biological scientist as master of demonstration ‘*more geometrico*’, and in the construction of the idea of the medical expert is the model for a statesman. That style of demonstration was never contemplated in China. Rather, what knowledge about the body was useful for, there, was to express that sense of the grasp of the whole that went with the Chinese conception of the man of learning.<sup>73</sup>

In my opinion, however, Lloyd’s arguments have some weak points to be reviewed. First of all, he maintained that analogies between the body and the state and between both and the cosmos as a whole are highly developed both in Greece and even more especially in China. However, it could not be applied to the same degree to all the periods or to all the physicians. In ancient Greece itself, social conditions differ according to the periods.

Lloyd’s discussion on the relationship between the body and the state is based chiefly on the case of Plato and Galenos. But there is no apparent evidence of such kind of relationship in Hippocrates. This is because the concept and the role of the state (polis) in the ancient Greece were not identical with that of the later period, from which the ideal state of Plato was exceptional. The structure of Greek polis was not so definitely standardized in a political structure, as it did not have professional or regular government. It differs extremely from the Empire established by Alexander or Rome as well as the Eastern China. Actually, Lloyd pointed out the different pattern of behavior between Greece and bureaucratic China. However, the key point is that not only the pattern of behavior but the concept of state differs not only between ancient Greece and ancient China, and, furthermore, it differs in Greece itself according to the periods. So, Lloyd’s argument that analogies between the

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<sup>71</sup> G. Lloyd, *Adversaries and Authorities: Investigation into ancient Greek and Chinese science*, p.207. According to Lloyd, when any given ruler might well have a question mark over ‘his’ right, and if he appeared to lack the necessary virtue to be disqualified from doing so, ideally Heaven see to that on his own, when its Mandate was withdrawn: but that did not rule out its receiving help from human aides or human intervention. But, in Greece, by contrast, where what political regime was best, and who was best fitted to rule, were intensely debated.

<sup>72</sup> G. Lloyd, *Adversaries and Authorities: Investigation into ancient Greek and Chinese science*, p.207.

<sup>73</sup> G. Lloyd, *Adversaries and Authorities: Investigation into ancient Greek and Chinese science*, p.206f.

body and the state are highly developed both in Greece and even more especially in China could hardly be generalized. And the variation presented in Greece or the Western has to be followed up.

Secondly, he presupposed the general consensus of opinions in China, but he did not deliberate the potentiality of deviated opinions according to the epochs or ideological propensities. Actually there were also deviations in views of much importance, even contradictory ones, in China.

Relating to the difference of the pattern of behavior, Lloyd emphasized the agonistic, confrontational character of Greek science in a climate of rivalry, which is actually opposed to Chinese 'irenic' science, always aiming at consensus. According to him, Greek individuals could move freely from one group to group, in contrast with Chinese scientists who had a lifelong commitment to one group.<sup>74</sup> However, it should be underlined that in China, too, there were vehement, contradictory controversies waged by different schools. Chinese discussions were mostly concerned with the relationship between the body and the cosmic world.

Since earlier times there developed a theory of the Mechanism (Dynamism) of Change (易學) in China, which concerns the view of cosmic alteration from a point of geometrical structure of numbers. However, this theory came to develop still more systematically as time passes by. At initial stage, there were lots of schools of different view, and medical practice was not necessarily based on any systematic theory, but somewhat desultory and concrete in detail. Dogmatic theory got initiatives against the other in the field of philosophy affecting every field of medicinal practice, more than before as the bureaucracy of China was getting intensified day by day. Even in later period, however, two contradictory trends survived to coexist together. Especially practical medicine irrelevant to any dogmatic theory was prevalent relatively more among the common people of lower classes.

It has to be noted, however, that with the lapse of time, in Greece and Western Europe as well, there was an advent of knowledge which was not based on demonstration but abstractionism, such as spiritual '*pneuma*' of Christianity.

Thirdly, while Lloyd's definition of the Chinese ideal was one of 'free flow', interaction, and intercommunication between parts of the body, in my opinion, however, there was not only 'free flow', but inter-collision between parts as well, thus two contradictory relationships compatibly coexisted.<sup>75</sup> Still more, it could not be said that Chinese political systems were always bureaucratic. Even if they existed relatively less frequently than in Greece, there was a tension more or less between centralism and decentralism. And the more Chinese imperial autocracy intensified, the more the theory of hierarchy developed related to the physic world as well as the human body.

And fourthly, the study on Chinese pharmaceutical use of botany could show these two different trends of tradition, that is, theoretical interpretation and practical application, which will be partially narrated in the part IV below, while the main purpose of this part is on the comparison of medicinal use between Greece and China. Previously, this Part III refers to the existence of diversity of medicinal views or theories each of Greece and China, as well as their historical developments.

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<sup>74</sup> Cf. Helen King, "Book reviews: G.E.R. Lloyd, *Adversaries and authorities*," *Medical History*, 1998, Vol.42(2) (2012), p.264.

<sup>75</sup> Cf. Ho-Jun Sung & Chang-yeol Yoon, "A study on the thought character of Confucian medicine," *Article Collection of Dae-Jeon University's Institute of Oriental Medicine*, p.21. Relationship between body and heart, spirit and flesh, heart-fire and kidney-water, five viscera (internal organs) and six bowels, physiology and pathology, inter-cooperation and inter-conflict of Five Phases pertains to discords as well organic unity respectively.



## B. Medicinal philosophy in Eastern Countries

### 1. ‘Great Theory of the Five Motion Rule (五常政大論)’

in the <Emperor's Classic for Inside (黃帝內經)>, <Simple Question (素問)>

In China, the medicinal practices transmitted from old times prior to the age of Spring and Autumn and Warring States (春秋戰國: 770-221 BC) were diverse. Botanical therapy spans from simple and practical appliance of medicinal botany to the intervention of metaphysical theory of world constituents. Relating to the latter, mostly two trends could be discerned: Energy Theory or Energy-Reason Theory (氣論 or 氣理論), and Dark-Brightness (Yin Yang) and the Five Phases Theory (陰陽五行說).<sup>76</sup>

Energy (-Reason) Theory is divided into External Cause(外因), Internal Cause (內因), Neither External Nor Internal Cause (不內外因, i.e. Cause of Drinking and Sex), etc. At the beginning of Chinese medicinal development, the External Cause was preferred to others in the explanation of disease. The people of the Yin Dynasty (殷人) and the Zhou Dynasty focused on External Causes.<sup>77</sup> According to External Cause, diseases are broken out by the Evil (邪) penetrating from outside into the body. On the other hand, Internal Cause did first appear in the ‘Pulse Book (脈書), which warns against the habit of eating meat and riding vehicle. Both External and Internal causes are attached to Energy (-Reason) Theory.

Dark-Brightness (Yin Yang) and the Five Phases Theory appeared in the early days of the Western (or Earlier) Han Dynasty (前漢) and attributed the cause of disease to the Five Viscera. Moreover, some of them tried to connect psychological phenomena with the Five Viscera (i.e. Love is affiliated to the Heart, pleasure to the lungs, etc.) The theory was transmitted from the *Han's Poem Outside Rumor* (韓詩外傳) and the *Simple Questions* (素問) in the 2<sup>nd</sup> century BC, through the *Predicaments* (難經), to Xun Si Miao (遜思邈)'s *Valuable Prescriptions for Emergencies* (千金要方) in the Tang Dynasty. On the other hand, physical substance of body came to intervene between the Five Viscera and psychological phenomena (i.e. Liver contains blood ...), which appears in the ‘Basic Spirit (本神)’ of <Effective Pivot (靈樞 Ling Shu)>. And a combination of the two theories is shown in the ‘Article of modified Meridians (調經論篇)’ of <Simple Question>.

The ‘Great Theory of the Five-Elements Rule (五常政大論)’ in the <Simple Question (素問)> of the <Emperor's Classic for Inside (黃帝內經)> shows the earlier trend of Chinese medicinal theory, as its discussion is focused on External Cause. And External Cause is connected with the Five Phases and the Five Energies.

#### 1) The Five Phases (五運) and the Five Energies (五氣)

In the ‘Great Theory of the Five-Elements Rule (五常政大論),’ the Five Phases (五運) and the Five

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<sup>76</sup> It should be noted however that the systematic theory of the Five Phases or the Five Energies shown in the ‘Great Theory of the Five-Elements Rule (五常政大論)’ cannot represent traditional Chinese medicinal theory. There is medicinal knowledge irrelevant to it, especially in the field of medicinal botany. The latter does not necessarily need systematic theory, so as to appear too miscellaneous. Furthermore, in a later period the theory of the Six Energies (六氣) appeared instead of the Five Energies.

<sup>77</sup> Cf. In the Han Dynasty, however, there was a great renovation in the recognition of the cause of disease, so that the Inner Cause secured the high position over 60% of the whole, and among the rest of the two cases referred to External Cause and the others to Neither External Nor Internal Cause (drinking and sexual intercourse). Diagnosis on pathology from the viewpoint of Internal Cause (內因論) was remarkably developed by the ‘Group following Emperor’s Tradition (黃帝派)’. On the other hand, the ‘Theory of Nine Palaces and Eight Winds (九宮八風說)’ which was based on Theory of External Cause (外因論) was initiated by ‘A Few Master Groups (少師派)’, to supplement the viewpoint of Internal Cause (內因論) by the ‘Group following Emperor’s Tradition’. Cf. Yamada Keiji, *How did Chinese medicine begin?* Trans. from Japanese to Korean by Sangun Jeon & Seonkyu Lee (Seoul: Science Books, 2002), p.119ff.

Energies (五氣) are connected with natural phenomena as well as the organs of the body. The Five Phases (五運) are Wood (木), Fire (火), Metal (金), Earth (土) and Water (水), each of which corresponds to the liver, heart, spleen, lungs, and kidneys respectively.<sup>78</sup> Each has a supportive or conflictive relation with the other.<sup>79</sup> Furthermore, each of the Five Phases is connected with a year (年). Each year is represented by a Phase, and according to its outbreak of disease and the method of treatment should be altered. However, even if in the same Phase year, there is diversity as the Five Phases could be either excessive or deficient. And an internal organ of the body (臟器), although it corresponds to a definite year (Correspondent year's Phase 歲運), could not operate properly, as it is influenced by Celestial Energy [天氣 : The Energy of Fire (火氣)] and terrestrial Energy [地氣 : Cold, Warm, dry, Damp (寒熱燥濕)]. Abnormal conditions resulted in by excess or deficiency of a definite Phase or by celestial or terrestrial Energy could be arranged also by Six as in the following Circumstances: 'Small Bright – Ministerial Fire - Celestial Manager (少陽相火司天)',<sup>80</sup> 'Clear Bright – Dry Metal - Celestial Manager (陽明燥金司天)',<sup>81</sup> 'Great Bright – Cold Water - Celestial Manager (太陽寒水司天)',<sup>82</sup> 'Faint Dark – Wind and Wood - Celestial Manager (厥陰風木司天)',<sup>83</sup> 'Small Dark – Manarch's Fire - Celestial Manager (少陰君火司天)',<sup>84</sup> 'Great Dark - Damp Earth - Celestial Manager (太陰濕土司天)'.<sup>85</sup>

(1) In case the Correspondent Year's Phase (歲運) is of Level Energy (平氣)

Each of Wood Phase (木運), Fire Phase (火運), Earth Phase (土運), Metal Phase (金運) and Water Phase (水運) is of Level Energy, each of Wood, Fire, Earth, Metal, Water exerts widely its virtue, and the Circulation of the Five Phases follow a normal course.

(2) In case a Correspondent Year's Phase (歲運) is in deficiency

In case a Correspondent Year's Phase (歲運) is insufficient, disaster returns back to itself. For example, when Wood Phase is deficient, it adapts itself to Metal to be charged with half Metal Energy. However, when it is influenced by Celestial Energy, the situation also changes: when it comes in contact with 'Faint Dark – Wind and Wood - Celestial Manager (厥陰風木司天),' the Wood Phase recovers to the normal

<sup>78</sup>There is two different connections between the Five Phases and the Five Intestines (Viscera): according to the theory of Ancient texts (古文說) of the Han Dynasty, 'Spleen (脾) - Wood (木), Lungs (肺) - Fire (火), Heart (心) - Earth (土), Liver (肝) - Metal (金), and Kidney (腎) - Water (水); however, according to the Theory of the Present Text (今文說), 'Liver (肝) - Wood (木), Heart (心) - Fire (火), Spleen (脾) - Earth (土), Lungs (肺) - Metal (金), Kidney (腎) - Water (水)'. Cf. Yeo, Insok, "The Pathology Theory of the Oriental Medicine", *Korean Journal of Medical History*, IV, n.1, p.1.

<sup>79</sup> For the following explanation cf. HAN, Sangmo etc. *Outline of Eastern Medicine* [Series of Eastern Medicine, 1](Seoul: Yeogang, 1991), p.67ff.

<sup>80</sup> As Fire Energy presides on the Earth, Lung Energy (肺氣) is influenced by celestial (Fire) Energy, and as the Energy of Dry Metal (燥金) increases to be exploited by Fire, grass and Wood suffer harm (金克木).

<sup>81</sup> As Dry Energy (燥氣) presides on the Earth, Liver Energy is influenced by Celestial (Dry) Energy, and as the Energy of Wind and Wood (風木) increases to be exploited by Metal (金), Earth Energy suffers harm (木克土).

<sup>82</sup> As Cold Energy presides on the Earth, the Energy of the Heart is influenced by Celestial (Cold) Energy, and as the Energy of Fire increases to be exploited by Water, Metal Energy suffers harm (火克金).

<sup>83</sup> As Wind Energy presides on the Earth, the Energy of the Spleen (脾氣) is influenced by Celestial (Wind) Energy, and as the Energy of Earth increases to be exploited by Wood (木), Water Energy (水氣) suffers harm (土克水)..

<sup>84</sup> As Warm presides on the Earth, the Energy of Dry Metal (燥金) increases to be exploited by Fire (火), so that grass and wood suffer harm (金克木). In this case, Warm increases so as to melt Metal.

<sup>85</sup> As Damp presides on the Earth, the Energy of the Spleen is influenced by Celestial (Damp) Energy, and as the Energy of Water increases to be exploited by Earth, Fire Energy suffers harm (水克火).

condition of Level Energy. However, when it meets with ‘Clear Bright – Dry Metal - Celestial Manager (陽明燥金司天)’, the Wood property disappears completely, so that it becomes similar to the year whose Metal Energy is of Level Energy. In this case Evil Energy (邪氣) penetrates into the Liver. And, when it comes in contact with ‘Great Dark - Damp Earth - Celestial Manager (太陰濕土司天), it becomes like the year in which the Earth Phase is of Level Energy.

In a similar way, when the Fire Phase is insufficient, Water Energy spreads instead of Fire Energy. And, as Earth Energy is controlled, cold weather comes out and Damp-Warm Energy (暑熱) abates. In this case, Evil Energy penetrates into the Heart. The year in which the Fire Phase is insufficient is similar to the year whose Water Phase is insufficient, but when meeting with ‘Clear Bright – Dry Metal - Celestial Manager (陽明燥金司天)’, it is similar to the year whose Metal Phase is of Level Energy.

When the Earth Phase is insufficient, Earth Energy abates and Wood Energy is reinforced. In this case, Evil Energy penetrates into the Spleen (脾). Meeting with ‘Great Dark - Damp Earth - Celestial Manager (太陰濕土司天),’ it becomes similar to the year whose Earth Phase is of Level Energy. However, meeting with ‘Faint Dark – Wind and Wood - Celestial Manager (厥陰風木司天),’ it becomes similar to the year whose Wood Phase is of Level Energy.

When the Metal Phase is deficient, the Wood Phase spreads out, and the virtue of Fire is combined with that of Earth, so that Fire presides. In this case, Evil Energy penetrates into the Lungs. The year whose Metal Phase is insufficient is similar to the year whose Fire Phase is insufficient. And when meeting with ‘Clear Bright – Dry Metal - Celestial Manager (陽明燥金司天)’, it becomes similar to the year whose Metal Phase is of Level Energy.

When the Water Phase is insufficient, Water Energy disappears, Earth Energy prospers and Fire Energy spreads out. In this case, Evil Energy penetrates into the Kidneys (腎). When meeting with ‘Great Dark - Damp Earth - Celestial Manager (太陰濕土司天),’ it becomes similar to the year whose Earth Phase is of Level Energy.

### (3) In case a Correspondent Year’s Phase (歲運) is in excess

A Correspondent Year’s Phase (歲運) causes damage by itself not only in deficiency but in excess. This is because when one Phase is too strong, it causes a reaction of a Counter Phase to keep equilibrium.

When Wood Phase is in excess, Earth Energy is reduced and Wood Energy spreads out. If it meets with ‘Small Dark – Monarch’s Fire - Celestial Manager (少陰君火司天)’ or ‘Small Bright – Ministerial Fire - Celestial Manager (少陽相火司天),’ the Energy reversely sores up. When Wood Energy is too strong so that it cannot spread out its virtue, the Energy of Dry Metal revives to come back (內復), cool weather comes out, grass and wood withers to fall, and Evil Energy penetrates into the Liver.

When the Fire Phase is in excess, Dark Energy makes flesh grow and Bright Energy prospers outside, so that warm presides and everything thrives. When meeting with ‘Great Bright – Cold Water - Celestial Manager (太陽寒水司天), it is similar to the year whose Fire Phase is of Level Energy, and Metal Energy operates in a normal condition. However, when meeting with ‘Small Dark – Monarch’s Fire - Celestial Manager (少陰君火司天)’ or ‘Small Bright – Ministerial Fire - Celestial Manager (少陽相火司天),’ Fire Energy prospers much more to harm Metal Energy, so that the latter comes out in retard. Moreover, if the fire Phase is in excess, Water Energy revives to come back (內復), cold weather frequently comes out, and temperature falls down like rain, frost and hailstones. In this case, Evil Energy penetrates into the Heart (心).

When the Earth Phase is in excess, Damp activates and Dry Phase (燥運) retreats. In this case, Great Wind (大風) quickly comes near and Evil Energy penetrates into the Spleen.

When the Metal Phase is in excess, Metal Energy spreads out, so that Earth Energy is controlled. If the Metal Phase is in excess and its power is unstable and changeable, big trees do not prosper and the weak end of twigs wither, Fire Energy (火氣) revives to come back (內復) to help Wood Energy, so that hot



weather comes out, the plants wither, and Evil Energy penetrates into Lungs. Meeting with ‘Small Dark – Monarch’s Fire - Celestial Manager (少陰君火司天)’ or ‘Small Bright – Ministerial Fire - Celestial Manager (少陽相火司天)’, it becomes similar to the year whose Metal Phase is of Level Energy and Wood Energy keeps the balance..

When the Water Phase is in excess, heaven and earth are frozen and, as Water Energy (水氣) presides, Fire Energy is controlled. Meeting with ‘Great Bright – Cold Water - Celestial Manager (太陽寒水司天), makes Fire Energy not activate. If Water Energy is immoderately excessive, [as Earth Energy revives to come back (內復)] Earth Energy presides, so that cloud and mist are full in the universe, heavy rain frequently falls down, and Evil Spirit penetrates into the Kidneys.<sup>86</sup>

#### 4) Other causes referring to human health: weather, directions, geography

In the ‘Great Theory of the Five-Elements Rule (五常政大論)’, breaking out or curing disease is explained to the Energy of heaven and earth, Dark-Brightness (Yin Yang), Directions and geographical altitude.

As Celestial Energy (天氣) is weak in the north-west direction, the north is cold and the west is cool. And as Earth Energy (地氣) is weak in the south east direction, the south is hot and the east is warm. These phenomena are due to the Energy of Dark (陰) and Bright (陽), whose degree deviates to excess or deficiency according to the altitude of a region.

The east belongs to Bright, while the essence (精華) of Bright goes down so that the south is hot, and the east is warm. And the north-west belongs to Dark, while the essence of Dark goes up so that the north is cold and the west is warm.

As there are highs and lows in geography, and warm and cool in climate, in the high land it is cold, and in the low land it is hot. In cold and cool (寒冷) regions intestinal disease frequently breaks out, and in hot and warm (溫熱) regions tumor and plague (瘡瘍) are frequent. Purgation (攻下法) cures intestinal disease, while sweating (發汗法) treats tumor and plague. These kinds of diseases are due to the excess or deficiency of weather conditions.

Furthermore, the Cold and Warm of Celestial Energy and High and Low of altitude have influences on longevity. In the place where Dark Energy goes upwards, (as Bright Energy is steadfast) people enjoy longevity, while Bright goes down, (as Bright is prone to exhaustion) people are short-lived.

When disease breaks out in a cold place in the north-west, outer cold should be dispersed and inner

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<sup>86</sup> The content similar to this is shown in the ‘Great Theory of Energy Alteration (氣交變大論)’ in *Emperor’s Canon for Inside, Simple Question*, 69: ‘When Wood Phase is in excess, Wood Energy (風氣) prospers, (as Wood controls Earth), Evil Energy penetrates into the Spleen-Earth (脾土). And, as Earth Energy is controlled, Wood Energy alone presides and Liver Energy (肝氣) immoderately prospers, so that pains of the flank (脇痛) and severe vomiting break out. In years whose Fire Phase is in excess, hot weather prospers, (as Fire controls Metal) Evil Energy attacks the Lungs-Metal (肺金), so that one suffers from a Cough and wheezing (咳嗽喘息), and Throat phlegm (喉中痰鳴). Concurrently, Fire Energy attains to the extreme harming reversely itself, which brings about delirium (譫語) and Frantic (狂亂) behavior. When Earth Energy is in excess, Evil Energy penetrates into the Kidneys-Water (腎水). In years that the Metal Phase is in excess, Dry Energy (燥氣) prospers, and (as Metal controls Wood) Evil Energy penetrates into the Liver-Wood (肝木). When Metal Energy is in excess, Energy inversely soars up and coughs and wheezing (panting) break out. In years that the Water Phase is in excess, Cold Energy (寒氣) prospers, and (Wood Energy controls Fire Energy) the Heart-Fire (心火) is harmed. Correspondingly, years that the Wood Phase is in deficiency, Dry Energy (燥氣) prospers. In years that Fire Energy is in deficiency, Cold Energy prospers and Fire Energy cannot operate. In years that the Earth Phase is in deficiency, Wind Energy prospers. When the Metal Phase is in deficiency, Fire Energy prospers, and (as weakened Metal Energy cannot control Wood) Wood Energy operates. In years that the Water Phase is in deficiency, Damp Energy prospers, Fire Energy presides, and Kidney Energy (腎氣) loses equilibrium.’

fever should be lowered, while when this happens in a hot-warm (溫熱) place in the south-east, Bright Energy should be converged and inner cold should be warmed. This method of treatment is called ‘same disease with different treatments’, as, even if a disease is the same, the treatment differs according to geographical condition. In the place of cold or cool weather, (cold) diseases should be treated by medicines with cool properties and Cold Evil should be removed with a hot bath, while in a hot place, (hot) diseases should be treated with medicine with hot-warm properties and inner Bright Energy is to be raised to protect inner parts. When symptoms come out inversely, the method of treatment should be reversed.

Even if in the same weather the condition of generation (生化) and longevity (壽命) could be diverse, which is due to the different altitudes of regions. When a region is high in altitude, Dark Energy presides, while when it is low, Bright Energy presides. When Bright prospers, things arrive prior to the destined time by nature (天時: time destined by heaven), while when Dark Energy prospers, things arrive later than the destined time by nature. Accordingly, when the altitude is high, the Energy of the human body lasts a long time, but in low regions, it does not. The narrow – and largeness of a region also tells on the deviation of longevity in a region. When a region is narrow, the difference of longevity among people is not big, if a region is large, the difference is great.

Thus, when treating disease, one could understand the body’s constituent and Energy (形氣) by considering natural law (天道: Celestial Law), geography, vicissitudes of Dark and Bright, sequences of weather, the span of human life, and season of generations.

Besides, in the ‘Great Theory of Energy Alteration (氣交變大論)’ in <*Emperor’s Canon for Inside, Simple Question*>, the Five Energies, as well as their excess and deficiency, are connected not only by year, but with the five stars [Mars, Saturn, Venus, Mercury, Jupiter (火星, 土星, 金星, 水星, 木星)] in the sky. The stars (星象) are connected with ‘Pleasure, anger, Sorrow, Funeral, abundance, and Dryness (喜怒憂喪澤燥)’

Correspondent Properties of Five Phases and Five Energies  
shown in the 'Great Theory of the Five-Elements Rule (五常政大論)'

Five Phases	Wood	Fire	Earth	Metal	Water
Energy	Wind	Heat (熱)	Damp	Dry	Cold
Internal Organs /Viscera (臟)	Liver	Heart	Spleen	Lungs	Kidney <sup>87</sup>
Season	Spring	Summer	Last month of summer (rainy)(季夏)	Autumn	Winter
Weather	mild	hot	Steaming hot	(urgent) Cool	(still) Frozen
Generation	Genesis	Growth	Ripeness	Harvest	Store
Direction	East	South	Center	West	North
Color	Blue	Red	Yellow	White	Black
Atmosphere	Decency	Ascension	Harmony	Charity	Bright
Character	Obedience	Impatience	Docility	Solidity	Ascension
Function	Curve & Straight	Flaming	High & Low	Withering & Falling	Flowing & Overflowing
Attitude	Radiation	Shining	Stability	Solemnity	Mobility
Part of Body	eye	Tongue	Mouth	Nose	Genital & Anus <sup>88</sup>
Grain	Sesame	Barley	Millet (稷)	Rice	Bean
Fruit	Plum	Apricot	Jujube	Peach	Nut
Constituent of Fruit	Seed	Fiber (絡)	Fruit Flesh	Shell	Juice
Insect	Caterpillar (毛蟲)	Feather Bug (羽蟲)	Nud Bug (裸蟲)	Sell Bug (介蟲)	Scale Insect (鱗蟲)
Domestic Animal	Dog	Horse	Bull/ Cow	Rooster	Pig
(精) Carnal (精氣)	Muscle	Blood	Flesh	Skin	Bone marrow
Disease	Abdominal spasm/ Fullness of Flank & Rib	convulsion	Blocking of chest & diaphragm	Cough	Cold Limbs (厥逆)
Flavor	Sour	Bitter	Sweet	Acrid	Salty
Musical Scale (Eastern 5 notes)	Gong (宮)	Shang (商)	Jiao (角)	Zhi (徵)	Yu (羽)
Material/Property	stiff	Collateral Channel	Flesh	Hard Surface	soft
Number	8	7	5	9	6

<sup>87</sup> In the <Lü Shi Chronicle (呂氏春秋)>, the order is altered to be Spleen (脾), Lungs (肺), Heart (心), Liver (肝), Kidney (腎) respectively.

<sup>88</sup> Before and After Dark (前後二陰)

## 2. Theory of Febrile Disease (傷寒論)

The theory of the Five Elements was not always the same. The earlier theory of the Five Elements had not the scheme of Mutual Support (相生) as well as Mutual Friction (相剋), which was developed by Zou Yan (鄒衍) in the age of the Warring States (403-221 BC). The theory of Mutual Support (相生) as well as Mutual Friction (相剋) of the Five Elements came to be applied actually by the Qi Bo Group in the Sin(新) Dynasty (8-23 AD)<sup>89</sup> which intervened between the western Han and the Eastern Han Dynasties.

These various trends in Eastern Medicine reflect themselves in the understanding of the medicinal effects of botany. The theory of Dark and Bright (Yin and Yang) and the Five Elements (五行) was a distinctive feature of Eastern medicine, which however was not as influential in the earlier period as the later. In the case of the medicinal use of botany, earlier works, *Shennong Materia Medica*<sup>90</sup> as well as *Special prescriptions of Famous Doctors* (名醫別錄) was less influenced by The theory of Dark and Bright (Yin and Yang) and the Five Elements (五行), and Zhang Zhongjing (張仲景)'s *Theory of Febrile Disease* (傷寒論) was found on the road of transition from simple and practical use of therapeutic botany to abstract theorization.

### 1. Transformation of the Theory of Febrile Disease

At the end of the Later Han Dynasty (25-220 A.D.) Chang Chungching (張仲景) wrote the <*Theory of Febrile and Miscellaneous diseases* (傷寒雜病論)> in 16 books, as well as other books. Other books have not been survived, while the <*Theory of Febrile and Miscellaneous diseases*> survived and was divided into two parts: <*Theory of Febrile Disease*> and <*Synopsis of Golden Cabinet for Prescription Theory* (金櫃要略方論)>. In 1065, Lin Yi (林億) of the Northern Song Dynasty published <*Introduction of the Theory of Febrile Disease* (傷寒論序)>, revising the <*Theory of Febrile Disease*>.

Regarding the latter transformation of the Theory of Febrile Disease, Yamada Geizi set up three books treating the Theory of Febrile Disease.

- ① <*Classic of Pulse* (脈經)> of Wang Shuhe (王叔和) in the Wei (魏) of the era of Three Countries (三國時代: 220-265 AD) or West Jin (西晉: 265-316 AD) Kingdom in the 3rd century.
- ② in the Tang (唐) Dynasty (the latter half of the 7th century) Sun Simiao (孫思邈 b.541) wrote the <*Thousand Gold Relieving Prescriptions* (千金翼方 Qianjin Yi Fang)>, the Theory of Febrile Disease appeared in vols. 9 and 10.
- ③ <*Treatise on the Theory of Febrile Disease* (註解傷寒論)>(1144),<sup>91</sup> which Cheng Moyi (成無己) issued in the Jin (金) Dynasty, emending (校勘) and supplementing notes to the <*Song Edition [of the Theory of Febrile Disease]* [宋刊本 (傷寒論)]>, and <*Republished Edition [of the Theory of Febrile Disease]* [復刊本 (傷寒論)], 1599)> in the Ming Dynasty, edited by Zhao Kaimei (趙開美) [abbreviated below as the *Song Edition* [宋刊本 (傷寒論)], on the base of the '*Song Edition [of the Theory of Febrile Disease]* [宋刊本 (傷寒論) 1065]' which had been partly restored from Cheng Moyi' work of Emendation (校勘記).

Prior to the <*Febrile Disease*> of Chang Chungching, the theory of Febrile Disease was already dealt with in the <*Simple Question* (素問)> (Treatise of Discussion for Fever) and <*Classic for Predicaments* (難經)>. Chang Chungching (張仲景)'s <*Theory of Febrile and Miscellaneous diseases* (傷寒雜病論)>, however, deal with the Pulse Syndrome [脈証: Situation of Pulse (脈象) and its symptoms] caused by Febrile Disease and its treatment,

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<sup>89</sup> According to Yamada Keiji, in the Western Han Dynasty the 'Huang Di Group (黃帝派)' and 'Shao Shi Group (少師派)', in the Sin(新) Dynasty (8-23 AD) Bo Go Group (伯高派), and in the Eastern Han Dynasty Shao Yu Group (少俞派) and Qi Bo Group (岐伯派) prevailed respectively, at last resulting in being unified to the Huang Di Group. Cf. p.93f.

<sup>90</sup> <*Shennong Materia Medica*> was traditionally said to have been written about 3700 BC by Shennong, who discovered medicinal botany accompanying one ship and recorded the knowledge in it, but it is supposed to have actually been written much later in the Chin (秦) and Han (漢) Dynasties.

<sup>91</sup> <*Treatise on the Theory of Febrile Disease* (註解傷寒論)> was attributed to Chang Chungching of the Han Dynasty as author (漢張仲景著), and to Wang Shuhe of the Jin Kingdom as editor (晉王叔和撰次). According to the accepted view, however, Wang Shuhe was Chief Imperial Doctor (太醫令) in the Wei (魏) Kingdom.

and Pulse Syndrome (脈証) caused by miscellaneous diseases and its treatment.<sup>92</sup> The surviving <Theory of Febrile Disease> consists of 22 books, 22 chapters in all, the contents of which could be divided into 5 parts.

- 1) Extraordinary Pulse Mode (弁脈法), Average Pulse Mode (平脈法), Examples of Febrile Disease (傷寒例) [3 chapters]
- 2) Pulse Syndrome discerning Paralysis (瘓), Damp (濕), and Dry (渴)☵ [1 chapter]
- 3) Pulse Syndrome and its treatment discerning Three Darks and Three Brights [8 chapters]
- 4) Pulse Syndrome and its treatment discerning recurrence after recovery from Acute Diarrhea (癘亂 : for example, Cholera), or Dark and Bright Alteration [陰陽易: Dark Alteration (陰易: illness of woman) and Bright Alteration (陽易: illness of man)] [2 chapters] Cf. Dark or Bright Alteration refers to the recurrence of Febrile Disease (傷寒) or Pestilence (瘟疫) by having sexual intercourse in a state where the previous illness had not been fully cured.
- 5) Pulse Syndrome and its treatment discerning sweat (發汗), vomiting (吐), diarrhea (下), illness after sweating, illness after vomiting, to decide whether a definite prescription can be applied (可) or not (不可) [Theory of Possible or Impossible] [8 chapters]

## 2. Yamada Geizi' opinion concerning the clinical medicine of <Theory of Febrile Disease>

It has been discussed what kind of relation the theory of Febrile Disease of Chang Chungching has on the theory of posterity of China, 'Symptoms of the Six Meridians (六經辨証)' or the 'Treatment by symptom Discussions (辨証論治).' Yamada Geizi suggested that, even if The theory of 'Symptoms of the Six Meridians (六經辨証)' does not appear in the <Theory of Febrile Disease>, it was potentially immanent in it, and the posterity came to gradually find its true meaning to express clearly the concept.<sup>93</sup> In addition, he maintained that everyone recognizes that the third among the six items above, with regard to Three Darks and Three Brights, belongs to Chang Chungching, while most people think the fifth, the theory of 'Possible (可) impossibly(不可),' belongs to the writing of Wang Shuhe (王叔和).<sup>94</sup>

Even if there is no proof, as the original edition has not survived, Yamada Geizi supposed, the work of Chang Chungching might be the first book of clinics which was based on theory. The previous book of clinical medicine, such as <Prescriptions for 52 kinds Disease (五十二病方)> or excavated medicinal records, <Wuwei's Medical Bamboo Slips of the Han Dynasty (武威漢代醫簡)> supposed to be from the first half of the Later Han Dynasty (25-220), are no more than a chaotic miscellaneous collection of popular treatments. These books followed classification according to the kind of disease, but it was not arranged on the criterion of a certain theory. As a method of treatment, medicines were introduced for internal application and external application, Acupuncture and moxibustion (鍼灸), fumigation (熏蒸), Bath (入浴), Watering (灌水), Compress Method (罨法), external surgery, and incantation. Chang Chungching, Yamada Geizi concluded, excluding external surgery and incantation, introduced a principle to arrange clinical medicine systematically.<sup>95</sup>

My opinion, however, differs from that of Yamada Geizi. The more Chinese medicine was arranged according to a definite principle, it seems, the more it deviated from the Theory of Febrile Disease of Chang Chungching. The systematic theory to which Yamada Geizi referred is mostly related to the concept of Three Darks and Three Brights or the Six Meridians. It will be discussed below how these concepts differ with each other in the three books referred to above, and the feature of the Theory of Febrile Disease in the surviving, so called <Song Edition [of the Theory of Febrile Disease] (宋刊本)>..

<sup>92</sup> Cf. Yamada Keiji, *How did Chinese medicine begin?*, p.171f.

<sup>93</sup> Cf. Yamada Keiji, *How did Chinese medicine begin?*, p.192f.

<sup>94</sup> Cf. Yamada Keiji, *How did Chinese medicine begin?*, p.180. <Hu-Hui Collection of Physician's Classic (醫徑胡回集)>(1368 年) written by Wang Lü (王履) in the Yuan Dynasty attributed ① Pulse Mode (脈法) and ⑤ Theory of Possible or Impossible (可, 不可) to the addition of Wang Shuhe, and <Introduction for Febrile Disease Syndrome (傷寒類証弁惑)> of Huang Zhongli (黃仲理) attributed ①, ②, ⑤ to the recompilation of Wang Shuhe. Even afterwards various theories came to be added, so that it seems that the original <Theory of Febrile Disease> of Chang Chungching could not be restored.

<sup>95</sup> In relation to surgical treatment, in my opinion which differs from that of Yamada Keiji, Chang Chungching did not deliberately exclude it, but it was simply not treated as the book referred mostly to epidemic disease.

### 3. Transformation of the Theory of Febrile Disease

Wang Shuhe's (王叔和) <Classic of Pulse (脈徑)>, from the Third century, appeared no more than 20 or 30 years after the <Theory of Febrile Disease> by Chang Chungching. In the <Classic of Pulse ein Classi(脈徑)>, vol.7, chapt. 1~17, discusses the Theory of Febrile Disease, and in 6 chapters of vol.8 several items similarly related are scattered. Vol. 8 [and a part of vol.9] refers to <Miscellaneous Disease (雜病) of [*Synopsis of Golden Cabinet (金櫃要略)*]>, among which the theory of Febrile Disease is interposed to be discussed.

In the <Classic of Pulse (脈徑)> the discussion of the Three Darks and the Three Brights does not yet appear, and it consists only of the content of the 5th part, 'Possible or Impossible', among the five parts introduced above. The types of disease discussed are 17: 'Possible' and 'Impossible' respectively for Sweating, Vomiting, Diarrhea, Acupuncture, Moxibustion, Watering (水) and Firing (火), and Warming, 'After Sweating (發汗後)' and 'After Sweating, Vomiting and Diarrhea (發汗吐下後)'. The discussion related to the 17 kinds of disease, however, was changed through the <Thousand Gold Relieving Prescriptions> to the <Song Edition>, as proved in the statistics below.

Disease	Book <i>Classic of Pulse (脈徑)</i>	<i>Thousand Gold (千金)</i> <sup>96</sup>	<i>Song Edition (宋刊)</i>
Impossible (Sweat, etc.)	28	14	13
Possible (Sweat, etc.)	45	13	6
After Sweating	26		1 (→ 31 items transferred to the section of Three Darks and Three of Brights)
'After S, V, D	61	31	0 (→ 48: items transferred to the Section of Three Darks and Three of Brights)

In detail, the difference presented among the three books can be seen in the following examples.

"... When fallen ill by this, by one or two days maybe no symptom breaks out in the mouth, but in case chilling falls on the back, moxibustion should be practiced there." [*Classic of Pulse (脈徑)*]

For this case, the treatment of the <Classic of Pulse> is directed to 'Moxibustion Possible' (可灸), while the discussion of the <Thousand Gold Relieving Prescriptions> and the <Song Edition> refers to 'A little Dark (少陰)', so that the treatment of moxibustion of the former has been changed to the abstractive concept related to the theory of Three Darks and Three of Bright.

"In case of diarrhea and pyemic (膿血) excrements, acupuncture is advised."

The treatment of the <Classic of Pulse> is directed to 'Acupuncture Possible' (可刺), that of the <Thousand Gold Relieving Prescriptions> to 'Acupuncture Must Be Done (宜刺)', while the discussion of the <Song Edition> refers to 'A little Dark (少陰)',

"When one has diarrhea and pain in the anus, it should be warmed, and pressed by means of roasted salt. Otherwise, it could be scrubbed by means of roasted fruits of the trifoliolate orange." [*Classic of Pulse (脈徑)*]

The treatment of the <Classic of Pulse> is directed to 'Firing Possible (可火)', that of the <Thousand Gold Relieving Prescriptions> to 'Acupuncture Must Be Fired (宜火)', while there is no discussion in the <Song Edition>.

"At first to take soup of Cinnamon twig (桂枝湯), and when the pain of Chest does not disappear, then first practice acupuncture around the back of the neck (風池. 風府), after that taking soup of Cinnamon and it gets well." [*Classic of Pulse (脈徑)*]

<sup>96</sup> Abbreviation of the <Thousand Gold Relieving Prescriptions>.



The treatment of the <Classic of Pulse> is directed to 'Acupuncture Possible' 可刺, that of the <Thousand Gold Relieving Prescriptions> to 'Acupuncture Must Be Done (宜刺)', while the discussion of <Song Edition> refers to 'Great Bright (太陽)',

From the above discussed, it is shown that practical treatments, moxibustion (灸). acupuncture (刺). and firing (火), in the *Classic of Pulse* were altered to be connected with the abstractive concepts of the Three Darks and the Three Brights in the <Song Edition>. Actually, in the <Song Edition>, 83 items related to the three measures of treatment, Sweating, Vomiting and Diarrhea, are registered in duplicate in the part for the Three Darks and the Three Brights. Moreover, the chapters for the five methods of treatment (五法), Warming (溫). Firing (火). Moxibustion (灸). Acupuncture (刺). and Watering (水), disappeared, the main items of which have been moved into the section for the Three Darks and the Three Brights. The practice of duplication did not begin in the <Song Edition>, but appeared previously in the <Thousand Gold Relieving Prescriptions>. Where 96 items among 144 items which had belonged to the 5th part, Possible or Impossible [(可-不可, i.e. Apply or Avoid (宜忌)] in the <Thousand Gold Relieving Prescriptions> are to be attached to the 3rd part for the Three Darks and the Three Brights in the <Song Edition>, and in the <Thousand Gold Relieving Prescriptions> 40 items of 96 are duplicated in both the 3rd and 5th sections.

The editor of the <Song Edition> explained the reason why some items are duplicated both in the part Possible or Impossible, and that of the Three Darks and the Three Brights, as follows.

“Actually, when a disease is acute, one hurried to find a measure of treatment, which was not easy to find. So, for the sake of convenience, this resulted in duplicating the prescriptions and the measures of treatment related to 'Possible and Impossible.' In comparison with the part of the Three Darks and the Three Brights, that of the 'Possible and Impossible' is easier to understand.”

In this way, the editor himself admitted the fact that the theory of the Three Darks and the Three Brights is difficult for people to understand, while the practice of Possible and Impossible is easier to approach for the common person. It could be said, the latter is based on clinical experiences, while the former is more abstruse as it refers to theoretical abstractionism, such as the Three Darks and the Three Brights, and Discerning Symptoms according to the Six Meridians (六經辨証).

#### 4. The surviving <Song Edition> and clinical features presented in the Theory of Febrile Disease

##### Febrile Disease

Chang Chungching (張仲景)'s <Theory of Febrile Disease> has been lost and could not be restored. However, it could be surmised that the Theory of Febrile Disease discussed in the survived <Song Edition> was not to the same as that presented by Wang Shuhe (王叔和)'s <Classic of Pulse (脈經)>. The most remarkable refers to the concept of Darkness and Brightness. As time passes, however, the theory of Febrile Disease, which originally referred just to the concept of Dark and Bright, became more systematically connected with the Six Meridians or the mystery of numbers (數秘學).

The cause of disease is connected with the weather, i.e. Wind, Cold, etc. The most prosperous Energy according to season could be a latent poison, and brings about disease in the following season. The poison goes into body through an opening, and causes disease in the circulating system. The poison of Cold (寒) does not do so immediately but lurks about for a while, and develops itself in spring or summer to cause the disease of warmth (溫) or fever (熱).

Each Meridian begins at the end of body and reaches the center of body or head. A disease breaks out in a Meridian and may or may not infect other Meridians. So a disease could be named according to the Meridian from which it broke out. In this way, there are Six kinds of disease: Great Bright, Lucid Bright, Small Bright, Great Dark, Small Dark, and Faint Dark.

On the other hand, it should be noted that originally in China there was a system of 11 Meridians, and not 12. In the former system, there was not much space for the mystery of numbers (數秘學) based on the multiplication of the Six Energies, or the Six Meridians.

### 3. Comparison of medicinal philosophy between Hippocrates and in *Emperor's Canon for Inside*

- Focusing on 'On the Nature of Man', 'On the Archaic Medicine' and 'On the Airs, Waters, Places' of Hippocrates and the 'Great Theory of the Five-Phases Rule' in the *Simple Question, Emperor's Canon for Inside* -

Some differences as well as similarities are found between Hippocrates and traditional Eastern medicine. Similarities are shown between the theory of the Four Humors of the body and the Four Elements (Cold, Warm, Dry, Damp) of nature in Hippocrates and that of the Five Internal Organs and the Five Energies (Cold, Warm, Dry, Damp, Fire) shown in <Simple Question>.

However, there are also differences between them. In Hippocrates, the four elements are correspondent respectively to the four humors (blood, yellow bile, phlegm, and black bile) which flows through all the body, while, in the *Simple Question*, each of the Five Energies corresponds respectively to one of Five Phases (Wood, Fire, Earth, Metal, Water) as well as Five individual Internal Organs: Wood to the Liver, Fire to the Heart, Earth to the Spleen, Metal to the Lungs, and Water to the Kidneys.

On the other hand, in Eastern philosophy, Wind (風) is added to the four elements so that there are Five Energies (五氣), and Fire (火) is added to the Five Energies so that there are Six Energies (六氣). Then, Wind or Fire refers to natural phenomena, but the four elements (Cold, Warm, Dry, Damp) refer to properties attached to materials. Furthermore, Fire is a constituent of the Five Phases (五運).

Secondly, both the four elements in the 'On the Nature of Man' and the Five Phases in the 'Great Theory of the Five Motion Rule' refer not only to the human body but to seasons. To which season does each of the four elements correspond is not the same, as in Eastern countries the damp season is summer, while in Hippocrates it is spring. This is because in Greece summer is not rainy but dry. However, a more important difference is found in the relation between a correspondent season and the breaking out or curing of disease. In Hippocrates, when each element which is to preside within a definite season prospers, a disease which has previously broken out is to be cured later in a season with an opposite feature. The disease which breaks out in winter is to be treated in summer, and the disease which prospers in summer is to be cured in winter. In a similar way, diseases which appear in spring have to wait until autumn to be cured.

In the East, however, when the Energy which corresponds to a definite season is in excess or in deficiency, Evil Energy (邪氣) penetrates into the correspondent internal organ.<sup>97</sup> Thus, the internal organ whose energy reduces or prospers according to season should be concerned about and maintained.<sup>98</sup>

Thirdly, disease also breaks out under the influence of natural environments such as weather, air, and water. In the 'On the Airs, Waters, Places' of Hippocrates, airs and waters exist all around the world, and do not correspond to each of the directions or the parts of the body. As the four humors are spread all over the body, airs and waters just show regional deviations owing to geographical and historical environments. Directions and astronomy also are discussed in relation to geographical environments: wind, water, place, weather, year, and customs. Disposition of each ethnic, docile, and courageous, is formed under the influence of geography and weather. Differences between Europe and Asia are discussed, and among the countries of Asia, Egypt, Libya, the region of the Rion River south of the Caucasus, and among Europeans, Scythians were referred to. Each year the weather is different and thus the diseases which break out there also may differ according to the weather.

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<sup>97</sup> Cf. According to Xunzi (荀子), 'if following the principle of maintenance (保養) and behaving properly obeying the law of the four seasons, men are not to fall ill by nature, and when practicing moral principles and not being capricious, nature cannot bring disaster to men' [<Xunzi (荀子)>, 'Theory of Heaven (or Nature) (天論)']; 'According to ancient physicians, whoever attempts to attain longevity should be adapted to the law of Dark and Bright, as well as the four seasons.' (*Simple Question*, Archaic naivety (上古天真)); 'Basic principle of maintenance is to be adjusted to the four seasons, and to act properly on the occasion of hot and cold. In spring and summer, Bright increases and Dark reduces (days are longer and nights are shorter), while in autumn and winter, Dark increases and Bright reduces (nights are longer and days are shorter). Thus, whoever possesses virtue follows the fundamental principles by maintaining against Bright in spring and summer, while against Dark in autumn and winter.' (*Simple Question*, 'Modified Spirit of Four Energies (四氣調神)').

<sup>98</sup> Disease of the intestine is to be cured not in the season which corresponds to it, but in the next season (*Simple Question* (素問)). Cf. 'Theory of Viscera Energy According to Season (藏氣法時論)', 22.



In the 'Great Theory of the Five Motion Rule (五常政大論)', however, each of the Five Phases, the five Energies or the Five Internal Organs corresponds to each year (年), direction, musical scale, domestic animal, number, etc. This kind of co-relation is quite abstractive and diagrammatic. Furthermore, social values such as mildness, impatience, obedience, solidity, harmony, and chastity also are connected with the Five Energies. On the other hand, in the 'Great Theory of Energy Alteration' the Six Energies refer to human emotions such as 'pleasure, anger, sorrow, death, abundance, dryness (喜怒憂喪澤燥)' and social institution or ethics such as 'virtue, development, government, order, disaster, and alteration (德化政令災變)'.

Fourthly, in Hippocrates each organ of the body differs in composition of its 4 humors. And when it sustains its nature, health is maintained, while if it does not, disease breaks out. According to season one humor takes a firm stand against the others, but they have no restraint or contradiction against one and other. The Four humors exist together, and even when one humor is in deficiency, the body suffers from illness. The treatment is to recover the original state of equilibrium by means of diet, medicine or physical exercise.

In Eastern countries, however, the internal organs are found in mutually supportive or exclusive relations. And the harmony of mutual support and exclusion results in health. The concept of mutual support or exclusion between each of the Five Energies is quite different from that of Hippocrates, as the latter four humors co-exist everywhere in the whole body, and only differ in a relative component ratio according to season.

Fifthly, there is still a great difference between two traditional medicinal theories. In Hippocrates there is a warning against the naive philosophers of dogmatic theories. The medical knowledge should not be concerned with superficial theory but based on empirical data. In succession, it is said, the fact that each of the Four humors (blood, yellow bile, phlegm, black bile) existing in the human body has an upper hand over one of the four seasons is seen in empirical data. Thus, as the bile (chole) prospers in summer and autumn, throwing up bile often occurs in these seasons without any definite causes. And if we make one throw up by a cathartic drug, phlegm comes out in winter, blood in spring, yellow bile in summer and black bile in autumn. Furthermore, there is a critical comment on the four elements (Cold, Warm, Dry and Damp) in 'On the Archaic Medicine' of Hippocrates, as it denies each of the Four Elements as an independent entity, but a property attributed to materials.

In Eastern medicinal philosophy, however, the Five Energies are discussed like an independent, objective entity such as the Five Phases. Each correspondence among the Five Phases of nature (wood, fire, earth, metal, water), the Five Organs of the human body (liver, heart, spleen, lungs, kidney), year, various natural phenomena and even social behavior and human emotions, presented more systematically in "Great Theory of Five Motion Rule", which is more superficial, and not only devoid of empirical evidence, but of the intention it wishes to find.

Thus, we could say, the philosophy of traditional eastern medicine has a tendency of arbitrary abstractionism, which is different from the concrete, empirical research of Hippocrates. The latter is clearly manifested in the 'Archaic Medicine', according to which explanation of medical science should not be based on vacant theory but clear evidence.

## C. Tradition of Greek Medicinal Philosophy

Chinese traditional medicinal theory such as Five Phases and Five Energies, Five Phases and Six Energies, and Dark-Bright Five Phases, shows quite a speculative tendency. Even if the relative weight was not so much, in Greece, too, there was a theory to explain the constituents of body by a uniformed theory. For example, in a part of the Corpus of Hippocrates, there is a theory of four humors ((blood, yellow bile, black bile, phlegm / phlegm, blood, bile, water) or four elements (fire, water, earth, air / Warm, cold, dry, damp).

Actually, in ancient Greece the theory of four humors or four elements did not develop systematically. As time passed by, however, it progressed now and then, and in the Middle Ages, surpassing the physical world, it is connected with human psychology, even advancing to the Middle Age's Christian virtue of good and evil. These alterations related to the function of the four humors shows common features with the change in the medicinal philosophy proved in Neo Confucianism, in which human psychology and social ethics are connected with the working of nature and the human body.

The theory of four humors or four elements of Greece, however, does not refer much to the tendency of speculation or the theory of mysterious number (數秘). In Greece, practical physical phenomena were preferred to the theory of Dark (陰 Yin) and Bright (陽 Yang). And there is a difference in the concept of physical elements. Three elements: fire, earth and water are common in both region, but in the Greek four elements there is air, which is not shown in Chinese theory, whereas in the latter wood and metal are referred to.

There is also a difference between Greece and the Eastern Countries in the view of understanding nature. For example, Galenos defined the functions of nature as consisting of *energeia* and *pathos*. *Enegeia* is motivated by nature, *pathos* however is not motivated by another but surpasses nature itself. The concept of pathology which transcends nature is not found in the Chinese tradition which regards all the phenomena as natural. Moreover, in Greek tradition there is a discussion on the difference of nature (*physis*) and technic (*techne*), which is not shown in Chinese philosophy.

### 1. The nature of man and external cause of disease in Hippocrates

#### 1) 'On the Nature of Man' and 'Parts of human body'

##### (1) Four humors and four elements

In 'On the Nature of Man' (abb. Nature of Man) and the 'On the Places in Man', various clinical phenomena are introduced. It is said in 'On the Nature of Man' that human body consists of four humors: blood, phlegm, yellow bile, and black bile. When the four humors are properly mixed and the temperature is adequate, the body gets a healthy condition. The relative composition of four humors alters also according to season.

In 'On the Nature of Man', it is a wrong to understand that nature consists of just an element. Some physicians mistakenly thought that human body consists of one of blood, phlegm, bile, and being influenced by warm and cold to change shape or property, it becomes sweet, bitter, white or black ('Nature of Man' 2). However, nature consists of not one of air, fire, water, earth, or so, but all of four elements. The human body is the same. The shape and power of each humor differs from the others, as fire and water differs from each other. ('Nature of Man' 5). Each one is different from the others in color, tactual sense, and the degree of cold, warm, dry and damp.

'Nature of Man'(2) adduces as the proof for the body consisting of different humors the facts as following: if the human body consists of only one humor, it would not feel pain and never be attacked by disease, as one humor is too simple to bring about disease. Even in case one humor brings about disease, it would be available with just one kind of medicine. Actually, however, the medicine is multiple, because the human body consists of multiple elements. The outbreak of disease is due to these humors in extraordinary, unnatural conditions, i.e. more warm, cold, dry and damp, so that disease as well as the method of treatment is multiple. Four humors are always in existence, regardless of the old and the young and irrelevant to the cold or the warmth of seasons. According to situation, just the quantity increases or lessens.

## **(2) Equilibrium of four humors and four elements**

The genesis of the human being does not result from one but a combination of two bodies, and two bodies combined with each other are of the same property ('Nature of Man'2). However, cold and warm, as well as dry and damp, should be in equilibrium. Otherwise, if one prevails over the other, genesis could not be attainable ('Nature of Man'4). When the body dies away, each element is decomposed, which gathers together according to the same kind ('Nature of Man'3): damp with damp, dry with dry, warm with warm, and cold with cold. All animals and all creations are created in this way.

Improper states of the body regarding cold, warm, dry and damp, which results from various reasons, brings about disease. An improper state does not refer only to the whole body, but also to a part. ('Nature of Man'12). Each part of the body is not the same in nature, but various, either dry or damp. ('Nature of Man'1). Moreover, the human body is closely connected with the natural environment. The outbreak of disease is influenced by sun, shade, weather, air, water and its evaporation, and epidemics.

Blood corresponds to warm, which comes from the heart going up to the head. Phlegm is cold, which starts from the head to spread over the whole body. Yellow bile is dry, which comes from the liver, and black bile is damp, which originates from the spleen and stomach. Four humors should also be properly mixed to result in health. ('Nature of Man'4). When one is in excess or deficiency, or one breaks away from the others not being mixed well, disease attacks the body.

When one humor flows out to be detached, disease would attack not only the original space which has been vacant, but also the swollen space where it has flown into, which brings about pain. Thus pain is duplicated if one humor flows out of body in more than a proper quantity, the vacant space causes pain.

### **(2) Four humors referring to four seasons and four physical constitutions**

The power of each humor alters according to the season ('Nature of Man'7). Phlegm prospers in winter as it is the coldest of all. The proof for it is that the phlegm such as sputum and snivel increases in the mouth and nose. When spring comes, the power of phlegm still stays, but that of blood increases. As cold begins to reduce, the power of blood increases by frequent rain and the sun. Spring is the most adequate season for nature, as it is damp and warm. In spring and summer, the body mostly suffers intestinal troubles and much snivel, and becomes red and warm. In summer, the power of blood still stays, and phlegm begins to operate, lasting until autumn. In autumn, blood reduces as autumn stands against blood.

On the contrary, in summer and autumn bile presides. The proof for it is that in these seasons the bile is frequently vomited of its own accord, fever develops, and the skin is blackened. In summer phlegm reduces, as summer is dry (the dry summer in Greece is different from the damp summer of Eastern countries) and hot which is contrary to phlegm. Blood reduces in the dry autumn, when body becomes cold. In autumn, black bile presides. If vomiting is forced by an emetic agent, phlegm comes up in winter, blood in spring, yellow bile in summer, and black bile in winter, which proves the above discussed facts.

In this way, the four humors are connected with the four elements of cold, warm, dry and damp, and the four seasons as well. There would be no genesis or existence if even one of them is lacking. According to season, one of them prevails over the others, and the treatment is to recover the natural state of equilibrium.

## **2) 'On the Ancient Medicine'**

### **(1) Denial of speculative philosophy**

'On the Ancient Medicine' (abb. 'Ancient Medicine'), dividing archaic medicine and new medicinal theory, criticized the latter. It says that the archaic medicine was based on empirical, practical phenomena, but the new theory referred to philosophical discussion of some physicians and sophists on the nature (physis) and the human body.

'Ancient Medicine', 20. Certain sophists and physicians say that it is not possible for any one to know medicine who does not know what man is [and how he was made and how constructed], and that whoever would cure men properly, must learn this in the first place. But this saying rather appertains to philosophy, as Empedocles and certain others have described what man in his origin is, and how he first was made and constructed. But I think whatever such has been said or written by sophist or physician concerning nature has less connection with the art of medicine (*iatrike techne*) than with the art of

painting. And I think that one cannot know anything certain respecting nature from any other quarter than from medicine; and that this knowledge is to be attained when one comprehends the whole subject of medicine properly, but not until then.

This declaration of 'Ancient Medicine' is interpreted as a denial to the Empedocles' theory on nature, and the discussion of the four humors and the four elements of 'Nature of Man' as well. In my opinion, however, the rejection of 'Ancient Medicine' does not reject the theory of four elements itself, but the arbitrary explanation of the nature (physis) by only four elements, which standardizes everything so as to attribute human being's disease or death to one or two causes. ('Ancient Medicine' 1). According to the 'Ancient Medicine', medical science is not to be based on abstract theory which generates no more than diverse empty opinions. Whoever either maintains himself or accepts such kind of theory cannot adduce clear evidence for the explanations on the heaven and earth. In succession, 'Ancient Medicine' says that for medicine to be effective the physician needs to know the true nature of man and this must be determined through his relationship to food, drink, and other practices of life associated with the human organism

## (2) View of 'Ancient Medicine' concerning to four humors and four elements

What 'Ancient Medicine' refused is not the theory of the four elements itself, but the standpoint that explains all the causes of disease and the method of treatment absolutely on the basis of four elements. This is based on two reasons. One is that each of cold, warm, dry, and damp is not a separate existence, but an attribution of things which consist of various constituents, so that the elements could not be separately treated. The other one is that every human being has different features, and might react to the same agent in different ways, so that standardized method of treatment could not be found ('Ancient Medicine' 9).

Concerning the first point, 'Ancient Medicine' (13) criticized the physicians who introduced a 'new method' to the medicinal research. The physicians of a new method thought that when one of four elements harms the body, the expert physician should treat the disease due to cold by warm, warm by cold, dry by damp, and damp by dry. However, 'Ancient Medicine' refuses the standpoint which explains the cause of disease and the method of treatment just on the basis of four elements. For example, when a person of weak body falls ill eating grain and meat raw, the proper treatment should not concern one of the four elements, but eating them boiled instead of raw. Furthermore, grain is processed by the means of fire and water, and through other stages as well, to be bread, which has all of four elements.

In addition, inside the human body there are not only cold, warm, dry and damp, but bitter, salty, sweet, sour, astringent, nasty, and other unknown elements. Anything in the world cannot come into existence exclusively by cold, warm, dry and damp ('Ancient Medicine' 15). Even if anything is the same in warmth, it might have a different flavor, i.e. astringent, salty, sour, or of no flavor, so that it is combined with other properties to show the potentially opposite disposition with each other. ('Ancient Medicine' 15 : 17).

Moreover, 'Ancient Medicine' insists that cold and warm have just a meager influence on the body ('Ancient Medicine' 16), as these two elements are always in mixture to be neutralized. Supposing any of cold and warm in a separated state from the other brings about disease, for example, when the cold does, immediately the warm flows inside the body even without any treatment. Its proof is the following examples: in case whoever gets goose pimples generates high fever, or when high fever falls down, one feels more cold than usual. In this case, immediately cold alters to warm and warm alters to cold by itself ('Ancient Medicine' 18 : 19). Actually, however, there is potentially a case that fever might not fall down, cold not change immediately to warm, and warm not change to cold. This is because cold or warm does not exist independently, but is combined with other properties, so that disease breaks out of various combined elements.

The criticism against the standardized theory of the four elements, which was supported mostly by Empedocles, appears in the preface of 'Ancient Medicine' (1).

Whoever having undertaken to speak or write on Medicine, have first laid down for themselves some hypothesis to their argument, such as hot, or cold, or moist, or dry, or whatever else they choose (thus reducing their subject within a narrow compass, and supposing only one or two original causes of diseases or of death among mankind), are all clearly mistaken in much that they say; and this is the more reprehensible as relating to an art which all men avail themselves of on the most important occasions, and the good operators and practitioners in which they hold in especial honor. For there are practitioners, some bad and some far otherwise, which, if there had been no such thing as Medicine, and if nothing had been investigated or found out in it, would not have been the case, but all would have been equally unskilled and ignorant of it, and everything concerning the sick would have been directed by chance. But

now it is not so; for, as in all the other arts, those who practise them differ much from one another in dexterity and knowledge, so is it in like manner with Medicine.

On the other hand, different from the four elements theory, the theory of four humors (blood, phlegm, yellow bile and black bile) does not concern the ‘new theory’ which ‘Ancient Medicine’ criticized. The so called ‘new theory’ refers to theory of four elements or something covert and vague maintained by some physicians and sophist philosophers such as Empedocles. The four humors (blood, phlegm, yellow bile, black bile) introduced in the **‘Nature of Man’ are practical, empirical materials and just accompany the property of cold, warm, dry and warm.** The ‘Ancient Medicine’ refers, too, phlegm coming out from nose (18), thick fluid called yellow bile (19) and blood (22). Moreover, as discussed in ‘Ancient Medicine’, in the **‘Nature of Man’ also the potential diversity concerning other elements such as four seasons or four physical constitutions.**

In this point, the discussions in **‘Nature of Man’ and in ‘Ancient Medicine’** do not have great difference with each other, finding themselves in similar purport.

### **3) External causes of disease in ‘On the Airs, Waters, Places’**

#### **(1) Geographical and historical pathology**

The ‘On the Airs, Waters, Places’ (abb. ‘Airs, Waters, Places’ below) assumes the first geographical and historical pathology, which attributes the cause of disease mostly to external conditions: Four directions, geographical conditions, astronomic seasons according to the rise and fall of stars, seasonal alteration, divergence of shape and customs of each ethnic. And according to the direction a city faces and the altitude of a region, wind and water is different in kind. Wind is everywhere cold or warm, but it deviates according to region. As water also is not the same in flavor and weight, it exercises its effect differently: drinking water is sticky, soft (light), or hard, or coming out from the rocky region, or salty and indigestive. The kind of earth as well is various: naked and dry, or much of forest and damp, or of basin and hot, or high land and cold. With the change of season, weather of sky may alter. The feature of each ethnic group and its social values (liberation or obedience), spirit, and customs also refer to health. In connection with life style, there is divergence in eating too much in company with liquor or without liquor, or being effeminate, or sturdy and industrious.

When going to a foreign land, a physician has to observe its geography such as wind as well as sun rise. Even if he finds himself in an alien land, knowing well its geography, he could understand without mistake the nature of disease and its frequency of outbreak. And he can predict which disease breaks out in summer or winter as the year passes by, and which disease would attack when private life style changes. Being informed of the alteration of the season and the rise and fall of stars, he would have insight into the year. Whoever researches the workings and phenomena of heaven could keep health and achieves his purpose. In this way, knowledge of astronomy (astronomia) contributes so much to medicine, as digestive organs operate in company with season. Astronomy in this case does not refer to superstitious astrology nor to modern knowledge of astronomy, but just to the change of seasons according to the alteration of constellations, i.e. a kind of meteorology (Airs, Waters, Places<sup>2</sup>). And a season also does not concern definitely with spring, summer, autumn and winter, but is indefinite in chronic terms and phenomena as well, according to region.

#### **(2) Deviance of geographical condition according to direction**

In the ‘Airs, Waters, Places’, directions are not referred to as east, west, south and north, and there is no center. The south is expressed as the place exposed to the warm wind coming from between sunrise and sunset of winter and the north wind not blowing; the north is exposed to the cool wind coming from between sunrise and sunset of summer, and the south wind not blowing; the east exposed to the wind coming from between sunrise of summer and sunrise of winter; and the west directed to between each of the sunset of winter and summer, and the east wind not blowing. Based on this explanation, in case of Greece, the four directions could be tentatively set up centering on Pindos Mountain range.

According to the ‘Airs, Waters, Places’, when a city lies in a place exposed to the warm wind coming from between sunrise and sunset of winter and the north wind not blowing (i.e. of south), water is abundant and less salty, and floating on the surface of the earth, warm in summer and cold in winter (‘Airs, Waters, Places’<sup>3</sup>). The head of its inhabitants is damp and full of phlegm. The digestive system has frequent trouble and phlegm flows down from head and most of inhabitants are languid and poor in foodstuff and liquor.

Endemic disease in this place is as follows. Above all, women are weak to disease and suffer quite much rheumatism. Weak physical condition causes offspring to be scarce and results in frequent abortions. Children suffer convulsions and dyspnea, which is due to physical weakness and regarded as epilepsy. Men suffer



dysentery, diarrhea, malaria (fever accompanied by goose pimple), chronic fever of winter, black blisters, abscesses under the muscle of the anus. These kinds of diseases are due to the troubles in intestinal metabolism. In the case of the aged above fifty, when the head is suddenly exposed to the sun or strong cold strikes it, it is paralyzed as water flows from it. The above explanation is for endemic disease, and epidemic could be prevalent owing to the shift of seasons.

In a place exposed to the cool wind coming from between sunrise and sunset of summer, south wind not blowing (i.e. the north), water is very hard and cold, the inhabitants are firm and gaunt ('Airs, Waters, Places' 4). Mostly the bowel of lower part is compact and hard, while the upper part is soft. The physical constitution is not phlegmatic but of much bile, and whose head is sound but hernia occurs.

As endemic disease, pleurisy, fever and constipation prevail. People used to eat much and drink less. Eye disease is not frequent, while the eye often becomes dry and suddenly bloodshot. Those of the age under thirty suffer much nasal hemorrhage. Temperament is not pliant but hasty. Women's menstruation is not favorable and delivery is hard, too. Water is indigestive and women get thin after delivery.

In a place exposed to the wind coming from between sunrise of summer and sunrise of winter (i.e. the east), going towards the east more, it becomes better than the place exposed to the cold wind (i.e. north) or the warm wind (i.e. south) (Airs, Waters, Places' 4). Mostly the bowel of lower part is compact and hard, while the upper part is soft. Physical constitution is not 5). It is similar to spring as heat and cold are more temperate. In a place which is near to the sunrise, water is clear, fragrant, light and sweet. This is because the sun shines to prevent degeneration. People's voices are clearer (than at a place in the north). Disease is rare and light, and delivery is as favorable as the place exposed to warm wind.

A place directed towards sunset, east wind not blowing (i.e. west) is not favorable for health (Airs, Waters, Places' 6). In the dawn before the sunrise, there is much fog and heavy frost. People's voices are grave, the air is not pure, being moist. It is similar to autumn, as the shift of temperature is great every morning and evening.

### **(3) Water**

The influence of water on health is invaluable (Airs, Waters, Places' 7). There are various kinds of water, sweet, salty, astringent, water spurted from hot spring, etc. The constituents and effect of water alters according to places: stagnant water of marshes or lakes, water from rock, high land or soil ground, and that of rain and snow. Especially in long rivers, various waters are mixed where the water from branch streams and lakes are converged on.

As the stagnant water of a marsh or lake is not shifted, it gets warm, thick, and stinking in summer. It gets turbid and harmful from hot sun, and accelerates bile. In winter it is cold to be frozen, and its snow stimulates phlegm and a hoarse voice. Drinking this water causes the bile to swell and the intestines to be violent, easily affected, and feverish. It causes paralysis in winter. Hard and warm water which is not sound hastens dysuria and the trouble of intestines.

The water flowing out from rock is hard or warm, or including iron, copper, silver, gold, pitch or carbonate. It causes dysuria and constipation

The water from high land or ground soil is better than the above discussed, being sweet and pure to be mixed with wine. It is cool in summer and warm in winter. The more it is near to the sunrise (east), the more it gets pure and fragrant, especially in summer. The best is the water flowing through the sunrise (east), the second is the water flowing between sunrise and sunset of summer (north), and gets better when it is nearer to the sunrise (east). The third is the water flowing between sunrise and sunset of winter (west). And the fourth is the water flowing between the sunrise and sunset of winter (south).

Any kind of water is available for a healthy person, but the effect of water is great on the weak. For the men whose digestive systems are hard and easy to be hot, the water which is sweet, lighter and pure is needed. For the men whose digestive system is soft and full of phlegm, the water which is harder, more dyspeptic and less salty is available, so as to remove moisture. The water which is proper to cook and receptive in capacity makes the intestines soft, and modulates moisture. The water which is dyspeptic, hard, improper to cook makes the digestive system constricted and dried. Many people misunderstand salty water to be an enema, but it extremely disturbs metabolism.

Whoever drinks mixed water from long river, where branch streams and lakes are converged on, suffers calculus, nephritis, dysuria, ischialgia, and hernia (kele) (Airs, Waters, Places' 9). The waters of various properties, sweet, salty, astringent, and water coming out from hot spring, are mixed but not properly combined with each other, and the effect of each one differs depending on the kind of winds. This water includes sediments such as mud and sand to cause the diseases above discussed.

Even if drinking the same water, everyone does not suffer the same, the reason of which is as follows.

Whoever has elastic and sound intestines, not too hot a bladder, and not too narrow a urethral meatus has no trouble in urination, so that nothing remains in the bladder. However, if the intestines are too hot, the bladder is



influenced by it to become inflamed. And the urine cannot come out and boils from inside. In this case only light water comes out but thick and turbid water remains inside to grow to be a stone. The proof of this is the fact that whoever suffers calculus makes pure urine. The mild which is sour, too hot, black and like bile causes the children to suffer calculus, as it makes the bladder too hot. In this case, the liquor adulterated with water as much as possible has to be taken, so as to reduce heat and dryness in the blood vessel. Women suffer calculus less than men, as urethra is short and wide to ease urination, and women drink more water than men.

### **(3) Season and the disposition of human body related to phlegm and bile**

The 'Airs, Waters, Places'(10) says that 'Whether one year is favorable for health or not is shown by the following phenomena: the rise and fall of stars is proper ...', 'In this case, the year refers to the seasons in one year rather than a year as a whole. And the so called 'phenomena of the rise and fall of stars' refer to the effect of constellations on the correspondent season rather than the movement of stars itself. This is well demonstrated from the following explanations in relation with the natural phenomena of weather such as rain, wind, etc. The disposition of human being in reference to weather is especially classified into two categories: phlegm and bile.

The city which enjoys favorable wind and sun as well as good quality of water is not influenced much by weather. However, the city using the water of marshes and lakes, and not having proper wind and sun, is greatly affected by it. When it is dry in summer, disease more quickly gets well, while when it rains, it is dangerous as disease spreads more readily, and the wound develops to an abscess. At the last stage of disease, ascites increases as the intestines are not dried.

Special precautions should be given to sudden alteration of seasons (Airs, Waters, Places'11). Before having passed ten days after alteration, it is prohibited to medicate a diarrhea agent to or perform a surgical operation on the intestines. Four alterations of season, summer and winter solstices, especially summer solstice, and vernal and autumn equinoxes, especially vernal equinox, are more severe and dangerous. When the stars, especially Sirius (from July 19 to the end of August) rises together with Arktouros (rising in September 17), and when Pleiada falls (November 6), great attention should be given, as disease stands at the forked roads either for recovery or for aggravation.

Actually the weather of each season is not regular, alternating each year. The influence of weather to the human body is as follows. When it rains in autumn, it is warm in winter, not too hot or not too cold, and it rains in spring and summer, the year is very proper for health. However, when it is dry in winter, a north wind blowing, and it rains in spring, a south wind blowing, then as a result, in summer it is hot, and eye disease and abdominal pain break out. Otherwise, the hot suddenly attacks and damp fills in the earth by spring rain and south wind, sultriness would increase twofold, as damp and hot earth gets steamed under the sun. Humans' intestines may not be sound, and the head cannot send out damp, as such a summer body as well as flesh cannot help but to be slackened. Hard fever attacks every man, especially a man of phlegmatic disposition, and constipation occurs to women or in sound tissues. When Sirius rises (from July 19 to the end of August), if it rains, having bad weather, and a seasonal wind (a north bowing for about 30 - 40 days wind since Sirius rises) blows, then abnormal phenomena disappear and autumn comes to be sound. Otherwise, fatal epidemics attack children and women, while the aged suffer lightly. Whoever has managed to avoid death suffers quartan fever and sweating.

When a south wind blows and it is rainy and warm in winter, and a north wind blows and it is dry and cold in spring, then a pregnant woman expected to deliver in spring is to miscarry. Otherwise, whoever has managed to give birth to a baby would have one in poor health, so that the baby is to die sooner or later, or would have a weak constitution for the rest of its life. This is the case of women, and the others suffer constipation and dry eyes, and some of them suffer flowing from head to lungs.

Phlegmatic type of person suffers constipation, and in case of women, too, phlegm flows from the head towards down. People in whom phlegm resides suffer dry eyes, as the flesh is tender. In case of the aged, the body is feeble and blood vessels are damaged, so that they catch cold easily, meet a sudden death, or suffer hemiplegia. When a south wind blows and the body is warm, the blood or blood vessel is not favorable.

When it rains much in summer and winter, a south wind blowing, then health would be injured in winter. The people of phlegmatic disposition and above forty years old suffer high fever, while those of bile suffer pleurisy and pneumonia. When it is dry in summer, a north wind blowing, and it is rainy in autumn, a south wind blowing, then in winter headaches, asthma, colds, coughs and tuberculosis break out. However, when a north wind blows, it is dry, and it is not rainy in the seasons of Sirius and Arktouros, it favors the people of phlegmatic disposition, of damp tissue and women, while it harms those of bile. The people of bilious disposition are too thin, and suffer dry eyes, chronic or acute fevers, and occasionally melancholy. In this case, bilious moisture and nervous tissues disappear, and just thick and acute constituents remain. The situation is the same for blood. All these conditions favor the phlegmatic person, whose tissues stand against winter without

being thin, feeble and damp.

#### (4) Inner diversity of Europe and Asia

Asia and Europe differ with each other in products and people ('Airs, Waters, Places' 12), which is due to the shift of seasons. Moreover, even inside of Asia or Europe each ethnic group differs with each other, which is also due to the feature of seasons and geography. The Asians are generally, even if each ethnic group differs in degree, more docile than the Europeans. The Europeans are more offensive, but the variety between themselves is wider than the Asians. And the origin of variety is explained owing to the divergence between phlegmatic and bilious dispositions..

We cannot say that whatever is in Asia is all beautiful, but in Asia everything is more beautiful and more magnificent than Europe, climate is milder, and the inhabitants are more docile. As Asia lies between the two sunrises (i.e. summer and winter), climate is agreeable to be far away from cold. While internal equilibrium is kept, development as well as docility is furthered. The region lying in the same distance both from the cold and the hot is fertile, the forest being thick and climate being mild. The water is excellent, coming from rain or springs. This region is like spring, where there is no asceticism, hard labor, or mental disability, and people do not seek after pleasure, regardless of being natives or immigrants. And there are many kinds of animals. Egypt and Lybia belong to this region.

The people of Asia are fainthearted, timid, and of anti-belligerence (Airs, Waters, Places' 16). This is because the shift of seasons is not so abrupt. Most Asians are dominated by kings, while a few who enjoy independency from the rule of kingship, the Greeks and Barbarians, are jingoistic.

In Europe, the heat of summer is strong, and in winter it is bitterly cold and frequently rainy, dryness lasts long, and wind brings about variety (Airs, Waters, Places' 23). This weather makes people tough, unsociable, and sanguine, to remove docile temperament. The Europeans are more courageous than the Asians. Where the weather of the seasons is similar to each other, people enjoy loose life, while great shifts makes the body and spirit of men belligerent and independent from the rule of kingship. Whoever is governed by a king becomes a coward by his own accord. His spirit being subordinated, he would not bear the risk in front of danger to increase another's power. However, an independent person runs the risk for his own profit instead of another's.

On the other hand, in the same Europe, there is diversity in height, shape, and courage depending on a shift's degree and frequency (Airs, Waters, Places' 24). In the mountainous, rough, high, and damp regions, as the shift of weather is quite great, people used to be tall, industrious, courageous and wild. But, people of the valley with pasture land is exposed to suffocating air and warm wind, and take warm water, so that they are not tall or elegant, but flat from side to side, plenty of flesh, and have black hair. They are not light but brown, and not so phlegmatic as bilious. Courage and industry do not refer to all, but might be due to social institutions.

Where there is a river through which stagnant water and rainwater flow down, people are healthy, and their skin color is also light. However, in the case of the inhabitants who drink the water of stagnant marshes, their intestines protrude and their spleens are swollen. In the extremely high land where the wind is favorable and water is abundant, people are tall, similar with each other, and gentle. In places which are barren, dry and naked, and whose features of seasons are quite conflicting with each other, the inhabitants are strong, stout, have blond hair rather than brown, and are obstinate. And as shift of seasons is often and contrary to each other, people's appearances, features and individuality are quite diverse

Where the soil is very productive and damp, and water is near to the surface of the earth, so it is warm in summer, cold in winter and the condition of weather is moderate, then the inhabitants have plenty of flesh, whose joints are not disclosed, the temperature being soggy, lazy, and in a dreamy state. Referring to technique, they have neither dexterity nor ardor. However, where the soil is naked, devoid of forest, and rugged, then it is severe in winter, and it is steamy hot by the sun. The inhabitants are rude, gaunt, whose joints disclosed, strong and hairy. They are industrious, vigilant, as well as arrogant and obstinate. Most of them are not so gentle as tenacious, wise, expert in technique, and predominant in the war.

In this way, diversity of natural phenomena causes the features (physis) of people to be contradictory. This is influenced by wind, water, and geography, which provide important living conditions to human beings. It could be said that the appearance and disposition of people depend on the features of a region. The explanation in the 'Airs, Waters, Places' referring to the deviation of wind and water and change of weather depending on alteration of seasons, as well as the difference of geographical and historical environments of each region, is based on diverse empirical data, not being abstract theories.

## 2. Historical development of the theory of four humors and four elements

## 1) Theory of four humors before Galenos

The theory of four humors (blood, phlegm, yellow bile, black bile) first appears in a fifth-century BC Hippocratic treatise called *the Nature of Man*,<sup>99</sup> The predominance of the humors varies not only according to the seasons, but according to age. However, the relationship between humors and the four elements of the universe (fire, air, water, earth), or stages of life or character types, is not discussed in any systematic way.<sup>100</sup>

Moreover, the Hippocratic theory of four humors did not re-appear in the philosophical tradition of the fourth century, neither in Plato's *Timaios*, where the nature of man is consisted of four elements (fire, water, earth and air), nor in Aristotle. In *Problem* (30.1), written in the Aristotelian tradition, the 'melancholics' i.e. people in whom black bile is predominant is referred to, but there is no discussion of the other humors.

On the other hand, in the fourth century, humoral medicine continues in Praxagoras and Diocles, but it is not exactly the same as the theory of four humors. According to Galenos<sup>101</sup>, Praxagoras distinguished ten humors, not including blood. Concerning Diocles, one testimonium speaks of four humors (phlegm, yellow bile, black bile, and blood), but this is from a later source, the Anonymous of Brussels, who may have interpreted Diocles within a later context.<sup>102</sup>

The theory of the four humors had still not triumphed in the Hellenistic period, when development of anatomy in Alexandria caused attention to be focused on the principal solid organs and to a 'solidist' view of the body that replaced the Hippocratic humoral perspective. According to Galenos,<sup>103</sup> Erasistratos, one of the two great doctors of the Hellenistic period, either neglected the investigation into humors, or, even if he knew them, he omitted willingly the conception. Furthermore, the Hellenistic and Roman medical sects, whether Empiricists, Dogmatists, Methodists or Pneumatists, did not seem to place much emphasis on a theory of the four humors.<sup>104</sup>

It was Galenos who, in the second century AD, gave the theory of the four humors its prestige by showing that this theory was the foundation of Hippocrates' work.<sup>105</sup> However, Jouanna concluded that the theory of Galenos's *On Disposition* is not based on a humoral theory.<sup>106</sup>

Above all, Galenos did not make much use of the theory, since the basis of his system is the theory of the four elementary qualities, hot, cold, dry and wet. For classification of the mixtures in his treatise *De temperamentis* [*PeriKraseon; On Disposition*] (11ff.) is based on the different possible mixtures of the four elementary qualities: whilst there is only one good mixture, there are eight bad mixtures, four in which a single quality is dominant, and four others in which two qualities prevail. However, references to mixtures, although not totally absent, are rare. Galenos sometimes speaks of the contrasting characteristics of phlegmatic and bilious mixtures (*On Disposition*, 2.6). But he does not speak of four mixtures caused by the predominance of the four humors. Significantly, melancholic mixtures are not attributed to the predominance of innate black bile, but rather result from the combustion of the blood (*On Disposition*, 2.6).

In succession, physical and moral qualities are attributed to the mixtures defined by their elementary

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<sup>99</sup>*The Nature of Man* is supposed to be the work of Polybus, Hippocrates' student and son-in-law. Cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos* (Leiden/Boston, 2012), p.335ff. The contents below depends mostly on this book, except otherwise specified.

<sup>100</sup>J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.335f. Cf. In *the Nature of Man*, the theory of four humors is not connected to the four elements of the universe (fire, air, water, earth), and there is no trace of its development into a theory of the four temperaments or of their corresponding character types. However, just sporadically and unsystematically there are some traces of relationship between the four humors and character types in the Hippocratic Corpus. In *Regimen in Acute Diseases* (abb. *Regimen* below), 61 (16), relating to the distinction between those in whom yellow and black bile predominates, it is said that vinegar's acidity sits better in those in whom bitter bile dominates than those in whom black bile dominates. Referring to the character types according to the mixture of elements, in *Regimen* (1.35), there is introduced an opinion that man is composed of fire and water. In relation to physiognomic character typology, in *Epidemics* (2.6.1), people in whom black bile dominates (*melancholokoi*) is referred to, but this is only one characteristic amongst various categories of individuals: those who stammer, speak quickly, are melancholic, intense, who do not blink, are quick-tempered. On the other hand, in *Disease* (4.32.1), it is very clearly said that 'women and men have four kinds of moistness in their bodies, and from these disease originate, except for afflictions caused by force. ... These kinds are phlegm, blood, bile, water.' Thus, the fourth humor is water, not yellow or black bile.

<sup>101</sup>Galenos, *On the Natural Faculties*, 2.9.

<sup>102</sup>Diocles, fr. 40.2:1, p.78, 28ff. van der Eijk. Cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.337.

<sup>103</sup>Galenos, *On the Natural Faculties*, 2.9

<sup>104</sup>J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.337.

<sup>105</sup>Galenos, *Commentary on Hippocrates' The Nature of Man*, 1. Prooem.11. Cf. According to Jouanna, Galenos undoubtedly made an error of judgement by attributing to the master what was the work of one of his students. Cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.338.

<sup>106</sup>J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.339.

qualities. For example, regarding the cold and dry temperament:

If the individual is cold and dry from the start, the constitution of this individual's body is white, soft, hairless, without visible vessels and joint, slim and cold to the touch; and the character of his soul is retiring, cowardly and depressed; nevertheless, his residues are not melancholic. (On Disposition, 2.6)

In this text, the final remark on the absence of melancholic residues means that, for Galenos, there does not necessarily exist a relationship between a cold and dry mixture and a melancholic mixture. Just he criticized doctors for ignoring the complexity of reality. Galenos is more explicit about some correspondences, and he adds others as well both in his *Commentary on Hippocrates' The Nature of Man* [In Hipp. *De nat. hom. comm.*] and the *On the Doctrines of Hippocrates and Plato* [De plac. Hopp. et Plat.]. For example, he refers more explicitly to the relationship between humors, season and age: blood, spring, infancy; yellow bile, summer, youth; black bile, autumn, maturity; phlegm, winter, old age. In addition, Galenos uses this new correspondence to create a relationship between the elements (fire, air, water, and earth) and the humors and, above all, a relationship between humors and character, of which there is no trace in the *Nature of Man* (*Commentary on Hippocrates' The Nature of Man*, 1.32).<sup>107</sup>

However, this double relationship is still not fully developed in Galenos. As for the relationship between the humors and the elements, blood does not correspond to the air, as will be the case in the theory after Galenos, but rather is composed of the balanced mixture of four elements, as Galenos makes clear in his treatise, *On the Doctrines of Hippocrates and Plato*.<sup>108</sup> As for a theory of character, although it rests on the idea, well attested in Galenos, that the characteristics of the soul follow the mixture of the body,<sup>109</sup> he does not apply this idea systematically to the four Hippocratic humors, not even when he comments of *The Nature of Man*. In Galenos, three humors are related to character,<sup>110</sup> but phlegm does not influence character.

In fact, it was several centuries after Galenos, in Greek medicine of late antiquity, that the theory of the four temperaments (phlegmatic, sanguine, bilious and melancholic), with all their physical and moral characteristics, would find full expression.<sup>111</sup>

And there are other examples in Ps. Galenosic treatise, which says that the four humors are mixed with each other and spread throughout the body, however, each humor has its place: blood in the heart; phlegm in the head; yellow bile in the liver and black bile in the spleen. Good health comes from the equilibrium of the primary and secondary elements. However, there is no theory of the four temperaments.

The relationship between the four humors and the organs of body described in Ps. Galenosic treatise is similar to that of Chinese Five Phases and Five Internal Organs of body. However, in Ps. Galenosic treatise, the health results from the equilibrium of four humors or four organs, and there is no relationship of mutual exclusion which is systematically discussed concomitantly with mutual supportive relation in Chinese medicinal philosophy.

## 2) Four humors, four elements, four characters after Galenos

In Greek medicine the Golden Age of the theory of the four humors arrived in the late antiquity after

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<sup>107</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.339.

<sup>108</sup> *On the Doctrines of Hippocrates and Plato*, 8.4, 21-23. Cf. Oribasios also quoted the words from *De elem. ex. Hipp. Sent. and De plac. Hopp. et Plat.* cf. Coll. med. rel. liv. inc., 1, 4-6: CMC VI 2,2 pp.75,17-76,5.); J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.340.

<sup>109</sup> Cf. Galenos wrote a treatise on this subject, *That the Faculties of the Soul Follow the Mixtures of the Body* (Quod animi mores corp. temp. sequ.: Scr. Min. 2.32-79 Müller = 4.767-822 K.) When Galenos refers to this treatise, it is not to *The Nature of Man*, but to *Airs, Waters, Places*, since he sees no contradiction between these two treatises; cf. *ibid.* 8: Scr. Min. 2.32-79 Müller = 4.767-822 K.). In the whole treatise, there is only one reference to three of the four humors: an excess in the brain of yellow bile causes delirium, black bile causes melancholy and phlegm causes lethargy with the loss of memory and intelligence (*ibid.* 3: Scr. Min. 2.39.12-17 Müller = 4.776.17-777.4 K.). Cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.340.

<sup>110</sup> Sharpness and intelligence are caused by yellow bile in the soul, prescience and consistency by the melancholic humor, and simplicity and naivety by blood. Cf. Galenos, *Commentary on Hippocrates' The Nature of Man*, 1.40; J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.340.

<sup>111</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.340. Cf. The relationship between the four humors (blood, phlegm, yellow bile, and black bile) with the four elements (air, fire, earth and water) is attested in the fourth century in the work *On the Nature of Nemesius of Emesa* [Nemesii Emeseni, *De naturahominis*, ed. M. Morani (Leipzig 1987), p.44.24f.; 45.4-6]: 'Blooded animals are made up of the four humors ... Earth is associated to black bile, water to phlegm, air to blood and fire to yellow bile' (*ibid.* p.356).



Galenos. Supposedly it was transmitted through Stephanos of Alexandria, commentator of Hippocrates, to the Byzantine as well as Medieval Latin medicine. There are some Greek texts to present remarkable similarities in egincontent and terminology

(1) A short anonymous treatise called Anonymous' *On the Constitution of the Universe and of Man*.<sup>112</sup> Each of the four elements of the universe (air, fire, earth, water) corresponds in man each of the four humors (blood, yellow bile, black bile and phlegm). The text goes beyond Galenos in systematicity in that it presents blood, instead of being a mixture of four elements, as equivalent to the air. The anonymous author then expounds the equivalence between the humors and seasons, similar to what can already be found in the Hippocratic treatise *The Nature of Man*: blood predominates in spring, yellow bile in summer, black bile in autumn and phlegm in winter. Then, the treatise discusses the four temperaments, an innovation compared to Hippocrates theory, even when revised by Galen.

The order of exposition of the four temperaments is: predominance firstly of blood, then yellow bile, then black bile, and finally phlegm. It does not correspond with the initial text, *The Nature of Man* (4.1:5.1), in which the order was: blood, phlegm, yellow bile and black bile. According to Jouanna, the order of the anonymous author was not due to chance, as it corresponds to the chronological order of the predominance of the four humors according to the four stages of life.<sup>113</sup> That is, the character of infants corresponds to an age when the blood predominates, while that of the old to an age when the phlegm does.

- i. Those who are composed of very pure blood are always friendly, joking and laughing; regarding their bodies, they are rose-tinted, slightly red and have pretty skin.
- ii. Those who are composed of yellow bile are quick tempered, bitter, daring; regarding their bodies, they are greenish and have yellow skin.
- iii. Those who are composed of black bile are indolent, pusillanimous and sickly; regarding their bodies, they have black eyes and black hair.
- iv. Those who are composed of phlegm are despondent, forgetful; regarding their bodies, they have white hair.<sup>114</sup>

(2) A fragmentary letter attributed to the theologian John of Damascus (c. 650-750).

The order in which the humors are listed is the same as in *Nature of Man*. However, the discussion of the temperaments that follows is remarkably close to the previous text, and the order of exposition of the temperaments is the same. The sanguine temperament is joyful and friendly, and of a prominent complexion and nice skin; the bilious temperament is courageous and quick-tempered, and of hair that changes color; melancholic temperament is pusillanimous, indolent and sickly; the phlegmatic temperament is despondent and also cold, forgetful with a short memory, sleep a lot and have white skin.<sup>115</sup>

(3) Ps.-Hippocratic letter to Ptolemy, *On the Constitution of Man*.

- i. Those who are composed of pure blood always laugh and have a flowry complexion; their whole body has nice skin.
- ii. Those who are composed of yellow bile (...)
- iii. Those who are composed of black bile) are indolent, pusillanimous, cowardly, sickly.
- iv. Phlegmatics are hesitant, cold.<sup>116</sup>

Between these three Greek texts and their discussion of the four temperaments, the resemblance is evident, not only in their content but also in their vocabulary, while two other Greek texts below presents two parallel versions of the effect of the predominance of each of the four humors on the soul.

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<sup>112</sup> Cf. Published in the 19<sup>th</sup> century by J.L. Ideler (ed.), *Physici et medici Graeciminores* (Berlin, 1941), p.303f.; J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.341.

<sup>113</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.343.

<sup>114</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.342.

<sup>115</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.344.

<sup>116</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.3454

(4) *Nature of Man* by Meletius the monk (after 6th, or 7<sup>th</sup> century).

It is one of the most important representatives of the post-Galenic theory of the four humors in the Christian tradition. It declares that man is composed of four humors (blood, phlegm, yellow bile and black bile),<sup>117</sup> which correspond to the four elements (air, water, fire, earth),<sup>118</sup> and which predominate according to the four seasons and the four ages.<sup>119</sup> Moreover, the treatise discusses the influence of the four humors on the soul (*psyche*): blood makes the soul more joyous, yellow bile makes the soul more energetic (*gorgoteran*) and bold (*thrasysteran*), black bile makes the soul more holy (*semnoteran*) and vigorous, and the phlegm lazier and harsher.<sup>120</sup>

(5) Ps. Galenos, *On the Humours*

The treatise *On the Humours*, found within the Galenic corpus, likewise declares that the constitutional humors of living beings and man are bile, blood, phlegm and black bile. It also establishes a correspondence between the humors, the constituent elements of the world and the seasons. In this work, blood, hot and moist, corresponds to the air and not, as we have seen in Galen, to a mixture of all the elements. It is also highlighted particularly by the existence of a discussion on the influence of the four humors on the soul.

Blood makes the soul more joyous; yellow bile makes the soul quicker-tempered, bolder (*thrasysteran*) or more energetic (*gorgoteran*), or both; phlegm makes the soul lazier and more foolish; black bile makes the soul quicker-tempered and cheekier.<sup>121</sup>

There are some evident similarities between these two texts, although they are not identical. According to Jouanna, two adjectives, bolder (*thrasysteran*) and 'more energetic (*gorgoteran*)' are not found anywhere else in Greek literature, apart from lexicography.

In my opinion, however, it is to be stressed that in these two texts the discussion on the influence of the four humors concerned just the soul (*psyche*), and not the physical constitution. In this respect, these texts deviate from even the three texts after Galenos, previously discussed above. In the latter, the discussion refers not only to the character of human being but the physical condition as well. It is well proved by the explanation 'regarding their bodies' for each humor in Anonymous' *On the Constitution of the Universe and of Man*; the expressions, 'nice skin', 'white skin' or 'sickly' in *On the Constitution of Man*; and 'nice skin', 'sickly' and 'cold' in Ps. Galenos' *On the Humours*. The difference between the three preceding texts on the one hand, and the fourth Christian text and the fifth whose content is similar to the fourth on the other hand, shows that the texts influenced by Christianity has the tendency to be more abstract, disregarding the physical condition, and introduced newly religious values such as 'more holy (*semnesteran*)'.

The process of abstraction in relation to the theory of four humors got more deeply involved in other texts. An unpublished treatise that is attributed to Hippocrates entitled, *On the Formation of Man*, found in a 15<sup>th</sup> century manuscript kept in the National Library of France.<sup>122</sup> It is a medical treatise of Christian origin, since man is defined at the start as 'a god ... on earth', 'as an image ... of God created by him.' At the start it is said that man is composed of four humors: blood, phlegm, yellow bile and black bile. In the treatise, however, the predominance of each humor varies not according to (or not only to ?) the seasons of the year, as it is traditional following the Hippocratic theory, but according to the hours of the day and night. During the twelve hours of the day and of the night, one of the four humors predominates every three hours. During the first three hours of the day and night, blood predominates; during the fourth, fifth, sixth, yellow bile; during the seventh, eighth and ninth, black bile; and during the tenth, eleventh and twelfth, phlegm.<sup>123</sup>

This variation of humors according to the hours is also attested in Vindician's *Letter to his young child Pentadius*, which is a Latin translation of a Greek text and which claims to go back to Hippocrates. This letter presents both the theory of the four humors, varying according to the seasons and ages, and the theory of the four temperaments, but it adds that the humors vary also according to the hours of the day and night.

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<sup>117</sup>Meletius, *De naturahominis*, in *AnecdotaGraeca e codd.ManuscriptisbibliothecarumOxonienisium*, ed. J.A. Cramer, vol. III (Oxford, 1836; rep. Amsterdam 1963), p.12, 12-14.

<sup>118</sup>Meletius, .Cramer, vol. III, p.12, 14-17.

<sup>119</sup>Meletius, . Cramer, vol. III, p.13,3-10.

<sup>120</sup>Meletius, . Cramer, vol. III, p.133.22-25; cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.364

<sup>121</sup> J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.346f.

<sup>122</sup>Parisinus gr. 985, fol.302r d-305 v 17; cf. J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.349.

<sup>123</sup>*Theodori Prisciani Euporiston libri III, cum physicosum fragment ...* ed. V. Rose (Leipzig, 1894), pp.485-492; J. Jouanna, *Greek Medicine from Hippocrates to Galenos*, p.350f.



The four humors are divided amongst each other day and night. Blood dominates for six hours, i.e. after the ninth hour of the night until the third hour of the day; then yellow bile dominates after the third hour until the ninth hour; black bile dominates after the ninth hour of the day until the third hour of the night; phlegm dominates after the third hour of the night until the ninth hour of the night.

In the Vindician's *Letter*, the humors predominate every six hours over a cycle of twenty-four hours, and not alternatively over three hours each day and night, following twelve hour cycles, as in the unpublished passage. There is another difference between the two texts: following the hourly variation, the unpublished Greek version introduces a new factor concerning the formation of the temperaments according to the hour of conception. If conception takes place in the hours where a humor predominates, a child will be born with a temperament that corresponds to that humor. Such considerations, however, are absent from Vindician's *Letter* to Pentadius.

In spite of abstract, metaphysical theory, however, it could be said that Vindician's *Letter* actually follows more or less the tradition of Hippocrates, as the characters the four humors give refer in large part to physical conditions, and not religious or spiritual.

- i. Blood makes men well-intentioned, direct, moderate, attractive, of good humor (or full of moisture)
- ii. Yellow bile makes men quick-tempered, intelligent, shrewd, light-spirited, thin, they eat a lot and digest quickly.
- iii. Black bile makes men deceitful, angry, miserly, fearful, somber, sleepy, jealous, and frequently having black scars on their feet.
- iv. Phlegm gives men well-formed bodies, stimulated, reflective, quickly growing white hairs on their head, much less bold.

On the other hand, Paracelsus (1493–1541), Renaissance physician and botanist, defined a human being as a micro-cosmos. He altered the traditional four humors or four elements to the three elements, deity, salt, mercury.

According to him, these three elements represent the features masculine, energetic and spiritual, which, combined with the origin of life bestowed by God, compose the cosmic world and living things.

## IV.

# Medicinal Effects of 14 Plants in Far Eastern Countries and Greece

### 14 Plants<sup>124</sup>:

1. 甘草, Glycyrrhiza
2. 甘菊, Chrysanthemum [cf. chamaimêlon, chamomele, chamomile 小菊]
3. 旋覆花 (金佛草), Konyza (Inula)
4. 大棗, Jujube (ziziphus), Ramnos
5. 薄荷, Hedyosmon emeron, Kalaminthe orine
6. 艾葉 & 茵陳蒿 Artemisia (hetera polyklonos)
7. 芍藥, Paionia thelia
8. 黃芪 (戴糝 Dai San), Astragalos
9. 當歸, Angelica, Ligusticum (root)
10. 蒜 (大蒜, 小蒜), Allium sativum (garlic)
11. 生薑 (or 乾薑), Zingiber (officinale)
12. 桂(皮), Cinnamomum (verum)
13. 人蔘, Ginseng
14. 銀杏, Gingko biloba

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<sup>124</sup> For the nomenclature, cf. Jung-Eun Noh, A Literature on Floral Oriental Herb in Decoction part of Dongeuibogan. Dept. of Korean Medicine, Graduate School of Wonkwang University (2007), *passim*.  
For the texts of <Famous Doctor's Special Record (名醫別錄)>, <Synopsis of Golden Cabinet (金櫃要略)> and <Theory of Febrile Disease (傷寒論)> below are recited from *Commentary of Classic* [本經疏證], Zou Shu ed. (鄒澍 撰), trans. Jin-Seog Im (Seoul: Daesung Medicinal History, 2001).

## 1. 甘草, Glycyrrhiza

<*Shennong Materia Medica* (神農本草)> Glycyrrhiza (甘草) Flavor is sweet, (Energy is) level. It cures Cold Febrile Disease (寒熱) and Evil Spirit (邪氣) of the Five Viscera and Six Bowels (五臟六腑), tonifies muscles and bones (筋骨), raises flesh, and replenishes power. It treats wounds caused by iron weapons and detoxifies. Prolonged use results in light body and longevity.

<*Famous Doctor's Special Record* (名醫別錄)> Non-toxic. It warms inner part of the body and makes Energy descend; and cures blocking, fullness, panting, damaged viscera, belching, coughing, removes thirst, ventilates blood, improves the energy of blood, and counteracts various toxins. (Glycyrrhiza should be used for abnormal energy levels in the whole body caused by Acute Disease [急疾], but is not suitable for symptoms of blockage [阻滯] caused by sudden relaxation [縱弛].

<*Synopsis of Golden Cabinet* (金櫃要略)> Every toxin weakens Energy by means of synergy with other toxins. Decoction of Glycyrrhiza and Jini (薺尼) could remedy the effects of all such toxins.

Ibid. Salivating caused by flaccidity of the Lungs (肺痿), in the absence of coughing, is normally not accompanied by thirst, but by intermittent leaking or frequent urination. This symptom is due to the weakness of Upper Focus (上焦), by which the Lower (下焦) can not be controlled; consequently, Cold of the Lungs brings about dizziness and salivating. The lungs should be warmed by soup of Glycyrrhiza and roasted ginger.

<*Theory of Febrile Disease* (傷寒論)> Dry ginger (roasted ginger), ginseng and Glycyrrhiza replenish Spleen and Stomach, and warm the Stomach.<sup>125</sup>

*New Materia Medica* (本草從新)<sup>126</sup>

甘草 Glycyrrhiza: [Glycyrrhiza either replenishes or discharges, cures both exterior surfaces and interiors of body, makes Energy either ascend or descend, and promotes blood of Dark.]

The taste is sweet. If taken raw, it normalizes energy levels, replenishes deficiencies in the Spleen and Stomach, and alleviates the Fire of Heart. It consolidates Lungs-Metal(金). If ingested roasted, it raises energy levels, replenishes the Vital Energy of Three Foci (Three Jiao 三焦), and disperses Cold of Surface. Mixed with Harmonizing Medicine, it replenishes; mixed with Sweating Medicine, it reduces and disperses surface heat; mixed with cold medicine, it dissipates heat; mixed with strong medicine, it alleviates Fair Energy (Glycyrrhiza, added to ginger and Monkshood, nullifies the latter's pernicious side effects; and when added to mirabilite and rhubarb, it protects against purgation. All these are buffering functions); mixed with lubricating medicine, it promotes rich, healthy blood, making all medications harmonious; enhances healthy skin growth; and removes pain. (The spleen is responsible for healthy skin and Glycyrrhiza alleviates pain.) Passing through the twelve Meridians, it removes the toxins of numerous medications, hence acquiring the name "the Senior of the Country (國老)." Though it cures carbuncle sores, it should not be used for inflammation of the Chest or Abdomen. (Glycyrrhiza is a kind of feverish). Using it raw is to discharge fullness. The Classic says that its sweet taste can replenish and release, too. The Theory of Medicine (藥性論) of Tao Yinju (陶隱居)' *Special Record of Famous Doctor* [名醫別錄, Zhen Quan (甄權)], also indicates that "it reduces swelling, and if the spleen's function works harmoniously, swelling is removed."

<sup>125</sup> In <*Theory of Febrile Disease*> & <*Synopsis of Golden Cabinet*>, Glycyrrhiza is used in 120 among 250 prescriptions. In <*Theory of Febrile Disease*>, the prescriptions using raw and the roasted Glycyrrhiza are less than 1/10 respectively in comparison with <*Synopsis of Golden Cabinet*>. And even in the same prescriptions, there is a deviation between the two works, as in the former the roasted one, while in the latter the raw one is used.

<sup>126</sup> Cf. Dal-young Kim, <The study on the herb part (草部) of Bonchojongshin (本草從新)>. Dissertation. Dept. Korean Herbology, Graduate School, Daegu Haany Univ. (2013).

If Glycyrrhiza is combined with Tuckahoe (茯苓), inflammation is ameliorated; hence it has renown for bringing energy down and removing inflammation. Zhongjing referred to “Glycyrrhiza Heart-Discharging Decoction” for treating inflammation]...

The head of Glycyrrhiza cures abscesses and modifies emesis.

<Eastern Physicians' Venerable Text (東醫寶鑑)> p.1403: Warm, sweet, non-toxic, and detoxifies all impurities. Effective (情) throughout (九土) the body. Harmonizes 72 minerals (石材) and 1200 botanical elements (草材) and improves the efficacy of all medicines—the so-called 'Senior of the Country'. Treats Evil Spirit (邪氣) of Cold and Fever (寒.熱), diseases of the Five Viscera (五臟) and Six Bowels (六腑), ventilates the Nine Holes (九竅) and every Meridian (白脈), solidifies muscles and bones, and enhances flesh. It enters into the Three Dark Meridians of the Foot (足三陰經), warms the internal body through moxibustion, and removes Energy of Fire (瀉火) when used raw. It should not be applied if one is vomiting or enjoys liquor, as the insides are swollen.

Theophrastos, Φ. 1.9.13.2. ... άσθματα και προς την βήχα ξηράν και όλως τους περί τον θώρακα πόνους .....

Dioskurides, III, 5 glykyrriza (N. p.34) named “Pontikoi” (Pontos is a region on the southern coast of the Black Sea)...produced in Cappadocia and Pontos. Its juices treat blocked vessels. Let it be taken by placing it under the tongue in small repeated amounts. It improves gastritis (inflammation of the stomach) and discomfort of the chest and liver. If functions of bladder and kidney are weakened, it should be taken with sweet juice. This relieves thirst and gives help by masticating or plastering wounds. Decoct recently dug up roots; dried roots are sliced to be plastered.

P.G. Gennadiou, *Lexicon Phytologikon*, p.208 κ.ε. Γλυκύρριζα (Glycyrrhiza, γαλλ. Réglisse, αγγλ. Liquorice, κοινώς γλυκόρριζα ή γλυκορρίζι, Τουρκ. Μιάν, τάξις Ελλοβοκάρπων) γένος περιλαμβάνον περί τα 12 είδη. Φυτά ποώδη, πολυετή, βαθύριζα. Είδη κοινά ιδίως ανά την μεσημ. Ευρώπην και την Ανατολήν είναι Γ. Η άτριχος και Γ. η εχινοειδής (G. Glabra και G. echinata), αμφοτέρα απαντώντα πολλαχού της Ελλάδος και γνωστά από της αρχαιότητος. Η ρίζα των βιομηχανική και φαρμακευτική (φρμ. Glykyrriza, Radix Liquoriciae, τουρκ. Μιαν κιοκιου). Η παρά Θεοφρ. Ρίζα γλυκεία η σκιτική, χρησίμη προς τε τα άσθματα και προς την βήχα ξηράν και όλως τους περί τον θώρακα πόνους> (Φ. 1.9.13.2), αναφέρεται εις την ρίζαν του ενός η και αμφοτέρων των φυτών τούτων. Ο Διοσκρ. Περιγράφει λεπτομερώς την Γλυκύρριζαν . την εχινοειδή, ης αναφέρει τας ποικίλας θεραπευτικάς δυνάμεις. .... Σήμερον αι ρίζαι αμφοτέρων των ανωτέρω ειδών, και ιδίως Γ. της ατρίχου, χρησιμοποιείται όχι μόνον εις την φαρμακοποιίαν, αλλά και εις την κατασκευήν του ζύθου (ιδίως του porter) και τινων άλλων ποτών (των coco και eau de réglisse ή tisane de polisson), εις την σακχαροπλαστικήν και την αρτοποιίαν (διά τινα είδη άρτων), ως και εις την παρασκευήν του προς μάσησιν καπνού. Ικανή ποσότης καταναλίσκεται εν Αιγύπτωι, ένθα παρασκευάζεται εξ αυτής αγαπητόν τοις Φελλάχοις δροισιτικόν ποτόν. Μικρότερα ποσά γλυκυρρίζης χρησιμοποιούνται εις την κατασκευήν ειδους χαρτού, πωμάτων φιαλών, χρωμάτων τινών και κοινής σινικής μελάνης.<sup>127</sup>

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<sup>127</sup> **Chevallier, Encycloedia** (p.99) Licorice [Glycyrrhiza glabra (Leguminosae)]: ... It is among the most used herbs in European medicine and has been taken medicinally for several thousand years.

Key Actions: Anti-inflammatory, expectorant, demulcent, adrenal agent, mild laxative

Research: ■ Adrenal agent: Research shows that upon being broken down in the gut, Glycyrrhizin has an anti-inflammatory and anti-arthritis action similar to hydrocortisone and other corticosteroid hormones. It stimulates the production of hormones by adrenal glands and reduces the breakdown of steroids by the liver and kidneys. ■ Glycyrrhizin: Research in Japan in 1985 showed that Glycyrrhizin was effective in the treatment of chronic hepatitis and liver cirrhosis. ■ Protective mucus: Licorice as a whole reduces stomach swelling, making it a useful remedy for inflammatory stomach conditions. ■ Isoflavones: The isoflavones are known to be estrogenic.

Traditional & Current Uses: ■ Traditional Uses: Licorice has long been valued for its medicinal uses. It was taken in ancient Greece for asthma, chest problems, and canker sores. ■ Soothing herb: Inflammatory conditions of the digestive system, such as canker sores, gastritis, peptic ulceration, and excessive acid problems, benefit from licorice's demulcent and healing properties, as do many chest complaints, arthritis, inflamed joints, and some skin problems. Licorice is also soothing for inflamed eyes. ■ Adrenal stimulation: Licorice stimulates the adrenal glands, helping in Addison's disease where the adrenal glands cease to function normally. ■ Constipation: Licorice is useful as a gentle laxative.

## 2. 甘菊, *Chrysanthemon·Chamaemelon nobile*<sup>128</sup>

<*Shennong Materia Medica*> Bitter in flavor, (Energy is) average. It cures paralysis (风), dizziness and swelling pain (tumidity), eyestrain, and tearing. It removes dead skin, rheumatic arthralgia (风湿痺 (caused by wind and dampness)). Prolonged application promotes blood energy, lightens the body, and slows aging and promotes longevity.

<*Famous Doctor's Special Record* (名醫別錄 Mingyi Bielu)> Sweet, not toxic. Cures intermittently experienced waist pain. Removes choking fever of chest, soothes intestines and stomach, and improves five Meridians and modulates the four limbs.

Zhang Zhongjing (張仲景)'s <*Theory of Febrile Disease*> and <*Synopsis of Golden Cabinet*> It is a main constituent of Hou Chi' Black Powder (候氏黑散), which cures Great Wind (paralysis), four limb languidness, malignant fever and weakness of heart.<sup>129</sup>

*New Materia Medica* (本草從新)

甘菊花 Gan Juhua, *Chrysanthemum*: [Dispersing Agent, removes Wind-Fever, tonifies the lungs and kidney, improves eyesight.]

Sweet, bitter, a little cold. To receive all four Energies (winter seedlings, spring leaves, summer buds, autumn flowers). Satiated with frost and dew, it acquires the spirit of Metal and Water, and improves the lungs and kidneys; so it controls the fire of heart and pacifies Liver-Wood. When Wood is pacified, Wind goes down, and when Fire grows weak, fever is removed, so that it supplies nutrition to the blood of the eyes and removes nebula (plus together with wolfberry used in equal ratios, makes honey pills); and prolonged use of it eliminates disease of the eyes. It is normally cultivated in house gardens; those produced in Hangzhou (杭產) are better in quality. Those whose flowers are small and taste is bitter are called Ku Yi (苦蕒); however it is not a real *Chrysanthemum* (真菊). Jing Huan (景煥) "Shepherd Boy", in *Dialogue of Leisure* (牧豎閒談 or 牧豎閑談), said that Real *Chrysanthemum* (真菊), Broad *Chrysanthemum* (延菊 Yan Ju) and Wild *Chrysanthemum* (菊野) tend to induce diarrhea. They come in two colors: yellow and white. That with a single petal and having a sweet taste is superior for medicinal purposes. It is good when boiled for tea, bruised for liquor, or used for pillows. Can be used together with *Atractylodes* (白朮), wolfberry (枸杞子) and *Cortex Lycii* (地骨皮). Its green leaf cures advanced furunculosis (minced leaf is added to liquor, which is pressed into drinking juice), and its dregs can be used in a plaster whose efficacy is excellent.

<*Eastern Physicians' Venerable Text*>

*Chrysanthemum*: Removes nebula (翳膜), improves eye sight, recuperates eye's blood (眼血), cures intestines and tears from wind (風淚), and quells carbuncle poison 癰毒) and carbuncle swelling (疔腫) (pp.339, 1056).

*Chrysanthemum*: (The Energy is) average, sweet, non-toxic. Pacifies intestines and stomach, strengthens the Five Viscera, modulates the four limbs, cures wind dizziness (風眩) and head pain, improves the function of eyes, aids hair growth, and treats rheumatism (風濕痺) (p.1402). Take powder of *Chrysanthemum* for lingering intoxication from drinking (p.807).

Dioskurides. IV, 57 *Helichrysopsis* or *Chrysanthemum* (N. p.167 *Chrysanthemum* or chalkas) ... When one suffers from jaundice, taking a long steam bath temporarily reduces skin discoloration.

Dioskurides, III, 137 *Anthemis* (N. p.170 *Chamaemelum*) root, flower and leaf are used. Increases temperature and reduces weight. Drinking its juice or exposing oneself to its steam from below,<sup>130</sup> improves

<sup>128</sup> Chamaimelon is a small flower and related to *Compositae*, the same category as *Chrysanthemum* (called Small *Chrysanthemum* in China).

<sup>129</sup> Zou Shu (鄒澍), *Commentary of Classic* 本經疏證 (cf. Im Jin-Seog ed & trans. *Commentary of Classic*, p.28)

<sup>130</sup> The meaning of 'enklhizomenai' is not obscure, as it is not used in Modern Greek. It could be comprehended as inserting from below, or

menstruation, embryo,<sup>131</sup> calculus, and urination. Its juice can also remove discomfort in the abdomen, aid intestinal immobility, and cure jaundice and liver ailments, while its decoction enhances bladder function. Red flowers improve calculus...Chamaemelum efficacy for urination is superior to Hyacinthinon or Chrysanthemum.<sup>132</sup> For inflammation of the mouth, its petal should be sucked on or masticated. If taken with olive oil, it can cure periodical fever.<sup>133</sup> Make pills by chopping the leaves and flower, and by drying its root. For acute cases, drink juice made of leaves in double amount and of flowers in normal quantity, mixed with honey and liquor.

P.G. Gennadiou, *Lexicon Phytologikon*, p.963f. Χρυσάνθεμον (Chrysanthemum, τάξις Συνθέτων) γένος περιλαμβάνον περί τα 120 είδη ..... Εκ των εξωτερικών ειδών τα αφιολογώτερα και τα συνηθέστερον θεραπευόμενα προς κόσμον είναι Χ. Το θαμνώδες, Χ. Το ινδικόν ή ιαπωνικόν και Χ. το σινικόν (C. Frutescens, C. Indicum ή japonicum και C. Sinense) όπερ θεωρείται απόγονος του ινδικού. .... και το μεν θαμνώδες Χ. Κατάγεται εκ των Καναρίων νήσων και είναι το κοινώς γνωστόν παρ'ημιν υπό το όνομα Μαργαρίτα (γαλλ. Marguerite ή Chrysanthe frutescent, αγγλ. Paris Daisy) τα δε άλλα δυο ιθαγενή της νοτ. Ανατ. Ασίας, είναι τα πανταχού κατ' εξοχήν γνωστά υπό το όνομα Χρυσάνθεμα (γαλλ. Chrysanthes, αγγλ. Chrysanthemums). Ταύτα ως εκ της εποχής της ανθήσεως των ονομάζονται κοινώς εν μεν τη Ελλάδι Αιδημητριάτικα ή Δημητριάτικα, εν δε τη Κύπρω Οκτωβρούδια. Τα δυο ταυτά είδη απαντώσι θεραπευόμενα υπό απειραρίθμους διαφοράς, παραλλαγάς και νόθα' χάρις δε εις την ατελείωτον ποικιλίαν των χρωμάτων και των σχημάτων των ανθέων των είναι λίαν διαδεδομένη η θεραπεία τωνιδίως εν Ιαπωνία, Ευρώπη και βορ. Αμερική. Εις την Ευρωπην (εις την Ολλανδίαν) εισήχθησαν το πρώτον περί τα τέλη του 17<sup>ου</sup> αιώνας εξ Ιαπωνίας. Αλλ' η θεραπεία των ήρχισε να διαδίδεται μόνον περί τα τέλη του 18<sup>ου</sup> αιώνας, ότε (τω 1789) ο Blanchard εισήγαγεν εκ Σινικής εις την Γαλλιαν τρια τοιαύτα φυτά δξ ών το εν εδώρησεν εις τον εν Παρισίοις Βοτανικόν Κήπον. Το φυτόν τούτο εχρησίμεθε, καθ' α λέγεται, ως αφετηρία της διαδόσεως των Χρυσανθέμων ανά την Ευρώπην.<sup>134</sup>

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washing or steaming the relevant part.

<sup>131</sup> The meaning is not clear: either abortion or childbirth.

<sup>132</sup> The meaning of this sentence is obscure, so opposite interpretations are possible.

<sup>133</sup> It is similar to malaria.

<sup>134</sup> Chevallier, *Encycloedia* (p.77) Ju Hua (Chinese), Chrysanthemum Flowers [Chrysanthemum morifolium (Compositae)]: Ju Hua is known in the West as florists' Chrysanthemum and is valued for its ornamental qualities. In China, however, it is a popular medicinal herb and is also commonly drunk as a refreshing tisane. Ju hua is used to improve vision and soothe sore eyes, relieve headaches, and to counter infections such as colds and flu. Furthermore, research has demonstrated that it is a valuable remedy for high blood pressure.

Key actions: Increases sweating, antiseptic, lowers blood pressure, cooling, reduces fever.

Research: ■ Blood pressure: A number of Chinese and Japanese clinical trials during the 1970s showed that ju hua is most effective at lowering blood pressure and relieving associated symptoms, such as headaches, dizziness, and insomnia. In these trials, ju hua was mixed with jin jin hua (*Lonicera* spp., p.228). ■ Other research: Ju hua has proved to be helpful in the treatment of angina and to have an antibiotic effect against a range of prothogens.

Traditional & Current Uses: ■ Long-standing remedy: Ju hua has been used in China as both a medicine and beverage for thousands of years. It was first categorized in the Divine Husbandman's *Clasificación de Shen'ong Bencaojing* = *Shennong Materia Medica*), written in the 1<sup>st</sup> century A.D. ■ Eye problems: In China the infused flower heads are popular as a remedy for red, sore eyes, especially after long periods of close work, such as reading or working at a computer. The warm flower heads are placed on closed eyes and then replaced when cool. Ju hua infusion is taken as a remedy to improve the eyesight. ■ Cooling & antiseptic: Ju hua infusion is used to reduce fever, to counter infection, and to detoxify the body. It relieves mild fevers and tension headaches, soothes dry mouth or throat, and treats bad breath. ■ Skin Complaints: The fresh leaves make an antiseptic poultice for acne, pimples, boils, and sores. ■ High blood pressure: Symptoms often associated with high blood pressure, such as dizziness, headaches, and tinnitus, are treated with Ju hua. ■ Convulsions: Ju hua, mixed with other herbs, is given to children suffering from convulsions.

Chevallier, *Encycloedia* (p.76) German Chamomile [*Chamomilla recutita* syn. *Matricaria recutita* (Compositae)]: German Chamomile's aromatic, slightly bitter taste, reminiscent of apples, is familiar to herbal tea drinkers. The herb's various medicinal uses, however, are not as well known. It is an excellent herb for many digestive disorders and for nervous tension and irritability. Externally, it is used for sore skin and eczema. Roman Chamomile (*Chamaemelum nobile*, p.184) is a close relative, used in a similar way.

Key actions: Anti-inflammatory, antispasmodic, relaxant, carminative, mild bitter, anti-allergenic.

Research: ■ Trials in Germany: A cream made from German chamomile was tested in 1987 for its ability to heal wounds and produced very positive results. In 1993, a trial using German chamomile and 4 other herbs showed them to be most effective at easing infantile colic.

Traditional & Current Uses: ■ Digestive problems: German chamomile has been taken for digestive problems since at least the 1st century A.D. Gentle and efficacious, it is very suitable for children. The herb is valuable for pain, indigestion, acidity,



### 3. 旋覆花 (金佛草), *Konyza (Inula)*<sup>135</sup>

<*Shennong Materia Medica* 神農本草 > salty in flavor, (energy is) warm. Effective for treatment of blockage of respiratory organs (结气), stuffiness in the flank (胁下满), and extreme fright; removes fluid (水) and cold fever (寒热) among the Five Viscera; and replenishes energy of the middle and lower body. Formerly called Jin Fei Cao (金沸草) or Sheng Shen (盛榘).

<*Famous Doctor's Special Record* (名醫別錄 Mingyi Bielu)> Subtle taste. Energy is a little warm; a little toxic. Removes phlegm and saliva that have congealed in the chest. Removes: phlegm and water in the chest and flank; the Dark in the bladder; dead flesh between skin layers; and eye mucus. It also can be used to treat circulation disorders caused by wind and dampness; facilitate movement of the large intestines; ventilate blood vessels; and promote face color and glow.

Zhang Zhongjing, <*Theory of Febrile Disease*> etc. It removes lumps in the upper abdomen (under the heart) (心下痞硬), cures chronic eructation (噫氣不除), and purges miscarriages from the lower body. When water flows down, body energy (氣度) is generated. If energy is allowed to flow downwards through tonifying the middle via ginseng, jujube and Glycyrrhiza, new blood creation is facilitated. Leek (葱) and Xin Jiang (新降) promote diaphragm ventilation; when diaphragms are ventilated, blood is lubricated and energy is circulated, resulting in the removal of lumps from the abdomen (痞).

#### *Species Certification of Materia Medica* (證類本草)

Xuan-Fu Hua (旋復花), *Inula*: Tastes salty, sweet, warm, slightly cold; mildly toxic. Effective for treating energy torpor (气), discomfort under the flank, and palpating surprise. By eliminating water and removing chills and fever inside the five organs, energy in the middle and lower part of the body is boosted; phlegm of the upper chest, saliva like glue and lacquer, and phlegm fluid in the heart and flank are removed. Improvements are also effected in the following: water retention of the bladder, paralysis from strokes, damp rheumatism, skin slough, red eyelid canthus, inflamed large intestine (intestinum crassum), blood vessel flow, and fertile face color. It has other names “Daishen” (戴榘), “Jin-Fei Cao” (金沸草 *Inula*), and “Sheng Shen” (盛榘). Its root is used for rheumatism. It is produced in moist plains and valleys. In May, flowers are gathered and dried under the sun for twenty days.

Tao Yin-Ju reported it was produced in nearby neighborhood and wetlands, like *Chrysanthemums*. Another kind of root from *Inula*, produced from He Nan and originating in the North and whose shape is similar to *Xiong Qiong* (芎藭), is the rhizome—i.e., root and stem—of *Chuan Xiong* (川芎), a kind of *Ligusticum* used with the oil of *Inula* without any additives; however, this is not *Inula* root. The Notes of Tang Edition (唐本注) mentions

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gas, gastritis, bloating, and colic. It is also used for hiatus hernia, peptic ulcer, Crohn's disease, and irritable bowel syndrome. ■ Tension: German chamomile, which contains spiroether, a very strong antispasmodic, relaxes tension, aching muscles, and eases menstrual pain. It also relieves irritability and promotes sleep, especially in children. ■ Irritation: German chamomile is useful for hay fever and asthma. The proazulenes in the herb produce chamazulene on steam distillation, which is markedly anti-allergenic. Externally, it can be applied to sore, itchy skin and eczema. It also relieves eyestrain.

**Chevallier, *Encycloedia*** (p.184) Roman chamomile [*Chamaemelum nobile*, syn. *Anthemis nobilis* (Compositae)]  
Medicinal Actions & Uses: A remedy for the digestive system, Roman chamomile is often used interchangeably with German chamomile (*Chamomilla recutita*). However, and infusion of Roman chamomile has a more pronounced bitter action than its German namesake. It is an excellent treatment for nausea, vomiting, indigestion, and loss of appetite. It is also a sedative, anti-spasmodic, and mildly analgesic, and will relieve colic, cramps, and other cramping pains. By stimulating digestive secretions and relaxing the muscles of the gut, it helps normalize digestive function. Roman chamomile may also be taken for headaches and migranes, even by children. Its anti-inflammatory and anti-allergenic properties make it helpful for irritated skin.

Caution: Do not use the essential oil internally except under professional supervision. The oil is subject to legal restrictions in some countries.

<sup>135</sup> *Konyza* belongs to the family Asteraceae. (British) *konyza* is generally identified with *Inula* (though there is some disagreement). Cf. Iias Baliakos, I Symboli tou Nikolaou Myrepsou stin prootisi kai tin tekmiriosi tis botanologias kai tis phamakeutikis kata tin Isteri Bizantini epochi (Larissa, 2013) [Dissertation: University of Thessalia], p.148.

the root of Inula belongs to the middle class (中品). According to Tao Yun, its seedling is like ginger, and its root is not similar to Gao-liang Gang (高良薑 Chinese ginger, *Alpinia officinarum* Hance) at all. Being fine, this is mountain ginger; it is not from Inula. That coming from the North is similar to Xiong Qiong, which seems entirely like Gao-liang Gang. According to "Your vassal Yu Xi (禹锡) and others referring to Shu (蜀) Edition Figure (臣禹锡等谨按]蜀本图经)": Inula's leaf is similar to woundwort (水苏), its flower to Chrysanthemum. Now it is found everywhere, its flower gathered from June to September. According to the <Theory of Medicinal Property 药性论>, Inula is a Messenger Medicine (使药),<sup>136</sup> tastes sweet and is non-toxic. Effective for hyposthenia of the rib flank, cold-fever and dropsy, water retention of bladder, relief of the upper abdomen, stimulating appetite, and as an antiemetic against vomiting. <Er Ya (尔雅)> says: "Fu (菴)" is "Dao Geng (盗庚)". The <Note> says: Inula is like Chrysanthemum, and, according to <Petition>,<sup>137</sup> "Fu (菴)", its other name is "Dao Geng (盗庚)".

Xiao Bing (萧炳) said: Inula (旋复) is used with its flower, and Fu Xuan (菴旋) is used with its root. According to Ri-Hua Zi, it is non-toxic, improves eyesight, cures headaches, smooths blood vessels, and the leaf staunches bleeding from incised wounds.

<Figure> said: Inula, produced in the lake of plains and valleys, and found everywhere. It sprouts after February. They are dense around water sources. The large one is similar to Hong Lan (红蓝)<sup>138</sup> but without thorns, about one or two feet long, with thin stems and leaves like willow. In June it blossoms like Chrysanthemum; the flowers resemble large coins and are deep yellow. People in the Shangdang country call it the "money-coin flower (金钱花)" and gather its flowers in July and August. Drying under the sun for twenty days is enough. Today people living near cities plant it in fields. Flowers and leaves are ready to be prosperous, and, perhaps because of this, it came to be known as 'crowded all around (旋复)'. According to Zhang Zhongjing, it cures typhoid fever and, after perspiration, epigastric swelling (心下痞坚) and persistent yawning ...

Various treatments refer to women. It removes phlegm and the inflammation on two flanks and so on. Inula pills are used quite frequently.

Lei Gong observes: After collecting, to remove the calyx wrapping around the flower and the scape, steam the flowers. Dry under the sun from 9 A.M. to 1 P.M. <Waitai Miyao (外台秘要)> says that for treating amputated tissue, connecting amputated sinew in emergency, wash off the mud from and grind it; the quantity applied depends on the size of the wound. Change the dressing twice a day; the frequency depends on the state of improvement. Another remedy: cut and remove the amputated sinew, and grind the root of Inula and make paste to apply to the wound; the dregs can also be used to cover it. In 15 days, amputated sinew shortly would be connected. This prescription originated with the servants of Su Jingzhong(苏景中)'s house.

Prescription developed by chronic experience: For treating paralysis and blockings, first clean the dust of Inula, grind to a powder, mix with honey to make pills the size of which is like great seed of tung (桐) tree. Before sleeping at night, take tea or soup together with five, seven or ten pills. Mei Shifang (梅师方) says it cures incised wounds and stops bleeding, to grind the buds of Inula and apply to over the wound.

<Yan Yi> said that Inula, leaf similar to chrysanthemum, and also àihāo (艾蒿: a kind of *Artemisia*, mugwort) flowers blossom in August and September, the largest one of which is as big as a WúTóng (梧桐: Chinese parasol tree, or phoenix tree) seed; the flower whose color is pale yellow green, lush to be round and covering, is also a different one. Its fragrance is stronger than Chrysanthemum and is used to control sputum water (phlegm) and remove ailments of the head and eye. Its taste is sweet, bitter, and pungent; it is a medicine to expel and disperse various ailments. There is also a similar whirling flower which blossoms in April and May, but this is not Inula.

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<sup>136</sup> Explanation for the <Theory of the Property of the Medicinal 药性论> in the "Yin-Chen Hao (茵陈蒿: *Artemisia*)" part above.

<sup>137</sup> Petition was a kind of formula mostly presented to the Emperor.

<sup>138</sup> A kind of annual plant.

*New Materia Medica* (本草從新)

旋覆花 (Also called Jinfeicao 金沸草, Gold Bubbling Flower), Inula (Inular flower): (evacuating agent, letting Energy descend, removing Phlegm)

Bitter and Pungent, can descend Energy and move Water; the salt softens solids; warmed a little, it facilitates blood vessel function; entering into the Lungs-Meridian of the great intestine, it removes mucous saliva, Phlegm and solid lumps in the abdomen, and relieves incessant belching (eructation). When the Energy of the Chest is blocked, it can be ventilated through belching. This phenomenon is due either to deficiency, or, in cases being accompanied by Phlegm or Fire, to surplus. According to Zhang Zhongjing [張仲景], it cures sweating, vomiting, choking lumps after diarrhea, and belching, for which “Inula Haematitum Decoction [代赭旋覆湯]” is used. It cures edema of the upper abdomen, paralysis, and damp rheumatism (濕痹). It has dispersing properties and benefits the large intestine through its cooling nature (冷); weak persons should avoid. Its root cures rheumatism; its leaves cure furuncle swelling caused by toxins; and plastering the wound by spear or arrow stops bleeding. It is similar to “Coin Money Chrysanthemum (金錢菊)”. Removing its skin, while retaining its core shell, put it into the bowl of decoction. Then It is advised to envelop it with silk pouch. This is why its fine hair might prick the lungs and cause coughing.

<Eastern Physicians' Venerable Text> (Decoction Piece [湯液篇], vol.3 [p.1431]): A little warm; salty, sweet, and mildly toxic. Cures mucous saliva (膠漆) by phlegm (痰) removal from the chest, inflammation (脹滿) in both flanks (兩脇) caused by water retention of the heart-flank (心脇); it also promotes stomach (開胃) function, which results in removing nausea, discharging chronic water in the bladder, and improving eye sight.

Dioskurides, III, 121 konyza [mikra] (konyza of minute leaf) (N. p.39 konyza leptophyllos) ... the smoke produced by burning (konyza) drives out animals and mosquitoes and kills fleas. Its leaves cure snake-bite, tumefaction (腫瘡) and wounds. If you drink the flower and leaf mixed with liquor, it accelerates menstruation and miscarriages, and improves dysuria, nephritis and jaundice. If you drink it with vinegar, epilepsy is ameliorated. If you drink its decoction, it removes squalid masses in the womb. Rubbing its juice stops trembling. For removing fever, apply its leaves mixed with olive oil. It cures headache by plastering with thin petals.

P.G. Gennadiou, *Lexicon Phytologikon*, p.504. Κόνυζα (Inula, τάξις Συνθέτων) γένος περιλαμβάνον περί τα 60 είδη ..... χρησιμοποιούμενον υπό υπό τών αγροτών αλλοχού πρός απομάκρυνσιν των ψύλλων ..... ζ) Κ. Το Ελένιον (I. Helenium, γαλλ. Aunée ή Oeil de cheval, αγγλ. Elecampane, τουρκ. Ααδοούτζ), ..... και είναι τονωτική και φλεγματοαγωγός.<sup>139</sup>

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<sup>139</sup> Chevallier, *Encycloedia* (p.105) Elecampane [Inula helenium (Compositae)]: Prized by the Romans as a medicine and food, this herb derives its botanical name from Helen of Troy, who, according to legend, was holding elecampane in her hand when she set off with Paris to leave Troy. Considered to be a gently warming tonic, the root has long been used as an herb, and is particularly useful for chronic bronchitis and other respiratory problems.

Key Actions: Mildly bitter, expectorant, soothes coughing, increases sweating, eliminates worms, antiseptic

Research: ■ Inulin: Inulin was first isolated from elecampane in 1804 and took its name from the herb. It has mucilaginous qualities that help soothe the bronchial linings. ■ Alantolactone: This constituent is thought to be anti-inflammatory. It also reduces mucus secretions and stimulates the immune system. ■ Whole herb: As a whole, the herb has a stimulatory, expectorant effect, encouraging the coughing up of mucus from the lungs. The volatile oil is known to be partly responsible for this and also for the herb's antiseptic properties.

Traditional & Current Uses: ■ Chest infections: Elecampane has long been valued as a tonic herb for the respiratory system with a warming effect on the lungs. Combined with its ability to gently stimulate the coughing up and clearing of chest mucus, it is a safe remedy for young and old. Elecampane can be used in almost all chesty conditions, and is very useful when the patient is debilitated. ■ Chronic chest complaints: Elecampane's attributes have led to its specific use for chronic bronchitis and bronchial asthma. It is particularly useful because it both soothes the bronchial tube linings and is an expectorant. In addition, the herb is mildly bitter, helping recovery by improving digestion and the absorption of nutrients. ■ Elecampane has been taken traditionally as a tonic herb for digestion. It stimulates the appetite and relieves dyspepsia. It is a useful remedy for the treatment of worms. ■ Infection: In the past, elecampane was used in the treatment of tuberculosis. It combines well with other antiseptic herbs and is used for infections, such as flu and tonsillitis. Its restorative, tonic action complements its ability to counter infection.

#### 4. 大棗, *Ziziphus jujube* (Ramnos)

<*Shennong Materia Medica* 神農本草> Flavor is sweet and (energy is) average. It cures evil energy (邪氣) of the heart and abdomen, pacifies the middle and raises the spleen, tonifies 12 channels (十二經), pacifies stomach energy (胃氣) and ventilates the 9 orifices, replenishes weak energy, insufficient body liquid, and insufficiency of the middle body, and modifies terrible fright and languid limbs, and modulates the effects of all medicines. Prolonged use makes the body light and results in longevity. The leaves of jujube are better than ephedra (麻黃) for sweating. It used to be grown around marshland (平澤). According to 《*Wu Pu Materia Medica* (吳普本草)》, Jujube is efficient for modulating the middle, promotes energy of the spleen, produces a fair complexion, and invigorates inspiration (志氣).

<*Famous Doctor's Special Record* 名醫別錄 (Mingyi Bielu)>

Sweet, Energy is average, no poison. Tonifies the Middle Bowels and replenishes Energy, reinforces strength. Removes depression and suffocated feeling, cures persistent discomfort in the the pit of stomach and removes filthy dregs in the intestines; Long use results in loss of hunger and makes one demi-deity (神仙: a kind of Taoist hermit).

<*Species Certification of Materia Medica* 證類本草>

Jujube is sweet, plain, and has no toxicity. It is effective for the evil energy (邪氣) in the heart and abdomen, and facilitates the middle, brings up the spleen, supports the Twelve Pulse Channels (十二經絡), and the stomach to a normal state communicates to the Nine Orifices (九竅), restores exhausted energy, restores insufficient body fluid (津液) and weak parts of the body, and modifies greatly frightened states and heavy limbs,. Well matched for every kind of pharmaceutical, it replenishes the middle, promotes energy, reinforces power, removes depression, and cures heart clogging and the blocking of the viscera. Long use promotes longevity, depresses hunger, and so promotes deity status (神仙). Formerly called “dried jujube (乾棗)”, “excellent jujube (美棗)”, and “nice jujube (良棗)”. Picked in August of the lunar calendar, it is dried for three years. The contents inside the old seed, when roasted, are bitter; this is effective for stomachache and evil energy. Raw jujube (生棗) is sweet and pungent; taking it in high doses causes cold fever (寒熱), so lean persons should not take it. Its leaves cause more sweat than ephedra (麻黃). It is produced around pools in the fields of He Dong (河東).

According to Meng Shen (孟詵), dried jujube (乾棗) is warm. It is effective for replenishing inadequate body fluid and promotes strong will. The contents of three-year old seeds improves poor energy (惡氣: Bad Energyqn) in the body and treats sudden and infectious disease (猝疰忤); it also cures deafness (耳聾) and nasal obstruction (鼻塞) ... Jujube removes bad energy in the heart and abdomen, detoxifies every kind of pharmaceutical poison, facilitates the nine orifices, and replenishes insufficient energy. Over use of raw jujube causes abdominal distension, while ingestion of steamed and boiled jujube supports the viscera and stomach, is good for fattening up the middle and increasing energy. Eating jujube is fine for infantile autumn diarrhea (小兒秋痢) and parasites. According to *Rihua-Zi*, dried jujube lubricates the heart and lungs for stopping coughs, replenishes the five viscera, harmonizes weakness and exhaustion, and removes blockages of intestines and the stomach. Scorched together with tin powder [光粉 (粉錫)], malnutrition (疳疾) and dysentery (痢疾) can be treated, though jujube should never be taken when one has teeth ailments. Never take jujube of any kind with green onion. The leaves of jujube are warm and non-toxic; when children suffer high fever, it can be controlled by bathing with the boiled water of its leaves.

<*Eastern Physicians' Venerable Text* 東醫寶鑑> (p.1382)

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Chevallier, *Encycloedia* (p. 221), Xuan Fu Hua [*Inula Japonica* syn. I *Britannica* var. *chinensis* (Compositae)]:  
Medical Actions & Uses: Used in traditional Chinese medicine as a mildly warming expectorant remedy, xuan fu hus is especially suitable when phlegm has accumulated in the chest. The herb is often prescribed for bronchitis, wheezing, chronic coughing, and other chest complaints brought on by “cold conditions.” Xuan fu hua also has a bitter action, and it helps to strengthen digestive function. It is prescribed to stop vomiting and, on occasions, hiccups. The flowers are normally used in medicinal preparations, but the aerial parts can also be used, generally for less serious conditions.

Average, no toxins. Pacifies the internal parts, raises the spleen, replenishes the Five Viscera, tonifies the 12 Meridians, ventilates the 9 Holes (九竅), reinforces temper and alleviates the effects of all medicine ... Taking well-boiled replenishes the intestines and stomach, increases flesh, and protects Energy, while taking raw makes the stomach swell and causes diarrhea.

(p.479) In order to replenish the 12 Meridians, it is advised to take it by decoction; its sweet taste alleviates Dark Blood (陰血) supplementing the deficiency of the Meridians. Long use depresses hunger.

Dioskurides, I 90 ramnos (N. p.129), its leaves can be used as plasters for cases of bad skin disease. (Rubbing doors or windows with its branch can remove toxins from medicine.)

Ibid. I 92 paliouros<sup>140</sup> ... Wood with thorns, its fruit is greasy and contains much oil. Drinking its juice removes cough and calculus of bladder and cures venomous snake-bites. Its leaf and root are applied as an anti-diarrheal agent and its decoction pacifies intestines (i.e. stops diarrhea), facilitates urine passing, and is effective in treating other animal bites. Its root, which is glabrous, is good for all kinds of newly created abscess (腫) and tumefaction (癰).

P.G. Gennadiou, *Lexikon Phytologikon*, p.381ff. Ζίζυφος (Ziziphus,<sup>141</sup> γαλλ. Jujubier αγγλ. Jujube tree, τουρκ. Ουννάπ, τάξεις Ραμνώδων) ' γένος περιλαμβάνονπερί τα 50 είδη. Θάμνη και δένδρα ιθαγενή της Ασίας και Αφρικής, τα πλείστα ακανθώδη ' ο καρπός των, το κοινώς τζίτζιφον, είναι δρύπη, ..... Ζ. ο λωτός, Ζ. η κεντροφόρος και Ζ. η κοινή (Ζ. Lotus, Ζ. Spina Christi και Ζ. Vulgaris ή Sativa).

Ζ. ο Λώτος ..... φέρει καρπών στρόγγυλον, μεγέρους μικράς αρκευθίδος (κερδομήλου) και γεύσεως ευαρέστως γλυκοξύνου. Εν Κύπρωι ο καρπός ούτος ονομάζεται κόρρανο, Παλλούρα δε το φέρον αυτόν δέντρον ..... Του δένδρου τούτου τόν καρπών ονομάζει ο Όμηρος <άνθινον είδαρ> (τροφήν) και <μελιδέα καρπών> ' αποτελεί δε ούτος την κυρίαν τροφήν των Λωτοφάγων .... και ο Θεοφρ. Παλίουρος εν Λιβύη ... Εις τούτο το δένδρον ωσαύτως αναφέρεται και το παρά Στράβωνι (17.831) της Λυβύης <Μελίλωτον καλούμενον εξ ού σκευάζουσιν οίνον>. .... Γίνεται δε και οίνος εξ αυτού βρεχομένου και τριβομένου δ' ύδατος, κατα μεν την γεύσιν ηδύς και απολαυστικός, οιομέλιτι χρηστώ παραπλήσιος .....<sup>142</sup>

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<sup>140</sup> "Paliouros" is not shown in the Naoli Edition. However, P.G. Gennadiou (*Lexikon Phytologikon*, Athinai, 1914) classified "thorny paliouros (akanthodes paliouros)" to ramnos Dioscurides referred to by M. Wellmann, who edited Dioscurides referring to various survived editions, did not ramnos and paliouros with each other, describing separately thorny ramnos and thorny paliouros.

<sup>141</sup> Ziziphus was of Arabic origin and first referred to by Didymos (*Geoponika*, 10.3.4) at the end of the 1<sup>st</sup> century A.D.

<sup>142</sup> Chevallier, *Encycloedia* (p.281) Jujube, Da Zao (Chinese) (Ziziphus jujube [Rhamnaceae]): Habitat & Cultivation: Native to China, Japan, and Southeast Asia, the jujube is widely cultivated in tropical and subtropical regions of Asia and the Mediterranean.

Medicinal Actions & Uses: Jujube is both a delicious fruit and an effective herbal remedy. It aids weight gain, improves muscular strength, and increases stamina. In Chinese medicine, jujube is prescribed as a qi tonic to strengthen liver function. Mildly sedative and anti-allergic, it is given to reduce irritability and restlessness. It is also used to improve the taste of unpalatable prescriptions.

Research: In Japan, jujube has been shown to increase immune-system resistance. In China, laboratory animals fed a jujube decoction gained weight and showed improved endurance. In one clinical study, 12 patients with liver ailments were given jujube, peanuts, and brown sugar nightly. In four weeks, their liver function had improved. Related species: The sedative *Z. spinosa* is used in Chinese medicine to "nourish the heart and quieten the spirit."



## 5. 薄荷, *Hedyosmon emeron*, Kalamintheorine

*Tang Register* 唐附 (新修本草 *Newly Revised Materia Medica*)<sup>143</sup>: Pungent and bitter. Energy is warm; non-toxic. It facilitates sweating to aid bad paralysis and febrile disease. Cures evil spirit, fullness of heart and abdomen, acute diarrhea (癰亂), indigestion (滯症) and lower Energy. Decoction could be applied. Its juice releases sweat and removes extreme fatigue.

### *Species Certification of Materia Medica* (證類本草)

薄荷 *Mentha*, Mint: Tastes pungent, bitter, and warm; non-toxic. Treats typhoid fever, sweating, bad energy (惡氣 *wu qi*), abdominal flatulence, cholera, dyspepsia (indigestion), and descent of energy (氣 *qi*). Taken as boiled juice, it can enjoy be enjoyed raw. People plant it at home, drink its juice to sweat, and recover from exhaustion.

The <Note of Tang Edition> (*Newly Revised Materia Medica*) says: stems and leaf like perilla, while being different as its shape is more acute and long; the root and stem of which do not die during winter. There is also one with vines to survive, whose function is similar to that. "Your vassal Yu Xi (禹錫) and others referring to the *Theory of Medicinal Property* (臣禹錫等謹按藥性論) (*Previous Edition of Tang Dyanasty* 唐本先附 = *Newly Revised Materia Medica*)<sup>144</sup> says: Mint, is a Messenger Medicine (使藥),<sup>145</sup> it can remove anger. Let poisonous sweat come outward, break (bad) blood, cure dysentery, and relieve joints. Especially to make salad with scallion is fitting. When new disease gets improved, do not allow patients to eat it, as they will keep discharging sweat. Chen Shi-Liang (陳士良) says: it is Hu Ba-Gua (胡菝葜), which can be used to let other medicines help each part of the human body. Treat the poison of Yin and Yang (陰陽: dark and bright): headache of typhoid fever, the energy of wind [paralysis (stroke) or rheumatism]; to protect and arrange the chest and diaphragm, make tea and enjoy its immediate benefits. The commoners named it Xin-Luo Ba (新羅菝葜 Silla Kingdom's Mint). Ri-Hua Zi said: treat stroke and aphonia, and spit and phlegm; remove evil wind (energy); cure heart and abdominal distension, descending Energy (氣), indigestion, head dissipation, etc.

Figure said: Mint, in the old days scarcely if at all produced, now is everywhere. Its stem and leaf is like perilla, acute and long. The roots do not die during winter. In summer and autumn, gather stem and leaf and dry under the sun. According to prescriptions from old days: though rarely used, make a salad with scallion (薤) and eat. Modern physicians use it for managing disease of wind (傷風), wind of head, curing metabolic difficulties and distress of saliva of child (風涎 wind of saliva). There is another kind, Hu Bo-He (胡薄荷 Barbarous Mint), similar to this, but the taste is less sweet. Produced in Jiang Zhe (江浙), many people use it for tea and beverages. Near the capital in a Buddhist monastery, planted one or two. Qian Cao (錢草 Money Grass) named in <Tian-Bao Fang 天寶方> refers to this. Shi Bo-He (石薄荷), produced in Jiang Nan's rocks over; leaves small, by winter take on purple color, this species is used without discrimination for function. Whoever has recently recovered from serious illness should not eat mint. It's prior dictionary name was 'Ba (菝)'.<sup>146</sup>

Diet: flat. Removes tiredness. Used together with scallion (薤), it helps Sweating, and relieves the obstruction of joints. Take beetle soup: removes bad fever of heart and entrails, <外台秘要 Waitai Miyao, *Essential Secrets from Out of the Metropolis*> says it cures bee stings. It is used by scrubbing and attaching to the wounds. <Prescriptions of Experience (經驗方)> says: Dropping extract in the ear, in case water infiltrates into it, is efficacious. <*Heart Mirror of Diet Therapy* 食醫心鏡><sup>146</sup> says drink it with decoction of bean soup, warm liquor and decoction of tea.

<sup>143</sup> *Mentha* is not mentioned in the *Shennong Materia Medica* (神農本草); it is introduced later in the *Newly Revised Materia Medica* (新修本草 = 唐附 *Tang Register* 唐本草 *Tang Materia Medica*).

<sup>144</sup> *Previous Edition of Tang Dyanasty* (唐本先附) refers to The Edition in the reign of the Emperor, Gao Zong (高宗) [Name of the Era: Xian Qing (顯慶): 656-661].

<sup>145</sup> Cf. Explanation for the <Theory of Medicinal Property 藥性論> in the "Yin-Chen Hao (茵陳蒿: *Artemisia*)" part above.

<sup>146</sup> The importance of <*Heart Mirror of Diet Therapy* (食醫心鏡)> is to combine theory with practice. For each therapeutic



< *Amplification of Omophagia* (生食衍义 Sheng Shi Yan Yi)> said: Mint, commonly named South Mint, is a kind of Borneol Mint (龙脑薄荷) which refers to the South. This medicine should be used for infantile convulsion and strong fever. When cats eat it for recreational drug effect, it has two-phase induction. Treats hectic fever (or marrow parchment); use the extract with various roasted medicinal ointments.

*New Materia Medica* (本草從新)

薄荷 (Bo He), Mint: Pungent taste disperses and the nature of Cool (涼) purges (according to the Classic, it is warm, while, it is also said that, generally its body is warm (in nature), but its use (efficiency) is cool. Through the nature of floating it develops sweat, collects the Energy of Liver, and suppresses the Energy of Lungs. It disperses the inversed, harmonizes the Middle, disperses the blocked one, dissolves melancholy, and removes Wind-Fever. It cures head and eye ailments, headache, paralysis of the face, strokes, acute aphonia, stammering, mossy tongue (gargling with Mint or rubbing the tongue with Mint mixed with honey), and all diseases related to the eye, ear, throat (pharynx and larynx), mouth and teeth (its pungent taste makes the holes ventilated, dispersing Wind-Fever), urticaria, exanthema and scabies of skin, convulsions via fever (for curing children's convulsions, soup of Mint is used); remedies osteopyrexia (feverish evaporation of the marrow), removes indigestion, stops bloody dysentery (dysentery is due to blockage; the pungent taste could disperse and the cool could purge), facilitates joints, pacifies cholera, and is used for cat scratches and snake-bites. The pungent taste harms Energy, so overdosing can harm the lungs and heart; therefore, weak persons should avoid it.

The Mint cultivated in Suzhou (蘇州) has a thin stem and its fragrance is the most excellent. That produced in Jiangxi (江西) has a more thick stem, second best in quality. That produced in Sichuan (四川) is even thicker, and is next best in quality. Wild mints of the field are similar in its stem, leaf, energy and taste. For medicinal use, that produced in Suzhou is advised.

(According to Zhang Guo (張果) <Medicinal Theory of Prescription (醫說方)>, when the toxins of fried foods penetrate, so that the thighs have tumefaction discharge, the condition can be immediately cured by plastering several times with the boiled extract of mint.)

< *Eastern Physicians' Venerable Text* > (p.1397) Warm, pungent, no toxin. It allows every boiled medicine to penetrate to the “Managing Meridian and Protecting Meridian (榮衛)” and creates strong juice; cures headaches caused by Febrile Disease (傷寒). Removes Paralysis (中風), Bad Wind of Four Seasons (賊風) and Chronic Headache (頭風); facilitates joints; and solves exhaustion from work. As its property is pungent and cold, it facilitates the function of head and eyes (頭目); cures dried bone (骨蒸); and, entering the Hand (Upper)-Great Dark Meridian (手太陰) and Hand (Upper)-Faint Dark Meridian (手厥陰經), goes upwards.

(p.121) It facilitates toxic sweat (毒汗), alleviates exhaustion (勞乏), and clears head and eyes (頭目). (p.355) If water gets trapped in the ears, a little mint juice produces an immediate benefit. (p.615) It also induces sweat removal from Fever (風熱) originating in both external or internal cause. (p.730) For Dark and Bright toxins (陰陽毒) caused by Febrile Disease (傷寒), it is advised to decoct its leaves and drink the warm decoction, resulting in perspiration. (p.770) It cures exhausted tiredness (熱勞) caused by dried bones (骨蒸).

Dioskurides, III 34 hedyosmon (minthên) (N. p.80 hedyosmon emeron) ... Maintains body temperature, and used as anti-diarrheic agent (止瀉劑) and Drying agent (乾燥劑). Its juice mixed with vinegar stops bleeding and kills two or three kinds of parasites. Decoction made from two or three branches of mint in company with mulberry (桑) stimulates sexual desire, removes chest swelling (when one cries or has hiccups), vomiting and cholera. Using it as a paste mixed with wheat flour improves purulent tumefaction (瘡) and pasting it on the forehead makes headaches disappear. It makes the breast swell and be mature. Pasting it with salt is advisable for dog-bites, and its juice mixed with honey can treat ear disease. If you paste it on women in advance before having sexual intercourse, pregnancy is prevented. Rubbing the tongue with softens it, and if you put it in milk and seal it tightly, the milk does not congeal (like cheese), keeping it fresh. It pacifies the stomach and can be used as a food spice.

Dioskurides, III, 35 kalaminthê (N. p.48 kalaminthêorinê [산지의 kalaminthê])

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prescription, it introduces a brief discussion of the cause of the disease, its symptoms and principle of treatment.

Drink or paste it in case of snake-bite. Its decoction facilitates urination. It is good for bone fractures, convulsion, dyspnea, nephritis, cholera, and sweating, and also for goose pimples caused by chilling. Drinking it with liquor prevents or cures fatal disease and removes jaundice. Drinking it with salt and honey kills various parasites. Take it boiled or freshly ground. It is also available for leprosy, and its juice increases breast milk. Its smart leaf facilitates menstruation. The fragrance created by burning it or laying it under the bed repels snakes. Pasting after decoction and boiled with liquor, its application can remove black scabs and black bruises;... warm the surface of the skin and apply drops of its juice to kill parasites in the ear.

P.G. Gennadiou, *Lexicon Phytologikon*, p.386f. Ηδύοσμος (Mentha, γαλλ. Menthe η Baume αγγλ. Mint, τουρκ. Nané, τάξις Χειλανθών) ' γένος ολιγομελές πλην αντιπροσωπευόμενον σχεδόν πανταχού εκτός των τροπικών ' περιλαμβάνει φυτά ποώδη, πολυετή, αρωματικά, μυριστικά, τινά αρτυματικά, φαρμακευτικά και μυρεψικά. .... Πάντα σχεδόν τα φυτά ταύτα έχουσι δυνάμεις τονωτικές και αντισπασμωδικάς ..... ως φυτά αρτυματικά ή φαρμακευτικά ..... και της βορ. Αμερικής ως μυρεψικά ..... χρησιμοποιούνται κατά μεγάλα ποσά ιδίως εις την μυρεψιάν ' και εις την κατασκευήν καραμελών της μέντας .....<sup>147</sup>

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<sup>147</sup> Chevallier, *Encycloedia* (p.112) Peppermint [*Mentha × piperita* (Labiatae)]: Peppermint's origin is a mystery, but it has been in existence for a long time dried leaves were found in Egyptian pyramids dating from about 1000 B.C. It was highly valued by the Greeks and Romans but only became popular in Western Europe in the 18<sup>th</sup> century. Peppermint's chief therapeutic value lies in its ability to relieve gas, flatulence, bloating, and colic, although it has many other applications.

Key Actions: Carminative, relieves muscle spasms, increases sweating, stimulates secretion of bile, antiseptic.

Research: ■ Volatile oil: Research has shown that volatile oil is strongly antibacterial. Menthol (a constituent of the oil) is antiseptic, antifungal, cooling, and anesthetic to the skin, although it is also an irritant.

■ Whole herb: The whole plant has an anti-spasmodic effect on the digestive system. Clinical trials in Denmark and Britain during the 1990s have confirmed its value in the treatment of irritable bowel syndrome.

Traditional and Current Uses: ■ Digestive problems: Peppermint is excellent for the digestive system, increasing the flow of digestive juices and bile, and relaxing the muscles of the gut. It reduces colic, cramps, and gas, and helps soothe irritated bowel. In soothing the lining and muscles of the colon, it helps diarrhea and relieves spastic colon (often the cause of constipation). ■ Pain relief: Applied to the skin, peppermint relieves pain and reduces sensitivity. It also relieves headaches and migraines linked to digestive weakness. ■ Infection: Diluted oil is used as an inhalant and chest rub for respiratory infections. The whole herb is important for digestive infections.

## 6. 艾葉 & 茵陳蒿, *Artemisia*<sup>148</sup>

茵陳 capillary *Artemisia* (p.22)<sup>149</sup>

<*Shennong Materia Medica* (神農本草)> Flavor is bitter, (energy is) average. It treats rheumatism (风湿), cold fever (寒熱) and evil spirit (邪氣), pyretic retention (熱結) and jaundice. Prolonged application lightens body, promotes energy and inhibits aging ... White rabbit ate it to be deified (仙).

茵陳蒿, <*Shennong Materia Medica*>: Bitter, Energy is average. It treats Cold Fever caused by rheumatism, evil spirit (邪氣), coagulation of the blood and jaundice. Applied regularly for prolonged periods lightens the body, protects Energy, and inhibits aging.

艾葉 *Artemisia*, <*Famous Doctor's Special Record* (名醫別錄 Mingyi Bielu)> Bitter, Energy is a little warm, non-toxic. Moxibustion or Decoction is available for many diseases. It stops diarrhea and vomiting; cures infected wounds of the genital organs and metrorrhagia; facilitates Dark Energy; raises flesh; and dispels febrile cold.

茵陳蒿 *artemisia*, <*Famous Doctor's Special Record* (名醫別錄 Mingyi Bielu)> Energy is a little cold; non-toxic. It cures jaundice, dysuria (小便不利); removes head fever; dissolves latent mass; and promotes a bright face and longevity. It has been said that white rabbit who ate it became demi-deity (神仙: a kind of Taoist hermit).

<*Theory of Febrile Disease*> (vol9) <*Synopsis of Golden Cabinet*> *Artemisia* is mostly used to treat jaundice. (Swelling of the abdomen [服滿] is cured with rhubarb and internal fever with gardenia; for external fever accompanied by sweat and dysuria, apply *Artemisia* immediately. New leaves came out from old stems of *Artemisia*. And its pure fragrance (清芬) makes blocked fever to disappear, as its bitter taste and cold nature make lagged Damp (濕) be discharged.

### *Species Certification of Materia Medica* (證類本草)

*Artemisia Capillaris* / Cappillary *Artemisia* (Yin-Chen Hao 茵陳蒿): Tastes bitter, average, slightly cold, non-toxic. It is effective for rheumatism, cold fever, evil Energy, thermo-junction (熱結), jaundice, whole body yellowing, dysuria, and removing head fever and masses in the large intestine. Prolonged use makes the body light (cheerful) and vigorous; senility is arrested; the face becomes white; and life span is lengthened. By eating it, it is said, white rabbits became demi-deity (神仙).<sup>150</sup> It grows in the great mountains on upland slopes and gathered in May or at the beginning of autumn and dried in the shade. According to Tao Yin-Ju,<sup>151</sup> it is endemic now. Like basil, the leaves are tight and thin; its stem revives in spring. It is used to treat jaundice. According to Xian-Jing (仙經),<sup>152</sup> White *Artemisia* (白蒿)[*Artemisia Stelleriana*], which the white rabbit ate to become a

<sup>148</sup> In Greece *artemisia* used to be identified with *apsithia* (or *Artemisai apsinthion*). Cf. I. Baliakos, *I Symboli tou Nikolaou Myrepsou*, p.87.

<sup>149</sup> The applications of capillary *artemisia* in *Shennong Materia Medica* are similar to those of *Species Certification of Materia Medica* (證類本草): 茵陳蒿 *Artemisia capillaris*: 味苦, 平(微寒, 無毒)。主風濕, 寒熱, 邪氣, 熱結, 黃疸(, 通身發黃, 小便不利, 除頭熱, 去伏瘕)。久服輕身, 益氣耐老(, 面白悅長年)。白兔食之仙。生太山及丘陵坡岸上。五月及立秋采, 陰干。

<sup>150</sup> Cf. According to another Chinese tradition, the white rabbit became a deity in order to travel to the moon. It happened this way. One day the deities asked a fox, monkey and rabbit to donate food. The fox and monkey gave some food they already were holding. The rabbit however did not have anything to give them, so voluntarily sacrificed himself to be roasted for them by jumping into a fire. The deities were quite impressed by this altruism, so they sent the rabbit to the moon to be the "White Rabbit of the Moon Castle."

<sup>151</sup> Tao Yin-Ju (陶隱居) is a nickname of Tao Hong-Jing (陶弘景) (456—536). He lived during the Southern Dynasties and wrote the <*Compendium of Materia Medica* (本草經注)>.

<sup>152</sup> Xian-Jing (仙經) is a traditional book of Taoism.

deity, is not the same as Capillary Artemisia. Now According to <Transmission of Materia Medica (本草拾遗)><sup>153</sup> besides basic uses, Artemisia (茵陈 Yin Chen) makes joints comfortable and removes heat hysteresis and typhoid fever (伤寒), i.e. exogenous febrile disease is affected by cold. Artemisia, though its seedling is thin, does not die in winter; because old seedlings comes to life again, it is named with the meaning “because of old” or “from old (Yin Chen 因陈)” afterwards added “Capillary Artemisia (蒿)”. It is said not to be a kind of vegetable (菜). "Your vassal Yu Xi (禹锡) and others referring to the Shu Edition Figure (臣禹锡等谨按蜀本图经)"<sup>154</sup> claimed that the leaf is like Artemisia annua (青蒿, Artemisia annua; Artemisia apiacea; sweet wormwood; southernwood), but its back is white. It is found everywhere; gather the seedlings to dry in the shade. According to 《Theory of Medicinal Property 药性论》 Yin-Chen Hao (茵陈蒿: Artemisia) is a medicine of the grade of Messenger (使药),<sup>155</sup> tastes bitter, acrid, and is mildly toxic. It can treat yellow eyes and red urine. Ri-Hua Zi<sup>156</sup> said Shi Yin-Chen (石茵陈) is bitter, cool, and non-toxic. It can be used to treat epidemic disease fever, fanaticism, headache, head dizziness, eye malignancy from winter wind (风眼冬),<sup>157</sup> malaria, women's mass in the intestine (症瘕),<sup>158</sup> and incompetence and fatigue. Also known as Yin-Chen Hao (Capillary Artemisia) and Mountain Artemisia (山茵陈). Originally produced in He Zhou (和州) and the South Mountain, it is now found everywhere.

<Figure> said: Artemisia capillaris, grown in Taishan and on hill slopes, is found everywhere nearby (but Taishan is preferred). In Spring it produces shoots of three-five inches; leaves are tight and thin like basil (蓬蒿); and it has no flowers or fruit. After autumn the leaf suffers blight; the stem through the winter does not die; and in spring new leaves are born from old seedlings, hence the name of Yin Chen 茵陈 which means “because of old (or 'from old').” In May-July, after it is gathered, and the stem and leaf dried in the shade, it is called the mountain Artemisia capillaris. The Jiang Nan (江南) country has a kind of Capillary Artemisia, with leaf wide and root thick, yellowish white, and it flowers and produces fruit in summer. In JieWu there is a variety of White Artemisia like Artemisia annual; the back of the leaf is white and natives of the mainland used it for medicine. Now in the southern part doctors use Mountain Artemisia of many kinds. Apparently what is used in the southern part of the capital (Bian Jing 汴京) and the northern part is like mugwort (艾蒿); the leaf is fine, and white or black; and its efficacy is identical to Mugwort; it has a bitter taste, and when dried its color becomes black. It is used in Jiang Nan (江南); its stem and leaves are large like Home Wormwood (a kind of Artemisia); it grows three-four feet high; and is very fragrant, sweet, and acrid. The commoners also named it Borneo Camphor Mint. That used in Wu country is Shi Xiang (石香, a kind of annual herb); the leaf is thin, yellow, and acrid in taste; it is deeply fragrant and warm in nature. If used erroneously to make the spleen comfortable, it can cause a predicament. In Materia Medica, it appeared only as Artemisia Capillaris (茵陈蒿) without Mountain (wormwood) Artemisia (Capillaris). According to the Notes of Materia Medica, the leaf of Artemisia Capillaris is like that of Basil (蓬蒿), tight and thin. What is used today in the Capital (Beijing) North as Mountain (Wormwood) Artemisia (capillaries) is this. Generally the commoners use Mountain Artemisia for curing cerebral pain. Appeases Cold Disease and sweating, treats the heaviness of limbs and joints, resolves

<sup>153</sup> <Chen Cang-Qi's Materia Medica 陈藏器本草> equals the <Materia Medica Supplements 本草拾遗>, also called <Supplements 拾遗>. Written by Chen Cang-Qi in Kai Yuan(开元) 23 (739 A.D.) of the Tang(唐) Dynasty.

<sup>154</sup> <Shu (蜀) Edition Figure 蜀本图经>was the second book of《[Hereby the case of] Classified Materia Medica [證類本草]》30 books, which were compiled by Tang Shen-Wei 唐慎微 during the Song Dynasty.

<sup>155</sup> There is an old saying about Medicinal grades in the <Theory of the Properties of the Medicinal 药性论>. If there is no other solid fixed object, the first medicine is called King medicine (君药); the next is the Vassal medicine (臣药); the next is the Assistant grade medicine (佐药); and the last is the Mission grade medicine (使药).

<sup>156</sup> Ri-Hua Zi 日华子, a botanical pharmacologist of the Tang(唐) Dynasty, wrote《Materia Medica of Various Theories 诸家本草》.

<sup>157</sup> Cf. Tears gush out and the swollen skin is made red by the winter wind.

<sup>158</sup> “Agglomeration of stomach (症瘕 Zheng Jia):” it refers to the mass in the woman's abdomen which becomes swollen and spills blood; “Zheng (症)” is the symptom of a hard, stationary agglomeration with the pain in a fixed place (症), while “Jia (瘕)” is a hard movable mass with no fixed place of pain.

phlegm and diaphragmatic hernia, and is most useful for treating overstrain. In the details of the “*Materia Medica* (本草 [正] 经)” it is said that it cures jaundice only, and the commoners do not make reference to the therapy of diuresis (by *Artemisia*). Roasting reduces the efficacy of Mountain *Artemisia* in the Capital (Beijing) for relieving muscle pain and sweating. Mountain *Artemisia* produced in Jiang Nan (江南) is very effective for healing Cold Disease and cerebral pain. Many doctors recommend House (Wormwood) *Artemisia* (家茵陈) for relieving muscle and diaphragm pain, and for removing pain from the chest. Pharmacists do not use it frequently, but it can be ground for drink. It is not prescribed by the *Materia Medica*, but is widely used by commoners. It is said that Yin-Chen Hao (*Artemisia Capillaris*) is not the same as Mountain (Wormwood) *Artemisia* and has different medicinal applications; however this view has not been verified. In terms of effectiveness, that of Jiangnan is excellent.

Anyway, this is not what *Materia Medica* says. Doctors also appraised its effectiveness, so the meaning of *Materia Medica* should be revisited.

Léi Gōng (雷公) says the octagonal leaves should be gathered and dried in the shade and used after removing the fine roots; avoid contact with flame. According to <*Thousand Gold Prescriptions* (Qian Jin Fang 千金方), it cures itchiness (pruritus) of the whole body as well as infected sores and scabs. Regardless of the quantity of *Artemisia capillaris*, wash with boiled thick juice and immediately recover. <*Food Lesson of Materia Medica*> *Artemisia* mostly eliminates great fever, jaundice, typhoid fever, headache, malaria of high fever, and diuresis. Slice to make into boiled soup; added to raw food is also pleasant.

<*Extended Meaning of the Original* (本草衍义)><sup>159</sup> said: *Artemisia capillaris*, according to Zhang Zhongjing (张仲景), treats typhoid fever (伤寒 Febrile Disease), and intense fever accompanied by yellowing appearance (When yellowing of the body surface is observed, it is very effective.) A monk is reported to have suffered from typhoid fever: though the sweat was not limpid, the fever remained, his body turned yellow, and a year passed without any improvement in his condition. The doctor made foodstuffs to cure the disease, but could not control it. When asked, eating did not reduce. Then, after applying this medicine, 30% improvement in the monk's condition was achieved after five days; by ten days it was 60% improved; and by twenty days the illness disappeared.

#### *New Materia Medica* (本草從新)

茵陈 *Artemisia* (wormwood): (Circulating Agent: Relieves Damp-Fever; cures various kinds of Jaundice.)

Bitter taste dries Damp and its Cold Nature conquers fever. By entering into the Great Bright Meridian (bladder), it releases the sweat beads and purges Damp Fever of the Great Dark and Supreme Bright (Spleen and Stomach). It is the master medicine for curing jaundice. [When the spleen and stomach have damp fever, yellowness (i.e. jaundice) is brought about. The yellowness is from the spleen. If the body is of orange color, and the sweat is like the soup of (yellow) acorn (黄柏汁) and its color is bright, then there is much Fever; while if the color is roasted brown and it is temporary, there is much Damp. In this case, a kind of “Five Ingredients Including Poria (cf. Poria is a kind of fungus) (五苓)” should be used as an aid for obtaining a satisfactory effect]. In addition, it cures typhoid, epidemic malignant malaria of fierce fever, headache, dizziness, and abdominal pain (conglomeration) (疝瘕 Shan Jia) of women. (All are due to Damp-Fever). With regard to jaundice, it is divided into two kinds: Dark-Jaundice and Bright-Jaundice. The latter should be treated with *Artemisia*, while the former should be treated by heating the body, and applying of *Artemisia* is not effective for this case.

<*Eastern Physicians' Venerable Text*> (p.1415), *Artemisia* (茵陈蒿, virgate wormwood): cold nature, bitter taste, pungent, and non-toxic. It is applied for when the body turns yellow from jaundice of blocked fever (熱結黃疸), for dysuria, febrile headache from seasonal epidemic disease (天行時疾) and pernicious malaria.

艾葉 (Folium *Artemisiae Argyi*) [*Artemisia Asiatica* Nak.] (p.1423) Warm nature, bitter taste, and non-toxic. It improves many chronic diseases (百病), including metrorrhagia (崩漏); gives comfort to the fetus (胎); removes abdominal pain, red or white mucus dysentery (赤白痢), coagulated blood of the Five Viscera

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<sup>159</sup> <*Amplification of Materia Medica* (本草衍义)> was edited by Kou Zongshi (寇宗奭) in the Northern Song Dynasty in the year 1116.



(五臟痔瀉血), and swelling of (益) of the Lower Body (下部); raises flesh (生肌); removes cold fever (風寒); and improves fertility.

(p.92) It replaces loss of blood (失血) in case of vomiting (吐); cures epistaxis (衄), defecating (便), and bloody urination (尿血). (p.195) It also cures metrorrhagia (崩漏) and Leucorrhoea. (p.272), red and white mucus dysentery (赤白痢), and dysentery accompanied by pus and blood (膿血痢). (p.443) It improves heart and abdominal pain caused by evil spirits (惡氣作痛) (心腹). (p.554) For anal fistula caused by insects, burn a bundle of boiled Artemisia (wormwood) (熟艾) mixed with a little quantity of liver of bear; then use a straw to penetrate the anus, and let the resulting discharge pass through it (p.1211) It eases pregnancy discomfort, making the fetus comfortable and removing pain in the abdomen.

Dioscurides, III, 113 artemisia (N. p.3 artemisia hetera polyklónas) Warms body temperature and reduces flesh. Its juice removes the dregs of a woman's womb, facilitates menstruation, and aids pregnancy<sup>160</sup> and fetus discomfort. It cures the constriction of muscles (筋肉收縮), hystera, calculus, and dysuria. When you paste its leaf on the lower abdomen (below omphalos), the quantity of menstruation is increased. Treat the womb with ointment made from Artemisia mixed with smyrne. (A botanical sap, such as pine resin, is used for preserving the dead.)

P.G. Gennadiou, *Lexicon Phytologikon*, p.151κ.ε. Apsinthion (Artemisia, γαλλ. Armoise, αγγλ. Worm wood, τάξις Συνθέτων) ' γένος περιλαμβάνον περί τα 200 είδη ..... Εκ των εξωτικών ειδών τα αξιολογώτερα είναι: α ' ) A. η Κίνα (A. Cina η Contra) ' πιθανώς το άρρεν Αβρότονον του Διοσκρ. .... ουσίαν φαρμακευτικήν, ελμινθοκτόνον ' ..... ε ' ) A. το ποντικόν (A. pontica, γαλλ. Petite Absinthe), ποώδες, πολυετές, ιθαγενές της Ευρώπης και της δυτ. Ασίας, πιθανώς το κατ' εξοχήν Αψίνθιον του Διοσκρ., όστις λέγει ότι εκ του φυτού τούτου εν Προποντιδαί και Θράκη εσκευάζετο <και οίνος ο ψινθίτης ... υγείας ποιητικός είναι νομιζόμενος>, και οτι <το απόβρεγμα αυτού ή το αφέψημα> ελαμβάνετο εις <πλήθως κυάθων τριών καθ' εκάστην ημέραν> προς θεραπείαν της ανορεξίας και του ικτέρου, ως δηλαδή περίπου λαμβανεται σήμερον παρ' ημιν το αφέψημα A. του θαμνώδους, το χόρτον του οποίου τινές χρησιμοποιούσι και προς παρασκευήν αψινθίτου οίνου ' ... ζ) A. το τρίλοβον (A. Tridentata), θάμνος πυκνόκλαδες, αιθαλής, αργυρόφυλλος, κοσμητικός, υψούμενος και μέχρι 3 μέτρ., ιθαγενής της βορ. Αμερικής. Άξια λόγου είδη υπό φαρμακευτικήν έποψιν είναι ωσαύτως A. το σινικού (A. Chinensis), ποώδες, ιθαγενές της Σινικής, εκ των φύλλων του οποίου παρασκευάζεται ή πρόσ καυτηριάσεις ουσία μοχα, και A. το Ινδικόν (A. Indica), ποώδες, ιθαγενές της Ινδικής, ούτινος το χόρτον θεωρείται ως ισχυρόν αντισπασμωδικόν φάρμακον. Πάντα τα ανωτέρω εξωτικά είδη δύνανται να ευδοκιμή σωσι πολλαχού της Ελλάδος.<sup>161</sup>

<sup>160</sup> "Deutera" refers to the second stage, so its meaning might be the next stage of menstruation, i.e., pregnancy or childbirth.

<sup>161</sup> Chevallier, *Encycloedia* (p.64) Qing Hao, Chinese Wormwood [Artemisia annua (Compositae)]: Until recently, Qing Hao was regarded as just another Artemisia. It had one significant difference, though: its use in traditional Chinese medicine was for treating malaria. Research has now vindicated this traditional use, revealing that qing hao prevents and cures malaria and is relatively free from side effects. Extracts of qing hao are currently being used in the tropics as an affordable and effective antimalarial.

Key Actions: Bitter, reduces fever, antimalarial, antibiotic.

Research: ■ Chinese Research Qing hao was extensively researched in China, especially in Guangzhou, in the 1980s. Studies revealed that it has an antibiotic effect against many fungal skin conditions and leptospirosis (Weil's disease). In addition, the plant has a direct effect against the malaria parasite *Plasmodium*, a protozoon introduced into the body by infected mosquitoes. ■ Artemisinin: Recent research has focused on the isolated compound artemisinin, which has proved to be a dramatically effective antimalarial. Recent clinical trials in Thailand have shown artemisinin to be 90% effective and to be more successful than the standard drug, chloroquine.

Traditional & Current Uses: History: The first mention of qing hao was in the Chinese text of 168 B.C. Traditionally, it was seen as an herb that helped "to clear and relieve summer heat." ■ Cooling properties: Qing hao has a cool, bitter taste and is used for conditions brought on by heat, especially with symptoms such as fever, headaches, dizziness, and a tight-chested sensation. It treats chronic fevers, night fevers, and morning chills, and is a traditional remedy for nosebleeds associated with heat. ■ antimalarial: Qing hao has been used to treat the fevers and chills of malaria for thousands of years, and artemisinin is now used in many countries as an anti-malarial. Artemisinin reduces the risks of developing malaria and aids a quick recovery. It is particularly helpful in treating drug-resistant strains of malaria. The whole plant may also be used to treat malaria and acts as a preventive, reducing the chances of infection.



## 7. 芍藥, *Paionia thelia*

<*Shennong Materia Medica*> Bitter in taste, (energy is) average. It cures evil spirits and abdominal pain; removes blood impediment (血痹); disperses solid accumulated mass (in the middle abdominal cavity) (堅積), cold fever, and painful scabies of women's lower abdominal cavity (疝痲); stops pain; stimulates urination; and increases energy.

<*Famous Doctor's Special Record* (名醫別錄 *Mingyi Bielu*)> a bit cold and toxic. Facilitates blood vessel function, alleviates internal discomfort, disperses bad blood, removes red blood, and drive out Water Energy.

<*Theory of Febrile Disease*> (vol.6): Modulates fever of Meridian and replenishes Dark Energy.

Cf. In the <*Theory of Febrile Disease*> and the <*Synopsis of Golden Cabinet*>, there are 64 prescriptions, including peony (*Paeonia*). Peony ① mixed with cinnamon disperse clogged Managing Energy (榮分) ② mixed with Glycyrrhiza, disperses clogged intestines and stomach ③ mixed with monkshood (附子), disperses clogged Lower Focus (下焦) ④ with the medicine of facilitating water (利水藥), improves water (利水); and ⑤ with medicine against blood stasis (瘀血藥) ventilates clogged blood. (Zou Shu, p.260)

### *Species Certification of Materia Medica* (證類本草)

Peony 芍药: Bitter, sour, flat, slightly cold, mildly toxic. It treats many bad conditions, including abdominal pain; removes blood blockage and moisture; breaks chronic disease of bad blood (惡血); aids cold-fever abdominal mass, pain, diuresis, and languor; invigorates Energy (Qi 气); smooths the blood vessels; drives out deteriorated blood; promotes function of the bladder and intestines; removes carbuncles, intermittent cold and fever, evil states caused by pestilent factors (中惡), abdominal pain, and lumbago.

Tao Yin-Ju said: Now produced in Bai Shan and Jiang Shan; that of Maoshan is best. It is also produced in other places and there are many red ones, which are of little benefit; according to common prescription, for stopping pain, Angelica used mostly to be used. The Taoist also uses it for drinks, boiled using stones. According to the notes of another edition, there are two kinds: the red kind help pass urine and break wind; while white ones help stop pain and break (blocking) blood. The flowers also have two colors: red and white. According to "Your vassal, Yu Xi (禹錫) and others referring to Wu Shi (臣禹錫等謹按吳氏)"<sup>162</sup>: Chinese herbal peony, according to Shen Nong (神農), is bitter; Tong Jun (桐君) says it is sweet and non-toxic; Qi Bo (歧伯) says salty; Ji Shi (季氏) says a little cold; Lei Gong (雷公) says acidic; while <*Theory Medicinal property* (藥性論)> says peony is a Vassal Medicine (臣藥)<sup>163</sup> that cures: lung pathogens, pain in the abdomen, blood accumulation, discharge of gas of the internal organs (Viscera); evil pain and rotten blood (septicemia), mental overstress, and on occasion inflammatory disease of the bone. It improves the five internal organs; helps kidney function; eliminates women's blood blockage, blood stasis, and pus.

Ri-Hua Zi said, it treats diseases originated in external causes (風) and modifies the state of exhaustion, women's diseases, (both before and after giving birth), menses, fever, and Energy (氣). It also eliminates agony and treats epidemic fever (天行熱疾), acute mental illness (癩瘴驚狂), women's sloppy blood, intestinal leaking of blood, hemorrhoids, scabies on the back, headache, dim eyesight, red eye, and pterygium.<sup>164</sup> Red peony creates more energy (氣) while white peony repairs blood; in each case, both the flower and root are used.

<Figure> said: Peony, produced from the Yue Chuan Valley and hills, is now everywhere; that of Huainan is the best. In spring, red buds sprout in the shape of plexus; its stem consists of three branches and five leaves and is long and narrow; it grows about two feet tall. During summer, there are three blooming colors: red, white, and purple; the seed is small, especially the seed of (牡丹) the Wood Peony. The root, when gathered in autumn, has two colors: red and white. Cui Bao (崔豹) in <*The Notes of Ancients and Moderns*> says: the Peony is of two

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<sup>162</sup> Wu Shi (吳氏) is a shortened name of <Wu-Shi herbal Materia Medica (吳氏本草)> It is also called <Wu-Pu herbal Materia Medica (吳普本草)> It appears in an ancient Chinese medicine book written by Wu Pu (吳普) of the Wei (魏) Dynasty in the early third century.

<sup>163</sup> Cf. <*Theory of the Medicinal Property* (藥性論)> in the 'Yin-Chen Hao (茵陳蒿: *Artemisia*)' part above.

<sup>164</sup> The mucus discharged in the inner corner of the eye.

kinds: the Grass Peony and Wood Peony. Wood Peony has large deeply colored flowers and, even if people call it “mūdan (牡丹) Wood Peony”, it actually is not. It is also asked by Niu Heng (牛亨): In situations of bidding farewell, why did people use to present peonies? The answer is another name for Peony is He Li (何离: time of separating); hence it is mutually presented on such occasions. In situations of invitations, present “Wén Wú (文无)” which is another name for Angelica. If wanting to dispel or forget anxiety, present red spine whose other name is “forgetting anxiety (忘忧)”; if wanting to get rid of anger, then present Silk Tree (青裳) whose other name is Acacia (合欢 happy get-together). According to Zhang Zhongjing, it cures typhoid (伤寒); and soup replete with peonies heals cold-fever (寒热) and helps to pass urine. Some ancients used to drink exclusively this one.

An Qisheng (安期生)<sup>165</sup> says in <The Method of Exercise>: The Peony (Shaoyao) consists of two kinds: one is Golden Peony (金芍药 Jin Shaoyao), the other is Wooden Peony (木芍药 Mu Shaoyao). Golden Peony was used to cure disease. That of white color has a greasy flesh, while Wood Peony is purple with multiple thin veins. (Be careful to note this difference.) In order to ingest it, collect and arrange scrapings to be peeled, with the eastern flowing water boiled 100 times, and dry in the shade. Three days later, steam it on wood covered with a loess net; after one night of slow boiling, dry in the shade and grind into powder.

Take 15g (三钱) with wheat decoction or liquor for three days. Full of three hundred days, you can go up the hill. And in the great valley you do not feel hungry. According to <Zheng-Yuan Guang-Li Fang (正元广利方)><sup>166</sup> it remedies irregular menstruation; if after months and years pass by and the condition is not improved, take 150g of white peony (三大两) with 25g of dried ginger (半大两), arrange the filings (细锉), boil to a yellow color, make pound to sieve, and with an empty stomach drink 10g of the juice (二钱). Repeat this dosage the following day. For those who suffer unceasing pain from incised wounds, take just a pound of White Peony (Paeonia Alba) and immediately the pain stops.

<The Notes of Tang Edition> says it enhances healthy blood. Lei Gong says: After gathering, dry under the sun. With a bamboo knife clean the coarse skin as well as the soil on the head; cut and stir it in honey water and steam from 9 A.M. to 3 P.M.; then dry under the sun. According to prescriptions based thereof, the medicine removes eczema (风毒) and bone marrow pain. (Peony  $\doteq$  1g [2分] and tiger bone  $\doteq$  50g are roasted and ground to a powder. Fill it in silk bags, add  $\doteq$  3 litres [三升] of liquor and soak for five days; thereafter serve  $\doteq$  3/10 litre [三合] and take three times a day.) <Bo-Ji Fang (博济方)><sup>167</sup> says it cures five types of strangury (dysuria) ... <Guang-Li Fang (广利方)> says it heals incised wounds marked by constant bleeding and pain. Prepare 32 grams of white peony<sup>168</sup>, boil to yellow color, and pestle to make fine powder. Superimpose with 6 grams of wine or rice drink<sup>169</sup> together; take it three times daily initially, then gradually increase the dosage. Chu Yu-Shi (初虞世)<sup>170</sup> says it cures hemoptysis as well as epistaxis (nose bleeding).

Yan Yi<sup>171</sup> said to use the entire root of Peony; the varieties are many, but that of red flowers and one leaf should be used, and that from the mountains is preferred. The more flowers and leaves are present, the more the roots are void. When the roots are many, they gain red color. Its taste is astringent and bitter. Superior is large and white...However, for the man with cold and deficient in blood, it is prohibited to take. An old saying goes: By excluding peony, you keep out the cold. (This cannot be ignored.)

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<sup>165</sup> An Qisheng (安期生) or An Qi (安期): It is said that he lived in the Qin (秦) Dynasty selling pharmaceuticals and scaled Penglai Mountain (蓬莱山) to become a deity.

<sup>166</sup> Zheng Yuan (正元) is the appellation of an emperor's reign for three years 254~256 A.D., i.e. the first period of the reign of Cao Mao (曹髦; called 高贵乡公) of the Wei (魏) Kingdom in the epoch of the Three Countries (三国时期). <Guang-Li Fang (广利方)> means “Prescriptions of Wide Utility.”

<sup>167</sup> Its original title was <Wang-Shi Bo-Ji Fang (王氏博济方)>, published in 1047 by Wang Yan (王兖) during the Song Dynasty.

<sup>168</sup> By ancient standards, a pound (500 grams) was 16 Liang (兩); thus one Liang is 31.25 grams.

<sup>169</sup> In ancient times, a pound is equal to 16 Liang(兩) and one Liang is 10 Qian (钱); thus one Qian is 3.125 grams.

<sup>170</sup> Chu Yu-Shi (初虞世: 1037—1100 A.D.) is the famous medical expert of the Song (宋) Dynasty.

<sup>171</sup> <Amplification of Materia Medica (本草衍义)>

*New Materia Medica* (本草從新)

白芍藥 White Peony (*Paeonia*), *Paeoniae Alba*: Tonifies the blood, purges the liver, astringes Dark (陰 Yin).

It tastes bitter and acidic, and is slightly cold; it penetrates into the blood of the liver and spleen. *Atractylodes* (Sunflower Family) tonifies Spleen-Bright (陽 Yang), while white peony tonifies Spleen-Dark. Its efficacy refers to the Great Dark Meridian (太陰經 - Lungs and Spleen) of the hands and feet. It purges Liver fever (acid astringes Liver, and the Liver, thus astringed, is purged; so the dispersing results in tonifying); stabilizes the Lungs and Spleen; and solidifies the skin. (Lungs supervise the skin system, and the Spleen supervises Flesh. If Liver-Wood does not overcome Earth, the Spleen is stabilized. When Earth prospers, it can raise Metal, and the Lungs are stabilized. When Spleen and Lungs are harmonized and stabilized, the skin is solidified). It harmonizes blood, gathers in Dark Energy, and astricts inversed Energy; and its acrid, sour taste manages astriction, relaxes the middle part of body, and removes pain. (Li Dongyuan said that, whoever hurts his Liver, should relax the middle part of the body. This is why blood can be so modified). It removes agony, astricts sweating, lowers fever, and stabilizes fetuses; it also cures conditions resulting from diarrheal dysentery, empty blood and pain of the abdomen (Diarrheal Dysentery all refers to illness of Great Dark, so peonies should be used; while for Cold Evil (寒邪) and Cold Pain (冷痛), they are prohibited. According to an old prescription, in order to cure pain of the abdomen, take 4 qian of White Peony (錢; 1 錢 = 5g) and 2 qian of *Chrysanthemum*—called “the Soup of Peony and *Chrysanthemum*.” Abdominal pain usually originates in Managing Energy which does not flow smoothly, but reversely, inside the flesh. White Peony can modulate Managing Energy (營氣) while *Glycyrrhiza* alleviates Inversed Energy; abdominal illnesses originates in Liver-Wood which overcomes Spleen-Earth. White Peony can conquer Liver-Wood, so that it can end abdominal pain. White Peony not only cures this pain but treats that originating from blood deficiency (emptied blood). This is why White Peony, whose taste is sour and cold, constricts but does not warm or disperse.

Pain of the flank (where there are Channels of the Liver and Gallbladder): When its fire ascends, the Gastral Cavity (Stomach) experiences pain; if the fire goes sideways (horizontally), the two flanks have pain. White Peony constricts Energy and purges the Fire of Liver; cures lung inflation, asthma and belching; and treats frequent hunger due to Liver fever. Its nature of constriction and descent also allows penetration to the Sea of Blood (血海) (the Chong Meridian (衝脈) becomes the Sea of Blood; both men and women have this), and reaches Faint Dark (厥陰) (Liver Meridian 肝經). It cures epistaxis (nosebleed), eye astringent acerbity (目澇), deficiency of Liver blood, children’s variola (smallpox), and all blood disease; it also helps pregnancy and childbirth. (If used with *Atractylodes*, it tonifies Spleen; with ginseng and *Astragalus*, it tonifies Energy; with *Angelica* and *Rehmannia*, it tonifies blood; with *ligusticum*, it purges Liver; with *Glycyrrhiza*, and it removes abdominal pain. With *Scutellaria* (黃芩) and *Coptis* (黃連), it removes diarrheal dysentery; with *Saposhnikovia* (防風), it remedies *exanthema variolosum* (pox); and with ginger and jujube, it harmonizes Managing and Protecting Energies. If cooked or fried with liquor and added to “Decoction tonifying the Middle and Reinforcing Energy (補中益氣湯)”, it is especially efficacious for the exhausted and fallen Energy of the Middle. He also said that it should not be used *postpartum* (after childbirth). This is why, according to Dan Xi (丹溪: Zhu Zhenheng 朱震亨), that its sourness and acidity harm newly generated Energy. When it is necessary to be used, it should be cooked with liquor. According to Li Shizhen, once postpartum liver blood is damaged, it is impossible to purge. Kou Zongshi (寇宗奭) said in *<Extended Explanation of Materia Medica* (本草衍義) that “people avoided Typhoid of the Middle (中寒) by reducing the quantity of Peony. Old people earnestly warned against a little Cold one like Peony; should they not fear even more the very Bitter and very Cold one?” In sum, if postpartum women have empty fever and sweat, it is because Dark Energy has been removed and dispersed. In this case White Peony is used to converge it. A little Cold one is used to remove emptied Energy and restore the condition.

赤芍藥 Red Peony, *Paeoniae Rubra*

Red Peony purges the Liver and disperses (blood) stasis. It purges the fire of Liver and disperses bad blood. It relieves Little Intestines; cures pain flank, chronic melancholy (堅積), blood-arthralgia, and abdominal pain (conglomeration). (疝瘕 Shan Jia: When evilness [morbidly] is converged outside of the Kidney, it is called

“疔 Shan”; while when it is assembled inside the abdomen, it is called “瘕 Jia.”). It also cures amenorrhea, Intestinal Wind, carbuncles, and red eyes. All this is a testament to its efficacy in purging. White Peony relieves the Spleen and purges Wood in the Earth; Red Peony disperses Evil Energy and removes blockages in the blood. Weak people should avoid using it. Just Red and White peony with a single flap are used for medicine. Cook or fry it with liquor to restrict Cold. When it is used for the Blood system of Women, it is fried with liquor; while for discomfort after Diarrhea, it is not cooked.

<Eastern Physicians' Venerable Text> (p.1418): Peony (the root of peony) has average consistency; it is sour, acrid and a little toxic. It removes Blood arthralgia (血痺), ventilates blood vessels (通順血脈), warms and harmonizes the inside, disperses bad blood, deletes carbuncles (癰腫), stops abdominal pain, removes clogged blood and pus, improves all women's illnesses including those prior to and after fetal delivery, facilitates menstruation, cures bleeding intestines (腸風瀉血) and Hemorrhoid fistula (痔瘻), carbuncles of the back (發背), scabies (瘡疥), red eye (目赤), and protrusion of the flesh (努肉). It also improves eye sight. Peony's other name is Hae-Chang (解倉) which is divided into two varieties: red and white. The red facilitates urination and Descending Energy (下氣), while the white removes pain and disperses blood. The white supplements (補) and the red discharges (瀉). It enters the Great Bright Meridian of the Hands and Feet, and evacuates the liver and supplements the spleen and stomach; pickled items in liquor have a ventilating effect on the Meridians; or the roasted in liquor or baked in fire is used. Peony which is pickled in liquor is roasted; if mixed with atracylodes (白朮), it supplements the spleen (脾); if mixed with rhizome (川芎), it evacuates the liver; and if mixed with exudation (滲出), it protects Energy. For abdominal pain and diarrhea (腹痛下痢), roasted peony is applied; while for constipation, it should not be roasted. As it has descending properties, adequately reaching the Sea of Blood (血海) (a sea among the four seas (四海), where blood of the 12 Meridians is assembled; i.e. the Chong Meridian [衝脈, Confronting Meridian] or the Liver where blood is saved and modulated), descending to the end of the Lower Focus, and entering Faint Dark of Food (丹心).

Diskurides, III 140 glykyside (N. p.100 paionia thêlia [암컷 paionia]) ... Dried peony is used for removing postpartum waste. (Drinking a quantity of almond also promotes menstruation.) Drinking it mixed with liquor helps treat pain in a woman's abdomen, as well as jaundice, nephritis, and cystitis. Drinking a decoction with liquor facilitates intestinal the function. Taking 10 or 12 seeds with hard liquor facilitates the circulation of blood. It is also used for stomach ailments and insect bites and, if one drinks it from childhood, calculus is prevented. It cures nightmares, hysteria and womb pain. Take 15 seeds mixed with honey and liquor.

Π.Γ. P.G. Gennadiou, *Lexicon Phytologikon*, p.701. Παιωνία (Paeonia, γαλλ. Pivoine, αγγλ. Paeony, Peony ή Piony, τάξις Βατραχιωδών) <sup>1</sup> γένος περιλαμβάνον περί τα 20 είδη, ιθαγενή της εθκρ. Ασίας, της Σινικής και της βορ. Αμερικής. .... β) κοραλλιοχρους (P. coralliana), η του Θεοφρ. Παιωνία και του Διοσκρ. Παιωνία άρρηνη, η κοινώς εν Ζακύνθω Λυγουνιά, ει δε τη Κύπρω Αλουπόχορτο, .... δ) Π. Η φαρμακευτική (P. officinalis), η του Διοσκρ. Παιωνία θήλεια, η κοινώς Πηγουνιά, πηγωνιά, Μ'ρκος ή Σονέττο (Κεφαλλ.). Και τα τέσσαρα κοσμητικά. Υπο τε του Θεοφρ. Και του Διοσκρ. Ως συνώνυμον του Παιωνία αναφέρεται το Γλυκυσίδη, ο δεύτερος δε μνημονεύει και τρίτον συνώνυμον, το Πεντόροβον.

Οι αρχαίοι απέδιδον πλείστας θεραπευτικές δυνάμεις εις την ρίζαν των Π. Ήτις ήτο το άριστον τότε γνωστόν και εν κοινή χρήσει αντισπασμωδικόν και εποουωτικόν φάρμακον. Τούτο, κατά τα μυθεύομενα, εφηρμόσθη το πρώτον υπλο του ιατρού των θεών Παιάνος (όθεν και το όνομα του φυτού) πρόσ θεραπείαν του υπό του Ηρακλέους πληγέντος Πλούτωνος (Ιλδ. Ε 401). Πολλά Π. Ενέχουσι στοιχεία τοξικά διό και εν Κύπρω και αλλαχού της ανατολής Π. Η κοραλλιοχρους και άλλα τινά είδη νομάζονται ψακιά δηλαδή δηλητήρια. Δια αυτών λόγον παρ' αρχαίας επεκράτει η πρόληψις <νύκτωρ ορύττειν> την ρίζαν <εά γαρ ημέρας και οφθή τις υπό δρυκολάπτου, τον μεν καρπόν απολέγων κινδυνεύειν τοις οφθαλμοίς, την δε ρίζαν τέμνων εκπίπτειν την έδραν> (Θεοφρ. Φ.Ι. 9.8.6)

Εκ των αξιολογωτέρων εξωτικών ειδών είναι και Π. Η λεπτόφυλλος, Π. Η λευκανθής και Π. Η δενδρώδης (P. Tenuifolia, ιθαγενές της Ευρώπης, P. Albiflora, ιθαγενές της Σιβηρίας, και P. Moutan, ιθαγενές της σινικής, γαλλ. Pivoine en arbre, αγγλ. Tree Paeony).<sup>172</sup>

<sup>172</sup> Chevallier, *Encycloedia* (p.115), White Peony, Bai Shao Yao (Chinese) [Paeonia lactiflora syn. P. albiflora (Paeoniaceae)]: White Peony: the history of its medicinal uses in China stretches back for at least 1,500 years. It is known most widely as

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one of the herbs used to make “four thing soup”, a female tonic; and it is also a remedy for gynecological problems, including cramps, pain, and dizziness. It is thought that women who take the herb on a regular basis become as radiant as the flower itself.

Key Actions: Antispasmodic, Tonic, astringent, Analgetic.

Research: ■ Paenoflorin: Paenoflorin is significantly antispasmodic, relaxing intestinal tissue as well as the muscles of the uterus. In Chinese experiments during the 1980s, it was shown to counter oxytocin, the hormone that induces contraction of the uterus. Paenoflorin is thought to be mildly hypotensive, lowering blood pressure and increasing blood flow to the heart through the coronary arteries. It also exhibits mild anti-inflammatory and fever reducing properties.

■ Cold sores: Pentagalloyl glucose may have an antiviral effect against the cold sore virus herpes simplex.

Traditional & Current Uses: ■ Four things soup: White peony is regarded primarily as a woman’s herb. Together with rehmannia (*Rehmannia glutinosa*, p.123), chuan xiong (*Ligusticum wallachii*), and Chinese angelica (*Angelica sinensis*, p.60), it is an ingredient in “four things soup”, the most widely used female tonic in China. ■ Gynecological remedy: White peony helps menstrual disorders, including heavy bleeding between periods, and is specifically used to treat menstrual pain and cramps. It is a blood and *yin* tonic (see pp.38-39) and will help “blood deficiency” states, as well as hot flashes and night sweats resulting from *yin* deficiency. ■ Antispasmodic: White peony is prescribed for cramping abdominal pain, especially in dysentery, muscle cramps, and numb hands and feet. It also treats headaches, ringing in the ear, dizziness, and blurred vision.

Chevallier, *Encycloedia* (p.241), Peony [*Paeonia officinalis* (Paeoniaceae)]:

History & Folklore: Since the time of Hippocrates (470-377 B.C.), peony has been used to treat epilepsy. Ibn el Beitar, a medieval Arab physician, recommended a necklace of peony seeds to ward off epilepsy in children. The Greek physician Dioscorides (AD 40-90) wrote that the root provokes menstruation and may be used to expel the placenta after childbirth. Mrs. Grieve, the author of *A Modern Herbal* (1931), recounted how “in ancient times, peony was thought to be of divine origin, an emanation from the moon, and to shine during the night protecting the shepherds and their flocks.”

Medical Actions & Uses: While it is rarely used in contemporary European herbal medicine, peony is thought to be antispasmodic and sedative. The root may be employed to treat whooping cough and nervous irritation, and suppositories are sometimes made of the root to relieve anal and intestinal spasms.



## 8. 黄芪 (Huangqi; 戴糝 Dai San), Astragalus

<Shennong Materia Medica 神農本草> 《神農本草經》의 황기(黄芪) 기록

Huangqi (黄芪): sweet in flavor and a little warm. It is efficient for curing carbuncles (疔疽: 毒瘡); prolonged use removes ulcers (久敗瘡), pus (排膿), and eliminates pain. It improves leprosy (麻風病: 大風惡疾: 大風癩疾), “five kinds of hemorrhoids (痔疾, 痔瘡)” and scrofula (鼠瘻 fistula of tuberculous lymphadenitis); it makes up for deficiencies and treats many children's weakness.<sup>173</sup>

<Famous Doctor's Special Record (名醫別錄)> Non-toxic. It is efficacious for treating troubles of the viscera of women and children, and removes bad blood between the five viscera (五藏). It improves men's deficiencies and exhaustion of the five internal organs; removes thirst; cures abdominal troubles and diarrhea; and tonifies energy and improves Dark Energy. (..... Its stem and leaf alleviates thirst and muscle constriction, and treats abscesses and carbuncles).<sup>174</sup>

Cf. In the <Theory of Febrile Disease> Astragalus was not used at all.<sup>175</sup> However, in the <Synopsis of Golden Cabinet> it was applied 8 times mixed with other materia medica, i.e. peony and cinnamon. It is used to treat sweat and dysuria.<sup>176</sup>

*New Materia Medica* (本草從新)

黃耆 Astragalus: [Replenishes Energy and taken raw solidifies skin surfaces, reduces (the Energy of) Fire and creates Blood of Dark] It is sweet and warm. If one does not sweat, it facilitates it; while if one over perspires, it can prevent it. (Zhu Danxi [朱丹溪] says Astragalus aids greatly Bright-Emptiness and Sweating. If the surface is empty, one suffers morbidity; and if the sweat does not come out, one can do so by taking Astragalus).

It has a warm flesh and solidifies the skin organs, replenishes Energy of the Lungs, discharges Dark Fire, and resolves fever of the flesh. Roasted Astragalus is used to supplement the Chest and Abdomen, replenish Vital Energy, warm Three Chao, and make the Spleen and Stomach strong. (Once the Spleen and Stomach are emptied, Earth cannot raise Metal and the Energy of Lungs becomes blocked. When the Spleen and Stomach are relieved, the Energy of Lungs prospers and the surface of the flesh becomes solid and substantial, so that in supplementing the Chest and Abdomen, the surface is solidified.)

Creating blood and creating flesh: Energy creates blood, and when blood is replenished, robust flesh is promoted. It is a sacred medicine for carbuncle treatment. Toxic energy is used to create pus, and it is pushed out from inside by replenishing Energy. The carbuncle, if it does not produce pus while withering, cannot be cured. This is why toxic energy prospers and vital Energy weakens. Pox also behaves this way.

If Pox does not rise (i.e., it withers) and if there is no fever due to Bright-Emptiness, it is advised to take “Replenishing Vitality Broth” which is made by mixing Zinseng, Glycyrrhiza and Ginger; this cures the pox that could not develop because of emptiness (i.e., weakness). The effect might be augmented by adding Ligusticum and glutinous rice.

Wang Haogu (王好古) says in the <Soup of Materia Medica> that Protecting Energy is solidified by Medicine of the Surface, the spleen and stomach is improved by Medicine of the Middle; while Medicine of the Interior cures ulnar vein which is not emerged not due to Typhoid (Cold Disease), and replenishes the vitality of the Kidney.

Zhen Quan (甄權) claims that Astragalus replenishes the Kidney; this is why Energy is the mother of Water. According to Rihua Zi (日華子) *Great Ming Edition of Materia Medica* (大明本草), it removes Metrorrhagia

<sup>173</sup> 黄芪, 味甘, 微温。主治疔疽, 久败疮排脓止痛, 大风癩疾, 五痔, 鼠瘻, 补虚, 小儿百。

<sup>174</sup> 无毒。主治妇人子藏风邪气, 逐五藏间恶血, 补丈夫虚损, 五劳羸瘦, 止渴, 腹痛泄利, 益气, 利阴气。

<sup>175</sup> Cf. Zou Shu, *Commentary of Classic*, p. 111.

<sup>176</sup> Cf. Huang Huang 黄煌, *Prescriptions and Medicinal Effect of Febrile Disease 傷寒論處方과藥證* editing trans. by Kim-Zunki & Seo-Buil & Kim-Sangchan (Seoul, 법인문화사, 2000), p. 124 ff.



(崩瘕) and Leucorrhea (帶下) because if Energy prospers, there would be no disease to be suppressed. ... Even if Angelica is used for "Tonifying Energy Broth", its efficacy is suppressed by Ginseng and Astragalus. For "Tonifying Blood Broth", the latter is used much more than Angelica, though Angelica is better for tonifying blood. For "Tonifying Blood Broth", 1 Liang (兩 ≡ 50g) of Astragalus and 2 Qian (2 钱 ≡ 10g) of Angelica are used; so there is much more medicine for tonifying Energy, but it is called "Tonifying Blood Broth". This is why Energy can tonify blood.

<Eastern Physicians' Venerable Text> (p.1410): Sweet, a little warm and non toxic. It improves deficiency (虛損) and emaciation (羸瘦); tonifies energy; increases flesh; stops cold fever and pain; cures weakness of the kidney and deafness, treats chronic carbuncle, and discharges pus (排膿); and remedies all diseases of children as well as women's diseases related to uterine bleeding and leucorrhea (崩漏帶下). It also improves weakness of energy, night sweats (盜汗), and sweating (自汗) from stress; treats vomiting of blood (咯血); lubricates the spleen (痺) and stomach (胃) (so it is applied regularly to the spleen and stomach [中州]); treats Febrile Cold which intercepts the ulnar vein (尺脈); and replenishes energy of the kidney; and therefore is an internal medicine for the Upper, Middle and Lower, the Internal and External, and the Three Foci (三焦), and a medicine which enters the Hand (upper part of Body)-Small Bright Meridian, Foot (lower part of body)-Great Dark Meridian, Foot-Small Dark Meridian, and the Door (Origin) of life (命門: usually refers to right kidney). It has great results for overweight and heavily perspiring persons, but it should not used for men of sturdy black (蒼黑) and sufficient energy (氣實). (正傳). Those which look like soft cotton and arrow shaft are advised; it is taken raw for abscesses (瘡瘍), while for the weakness of lungs (肺虛), a roasted mixed with honeyed water is available; and for weakness of the Lower body, it is advised to take roasted with salty water.

Its stem and leaf (莖葉) cures thirst, cramps (筋攣), and carbuncles (癰腫) and furuncles (疔瘡). Tonify Protecting Energy (衛氣), warm flesh (肌肉), replenish skin and fatten skin system (腠理); sufficiently supplement Upper, Middle, and Lower, Internal and External, and Three Foci (三焦). For the man of fat and white body (肥白) and weak Energy, frequent drinking of its decoction makes body sturdy and black, while it is not available for the one of weak Energy; (p.121) Improve the weakness of surface (表虛) and self-sweating. For self-sweating astragalos should be applied only in spring and summer.

(p.177) As replenishing Three Foci (三焦) and solidifying Protecting Energy (衛氣), it is a panacea medicine for Upper, Middle, and Lower, Internal and External, and Three Foci (三焦); (p.835) Remedy tired weakness (虛勞), emaciation (羸瘦) and deficiency of all kind of weakness, and discharge Fire of Weakness (虛火); For these to take decoction made from sliced astragalos roasted with honeyed water; (p.959) Mostly cure too much eating by thirst (消渴), exclude pus of carbuncle (癰疽) and chronically purulent furuncle (久敗瘡), and stop pain. Thick decoction tonifies body after removing deep carbuncle (內托), and cures abscess (瘡瘍) of Dark Disease (陰症).

Dioskurides, IV 61 astragalos (N. p.24) drinking it [root] mixed with liquor prevents intestinal flowing (reumatizomênên) and facilitates urine. .... It (is applied) .... dried scab of old wound. [Stop bleeding.]

P.G. Gennadiou, *Lexicon Phytologikon*, p.143 κ.ε. Αστράγαλος (Astragalus, gall. Astragale, aggl. Milk Vetch, τάξις: Έλοβοκάρπων) ' γένος περιλαμβάνον περί τα 600 είδη ' φυτά ποώδη και θαμνώδη, σχεδόν πάντα ιθαγενή της Ευρώπης, της Ασίας και της Αμερικής ' ... Διοσκρ. Και Θεοφρ. Τραγάκανθα, περί ης ο δεύτερος λέγει ... Ο υπό του Διοσκουρ. Αναφερόμενος Αστράγαλος είναι είναι είδος Έλλοβοκάρπων δυσερμήνευτον. – Εκ των κοσμητικών Α. οι συνηθέστερον θεραπεύόμενοι είναι και Α. ο ποικίλ(λ)ος, Α. μομπελλιανός, Α. η Ονοβρυχίς, (Α. Varius, Α. Monspessulanus, Α. Onobrychis) και άλλοι.<sup>177</sup>

<sup>177</sup> Chevallier, *Encycloedia* (p.65), Astragalus, Milk Vetch, Huang Qi (Chinese) (Astragalus membranaceus [Leguminosae]) : Despite the fact that Astragalus is one of the most popular tonic herbs in China, it is not well known in the West. In China, the root, known as *huang qi*, has been used for thousands of years. It has a sweet taste and is a warming tonic particularly suited for young, physically active people, increasing stamina and endurance, and improving resistance to the cold. It is often combined with other herbs as a blood tonic.

Key Actions: adaptogenic, immune stimulant, diuretic, vasodilator, antiviral.

Research: ■ Chinese investigations: Research in China indicates that Astragalus is diuretic and that it lowers blood pressure and increases endurance. ■ Western research: Recent American research has focused on the ability of Astragalus to restore

## 9. 當歸, *Angelica*

<*Shennong Materia Medica*> Flavor is sweet and (energy is) warm. By drinking juice made from boiled *Angelica*, it treats coughs with dyspnea (咳逆上气), pyrexial malaria (温疟), cold fever (寒热), scabies (洗: 癬) in the skin, women's menostaxis (漏下), bareness (绝子), various kind of malignant wounds and ulcers (创疡), and wounds caused by iron weapons (金创: weapon puncture).

### *Species Certification of Materia Medica* (證類本草)

*Angelica Sinensis* 当归: Sweet, acrid, , great warmth, non-toxic. Mostly used against coughs with dyspnea, kind of malaria fever, ringworm (癬) in the skin, the leakage of woman, bareness, malignant sore itches, metal-inflicted wounds, all for which it is boiled for drink. It makes pain stop by warming; cures vomiting of blood and internal blockage, paralytic strokes (apoplexia), non-sweating, damp rheumatism,<sup>178</sup> and evil conditions introduced by pestilent factors (中恶), deficient cold (客气虚冷); maintains the five internal organs; and promotes muscle growth. Known also as “Gan Gui (干归: dry *Angelica*)”. It grows in Longxi River Valley. In February and August gather the root and dry in the shade.

Tao Yin-Ju says: Now in Tao Yang of Longxi Province there is Blackwater *Angelica* (黑水当归), with less meat and more branches and aroma, and named Cauda Equina *Angelica*. It is rare to find. *Angelica* of the north part of Sichuan (西川) is of many roots and slender branches. That produced in Li Yang is not similar: called Grass *Angelica* (草当归), it is white and has intense odor, and is used when other *Angelica* is insufficient. According to experts, Real *Angelica* (真当归) refers to this. There are both good and bad one. People use it quite frequently, and should be used according to the occasion. In the Notes of Tang Edition (Tang Yun) (唐本注) says: There are two kinds *Angelica*. One is like *Cnidium* (Rhizoma) (芎 Xiong) of wide leaves; and the other is like *Cnidium* of fine leaves, and its stem and leaves are very short (humble) relative to *Cnidium* (officinale). Now produced in Dangzhou (当州), Dangzhou (宕州), Yizhou and Songzhou, among which that of Dangzhou (宕州) is superior. That of fine leaves is called Silkworm Head of *Angelica*, while that of large leaves (lobar) is named Cauda Equina *Angelica*; currently the latter is frequently used and the former is not so much. According to Tao Yin-Ju, that produced from Li Yang is Silkworm Head *Angelica*; and, according to "Your vassal Yu Xi (禹锡) and others referring to the *Approaching Standard Language* (尔雅 Er Ya) (臣禹锡等谨按尔雅)<sup>179</sup>, it is called Bi (薜) or Shan Qin (山蕲). In the Notes of 《Guang Ya 广雅》 it is said Shan Qin (山蕲) is *Angelica*. While *Angelica* is similar to “Qin (蕲: *Ligusticum* or *Cnidium officinale* [川芎 Chuan Xiong])”, it is thick and large. Wu Yun says *Angelica*, according to Shen Nong (神农), Huang Di (黄帝), Tong Jun (桐君), and Bian Que (扁鹊): sweet and non-toxic. Qi Bo (歧伯) and Lei Gong (雷公) say: acrid and non-toxic. Ji Shi (季氏) says: a little warm and possibly grown in Tibet.<sup>180</sup> According to Fan Zi (范子): no dry *Angelica* is good. According to <*Theory of Medicinal Property* 药性论>: *Angelica* is a Vassal Medicine (臣药).<sup>181</sup> It is used for acute fever and stops vomiting, asthenic fever, diarrhea and abdominal pain, breaks stagnated blood, is effective for treating women's metrorrhagia (崩中), lowers gastrointestinal cold, and aids

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normal immune function in cancer patients. Clinical evidence suggests that, as with a number of other herbs, cancer patients undergoing chemotherapy or radiotherapy recover faster and live longer if given *Astragalus* concurrently.

Traditional & Current Uses: ■ Tonic & endurance remedy: *Astragalus* is a classic energy tonic, perhaps even superior to ginseng (*Panax ginseng*, p.116) for young people. In China it is believed to warm and tone the “wei qi” (a protective energy that circulates just beneath the skin), helping the body to adapt to external influences, especially to the cold. *Astragalus* raises immune resistance and manifestly improves physical endurance. ■ Control of fluids: Though a vasodilator (encouraging blood to flow to the surface), *Astragalus* is used for excessive sweating, including night sweats. It is also helpful in both relieving fluid retention and reducing thirstiness. It encourages the system to function correctly. ■ Immune stimulant: Not an herb for acute illness, *Astragalus* is nonetheless a very useful medicine for viral infections such as the common cold.

Other uses: *Astragalus* treats prolapsed organs, especially the uterus, and it is beneficial for uterine bleeding. It is often combined with Chinese *Angelica* as a blood tonic to treat anemia.

<sup>178</sup> Shi Bi: Arthritis with fixed pain caused by Damp.

<sup>179</sup> <*Approaching Standard Language* (尔雅 Er Ya)> was the oldest book expositing on letters in China.

<sup>180</sup> The Place of Ancient Qiang-Hu Volk (羌胡地); it's modern Chinese name is Xi Zang (西藏).

<sup>181</sup> Cf. <*Theory of Medicinal Property* (药性论)> in the “Yin-Chen Hao (茵陈蒿: *Artemisia*)” part above.

every kind of deficiency. Just by drinking its boiled juice malarial fever is cured. It is effective for women's bloody lumbago, and cures unbearable tooth pain. It can be used for patients suffering from weakness and cold. Ri-Hua Zi (日华子) says it remedies all disease due to wind and originating from outside infections (风), related to blood and overstress; and it breaks bad blood to raise new blood against concretions and aggregations (症癖). <Figure> says: ... In spring, seedlings sprout and the green leaves have three segments. Flowers bloom a light purple in July or August, which is similar to "Dill (时罗 Shi Luo)"; and the roots are black or yellow. In February and August, gather the roots and dry in the shade. There are two kinds of seedlings, all belonging to the variety of Xiong (芎), while leaf sizes vary considerably and stems are very modest in relation to Cauda Equina Angelica (Xiong). The root is also of two kinds: a large one (lobar) named Cauda Equina (Mawei) Angelica; and a small one named Silkworm Head (蚕头) Angelica. Generally the flesh is thick and not dry in the winter. According to <Approaching Standard Language (尔雅 Er Ya)>, Bi (薜) is Shan Qin (山蕲).<sup>182</sup> The Note of Guo Pu (郭璞), citing <Guang Ya (广雅)>, says: Shan Qin (山蕲) is identical to Angelica (当归) and similar to Qin [蕲: Ligusticum or Cnidium officinale (川芎 Chuan Xiong)], though it is more thick and large. According to <Shuo Wen (说文)>,<sup>183</sup> the explanation is that Qin (蕲)<sup>184</sup> refers to grass that grows in the mountains called Bi (薜), and has another name Shan Qin (山蕲). Thus, Angelica belongs to the category of celery. That produced in the plain is called celery (芹 Qin); and that in the mountains, thick and large, is called Angelica (当归).

Lei Gong says: When collected, firstly remove the dust as well as the sharp and hard head of 1/3cm (一分); soak it in liquor for one night, in order to break the blood, then use a section of its head which is hard.

To stop pain and bleeding (analgesic hemostatic), the tail part is used. If applied just once, it is has no effect ... <外台秘要> says it cures splitting headaches.

<Bie Shuo (别说)> says about Chinese Angelica: From ancient times, physicians had methods used to treat women's postpartum uprushing of bad blood, and these immediately took effect. ... Many people say that only through this method could blood be treated. And according to <Essential Secrets from Outside of Metropolis (外台秘要)>,<sup>185</sup> 《Synopsis of Golden Cabinet [金匱(要略)]》, and 《Thousand Gold Prescriptions (千金方)》, mostly it repairs insufficiency and results in immediate effect of medicine. For those whose "energy and blood (气血)" are confusing, drink it and the benefits are realized immediately. By taking this medicine of "energy and blood" can return to its original state and, in postpartum emergencies, can replace deficiency rapidly. Perhaps, for this reason, the saints made a name meaning of "Properly Return (当归) [= Angelica]".

< Extended Meaning (衍义) = Extended Meaning of the Original (本草衍义)> says: Angelica, according to <Guang Ya (广雅)>, is Shan Qin (山蕲); Angelica is similar to celery (芹), when it is thick and large. <Shuo Wen (说文)> says: called Qin (蕲), the grass born in the mountains, named Bi (薜 Angelica), is, according to the new book <Figure>, a kind of celery (芹); what grows in the plains is named "celery" (芹), and the coarse and big one which grows in the mountains is named Angelica (当归). If so, now in Chuan Shu (川蜀: the ancient name of modern Si Chuan 四川 Province) mostly cultivate it in the plain to have a corpulent flesh, which especially promotes fertility. ... <Theory of Medicinal Property (药性论)> says it replaces women's deficiencies; for this purpose Angelica is mostly used.

#### New Materia Medica (本草從新)

當歸 Angelica: [Replenishes blood, moistens Dry, lubricates intestines.]

<sup>182</sup> "Qin (蕲)' is the ancient letter of 'Qin (芹: celery)"

<sup>183</sup> Abbreviation of《Analytical Dictionary of Characters 说文解字》 authored by Xu Shen (许慎) and his son. It is one of the world's first dictionaries; a draft of it existed in the Eastern Han Dynasty around 100 A.D.

<sup>184</sup> "Qin (蕲)" also has another pronunciation "Qi (蕲)". Duan Yu-Cai (段玉裁), who noted the《Analytical Dictionary of Characters 说文解字》 as the paleographer of the Qing (清) dynasty, think its pronunciation is "Qi (蕲)". According to Zhu Jun-Sheng (朱駿聲), the phonologist of the Qing (清) dynasty, it is correct.

<sup>185</sup> Wang Tao (王焘) published during the Tang Dynasty. The book is dedicated to about 6,000 prescriptions of food, most of which refer to botanical sources.

Sweet and warm for harmonizing blood; pungent and warm for scattering the Cold (Typhoid) of Inside; bitter and warm for helping the heart and for dispersing Cold. (All Blood belongs to the heart, so that, in order to help the pulse function well, previously the heart should be tonified. Angelica is bitter and warm, which aids the heart). It gets into Heart, Liver and Spleen. (Heart supervises blood, Liver saves blood, and Spleen governs blood.) It is the medicine of Energy inside Blood. It cures Empty Tiredness, Typhoid Coldness (寒熱), Cough to reverse Energy (when blood is in harmony, Energy goes down), Malaria (Faint Dark [厥陰]-Liver Evil [Morbidly]), afflux dysentery, headache, lumbago, all pain of Heart and Abdomen as well as joints (it disperses Typhoid of Cold and harmonizes blood), blood coagulation and swelling caused by bruises (knocks and falls), tetany (convulsion, cramping), and non-sweating (symptom of a rigid body and stiff neck with opisthotonus contraction is called tetany [convulsion]). Absence of sweating is strongly indicative of tetany, while moderate sweating refers to mild tetany. Angelica disperses Wind through its pungent taste, while harmonizing blood through its warmth. When tetany develops after postpartum, “Great Tonifying Decoction made from Ten Kinds of Botany (十全大補湯 Shiquan Dabu Decoction)” should be used, as muscles receive no nourishment when losing blood. Paralysis (痿痺 Wei Bi) and abdominal mass: when muscles and bones are relaxed, one cannot stand earth, which is named Flaccidity (痿); while when Wind, Cold, and Damp attack the flesh and blood vessels, it is called Numbness (痺). Pox, carbuncle and ulcer sores are cured. It is used when Chong Meridian (衝脈)<sup>186</sup> becomes morbid, and inversed Energy results in abdominal pain; also when Dai Meridian (帶脈)<sup>187</sup> becomes morbid, it results in abdominal pain, swelling of the waist, and a dissolved feeling as when being submerged in water.

It cures every deficiency of women, all blood diseases, and being Dark-Emptiness so as Bright not to be supported. It lubricates the spleen and stomach as well as skin; removes Blood Stasis (瘀血 Yu Xue) to facilitate new blood creation; warms the Middle Focus (中焦);<sup>188</sup> supplies nutrition<sup>189</sup> and vitalizes blood; relieves rigidity of the muscle; presses pus out of boils; removes pain (pain stops through harmonized blood); and allows Energy and Blood to return to their original place (thus earning the name “Suitable Return [當歸] Dang Gui = Angelica”). In case of Blood Stagnation, it makes blood pass through; in case of Blood Deficiency (血虛), it can replenish; it lubricates Dry Blood (血枯); it arranges disordered blood; in general, its pungent and warm taste facilitates Energy revitalization, resulting in Energy arranged and blood harmonized. According to Li Dongyuan (李東垣), the head part of Angelica stops bleeding (hemostatis) and allows blood to ascend the body; its middle part raises blood in the middle body (and protects it); the tail part breaks blocked blood and promotes flow downwards; and the whole of Angelica revitalizes blood and cures synthetically all parts of the body. According to another theory of both Lei Xiao (雷斅) and Lai Zang (海藏), its head can be used to break blood. Li Shizhen (李時珍) said its head is used to cure the upper part of body, its middle part is used for the middle body, its tail part for the lower body, and the whole is used for curing the whole body. Lei Xiao (雷斅) wrote <Leigong “Theory of Concocting” (雷公炮炙論)>, according to Li Shizhen, Leigong refers to Lei Xiao during the period of the Liusong (劉宋) Kingdom (420-479 A.D.: of the South Dynasty 420-589 A.D.), and not to Leigong in the era of the Yellow Emperor (黃帝).

However, as it lubricates intestines significantly, whoever suffers diarrhea should avoid using it (Angelica corresponds to Monarch, White Paeony to Minister, Rehmannia to Assistant, and Ligusticum to Messenger); from these, Decoction of Four Drugs (四物湯) is made, which is the complete agent for curing blood. Deficiency of the blood is aided by Ginseng and Astragalus; fever of the blood is aided by Scutellaria (條芩 [or 黃芩]), Gardenia (山梔), and Coptis (黃連). According to Ren An (認菴), Blood belongs to Dark, which should acquire Bright to create Four Things (i.e. to fulfill its function); Pure Dark cannot generate blood. Ginseng and Astragalus should be used for those of depleted Energy and weak blood; this is why, Bright, when it prospers,

<sup>186</sup> Chong (Encountering) Meridian (衝脈) is one of Eight Extrameridians (奇經八脈). It begins in the womb and ascends along the back bone.

<sup>187</sup> Dai (Belt) Meridian (帶脈) is one of Eight Extrameridians (奇經八脈). It is like the belt around the waist.

<sup>188</sup> The portion of the body housing the stomach and spleen.

<sup>189</sup> Treatment for general weakness, i.e., overstress, lack of nutrition, etc.



could vitalize Dark. ... In order to disperse, it should be used mixed with or pickled in liquor; and to cure blood vomiting (hematemesis), it should be fried with vinegar. If taking Angelica mixed with liquor, the unborn fetus should be removed.

<Eastern Physicians' Venerable Text> (p.1417): Warm, sweet, non-toxic, it treats the wind, blood, and fatigue (勞). It breaks bad blood and creates fresh blood ..... cures all sores (惡瘡) and malaria (溫瘧), protects the Five Inner Organs, and cultivates flesh. When using its head, it breaks blood; while using the end part stops bleeding; and using both modulates blood, as one part breaks blood and the other stops bleeding. It penetrates into Hand-Small Dark (手少陰), as Heart dominates blood; it penetrates into Foot-Great Dark (足太陰), as the Spleen (脾) wraps around the blood; and it penetrates into Foot-Faint Dark, as the Liver maintains the blood.

Ibid. (p.92). It also promotes blood regulation (和血), circulation (行血), and cultivation (養血). It surpasses others for controlling blood (p.194), vaginal hemorrhaging (崩漏) and irregular menstruation. Mince it for decocting with liquor to treat empty blood and headaches (血虛頭痛) (p.835), exhaustion (虛勞), emaciation (羸瘦 leishou), and all kind of emptiness; and it discharges (瀉) empty Fire (虛火). The decoction of Angelica, which has been parched with honey water, is used (p.1211) to cure many women's diseases as well as abdominal pain after childbirth.

Dioscurides, (Angelica is not referred to)

P.G. Gennadiou, *Lexicon Phytologikon*, p.136 κε. Αρχαγγελική ή φαρμακευτική (Αροννηγελιμα οφφινναλισ, γαλλ. Angélique, αγγλ. Angelica) ... Πάντα τα μέρη ενέχουσιν ευάρεστον άρωμα και γεύσιν μοσχώδη, υπόπικρον και καυστικήν. Φαρμακευτική είναι η ρίζα του (φρμ. Άγγελικής Ρίζα, Radix Angelica, γαλλ. Racine de Saint Esprit, τουρκ. ΜΜελαικ κιοκιου) Τα σπέρματα και το χόρτον του αποσταζόμενα παρέχουσιν αιθέριον έλαιον χρήσιμον εις την φαρμακοποιάν και την ποτοποιάν. Εκ των τρυφρών καυλών του παρασκευάζεταιται ασκαρόπηκτων, όπερ οι Γάλλοι ονομάζουσι bois d' Angélique. ...<sup>190</sup>

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<sup>190</sup> Chevallier, *Encycloedia* (p.60), Chinese Angelica, Dang Gui (Chinese) (Angelica sinensis syn. A. Polymorpha [Umbelliferae]): In the Chinese herbal tradition, Chinese Angelica is the main tonic herb for conditions suffered by women. It is taken by millions of women around the world on a daily basis as an invigorating tonic, helping to regulate menstruation and tonify the blood. It has a sweet, pungent aroma that is very distinctive and, in China, it is often used in cooking, which is the best way to take it as a blood tonic.

Key Actions: tonic, blood tonic, antispasmodic, sedative, promotes menstrual flow.

Research: ■ Gynecology: Research in China from the 1970s has shown that the herb regulates uterine contractions, which may explain its benefit for menstrual pain. ■ Whole plant: Research shows that the whole plant, including the rhizome, strengthens liver function. The whole rhizome has an antibiotic effect.

Traditional & Current Uses: ■ Blood tonic: Famous in China as a tonic, Chinese Angelica is taken for “deficient blood”.

Conditions: anemia and for the symptoms of anemia due to the blood pass —i.e. pale complexion, palpitations, and lowered vitality. ■ Womens health: Chinese Angelica regulates the menstrual cycle, relieves menstrual pains and cramps, and is an ideal tonic for women with heavy menstrual bleeding who risk becoming anemic. However, as it stimulates menstrual bleeding, other tonic herbs such as nettle (*Urtica dioica*, p.145), are best taken during menstruation if the flow is heavy. It is also a uterine tonic and helps infertility. ■ Circulation: Chinese Angelica is a ‘warning’ herb, improving the circulation to the abdomen, and to the hands and feet. It strengthens the digestion and is also useful in the treatment of abscesses and boils.

Chevallier, *Encycloedia* (p.166) Angelica [*Angelica archangelica* (Umbelliferae)]: Habitat & Cultivation: Angelica grows in temperate regions as far apart as Western Europe, the Himalayas, and Siberia.

Forklore: They are subjected to a severe kind of colic, against which the root of Angelica is one of their chief remedies.

Medicinal Actions & Uses: Angelica is a warming and tonic remedy and is useful in a wide range of illnesses. All parts of the plant will help relieve indigestion, gas, and colic. Angelica can also be useful in cases of poor circulation since it improves blood flow to the peripheral parts of the body. It is considered a specific treatment for Buerger's disease, a condition that narrows the arteries of the hands and feet. By improving blood flow and stimulating the coughing up of phlegm, Angelica's warm tonic properties bring relief from bronchitis and debilitating chest conditions. For respiratory conditions, the roots are most commonly used, but the stems and seeds may be employed as well.

Caution: Do not take Angelica as a medicine during pregnancy.

Chevallier, *Encycloedia* (pp.166-167) Bai Zhi [*Angelica dahurica* (Umbelliferae)]: Habitat & Cultivation: Grows wild in thickets in China, Japan, Korea, and Russia.

Part used: Root.

History & Forklore: Bai zhi contains a volatile oil and coumarins imperatorin, marmesin, and phellopterin.

## 10. 蒜 (大蒜, 小蒜), *Allium sativum*

*Species Certification of Materia Medica* (證類本草)

蒜 Garlic: Small Garlic, Xin Wen, has slight toxicity. Takes charge of the spleen & kidney. It treats cholera and upset stomach; improves digestion of grain, arranges stomach condition, warms the Middle part, removes evil arthralgia as well as miasma. Gather it on the 5th of May.

Tao Yin-Ju said: When the leaves of small garlic emerge, they can be cooked and eaten. By May, when the leaves blight, take the root; it is also named Lan Zi (藺子). When you eat it, it has a strong stink. It tastes spicy (pungent), has a warm nature, and when boiled to drink it is effective for colds and cholera. Also it is effective against the toxins of insects. So eaten it is harmful; it cannot be consumed for a prolonged period. The *Note of Tang Edition* says the garlic and shallot (胡葱 Hu Cong) are reciprocally congenial, which is effective for deteriorated conditions due to caterpillar's toxins, and is highly effective against poisonous sand, wind, and water in mountain valleys. Mountain men (山人), rustics and barbarians (俚獠)<sup>191</sup> use it frequently. According to "Your vassal Yu Xi (禹锡) and others referring to *Shu Edition Figure* (臣禹锡等谨按蜀本图经)": small when produced in the wild field, is called a 'Wo (莠)' or "Li (藟)". Its seedling, leaf, root, and fruit are like Hu (葫: large garlic), while it is much thinner than Hu (葫). <Er Ya (尔雅)> said Li (藟) is garlic of the mountain. According to the <*Explanation Words* (说文 Shuo Wen)>: it is an acrid and strong-smelling vegetable. According to another explanation, the best fragrance is said to belong to Yun Meng (云梦) Country's pungent vegetable. When habitating mountains it is called "Li (藟)". Meng Shen (孟诜) said: It is good but should not be eaten frequently. Ri-Hua Zi (日华子) said: Its small garlic is warm and toxic. It enervates energy (气), stops vomiting and diarrhea, eliminates indigestion, cures toxins produced by venomous insects, and should be applied to snake worm (蛇虫) chigger sores. Do not eat in March.

<*Figure*> said: Small Garlic (rocambole) in old times was not produced in State Soil (州土), while now it is everywhere. Produced on farms and wild fields, its root and seedling is mostly like Gourd (葫: 大蒜 Da Suan) and very thin and many in number. Gather on May 5th. According to the <Er Ya (尔雅)>, Li (藟) is Mountain Garlic. Accordingly, <Shuo Wen (说文)> says: Garlic, it is a pungent vegetable. Those produced in the mountains is called "Li (藟)". Now <The Classics (本经)> says that Da Suan (大蒜 Garlic) is Gourd (葫), while Small Garlic (小蒜) is called garlic (蒜). According to <Er Ya (尔雅)>, there is Large Garlic, while this is Small Garlic. Those transmitted in the book, which have different names, refer to different things. When using this medicine, be careful. According to the traditional prescriptions, used frequently, Small Garlic treats cholera; boil to make juice and drink.

Zhu Cheng (褚澄)<sup>192</sup> in the Nan Qi (南齐) State<sup>193</sup> says: Garlic cures Li Dao-Nian (李道念) Chicken's Conglomeration (鸡瘕)<sup>194</sup> right away. And in Jiang Nan (江南)<sup>195</sup> there is a kind of Mountain Garlic; its smell is similar to that of Large Garlic. With this garlic, mountain people cure palpable abdominal mass (积块) and women's blood stasis (血瘕); ground garlic with bitter vinegar produces multiple benefits. There is also a kind

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History & Folklore: Bai zhi was first mentioned in Chinese herbal medicine in the Devine Husbandman's Classic (Shen' nong Bencaojing) of the 1<sup>st</sup> century AD. The famous military physician Zhang Congzheng (1150-1228) classified bai zhi as a sweat-inducing herb able to counter harmful external influences on the skin, such as cold, heat, Damp, and Dry.

Medicinal Actions & Uses: The pungent, bitter *bai zhi* is used for headaches and aching eyes, nasal congestion, and toothache. Like its cousins Angelica (*A. archangelica*), and Chinese Angelica (*A. sinensis*), it is warming and a tonic, and it is still given for problems attributed to "damp and cold conditions, such as sores, boils, and ulcers affecting the skin. Bai zhi also appears to be valuable in treating the facial pain of trigeminal neuralgia.

Caution: do not take during pregnancy.

<sup>191</sup> So called Mountain Men (山人), Rustic and Barbarians (俚獠) used to refer to the Zhuang ethnic group (壮族) who were minorities in China.

<sup>192</sup> 479-502 A.D.

<sup>193</sup> A country among the South Dynasty (南朝: 420-589 A.D.) in China.

<sup>194</sup> It is said that Chicken Conglomeration (鸡瘕) is caused by eating too much white chicken. For this, take two or three pieces of garlic, and spit out a litre quantity of cold phlegm. It is assumed that there is a chicken egg in that phlegm.

<sup>195</sup> The region in the south of the Yang Zi River of China.



of garlic which is like Large Garlic; it has many petals and cures Beriberi (脚气 dermatophytosis). It should be cooked for women to drink while in childbirth. It is easy to produce, though not in Jiang Bei (江北).

<Therapeutic Diet of Materia Medica (食疗本草)><sup>196</sup>: effective for cholera, improves digestion of grain, arranges condition of stomach, warms the Middle, and removes bad (evil) conditions. Those gathered on May 5<sup>th</sup> are best. It is very effective for removing the venom of insects and for treating furuncles and carbuncles. It should not be eaten daily. According to <Handbook of Prescriptions for Emergencies (Zhou-Hou Fang 肘后方)><sup>197</sup>, it cures cholera, abdominal flatulence, and non-vomiting. Pulverize a litre of Small Garlic and boil with three litres of water to detoxify. Pulverize Small Garlic to a juice and use the sediment to apply to the wound. The <Ge-Shi's Prescription (葛氏方 Ge-Shi Fang)><sup>198</sup> says: When water is pernicious to people, which is called "By Stream (中溪)," it is supposedly due to venomous insects, such as She Gong (射工);<sup>199</sup> but actually the toxins are not derived from insects. With three liters of pulverized Small Garlic, make broth but do not heat for long; over heating will erase its effect. When the sediments are removed, add it to a bath of suitable temperature; even if red spots appear on the body, there is no cause for concern. <Heart Mirror of Diet Therapy 食醫心鏡> says: Cures cholera and upset stomach; promotes digestion of grain; arranges conditions of the stomach; warms the Middle, and relieves various kinds of arthralgia. For toxins in the spleen and kidney, take its decoction. According to the <Hand book of Military Department 兵部手集>, it cures heartache which have not been endured for ten years; for headaches suffered for no more than five years, it has an immediate effect. No salt being used. Jiang (绛)'s maternal family suffered from heartache for more than ten years. Other drugs had no effect; but after taking this, the disease did not return. Another treatment: When earthworm has entered the ear, small garlic juice manages to control it. ... Garlic is used for malaria. Grind it to a purre state, and, with a little quantity of a polymerized mixture of various minerals (黄丹), make a pill the size of a chicken head; then dry it. If you take one pill daily, with newly drawn water and facing east, its effect is marvelous. According to the <Wide Sound (广韵 Guang Yun)><sup>200</sup> when Zhang Qian (张骞)<sup>201</sup> was sent to Da Yuan (大宛), he let the natives' mentality be harmed by eating this. Eat a little garlic with raw fish to be Damp. <Extended Meaning 衍义> says about garlic: Small Garlic, which is like green needle, has white root; the large one is like "water chestnut (乌芋)", and the fruit and root are simmered before eating. And when Hua Tuo (华佗) used its powder, it was referred to as House Garlic.

<Eastern Physicians' Venerable Text> (p.1369): Dissipates carbuncles (癰腫) and removes rheumatism (風濕) ... Dispels cold and Wind. Reinforces the spleen (健脾) and warms the stomach (溫胃), and cures acute diarrhea and venomous effects of insect (蟲毒) and snake bites. Being stenchy, it is unpleasant to eat and prolonged use both harms the liver and results in weak eyes. Little Garlic (小蒜) enters the spleen and kidney to warm the inside and facilitates the digestion of grains; cures acute diarrhea, vomiting, diarrhea (吐瀉), and the venomous effects of insects (蟲毒) and snakes (p.925). For dissolving abdominal mass (癥瘕), frequent application is advisable.

Dioskurides, II.152.

Garlic (Skordon) is a kind of domesticated, garden-cultivated plant. That produced in Egypt is of one head and white. There is a wild variety called "phidoskordon", which is caustic and warms efficiently; it discharges gas, gives impulse to the intestines, alleviates thirst, and treats dry stomach and wounds of the skin as well.

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<sup>196</sup> <Therapeutic Diet of Materia Medica (食疗本草)> written by Meng Xian (孟诜 612-713 A.D.), the Chinese boanist of the Tang (唐) dynasty.

<sup>197</sup> Abbreviation of <Ge-Shi Zhou-Hou Fang 葛氏肘后方>, authored by Ge Hong (葛洪: 284~363 or 343 A.D.), a "Taoist priest (道士)", who lived during the Eastern Jin Dynasty; his other name is Bao-Pu Zi (抱朴子). Published ca. 326~334 A.D.

<sup>198</sup> Abbreviation of <Ge-Shi Zhou-Hou Fang 葛氏肘后方> of Ge Hong (葛洪).

<sup>199</sup> She Gong (射工) is a legendary poisonous insect. It is similar to beetles.

<sup>200</sup> The <Wide Sound (广韵 Guang Yun)> is an important book for the research of phonetics and rhymes of old Chinese and for studying pronunciation and the meaning of Chinese characters.

<sup>201</sup> Cf. The imperial envoy Zhang Qian returned from Europe to China with grape seedlings and wine-brewing know-how in the 2nd century B.C., which marked the introduction of grapes to China.

Taking garlic drives out mawworm and promotes urination. If bitten by vipers or if you suffer bleeding, mix with wine and drink frequently. In the above cases it can also be useful as a poultice (including for other wild animal bites). Eating it helps remove discomfort resulting from water .... When taken raw, simmered or boiled, it clears the throat and alleviates chronic cough; when drunk with a decoction of oregano, it eliminates lice and lice eggs. When roasted it can be mixed with honey and applied as an ointment to treat depilation and eye bruises. Especially in the case of depilation, it is applied with the fragrance of nardos. Used with salt and oil it cures pimples. Used with honey it prevents freckles, speckles, trichophyton, dandruff and leprosy. If boiled with resin and frankincense and applied to the mouth, it relieves tooth-pain. If bitten by mygales (similar to tarantula), you can apply a poultice mixed with the leaves of fig and cumin. Decoction made by distillation promotes menstruation and ejects placentae. Eating what is produced from pulverized garlic and black olives—"myttoton"—promotes urination and appetite, and is useful for treating ascites. Finally, it can be used for fumigating when taking a sitz bath.

P.G. Gennadiou, *Lexicon Phytologikon*, p.534 κε.

(Κρόμμυον ή Κρόμμυον; Allium, τ;ajiw Leirivd;vn) to Sk;ordion (A. Sativum, gall. Ail, aggl. Garlic, τουρκ. Σαρμουσάκ), το γνωστότατον και παρ' αρχαίους και παρ' ημίν σήμερον Σκόροδον ή Σκόρδον (παρά Διοσκ. Δε και Ελαφόβοσκον). ... καλλιεργείται δε ως αρτυματικόν από παναρχαιοτάτης εποχής εις τας παραμεσογείους χώρας. Ο Ηρόδοτος το αναφέρει ως καλλιεργούμενον και χρησιμοποιούμενον εν Σκυθία και Αιγύπτω (2.125:4.17), συχνότατα δε μνημονεύεται θπό του Αριστοφάνους, όθεν εξάγεται ότι,ως σήμερον ούτω και το πάλαι, κοινοτάτη ήτο η χρήση αυτού εν Ελλάδι. ...

Η πόα και ιδίως ο βολβός του Σ. Είναι δριμέα την γεύσιν και βαρύοσμα, προκαλούσι δε εις τον ποιούντα υπέρμετρον χρήση αυτών καρηβαρίαν, ην ο Ιπποκράτης ονομάζει σκορδινισμόν. Ενέχει δε το σκόροδον κατά παντοίων παθήσεων και ιδίως κατά της ταινίας (ως αναφέρει και ο Διοσκρ., διο και ονομάζεται υπό των Γάλλων 'θηριακή των Πτωχών' (Thériaque des pauvres). Παρά τώ λαώ θεωρείται και ως αντιβασκανικόν διο και λέγεται το 'σκόρδο στο μάτι σου'. Τοιαύτην τινά γνώμην περί σκοροόδου είχαν και οι Ρωμαίοι, παρ' οίς εκάστη οικογένεια εθυσίαζε κατ' έτος εις την Μανίαν κεφαλήν (βολβόν) σκοροόδου.

Μεγάλη κατανάλωσις σκόρδων γίνεται ανά τας παραμεσογείους χώρας, και ιδίως παρά τω λαώ., ενώ εις την βορ. Και μέσην Ευρώπην σπανίως ή ουδόλως χρησιμοποιείται το είδος τούτο εις την μαγειρικήν.<sup>202</sup>

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<sup>202</sup> Chevallier, *Encycloedia* (p.56), Gallic [Allium Sativum (Liliaceae)]: It counters many infections, including those of the nose, throat, and chest. It also reduces cholesterol, helps circulatory disorders, such as high blood pressure, and lowers blood sugar levels, making it a useful dietary addition in late-onset diabetes.

Key Actions: ■ antibiotic, expectorant, increases sweating, lowers blood pressure, reduces blood clotting, antidiabetic, expels worms. ■ Antibiotic: Garlic has been researched in Germany, Japan, and the US from the 1980s onward, but authorities still disagree on how it achieves its remarkable antibiotic action...effective even for severe infections like dysentery. ■ Blood pressure: Clinical trials in the 1980s have confirmed that garlic reduces blood lipid (fat) levels and lowers blood pressure.

Traditional & Current Uses: ■ Traditional remedies: Garlic has always been esteemed for its healing powers and before the development of antibiotics it was a treatment for all manner of infections, from tuberculosis to typhoid. It was also used to dress wounds in WWI. ■ Bronchial infections: Garlic is an excellent remedy for all types of chest infections. It is effective for colds, flu, and ear infections; it also helps reduce mucus. ■ Digestive tract: Digestive infections respond well to garlic. The herb can also rid the body of intestinal parasites. ■ Circulatory remedy: Garlic prevents circulatory problems and strokes by keeping the blood thin. It lowers cholesterol levels and blood pressure. ■ Other uses: Garlic is used for infections and may be taken with conventional antibiotics to support their action and ward off side effects. Also, garlic reduces blood sugar levels and can help in late-onset diabetes.

Cf. Besides, there has been recent research related to its benefits for countering highly fat blood [cholesterol?], arterial sclerosis (J. Kojuri, A.R. Vosoughi, M. Akrami., "Effects of anethum graveolens and garlic on lipid profile in hyperlipidemic patients," *Lipids Health Dis.* 6:5 (2007 Mar.) (PM [Pub Med] ID 17328819), antioxidant (K.I. Sallam, M. Ishioroshi, and K. Samejima, "Antioxidant and antimicrobial effects of garlic in chicken sausage," *Lebenson Wiss Technol.* 37(8) (2004), pp. 849-855 [MPID 17330154]), prostate gland cancer E.W. Howard, M.T. Ling, C.W. Cheung, et al: "Garlic-derived S-allylmercaptocysteine Is a Novel in vivo antimetastatic agent for androgen-independent prostate cancer", *Clin. Cancer Res.* 13 (6) (2007) (PMID 17363541); and, in Ethiopia, tuberculosis; B. Tessema, A. Mulu, A. Kassu et al: "An in vitro assessment of the antibacterial effect of garlic (Allium Sativum) on bacterial isolates from wound infections," *Ethiop. Med. J.* 44 (4) (2006), pp. 385-9 (PMID 17370439)

## 11. 生薑 (or 乾薑), Zingiber (officinale)

< *Species Certification of Materia Medica* 證類本草 >

Raw ginger (生薑)

Raw ginger (生薑) is pungent and slightly warm. It is efficacious for treating headaches due to cold fever (傷寒頭痛), nasal obstruction (鼻塞症), nagging cough with dyspnea (咳逆上氣), and the cessation of vomiting. Prolonged use removes unpleasant odors and promotes spirits. ... Its effect refers to the five viscera (五臟), removing phlegm (痰) mitigating breath, stopping vomiting, and removing evil wind (風邪) and cold fever (寒熱). On the other hand, prolonged use enfeebles volition, reduces wisdom, and hurts heart energy.

Dried ginger (乾薑 or 干薑)

Dried ginger is pungent and warm in energy and flavor. It has excellent heating properties and is non-toxic. It is efficacious for preventing heart clogging and ameliorating cough with dyspnea (咳逆上氣); warms the middle body; stops bleeding; promotes sweating; opens blocked viscera (腸澀); and dispels rheumatic arthralgia (caused by wind and dampness) and dysentery. It is useful for treating abdominal pain caused by cold, pestilence (中惡), acute gastroenteritis (霍亂), swollen intestines (脹滿), evil caused by wind 風邪, clotting under the skin, stopping hemoptysis (咯血) (for which raw ginger is better), and all toxins. ... It also cures apoplexy (風) and descending energy (下氣), stops bleeding, facilitates the action of collateral channels (絡脉) and induces light sweat. Prolonged use however can damage eyesight. According to the *Theory of Medicinal Property* 藥性論, the flavor of dried ginger, as assuming the role of vassal (臣: minister under the monarch), is bitter and pungent. It helps waist discomfort and controls kidney and cold energy; dissolves blood stasis; removes wind (風: paralysis); facilitates the functioning of the four limbs and articulations; vitalizes the five internal organs (五臟) and six bowels (hollow organs 六腑); removes toxins from wind (風毒) as well as cold paralysis (冷痺); and causes frequent urination. Dried ginger remedies coughing and warms the middle body in company with Gentiana macrophylla (秦艽) as a vassal. It is useful for treating chronic gastroenteritis, abdominal pain, swollen intestines (脹滿), cold dysentery (冷痢), and blood blockage (amenorrhea 血閉, 閉經). For both void and cold body due to disease, dried ginger is highly recommended. According to Rihua-zi (日華子), dried ginger removes phlegm; mitigates breathing; cures convulsion, vomiting, diarrhea, cold of the abdomen and five viscera, nausea (反胃干嘔), blood stasis (瘀血), bruises (扑損) and snoring (鼻洪); removes the toxins of cold and warm (冷熱毒); and promotes stomach digestion.

< *Eastern Physicians' Venerable Text* 東醫寶鑑 > (p.1390): A little warm, taste is pungent, and non-toxic. Entering the Five Viscera, it removes phlegm, lowers Energy, stops vomiting, gets rid of Febrile Cold and Damp; cures panting (咳逆) and asthmatic (喘嗽) cough, and fright from ascending Energy (上氣). Its nature is warm but the peel is cold, so to warm up, throw away the peel; conversely, if in need of cold, make use of the peel (本草). Remove the toxins of Pinellia Ternata (半夏), Arisaema (南星) and Magnolia (厚朴). It is a sacred medicine (聖藥) for treating nausea (嘔吐) and food vomiting (反胃) [湯液].

Ibid. (p.46) It is an excellent medicine (妙藥) for circulating Bright (行陽) and dispersing Energy (散氣). (p.143) As it facilitates the function of the Viscera and Bowels (臟腑), take daily. (p.426) Its decoction mixed with Pinellia Ternata (半夏) cures acute pain (急痛) of the epigastrium under the heart (心下). Its decoction mixed with apricot stone (杏仁) is a special medicine for curing clogged Energy (氣結) and rheumatism (痺) of the breast (心胸). (p.458) Applied regularly under the armpits makes malodor disappear.

Ibid. (p.138) Removes phlegm (痰), modulates descending Energy (下氣), dissolves cold phlegm (冷痰) and modulates the Energy of the stomach. (p.844) Remedies fatal symptoms of acute diarrhea. (p.900) (胃氣). Cures mass of the flanks (痰癖), Ascending Energy (上氣), acute asthma (喘急), and regular coughing and chronic ascending cough (咳逆).

Dry ginger (乾薑): A source of ample heat, it has a pungent taste and is non-toxic. It facilitates the function of the Five Viscera and Six Bowels; ventilates limbs and joints; removes Cold Wind (風寒) and rheumatism (濕痺); treats diarrhea and vomiting; removes afflux of the Bowel (腸澀) and pain of the abdomen and heart (心腹痛); stops diarrhea; warms the spleen; improves dyspepsia (宿食); and removes cold phlegm (冷痰).

Washed and roasted over a low flame results in warming of the internal body. To stop bleeding, ingest after roasting black; eaten raw fulfills the function of dispersing. Overdosage hurts Proper Energy (正氣) for which raw Glycyrrhiza is used as an alleviating agent.

P.G. Gennadiou, *Lexicon Phytologikon*, p.380. Ζιγγίβερις ή Γιγγίβερις (Gingiber, Τάξις Σκιταμινωδών) ' γένος περιλαμβάνον περί τα 20 είδη, ιθαγενή των ανατ. Ινδιών και των Μαλαισίων και του Ειρηνικού ωκείανου νήσων. .... Η αξιολογώτερον είναι Ζ. η φαρμακευτική (Z. Officinale, γαλλ. Gingembre, αγγλ. Ginger), ιθαγενές των ανατ. Ινδιών ' το ρίζωμα του, γνωστόν υπό το αυτό φυτόν όνομα, είναι αρωματικόν, αρτυματικόν και φαρμακευτικόν (φρμ. Ζιγγιβέρεως ρίζα, Radix Zingiberis albi), χρησιμοποιούμενον ως τοιούτον από της αρχαιότητος. Εκ της ρίζης ταύτης, της κοινώς ονομαζομένης τζιτζιμπερη, παρασκευάζεται αεριούχον δροσιστικόν και στομαχικόν ποτόν, αγαπητόν ιδίως παρ' Αγγλοις (αγγλ. Ginger beer) και άλλοτε εν κοινωτέρα ή σήμερον χρήσει παρ' ημιν (κοινώς τζιτζιμπίρα). Κοινοποιουμένη η ρίζα αύτη χρησιμεύει προς αρωμάτισιν του σαλεπίου (βλ. Όρχις) ότε ονομάζεται κοινώς πιπερόρριζα (τουρκ. ζιντζεμέλ).<sup>203</sup>

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<sup>203</sup> Chevallier, *Encycloedia* (p.153) Ginger, Sheng Jian (Chinese), Singabera (Sanskrit) [Gingiber officinale (Zingiberaceae)]: Familiar as a spice and flavoring, ginger is also one of the world's best medicines. It has been revered in Asia since the earliest times, and in medieval Europe it was thought to have derived from the Garden of Eden. Ginger brings relief to digestions troubled by motion sickness, morning sickness, and other causes, and the herb is also an important circulatory remedy. Fresh ginger has a pungent, slightly lemony taste.

Key Actions: Antiemetic, carminative, circulatory stimulant, inhibits coughing, anti-inflammatory, antiseptic.

Research: ■ Therapeutic properties: Ginger is well researched, and its therapeutic benefits are largely due to its volatile oil and oleoresin content. Gingerol is an acrid constituent, responsible for much of the hot taste and stimulating properties. The shogaols, formed as the plant dries, are a strong irritant and more acrid than the constituents present in the fresh rhizome. ■ Antiemetic: Ginger is highly effective for motion sickness. Trials at St. Bartholomew's Hospital in London in 1990 found the herb more effective than conventional medicines in relieving post-operative nausea. ■ Antiseptic: In a trial in China, 70% of patients with bacillary dysentery who were given ginger made a full recovery.

Traditional & Current Uses: ■ Digestive problems: Ginger is an excellent remedy for many digestive complaints, such as indigestion, nausea, gas, and colic. It relieves motion sickness and morning sickness. Ginger's antiseptic qualities also make it highly beneficial for gastro-intestinal infections, including some types of food poisoning. ■ Circulatory stimulant: Ginger stimulates the circulation, and helps blood to flow to the surface, making it an important remedy for chilblains and poor circulation to the hands and feet. By improving the circulation, ginger helps reduce body temperature in fevers. ■ Respiratory conditions: Ginger is warming and soothing for coughs, colds, flu, and other respiratory problems.

## 12. 桂皮, *Cinnamomum (verum) or cassia*<sup>204</sup>

<Famous Doctor's Special Record (名醫別錄)>

Branch of Cinnamon (桂枝) ([old] Cinnamon dried thin and flat [牡桂]),<sup>205</sup>

<Shennong Materia Medica (神農本草)> Cinnamon (牡桂) flavor is pungent and (energy is) warm. It treats coughing with dyspnea (上气咳逆), blocking of the respiratory organs (结气), and throat pain while breathing. It is effective for articulation, and replenishes the middle body and promotes energy. Prolonged use promotes spiritual ability, results in light body and slows aging.

Flesh of cinnamon (菌桂)<sup>206</sup> treats hundreds of disease, raises spirit, results in fairer complexion, and matches well with every kind of medicine. Prolonged use results in light body, slows aging, and creates a bright face and youthful appearance.

<Famous Doctor's Special Record> Non-toxic. It treats heart and flank pain, warms muscles, ventilates the pulse, removes stuffy feeling, and facilitates sweating.

Bark of Cinnamon (桂皮) (*Cinnamomum Cassia*) ([young] Cinnamon dried in round shape (菌桂), flesh of Cinnamon [肉桂])<sup>207</sup>

<Species Certification of Materia Medica 證類本草>

Cinnamon is sweet and pungent in flavor, highly thermic, and mildly toxic. By warming the middle body, it promotes energy of the liver and lungs, and is efficacious in curing chills and fever (寒热) of the heart and abdomen (心腹), cold (冷疾), convulsions due to acute gastroenteritis (霍乱), headaches and backaches, and sweating. It suppresses spitting (止烦止唾) and alleviates tension, coughing and nasal congestion. It facilitates abortion, reinforces articulations, promotes the furthering of blood veins, allows deficiencies to be communicated, and harmonizes every kind of medicine. Prolonged use makes one deified (神仙) and slows aging. ... Combined with Ginseng, Broadleaf Liriope (麦门冬), Glycyrrhiza (甘草), rhubarb (大黄) and skullcap (黄芩), it tunes up the middle and promotes energy; and cures vomiting when combined with *Bupleurum falcatum* (茺胡), amethyst (紫石英), and dried *Rehmannia glutinosa* (干地黄) ...

... According to the <Theory of Medicinal Property [药性论 Yao Xing Lun]> cinnamon flesh (桂心: cinnamon without the outer skin), called “zi gui” (紫桂: purple cinnamon), meaning “the monarch” among botanical medicines, it removes the toxins of trees and plants. Bitter and sour, non toxic, and incompatible with raw green onion (生葱). It cures various kinds of heart pain (九种心痛), is effective in killing parasites, dissolves blood stasis (瘀血), improves irregular menstruation, controls paralysis (plus is an anesthesia for weak legs), facilitates pushing placenta out, removes coughs due to panting breath and phlegm blocking the respiratory tract, brings to an end intense pain associated with cold inside the bowels, cures dysentery (下痢), and controls rhino polypus mucosa (鼻息肉) due to hypertrophy of mucosa. According to *Rihua-Zi* (日华子), cinnamon flesh (桂心) controls every kind of paralysis (风气); remedies every kind of weakness and disease (五劳七伤); facilitates communication between the nine orifices; is salutary to the joints; reinforces energy; improves eyesight; warms the waist and knees; removes swollen abdominal veins (痲癖) and abdominal mass (症瘕); dissolves blood stasis; treats wandering arthritis (风痹) and contractures in joints (骨节挛缩); promotes muscle and bone adhesion; and creates new flesh.

... According to Chang Chungching (张仲景), cinnamon soup (桂枝汤) can be used to treat cold fever (伤寒).

<sup>204</sup> *Cinnamomum* belongs to the family Lauraceae.

<sup>205</sup> “牡” means “male”, and “牡桂” is the branch of cinnamon with the bark removed but the pith preserved.

<sup>206</sup> Cf. According to Zou Shu (邹澍), “菌” refers to great bamboo, while “菌桂” equals “肉桂 (flesh of cinnamon)” which is inner bark with the pith removed.

<sup>207</sup> According to Zou Shu (邹澍), “菌” refers to great bamboo, while “菌桂” equals “肉桂” (flesh of cinnamon) which is the inner bark with the pith removed.



In the *《A-B Classic (甲乙经 Jia Yi Jing)》*<sup>208</sup> there is a hot medicated compress (HMC) prescription in the piece titled <Rheumatism or Paralysis (痹 Bi) (caused by wind, damp, or cold) referring to the case Dark Energy being attacked by disease (阴受病发痹)>.<sup>209</sup> ...

According to *《Holy Benevolent Prescription (圣惠方 Sheng Hui Fang)*, when one has a headache (头痛) and head paralysis (头风), and the pain begins as when clouds announce storms, it is effective to plaster the crown and temple of the head with an ointment made from 50 g (1 两 [liang]) powder of cinnamon flesh (桂心) mixed with liquor. It also treats various heart pain and choking ... and cures cold abdomen (寒疝) disease due to cold limbs, loss of appetite ... the feel of choking due to bad blood converging on the heart after fetal delivery, energy blockage, and suppressed desire... According to a prescription presented in *《Essential Secrets from Outside of the Metropolis (外台秘要)*, children's bed-wetting is also cured ...

... It is said in the *《Thousand Gold Prescriptions (千金方 Qian Jin Fang)》* that when the alveolar bones are straying off from each other, owing to paralysis which causes a strained and twisting of the face and a sluggish tongue, then cinnamon flesh is to be simmered with liquor and with a cloth soaked in its juice applied as a plaster on an affected area until the condition mends. If straying occurs toward the left side, apply such a plaster on the right part; if straying occurs toward the right side, plaster the left. ... For inaccurate word pronunciation, the same simmered concoction should be placed under the tongue with the porridge swallowed gradually and in small amounts.

According to the *《Handbook of Prescriptions for Emergencies (肘后方 Zhou Hou Fang)》*, it can be used to treat heart pain owing to apoplexy (卒中). Minced cinnamon flesh 400g (8 liang) (兩) is to be mixed with 800g (4升 sheng) of water which should be boiled down to 200g (1升), divided equally, and taken two times. If one's heart and abdomen are inflamed (脹滿) and experiencing pain, and accompanied by panting or irregular breath, 100g (2 liang) of cinnamon flesh should be powdered and mixed with 220g (1.2 sheng) of water, boiled down to 160g (0.8 sheng), and drunk at once with the residue removed. If without cinnamon flesh, instead use dried ginger (干姜: 乾薑) for effective results. For treating cold (厥寒: 逆冷) of limbs owing to paralysis, accompanied by vomiting transparent liquid and symptoms of rolling over and groaning, ... another prescription is to plaster the part experiencing pain with ground and sifted powder of cinnamon mixed with bitter liquor. According to *《Ge-Shi's Prescription (葛氏方 Ge-Shi Fang)*, cinnamon cures sudden vomiting of blood.

Cf. Dongyuan (東垣): Branch of Cinnamon is of little Energy (氣), while flesh of Cinnamon (肉桂) is of much Energy. As that of less Energy is inclined to leak outwards (發泄), a branch of Cinnamon is to ascend and come out the surface, while that of much Energy is used to radiate heat. The inner bark of Cinnamon is to descend to protect the kidneys (腎). (This demonstrates the different uses between the branch and inner bark of Cinnamon)

<Eastern Physicians' Venerable Text 東醫寶鑑> (p. 1440)

Cassia (桂皮 bark of cinnamon): lots of warmth, sweet, pungent, and mildly toxic. It warms the Middle (溫中), facilitates Energy of the liver and lungs entering into the bloodstream, and remedies the cramping of muscles (轉筋) caused by acute diarrhea (癰亂).

Flesh of Cinnamon (桂心) cures nine kinds of heart pain (心痛), exterminates three kinds of insects (三蟲), removes Cold pain of the abdomen, and cures all kinds of Wind. It is effective for five kinds of exhaustion (五勞) and seven kinds of injury (七傷), communicates with the nine holes (九竅), facilitates joints

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<sup>208</sup> The *《A-B Classic (甲乙经)》* was the medical book written by Huangfu Mi (皇甫谧) of Jin (晋) in 256-259, under the reign of Gan lu (甘露) of Wei (魏); it has been called *《Three Parts of Yellow Emperor – A-B Classic of Acupuncture and Moxibustion (黄帝三部针灸甲乙经)》* *《A-B Classic of Yellow Emperor's Acupuncture and Moxibustion (黄帝针灸甲乙经)》* *《A-B Classic of Acupuncture and Moxibustion (针灸甲乙经)》*, *《A-B of Acupuncture and Moxibustion (甲乙针经)》* *《A-B Classic (甲乙经)》* and *《A-B (甲乙)》*. The earliest edition of the surviving *A-B Classic* is contained in the *《Collection of Ancient and Modern Medical Tradition of Proper Pulse (古今医统正脉全书)》* published in the 29<sup>th</sup> year of the reign of Wanli (万历), of the Ming Dynasty (明代) (1601).

<sup>209</sup> It is said in the <Miraculous Pivot (灵枢经 Lingshu Jing) / Long-Short Life Span and Rigid-Suppleness (寿夭刚柔)> *《Yellow Emperor's Classic for Inside 黄帝内经》* that when Bright Energy is attacked, the disease is called “paralysis (风)” and when Dark Energy is attacked, it is called “rheumatism (痹)” (病在阳者命曰风病, 在阴者命曰痹病).

(articulations), increases emotions, improves eyesight, warms the waist and knees, removes rheumatism (風痺), disperses hypochondrium or abdominal mass (痞癥癰), clears extravasated blood (瘀血), connects muscles with bone, creates flesh (肌肉), and pushes out placentae (胞衣). (cf. p.535: It is applied for Cold Colic Pain [寒疝痛], Inverse Cold [逆冷] of limbs [四肢], and pain due to tumid Outward-Kidney [外腎].)

Branch of Cinnamon (桂枝): Branch (枝) refers to twig, and not bough. Entering Foot-Great Bright Meridian (足太陽經), it excludes Cold Evil (寒邪) from the blood system (血分) (本草). In case of external weakness and sweating, the branch disperses Evil (邪) and allows Protecting (衛) Energy to be mild-tempered, so that the skin becomes dense and sweating stops of itself; without use of the branch, sweating cannot be controlled. The energy and taste (氣味) of the cinnamon branch is all of the same light, so that it ascends freely upward to radiate outward (丹心).

Cf. Chinese Cinnamomum is supposed to be one of three kinds of Cassia which are referred to in Dioskurides [used as a fragrance and pharmaceutical].<sup>210</sup>

[P.G. Gennadiou, *Lexicon Phytologikon*, p.476. Κιννάμωμον (Cinnamomum, gall. Cannellier, τάξις Δαφνωδών) ' ... β) Κ. Ἡ Κάσσια (C. Cassia), ἰθαγενές τῆς Σινικῆς ' ..... ὅπερ εἶναι φλοιός τῶν κλαδίων τοῦ δένδρου καὶ υποτίθεται ὅτι ἀποτελεῖ μίαν τῶν τριῶν κασσιῶν τοῦ Διοσκρ. Τὸ σινικόν κιννάμωμον ἀπποσταζόμενον παρέχει αἰθέριον ἔλαιον χρήσιμον εἰς τὴν οἰκιακὴν οἰκονομίαν, τὴν σακχαροπλαστικὴν καὶ τὴν μυρεψίαν. Οἱ ἄωροι καρποὶ τοῦ δένδρου τούτου εἶναι ἐπίσης ἀρωματικῶς καὶ φαρμακευτικοί (φρμ. Κασσίας ἄνθη, Flores Cassiae), ἡ ρίζα τοῦ δε παρέχει εἶδος καμφοράς ...] <sup>211</sup>

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<sup>210</sup> Cf. I. Baliakos, *I Symboli tou Nikolaou Myrepsou*, p.138.

<sup>211</sup> Chevallier, *Encycloedia* (p.80) Cinnamon, Dalcini (Hindi) (Cinnamomum verum syn. C. zeylanicum [Lauraceae]): As well as being one of the world's most important spices, cinnamon is an ancient herbal medicine, first written about in the Jewish religious text, the Torah. Cinnamon has a long history of use in India and was first used medicinally in Egypt and parts of Europe from about 500 B.C. The herb was traditionally taken for colds, flu, and digestive problems, and it is still used in much the same way today.

Key Actions: Warming stimulant, carminative, antispasmodic, antiseptic, antiviral.

Research: ■ Japanese research: In the 1980s, Japanese research into the constituent cinnamaldehyde showed it to be a sedative and analgesic. It is also thought to reduce blood pressure and fevers. ■ Bark extracts: Extracts of the bark have antibacterial and antifungal actions.

Traditional & Current Uses: ■ Therapeutic properties: Cinnamon's medicinal value is largely due to volatile oil, which has antiviral and stimulating properties. ■ Ancient warming remedy: In both India and Europe, cinnamon has been traditionally taken as a warming herb for "cold" conditions, often in combination with ginger. The herb stimulates circulation, especially to the fingers and toes. Cinnamon is also a traditional remedy for digestive problems, such as nausea, vomiting, and diarrhea, as well as for aching muscles and other symptoms of viral conditions such as colds. ■ Convalescence: Cinnamon is a supportive and strengthening herb for weak digestion. It is used specifically in the treatment of debility and in convalescence. ■ Gynecological remedy: The herb has a slight emmenagogic action, stimulating the uterus and encouraging menstrual bleeding. In India, it is taken after childbirth as a contraceptive.

### 13. 人蔘, Ginseng<sup>212</sup>

*Shennong Materia Medica* (神農本草)

Ginseng (人蔘). Flavor is sweet and is slightly cold. It aids the five viscera (五臟); pacifies spirits (精神); stabilizes the soul (魂魄). calms down fright (驚悸); removes evil spirits (邪氣); and promotes eyesight, happiness and wisdom. Prolonged use results in light body and longevity.

*New Materia Medica* (本草從新)

人蔘 Ginseng: Cures Weakness, fatigue and endogenous infections. When injured by the Seven Emotions and Six Desires, such endogenous infections should be treated by filling up Fair (Energy). When injured by Wind, Cold, Warmth, Damp, Dry, Fire, such exogenous infections should be treated by removing Evil (Morbid) spirits. For example, if a fever is exogenous in origin, the fever is not settled down; while if it is endogenous in origin, the fever waxes and wanes. If the syndrome of an extreme Cold is exogenous, it does not diminish even if one is next to a fire with padded clothes; while if it is endogenous, warming oneself immediately reduces the fever. If the headache syndrome is exogenous, the pain is persistent; while if it is endogenous, the pain intermittently grows and vanishes. If headache syndrome is exogenous, fever develops in the back of the hand; while if it is endogenous, fever remains in the hand's center. If it is exogenous, you have nasal impassability; while if it is endogenous, you have no appetite and everything is tasteless.

Development of fever and spontaneous perspiration: Spontaneous perspiration belongs to Bright-Weakness; it should be recuperated by increasing Energy through Ginseng and Astragalus. If much of the perspiration is due to fever of the lungs, perspiration is augmented by taking Ginseng; to that end, clean the sweat and foster the blood to stop the sweat. If an injury is due to exopathic Wind, fever and sweat develops and the pulse slows (which is recognized by itself).

To eliminate coughing and panting breath, Chen Jiamao (陳嘉謨) says in <Expediency of *Materia Medica* (本草蒙筌)> that coughing is due to lung injury originating in fever. However, he dealt only with Cold-Fever, not emptiness (weakness)-fullness. If the lungs have fever of fullness, Ginseng is to be avoided, but if they have fever of voidness, no harm is done.

According to the Recipe Book, pain of the abdomen and heart should not be supplemented with these medications because its energy is full; however, when illness is due to Emptiness-Cold, these medications should immediately be taken.

Cold Injury (Typhoid Fever): Ignorant people do not pay due regard to Emptiness-Fullness; as soon as fever is discovered, they treat it by attacking. It is also said that there is no supplementary treatment for Cold Injury, but in the *Zhongjing*" <Theory of Cold Injury (傷寒論)> 397 kinds of treatment are introduced; and for treating Emptiness-Cold, there are about a hundred methods of treatment and 113 medications, including 50 medications using Ginseng and Monkshood.

The plague (epidemic disease): In case of plague, when Bright Pulse (陽脈) is weak, it means the Fair (Energy) is empty; when Dark pulse is light, it means the Evil (Energy) is full. If Fair (Energy) is empty and Evil (Energy) is full, a mass of evil toxin results in inside flaming not being dispersed; disease thereby settles firmly in the body and accumulates. When someone who cannot maintain spiritual energy (精) comes into contact with this (Evil) Energy, vulnerability to disease infection is increased. For this, a small dosage of Ginseng, 3 or 5 or 7 Fen (≈0.3g or 0.3 cm), from outward orienting drugs should be used to remove Evil Spirits. The discussion of Yu Jiayan (喻嘉言) on the <Yuyicao (寓意草)><sup>213</sup> is quite detailed on this.

It cures retching nausea, malaria, and diarrheal dysentery; and generally cures stomach ailments and aids the function of the spleen. Only when the lungs transmit fever to the large intestine is diarrheal dysentery fomented; and, even if it is chronic, the degenerated center of the lungs should be cleared. When chronic diarrhea and

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<sup>212</sup> Ginseng grows in Korea, China, and America. However, ginseng in America is known to have toxins and is prohibited from use as medicine. Cf. H.G. Edwards, T. Munshi, K. Page, "Analytical Discrimination between Sources of Ginseng Using Raman Spectroscopy," *Anal Bioanal Chem.* (2007 Sept.) (PMID 17882405).

<sup>213</sup> The book, written by Yu Chang (喻昌) in 1643 during the Qing Dynasty, includes 60 methods of treatment.

chronic dysentery keep remaining influenced by the Wind to come into the stomach, evil Wind should be removed by directing it out of the surface of the flesh. In these cases, Ginseng should be avoided.

Dysuria: When the Energy of lungs is degenerated, frequency of urination reduced.

Fullness of abdomen: According to Huangfu Song (皇甫嵩) <Invention of Materia Medica (本草發明)> When the chest suffers inverse Fullness,<sup>214</sup> it should be treated with the method of repletion, and the abdomen will be improved, regarding which makes sense the Classic phrase: the method of blocking is used against blocking (塞因塞用). However, vulgar physicians, being tied to the letter (i.e., unreceptive to reading between the lines), did not dare to use much Ginseng. If a little is applied, blocking is increased; if plentiful is used, blocking is dissolved. Supplementing is a proper method in this case.

Disease of many dreams, dizziness, and strangely separated spirits. There was a person who, whenever he slept, kept feeling detached from his other; and he recognized no difference between the two. Usually, when people sleep, the spirit comes back to the liver, but when the liver is empty and suffers from evil Energy, the spirit can not return to its own home. This disease is named the "Separation of Spirit". ...

For tingling of the heart, abdominal pain, being unable to eat, and vomiting water during pregnancy, according to the prescription of the Office for Benevolent Dispensary (惠民和劑局方): The same dosage of Ginseng and roasted Ginger is to be powdered and mixed well with the juice of raw Rehmannia, made into pills the size of paulownia tree seeds, and 50 pills should be taken daily with rice-soup. All emptiness syndromes of pregnancy and childbirth, children's sudden convulsion, terrible pustule; the color of pustule is ruby red if recent; while if its top is sunken, its skin is thin and the pus translucent, it frequently itches and falls out, and is accompanied by diarrhea: all these cases belong to Emptiness of Energy, and Ginseng should be used. If pus is not the cause of lung fever, and for those not readily falling out after having been sunken, Ginseng is absolutely prohibited from use. If diarrhea causes lung fever, Ginseng is also prohibited from use.

Poison of Dark available by surgery is quite excellent to cure the mouth opening after the discharging of carbuncle pus. A plastering powdered one is also available. It cures anemia caused by Emptiness. According to the ancients, to cure anemia and a weak pulse, Ginseng is used because it promotes active Energy, in turn resulting in supporting blood. In case of blood loss, Energy should be supplemented. Generally, blood is not created by itself, but only by taking medicine which promotes the Bright Energy. It means that Bright (陽) first should be raised in order to augment Dark (陰). If the use of medicaments for supplementing blood gets no results. When the Energy of Fire turns up reversely, and the fever of blood rages frantically, Ginseng should not be used. For those exhausted by Emptiness Energy, take thickly decocted soup made solely of Ginseng. For those suffering from Cold, a little monkshood is added to. I wonder, even if the efficacy of Ginseng surpasses other medicine, but it used to block Energy; so, when there is hot Fire and the Energy of Lungs is in adverse condition, Ginseng should not be used. Since Ginseng tends to reinforce the surface, so that, when Evil Spirit has invaded the surface, Ginseng should not be used. The toxin of efflorescent pox is supposed to be discharged, yet does not come out and, with the heat closed, the spots are not discovered; in such a state, if Ginseng is used, the problem is exacerbated. ... For constant bleeding, if Ginseng mixed with child's urine is taken, it stops. The properties of these two are mutually exclusive, yet their efficacy as a combination is marvelous.

<Eastern Physicians' Venerable Text> (p.1402): Warm, sweet and non-toxic. It relieves deficiency of the Energy of Viscera (臟氣), pacifies the mind and spirit (魂魄), improves eye sight, opens the mind, increases intelligence, supplements deficiencies, stops diarrhea and retching; and cures purulent spit (吐膿) and phlegm (痰) caused by atrophic lung disease (肺痿). As ginseng motivates the Fire of Lungs (肺火), it should not be used by those who vomits blood, suffers from chronic coughing, has a dark face or has sufficient Energy but finds himself in state of blood deficiency (血虛) and Dark-Deficiency (陰虛). For them, instead of ginseng, codonopsis (沙蔘) is advised. As ginseng is bitter and warm, it replenishes the Bright of Five Viscera; while, as Codonopsis is cold, it helps the Dark of Five Viscera (丹心). Taken little by little in summer results in tightened heart through accumulation (心痞) as it enters into Hand-Great Dark (手太陰經) (湯液).

(p.46) Improves the deficiencies of Energy in the Five Viscera (五臟) as well as shortness of breath (氣短), weakness of Energy (氣弱), and absence of Energy (氣虛). (p.71) Remedies convulsion (驚悸) of mind and spirit, and increases humor and wisdom and thereby reinforces memory capacity. Using it regularly for a hundred days lusters the skin and allows one to remember a thousand words. (p.158) It replenishes Bright in the lungs and treats acute panting caused by ascending Energy; It is also available for the state on the edge of

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<sup>214</sup> Brought about by Emptiness.

collapse, trembling shoulders, and shortage of Energy of the Lungs (肺氣) (p.168) Supplements the Energy of the stomach (胃氣), improves appetite (開胃) and digestion. (p.177) Replenishes the Vital Energy (元氣) of Upper Focus (上焦). (p.858) Even if on the brink of death by inversed stomach (反胃), one can be cured by taking Ginseng. It is highly efficacious in treating (p.899) weakness of the lungs (肺虛), shortness of Energy (短氣) and breath (氣促), coughing accompanied by phlegm (咳嗽), and asthma (喘息). Ginseng is used for weakness of the Lungs; however, it does not remedy the Evil (邪) flourishing from damage caused by Windy Cold (風寒) and feverish suffocating (鬱熱) caused by chronic cough. Moreover, it aggravates panting asthma and coughing. For the latter conditions, codonopsis (沙蔘) or scrophularia (玄蔘) is advised instead of ginseng.

Cf. Chevallier, *Encycloedia* (p.116) Ginseng, Ren shen (Chinese) (Panax ginseng [Araliaceae])

Ginseng is the most famous Chinese herb of all. It has been valued for its remarkable therapeutic benefits for about 7,000 years and was so revered that wars were fought for control of the forests in which it thrived. An Arabian physician brought ginseng back to Europe in the 9<sup>th</sup> century; yet its ability to improve stamina and resistance to stress became common knowledge in the West only in the 18<sup>th</sup> century.

Key Actions: Adaptogenic, Tonic.

Research

- Adaptogenic: Ginseng has been researched in detail over the past 20-30 years in China, Japan, Korea, Russia, and many other countries. Its remarkable ‘adaptogenic’ quality (helping the body to adapt to stress, fatigue, and cold) has been confirmed. Trials show that ginseng significantly improves the body’s capacity to cope with hunger, extremes of temperature, and mental and emotional stress. Furthermore, ginseng produces a sedative effect when the body requires sleep. The ginsenosides that are responsible for this action are similar in structure to the body’s own stress hormones.
- Other research: Ginseng also increases immune function and resistance to infection, and supports liver function.

Traditional & Current Uses

- Therapeutic actions: As an adaptogenic, ginseng’s action varies. It has a stimulating effect on young people with strong *qi* (vital force), but is a tonic, restorative, and even sedative for those weakened by illness or old age.
- Chinese remedy: In China, ginseng is best known as a stimulant, tonic herb for athletes and those subject to physical stress, and as a male aphrodisiac. It is also a tonic for old age, and is traditionally taken by people in northern and central China from late middle age onward, helping them to endure the long hard winters.
- Western tonic: In the West, ginseng is viewed not so much as a medicine, but life-enhancing tonic. It is useful for those coping with stressful events, such as taking exams. Ginseng is often abused in the West and should not be taken for more than 6 weeks.<sup>215</sup>

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<sup>215</sup> Recent research shows the effect of treating malignant tumor of the lymphatic gland, cancer and leucosis. J.Y. Shim, Y. Han, J.Y. Ahn et al, "Chemo-protective and Adjuvant Effects of Immunomodulator Ginseng in Cyclophosphamide-Treated Normal and Tumor Bearing Mice", *Int J Immunopathol Pharmacol* 20 (3) (2007 July-Sept.), pp. 487-97 (PMID 17880762); D. Yuan, R. Zuo, C.C. Zhang, "Effects of Total Saponins of Panax Japonicus on Human Leukemic HL-60 Cells", *Zhong Xi Yi Jie He Xue Bao*, 5 (5) (2007 Sept.), pp. 570-2 (PMID 17854562); and effects of vasodilator (on heart); F. He, R. Guo, S.L. Wu et al. "Protective Effects of Ginsenoside RB 1 on Human Umbilical Vein Endothelial Cells In Vitro," *J. Cardiovasc Pharmacol*, 50 (3) (2007 Sept.), pp. 314-20 (PMID 17878761); Y. Nakaya, K. Mawatari, A. Takahashi et al, "The Phytoestrogen Ginsenoside Reactivates Potassium Channels of Vascular Smooth Muscle Cells Through P13K/AKT and Nitric Oxide Pathways", *J Med Invest* 54 (3-4) (2007 Aug.), pp. 381-4 (PMID17878692).



## 14. 銀杏, *Ginkgo biloba*

*Eastern Physicians' Venerable Text* (p.1389): Cold, sweet, and non-toxic. Clears impure Energy of lungs and stomach and removes coughing (入門). ... Taken raw stimulates the throat; when children take it raw, it produces convulsion (日用).<sup>216</sup>

*Emperor's Encyclopedia of Current Farming Affairs* [欽定授時通考] (v.64)<sup>217</sup>

*Ginkgo biloba* (銀杏 Yin Xing: Silver Apricot) had been called either 'white seed (白果)', or 'the seed of duck's foot' (鴨腳子 Yajiao-Zi). According to *《Materia Medica》*,<sup>218</sup> the latter is derived from the shape of its leaves which are similar to the foot (鴨脚) of the duck. It was in the Song (宋) Dynasty that *Ginkgo biloba* was offered for the first time to the Emperor as a tribute, when it came to be named as *Ginkgo* (銀杏: Silver Apricot), since it looks like apricot (杏) and its seed has white color. ... It is said that taking it to make amulet or seals, the magicians could handle the ghosts. Its flavor is sweet, a little bitter, and (energy is) average and non toxin. Taking the raw detoxifies alcohol poisoning, removes phlegm, removes toxin, and kills insects; while the boiled one makes the lungs warm, promotes Energy, and pacifies cough; washing clothes with its juice deletes oiled filth. Taking it too much makes the gas fill up and the abdomen swell up, and attains into absent-minded. Keeping moderation for all, passion, dwelling and eating, produces longevity. According to a traditional record, eating 1,000 numbers of *Ginkgo* grain makes man die. Since old times, in a year of bad harvest people used to eat *ginkgo biloba* instead of rice and whoever ate his fill was found all dead next day. When immature child eats it too much, he loses his mind (昏霍), fell into a fit of convulsions (發驚), and suffers indigestion (引疳); Taking it together with eel (鰻鱺) brings about light paralysis (軟風).<sup>219</sup>

P.G. Gennadiou, p. 802.

*Ginkgo biloba*; Σαλισβουρία ή αδιαντόφυλλος (*Salisburia adiantifolia* ή *Ginkgo biloba*, γαλλ. Arbre aux quatre écus, αγγλ. Maidenhair tree, τάξις Κωνοφόρων), ..... Η Σ. Πολλαπλασιάζεται δια σποράς, απαντά δε ήδη θεραπευομένη πολλαχού της Ευρώπης και αντέχει εις την ξηρασίαν, ωε και εις τα δριμύτερα ψύχη των παραμεσογειών χωρών....<sup>220</sup>

<sup>216</sup> 『Dictionary of Eastern Medicine 東醫學事典』(p.804), Seed of *Ginkgo* (bai zi 白子): Flavor is sweet and cold. It is taken at the time of menopause. It removes phlegm, cough, and panting breath. ... Overdosage could result in toxic symptoms like abdominal pain, vomiting, diarrhea, fever, etc.

<sup>217</sup> *Emperor's Encyclopedia of Current Farming Affairs* [欽定授時通考] was published by E Ertai 鄂爾泰, Zhang Yanyu 張延玉 et al. in 1826 (Dao Guang 道光 6) in the Qing (清) Dynasty whose publishing place is not identified.

<sup>218</sup> Cf. *Ginkgo biloba* (銀杏) is previously introduced in the *Materia Medica Classification* (本草綱目 Bencao Gangmu) which was published in Nanjing (南京) by Li Shizhen (李時珍) in A.D. 1596 (萬曆 Wanli 23rd year of the Ming Dynasty).

<sup>219</sup> 銀杏, 一名白果, 一名鴨腳子。本草云, 葉似鴨脚, 故名。宋初入貢, 改呼銀杏, 因其形似杏, 而核色白也處處皆有, 以宣城為盛樹高二三丈, 或至連抱可作棟梁。葉薄縱理, 儼如鴨掌, 面綠背淡。二月開花成簇青白色, 二更開旋即卸落人罕見之。一枝結子百十, 狀如小杏, 經霜乃熟, 色黃而氣臭。爛去肉取核為果, 其核兩頭尖, 中圓大而扁, 三稜為雄, 二稜為雌。其仁嫩時綠色, 久則黃。其樹耐久, 肌理白膩。術家取刻符印, 云能召使鬼神。氣味甘微苦, 平澀無毒。生食解酒, 降痰消毒殺蟲。熟食溫肺益氣定喘嗽。搗汁洗衣, 去油膩。食多壅氣臃脹昏頓, 三元延壽。書言白果食滿千顆殺人, 昔有歲飢, 以白果代飯, 食飽次日皆死。小兒食多, 昏霍發驚引疳, 同鰻鱺食, 患軟風。

<sup>220</sup> Chevallier, *Encycloedia* (p.98) *Ginkgo*, maidenhair Tree, Bai Guo (Chinese) (*Ginkgo biloba* [Ginkgoaceae]): *Ginkgo* is thought to be the oldest tree on the planet, first growing about 190 million years ago. Though it has long been used as a medicine in its native China, its therapeutic actions have only recently been researched. The leaves (and their extracts) are used to treat poor circulation to the brain and to maintain a plentiful blood flow to the central nervous system. *Ginkgo* is also valuable for asthma.

Key Actions: circulatory stimulant & tonic, antiasthmatic, antispasmodic, anti-inflammatory.

Research: ■ Circulation: Extensive research since the 1960s has established the importance of *ginkgo* in improving poor cerebral circulation, aiding memory and concentration, and helping in cases of dementia. ■ Anti-inflammatory action: *Ginkgo's* ability to reduce inflammation may make it valuable in the future for conditions as varied as auto-immune problems, multiple sclerosis, and organ transplants. ■ Platelet activating factor: Research into *Ginkgo* has led to the understanding of a new branch of human physiology. *Ginkgo* inhibits platelet activating factor (PAF), a substance released

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by a range of blood cells. PAF causes the blood to become stickier and therefore more likely to produce blood clots, and it also makes various inflammatory and allergenic changes take place.

Traditional & Current Uses: ■ Chinese herbal medicine: Gingko seeds are used to relieve wheezing and to lessen phlegm. They are also given to treat vaginal discharge, a weak bladder, and incontinence. The leaves are traditionally used for treating asthma. ■ Western herbal medicine: Western interest in Gingko has concentrated on the remarkable ability of the leaves to improve the circulation, especially poor circulation to the brain, and the herb's antiallergenic and anti-inflammatory actions, which make it a particularly useful remedy for the treatment of asthma. Gingko is the best selling herbal medicine in France and Germany, where it is taken daily by millions of people from middle age onward to maintain and improve cerebral circulation and memory and to reduce the possibility of a stroke. It is probably one of the most useful herbs for the treatment of senile dementia.

## V. Diagrams for the Comparison of 14 Plants

### 1. <Comparison of 甘草, Glycyrrhiza>

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; Cure Cold Febrile Disease (寒熱) and Evil Spirit (邪氣) of Five Viscera and Six Bowels (五臟六腑); tonify muscles and raise flesh and replenish strength. Treat wounds caused by iron weapons and detoxify. Prolonged use results in light body and longevity.</p> <p>&lt;Famous Doctor's Special&gt; Warm inner part and descend Energy. Cure blocking, fullness, panting, damaged viscera, coughing; remove thirst, ventilate blood; improve Energy of blood, counteract various toxins.</p> <p>&lt;Synopsis of Golden Cabinet&gt; Remedy the effects of toxins, intermittent leaking or frequent urination.</p> <p>&lt;Theory of Febrile Disease&gt; Dry ginger (roasted ginger), Zinseng and Glycyrrhiza replenish Spleen and Stomach, and warm the Stomach.</p> <p>&lt;New Materia Medica&gt;            [Glycyrrhiza either replenishes or discharge, cure both exterior surfaces and interiors of body, make Energy either ascend or descend, and promotes blood of Dark.] Replenish deficiencies in the Spleen and Stomach, and alleviate the Fire of Heart; consolidate Lungs-Metal(金); If ingested roasted, it raises energy levels, replenishes the Vital Energy of Three Foci (Three Jiao 三焦), and disperses Cold of Surface. Mixed with Harmonizing Medicine, it replenishes; mixed with Sweating Medicine, it reduces and disperses surface heat; mixed with cold medicine, it dissipates heat; mixed with strong medicine, it alleviates Fair Energy (Glycyrrhiza, added to ginger and Monkshood, nullifies the latter's pernicious side effects; and when added to mirabilite and rhubarb, it protects against purgation. All these are buffering functions); mixed with lubricating medicine, it promotes rich, healthy blood, making all medications harmonious; enhance healthy skin growth; and remove pain. (The spleen is responsible for healthy skin and Glycyrrhiza alleviates pain.) Passing through the twelve Meridians, it removes the toxins of numerous medications, hence acquiring the name "the Senior of the Country." Though it cures carbuncle sores, it should not be used for inflammation of the Chest or Abdomen. (Glycyrrhiza is a kind of feverish). Using it raw is to discharge fullness. The Classic says that its sweet taste can replenish and release, too; reduce swelling, and if the spleen's function works harmoniously, swelling is removed." If Glycyrrhiza is combined with Tuckahoe (茯苓), inflammation is ameliorated; hence it has</p>	<p>Theophrastos, asthma, cough, pain of chest</p> <p>Dioskurides: Its juices treat blocked vessel, improves gastritis (inflammation of the stomach), and discomfort of the chest and liver. If functions of bladder and kidney are weakened, it should be taken with sweet juice; relieves thirst, and gives help by masticating or plastering wounds. Decoct the roots recently dug up; dried roots are sliced to be attached.</p>	

<p>renown for bringing energy down and removing inflammation. Zhongjing referred to “Glycyrrhiza Heart-Discharging Decoction” for treating inflammation]; the head of Glycyrrhiza cures abscesses and modifies emesis.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Treat Evil Spirit (邪氣) of Cold and Fever (寒.熱), diseases of Five Viscera (五臟) and Six Bowels (六腑), and ventilate the Nine Orifices (九竅) and every Meridian (白脈), solidify muscles and bones, and inhence flesh. Enter into the Three Dark Meridians of Foot (足三陰經), warm the internal body through moxibustion, and remove Energy of Fire (瀉火) when used raw. It should not be applied if one is vomiting or enjoys liquor as the insides are swollen.</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>●asthma (panting) ●cough ●disease of some organs among Five Viscera &amp; Six Bowels</li> <li>●ventilate blocked vessel ●remove thirsty.</li> </ul>		

2. <Comparison of 甘菊, Chrysanthemon [cf. 小菊 chamaimêlon, chamomele, chamomile]>

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; Cure paralysis, dizziness, swelling pain (tumidity), eyestrain and tearing; remove dead skin, rheumatic arthralgia (caused by Wind and Dampness); prolonged application promotes blood energy, lightens the body, and slows aging and promotes longevity.</p> <p>&lt;Famous Doctor's Special Record&gt; Cure intermittently experienced waist pain. Remove choking fever of Chest, soothe intestines and stomach, and improve five Meridians and modulate the four limbs.</p> <p>&lt;Theory of Febrile Disease&gt; and &lt;Synopsis of Golden Cabinet&gt; Cure Great Wind (paralysis), four limbs languidness, malignant fever and weakness of heart.</p> <p>&lt;New Materia Medica&gt;            [Dispersing Agent, remove Wind-Fever, tonify the lungs and kidney, improves eyesight.] To receive all four Energies (winter seedlings, spring leaves, summer buds, autumn flowers); satiated with frost and dew, it acquires the spirit of Metal and Water, and improves the lungs and kidneys; so it controls the fire of heart and pacifies Liver-Wood. When Wood is pacified, Wind goes down, and when Fire grows weak, fever is removed, so that it supplies nutrition to the blood of the eyes and removes nebula (plus together with wolfberry used in equal ratios, makes honey pills); and prolonged use of it eliminates disease of the eyes; Real Chrysanthemum (眞菊), Broad Chrysanthemum (延菊 Yan Ju) and Wild Chrysanthemum (菊野) tend to induce diarrhea. They come in two colors: yellow and white. That with a single petal and having a sweet taste is superior for medicinal purposes. It is good when boiled for tea, bruised for liquor, or used for pillows; its green leaf cures advanced furunculosis (minced leaf is added to liquor, which is pressed into drinking juice), and its dregs can be used in a plaster whose efficacy is excellent.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Remove nebula, improve eye sight. recuperate eye's blood, and cure intestines and tears from wind; quell carbuncle poison and carbuncle swelling; pacify intestines and stomach, strengthens the Five Viscera, modulate four limbs, cure windy dizziness and head pain; improve the function of eye, aid hair growth and treat rheumatism, take powder of chrysanthemon for lingering intoxication from drinking.</p>	<p>Dioskurides. IV, 57 When one suffers from jaundice, if he takes a good while a steam bath, contemporarily reduces skin discoloration.</p> <p>Cf. Dioskurides, III, 137 anthemis (N. p.170 chamaimelon) Increase temperature and reduce weight; drinking its juice, or exposing oneself to its steam from below, improve menstruation, embryo, calculus, urination; its juice can also remove discomfort in the abdomen; aid intestinal immobility, cure jaundice and liver ailments; its decoction enhances bladder function. Red flower improves calculus ... Its (i.e. chamaimelon) efficiency for urination is superior to Hyacinthinon or Chrysanthemum. For inflammation of the mouth, its petal to be attached or masticated. If taken with olive oil, it can cure periodical fever. Make pills by chopping the leaves and flower, and by drying its root. For acute cases, drink juice made of leaves in double amount and of flowers in normal quantity, mixed with honey and liquor.</p>	
<p>Commons:            ●reduce weight (lighten body)</p>		



●discomfort of abdomen & intestinal immobility.

3. <Comparison of 旋覆花 (金佛草), Konyza (Inula)>

East	Greece	Reference
<p>&lt;<i>Shennong Materia Medica</i>&gt; effective for the treatment of blockage of respiratory organs (结气), stuffiness in the flank; remove fluid and Cold fever among the Five Viscera; replenish Energy of middle and lower body.</p> <p>&lt;<i>Famous Doctor's Special Record</i> (名醫別錄 Mingyi Bielu)&gt; Remove phlegm and saliva that have been congealed in the chest; remove phlegm and water in the chest and flank, the Dark in the bladder; circulation disorders caused by wind and dampness, dead flesh between skin layers, and eye mucus; facilitate movement of large intestines, ventilate blood vessels, and promote face color.</p> <p>&lt;<i>Theory of Febrile Disease</i>&gt; remove lumps in the upper abdomen (under the heart), cure chronic eructation, and purges miscarriages of the lower body. Make diaphragms to be ventilated with each other. When diaphragms being ventilated, blood is lubricated and Energy is circulated, resulting in the removal of lumps from the abdomen.</p> <p><i>Species Certification of Materia Mdica</i> (證類本草)</p> <p>Effective for treating energy torpor (气), discomfort under the flank, and palpitating surprise; by eliminating water and removing cold (chills) and fever inside the five organs; energy in the middle and lower part of the body boosted; phlegm of the upper chest, saliva like glue and lacquer, and phlegm fluid in the heart and flank are removed; water retention of the bladder, paralysis from stroke, damp rheumatism, skin slough, red eyelid canthus; inflamed large intestine (intestinum crassum); improve blood vessel flow and fertile face color; its root is used for rheumatism; improve eyesight, cure headaches, smooth blood vessels; the leaf staunches bleeding from incised wounds; cure typhoid fever and after perspiration, epigastric fullness (心下痞坚), durable yawning; cure incised wound and stop bleeding, to grind the buds of Inula and apply to over the wound; be used to control sputum water (phlegm), remove ailments of the head and eye; expel and disperse various ailments.</p> <p><i>New Materia Medica</i> (本草從新)</p> <p>Evacuating agent, letting Energy descend, removing Phlegm. According to Zhang Zhongjing (張仲景), it cures sweating, vomiting, choking lump after diarrhea, and belching, for which 'Inula Haematitum Decoction (代赭旋覆湯)' is used; cure edema of the upper abdomen, paralysis, and damp rheumatism (濕痹); medicine of</p>	<p>Dioskurides, III, 121 konyza [mikra](konyza of minute leaf) (N. p.39 konyza leptophyllos) ... the smoke produced by burning (konyza) drives out animals and mosquitoes and kills fleas. Its leaves cure snake-bite, tumefaction (腫瘡), and wounds. If you drink flower and leaf mixed with liquor, it accelerates menstruation and miscarriages, and improves dysuria, nephritis and jaundice. If you drink it with vinegar, epilepsy is ameliorated. If you drink its decoction, it removes squalid masses in the womb. Rubbing its juice stops trembling. For removing fever, apply its leaves mixed with olive oil; it cures headache by plastering with thin petals.</p> <p>Cf. P.G. Gennadiou, <i>Lexicon Phytologikon</i>, p.504. .... και είναι τονωτική και φλεγματογωγός.</p>	

<p>dispersing property; benefit the large intestine through its cooling nature (冷); weak person should avoid it; its root cures rheumatism; its leaves cure furuncle swelling caused by toxins; plastering the wound by spear or arrow stops bleeding.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; [Decoction Piece (湯液篇), vol.3 (p.1431)] : Cure mucosy saliva (膠漆) by phlegm (痰) removal from the chest, and inflammation (脹滿) in both flanks (兩脇) caused by the water retention of the heart-flank (心脇); promote stomach (開胃) function, which results in removing nausea, discharging chronic water in the bladder, and improving eye sight.</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>●headache</li> <li>●remove fever</li> <li>●cure (tumefaction or incised wound)</li> <li>●miscarriages</li> <li>●Evacuating Agent (improve dysuria)</li> </ul> <p>[cf.Gennadiou, tonifying &amp; phlegm-removing]</p>		

4. <Comparison of 大棗, Jujube (ziziphus), Ramnos)>

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; Cure evil energy of the heart and abdomen, pacify the Middle of body, and raise spleen; tonify 12 Meridians and pacify Protecting Energy (衛氣), and ventilate the Nine Orifices. When Energy is weak and liquid is insufficient, it replenishes them; modify terrible fright and languid limbs and modulate the effects of all medicines. Prolonged use makes the body light and results in longevity.</p> <p>&lt;Famous Doctor's Special Record&gt; Tonify the Middle Bowels and replenish Energy; reinforce strength; remove depression and suffocated feeling; cure the feeling of discomfort in the pit of stomach and remove filthy dreg in the intestines. Long use results in loss of hunger and make one demi-deity (a kind of Taoist hermit).</p> <p><i>Species Certification of Materia Mdica</i> (證類本草)</p> <p>effective for the evil energy (邪氣) in the heart and abdomen, and facilitate the middle, brings up the spleen, support the Twelve Pulse Channels (十二經絡), and the stomach to a normal state communicate to the Nine Orifices (九竅), restore exhausted energy, restore insufficient body fluid (津液) and weak parts of the body, and modify greatly frightened states and heavy limbs,. Well matched for every kind of pharmaceutical; replenish the middle, promote energy, reinforce power, remove depression, and cure heart clogging and the blocking of the viscera. Long use promote longevity, depresses hunger, and so promote deity status (神仙); effective for replenishing inadequate body fluid and promote strong will. The contents of three-year old seeds improve poor energy (惡氣: Bad Energyqn) in the body and treat sudden and infectious disease (猝疰忤); also cure deafness (耳聾) and nasal obstruction (鼻塞) ... Jujube remove bad energy in the heart and abdomen, detoxify every kind of pharmaceutical poison, facilitate the Nine Orifices, and replenish insufficient energy. Over use of raw jujube causes abdominal distension, while ingestion of steamed and boiled jujube supports the viscera and stomach, is good for fattening up the middle and increasing energy. Eating jujube is fine for infantile autumn diarrhea (小兒秋痢) and parasites. According to <i>Rihua-Zi</i>, dried jujube lubricates the heart and lungs for stopping coughs, replenishes the five viscera, harmonizes weakness and exhaustion, and removes blockages of intestines and the stomach. Scorched together with tin powder [光粉 (粉錫)], malnutrition (疳疾) and dysentery (痢疾) can be treated, though jujube should never be taken when one has teeth ailments. Never take jujube of any kind with green onion. The leaves of jujube are warm and non-toxic; when children suffer high fever, it can be controlled by bathing with the boiled water of its leaves.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Pacify the internal</p>	<p>Dioskurides, I 90 ramnos (N. p.129), its leaves can be used as plasters for cases of bad skin disease. (Rubbing doors or windows with its branch can remove toxins of medicine.)</p> <p>Ibid. I 92 paliouros ... Drinking (its juice) removes cough and calculus of bladder, and cures venomous snake-bites. Its leaf and root are applied as an anti-diarrheal agent and its decoction pacifis intestines (i.e. stop diarrhea), facilitates urine passing, and is effective in treating other animal bites. Its root which is glabrous is good for all kinds of newly created abscess (腫) and tumefaction (瘡).</p>	

<p>parts, raise the spleen, replenish Five Viscera, tonify 12 Meridians, ventilate the Nine Orifices (九竅), and reinforce temper and alleviate the effects of all medicine. Taking well-boiled replenishes the intestines and stomach, increases flesh, and protects Energy, while takking raw makes the stomach swell and causes diarrhea. In order to replenish 12 Meridians, it is advised to take it by decoction, and its sweet taste alleviates Dark Blood (陰血) supplementing the deficiency of the Meridians. Long use depresses hunger.</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>●pacify intestines</li> <li>●modulate the effects of all medicines</li> </ul>		

5. <Comparison of 薄荷, Hedyosmon emeron. Kalaminthe orine>

East	Greece	Reference
<p><i>Tang Register (Newly Revised Materia Medica)</i>: It facilitates sweating to aid bad paralysis and febrile disease. Curesevil spirit, fullness of heart and abdomen, acute diarrhea (癰亂), indigestion (滯症) and lower Energy. Its juice releases sweat and removes extreme fatigue.</p> <p><i>Species Certification of Materia Mdica (證類本草)</i> Treat the cause of disease, typhoid fever, sweating, bad energy, abdominal flatulence, cholera, dyspepsia (indigestion), and make energy descend; remove anger. Let poisonous sweat come outward, break (bad) blood, cure dysentery, and relieve joints. Especially to make salad with scallion is fitting. Treat the poison of Yin and Yang (阴阳: dark and bright), headache of typhoid fever, treat the energy of wind [paralysis (stroke) or rheumatism], to protect and arrange the chest and diaphragm, make tea for drink, and enjoy its immediate benefits; Treat stroke and aphonia, and spit and phlegm, remove evil wind (energy), cure heart and abdominal distension, make Energy descend; treat indigestion and head dissipation.</p> <p><i>New Materia Medica (本草從新)</i> Develop sweat, collects the Energy of Liver, and suppress the Energy of Lungs; disperse the inversed, harmonize the Middle, disperse the blocked one, dissolve melancholy, remove Wind-Fever; Cure headache and eye ailments; Cure paralysis of the face, strokes, aphonia, stammering, mossy tongue [gargling (with Mint) or rubbing tongue; every diseases related to the eye, ear, throat (pharynx and larynx), mouth and teeth, urticaria, exanthema and scabies of skin, convulsions via fever; remedy osteopyrexia (feverish evaporation of marrow), remove indigestion, stop bloody dysentery; facilitate joints, pacify cholera, and used for cat scratches and snake-bite; overdosing can harm the lungs and the heart, therefore weak person should avoid it.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Cure headaches caused by Febrile Disease; remove paralysis, Bad Wind of four seasons and chronic headache; facilitate joints, and solve exhaustion from work; facilitate the function of head and eyes; cure dried bone; entering the Hand (Upper) - Great Dark Meridian and Hand - Faint Dark Meridian, go upwards; facilitate toxic sweat, alleviate exhaustion, and clear head and eyes. Effective when water gets trapped in the ears; induce sweat removal from Fever: Cure exhaustion caused by dried bone.</p>	<p>Dioskurides, III 34 hedyosmon (minthên) (N. p.80 hedyosmon emeron)... maintain body temperature, and used as anti-diarrheic agent (止瀉劑) and drying agent (乾燥劑). Its juice mixed with vinegar stops bleeding and kills two or three kinds of parasites; stimulate sexual desire, remove chest swelling (when one cries) [like hiccup], vomiting and cholera; improve purulent tumefaction (癰), and pasting it on the forehead, headache disappears; make the breast swell and be mature; pasting it with salt is available for dog-bites, and its juice mixed with honey can treat ear disease. If you paste it to woman in advance before having sexual intercourse, pregnancy is prevented; Rubbing the tongue with softens it, and when you put it in the bottle of milk and seal it tightly, the milk does not congeal (like cheese), keeping its fresh state. Pacify the stomach and used also as a food spice.</p> <p>Dioskurides, III, 35 kalaminthê(N. p.48 kalaminthê-orine [mountaneous kalaminthê]) Drink or paste it in case of snake-bite. Its decoction facilitates urination. It is good for bone fractures, convulsion, dyspnea, nephritis, cholera, sweating, and also for goose pimples caused by chilling; drinking it with liquor prevents or cures fatal disease, and removes jaundice; drinking it with salt and honey kills various parasites. take it boiled or freshly ground; available for leprosy, and its juice increases breast milk. facilitate menstruation. Burning it or laying it under the bed repels snakes; remove black scabs and black bruises; warm the surface of the skin and apply drops of its juice to kill parasites in the ear.</p>	
<p>Commons: ●anti-diarrheic agent</p>		



<ul style="list-style-type: none"><li>●cholera;</li><li>●disease of ear</li><li>●headache</li><li>●skin disease (purulent tumefaction or urticaria, exanthema and scabies)</li><li>●beast-biting (dog or snake) ●disease of throat or dyspnea</li></ul>	
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6. <Comparison of 艾葉 (茵陳蒿), Artemisia (hetera polyklonos)>

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; 茵陳, 茵陳蒿: Treat rheumatism (风湿), cold fever (寒熱) and evil spirit (邪氣), pyretic retention (熱結) and jaundice. Prolonged application lightens body, promotes energy and inhibits aging</p> <p>&lt;Famous Doctor' Special Record&gt; 艾葉, 茵陳蒿: Stop diarrhea and vomiting; cure infected wounds of the genital organs and metrorrhagia; facilitate Dark Energy; <b>raise flesh</b>; and dispel febrile cold; cure jaundice of whole body, dysuria (小便不利), and remove fever of head, and dissolve latent mass; promote a bright face and longevity.</p> <p>&lt;Theory of Febrile Disease&gt; &amp; &lt;Synopsis of Golden Cabinet&gt; Treat jaundice. Swelling of the abdomen [服滿] is cured with rhubarb and internal fever with gardenia; while, for external fever accompanied by sweat and dysuria, apply Artemisia immediately. New leaves came out from old stems of Artemisia, and its pure fragrance (清芬) makes blocked fever to disappear, as its bitter taste and cold nature make lagged Damp (濕) be discharged.</p> <p><i>Species Certification of Materia Mdica</i> (證類本草) Effective for rheumatism, cold fever, Evil Energy, thermo- junction (熱結), jaundice, whole body yellowing, dysuria, removing head fever and masses in the large intestine. Prolonged use makes the body light (cheerful), vigorous; senility is arrested; the face become white and life span is lengthened. Artemisia (茵陳) makes joints comfortable and removes heat hysteresis, and typhoid fever (i.e. exogenous febrile disease affected by cold). Treat yellow eyes and red urine; epidemic disease fever, fanaticism, headache, head dizziness, eye malignancy from winter wind (風眼冬), malaria, women's mass in the intestine (症瘦), and incompetence and fatigue. Generally the commoners use Mountain Artemisia for curing cerebral pain. Appeases Cold Disease and sweating, treats the heaviness of limbs and joints, resolves phlegm and diaphragmatic hernia, and is most useful for treating overstrain. In the details of the “<i>Materia Medica</i> (本草 [正] 經)” it is said that it cures jaundice only, and the commoners do not make reference to the therapy of dieresis (by Artemisia). Roasting reduces the efficacy of Mountain Artemis in the Capital (Beijing) for relieving muscle pain and sweating. Mountain Artemisia produced in Jiang Nan (江南) is very effective for healing Cold Disease and cerebral pain. Many doctors recommend House (Wormwood) Artemisia (家茵陳) for relieving muscle and diaphragm pain, and for removing pain from the chest; cure itchiness (pruritus) of the whole body as well as infected sores and scabs. Regardless of the quantity of Artemisia capillaris, wash with boiled thick juice and immediately recover; Artemisia mostly eliminates great fever, jaundice, typhoid fever, headache,</p>	<p>Dioscurides, III, 113 artemisia (N. p.3 artemisia hetera polyklónas) Warm body temperature, and <b>reduce flesh</b>. Its juice removes the dregs from a woman (i.e. her womb), facilitates menstruation, and aids pregnancy and fetus discomfort; cure the constriction of muscles (筋肉收縮), hystera, calculus, dysuria; when you paste its leaf on the lower abdomen (below omphalos), quantity of menstruation is increased; treat womb with ointment made from Artemisia mixed with smyrne (i.e. a botanical sap such as pine resin, being used for preserving the dead</p>	

<p>malaria of high fever, and dieresis; treat typhoid fever (伤寒 Febrile Disease), and intense fever with yellow color appeared, yellow for body surface noted, for which very effective.</p> <p><i>New Materia Medica</i> (本草從新)</p> <p>Bitter taste dries Damp and its Cold Nature conquers fever. By entering into the Great Bright Meridian (bladder), it releases the sweat beads and purges Damp Fever of the Great Dark and Supreme Bright (Spleen and Stomach). It is the master medicine for curing jaundice. [When the spleen and stomach have damp fever, yellowness (i.e. jaundice) is brought about. The yellowness is from the spleen. If the body is of orange color, and the sweat is like the soup of (yellow) acorn (黃柏汁) and its color is bright, then there is much Fever; while if the color is roasted brown and it is temporary, there is much Damp. In this case, a kind of “Five Ingredients Including Poria (cf. Poria is a kind of fungus) (五苓)” should be used as an aid for obtaining a satisfactory effect]. In addition, it cures typhoid, epidemic malignant malaria of fierce fever, headache, dizziness, and abdominal pain (conglomeration) (疝瘕 Shan Jia) of women. (All are due to Damp-Fever). With regard to jaundice, it is divided into two kinds: Dark-Jaundice and Bright-Jaundice. The latter should be treated with Artemisia, while the former should be treated by heating the body, and applying of Artemisia is not effective for this case.</p> <p>&lt;Eastern Physicians' Venerable Text&gt;</p> <p>Artemisia (茵陳蒿, virgate wormwood): Applied for when the body turns yellow from jaundice of blocked fever (熱結黃疸), for dysuria, febrile headache from seasonal epidemic disease (天行時疾) and pernicious malaria.</p> <p>艾葉 (Folium Artemisiae Argyi) [Artemisia Asiatica Nak.]: Improves many chronic diseases (百病), including metrorrhagia (崩漏); gives comfort to the fetus (胎); removes abdominal pain, red or white mucus dysentery (赤白痢), coagulated blood of the Five Viscera (五臟痔瀉血), and swelling of (益) of the Lower Body (下部); <b>raises flesh (生肌)</b>; remove cold fever (風寒); and improves fertility; replace loss of blood (失血) in case of vomiting (吐); cures epistaxis (衄), defecating (便), and bloody urination (尿血); also cure metrorrhagia (崩漏) and Leucorrhoea. (p.272), red and white mucus dysentery (赤白痢), and dysentery accompanied by pus and blood (膿血痢); improve heart and abdominal pain caused by evil spirits (惡氣作痛) (心腹); for anal fistula caused by insects, burn a bundle of boiled Artemisia (wormwood) (熟艾) mixed with a little quantity of liver of bear; then use a straw to penetrate the anus, and let the resulting discharge pass through it; ease pregnancy discomfort, making the fetus comfortable and removing pain in the abdomen.</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>●disuria</li> <li>●relieve muscle</li> </ul> <p>Contradictions:</p> <ul style="list-style-type: none"> <li>●East: raise flesh</li> <li>●Greece: reduce flesh</li> </ul>		

7. <Comparison of 芍藥, Paionia thelia>

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; Cure evil spirits and abdominal pain; removes blood impediment (血痹); disperses solid accumulated mass (in the middle abdominal cavity) (堅積), cold fever, and painful scabies of women's lower abdominal cavity (痲痲); stops pain; stimulates urination; and increases energy.</p> <p>&lt;Famous Doctor's Special Record&gt; Facilitates blood vessel function, alleviates internal discomfort, disperses bad blood, removes red blood, and drive out Water Energy.</p> <p>&lt;Theory of Febrile Disease&gt; : Modulate fever of Meridian and replenish Dark Energy.</p> <p>Cf. In the &lt;Theory of Febrile Disease&gt; and the &lt;Synopsis of Golden Cabinet&gt;, there are 64 prescriptions, including peony (<i>Paonia</i>). Peony ① mixed with cinnamon disperse clogged Managing Energy (榮分) ② mixed with Glycyrrhiza, disperses clogged intestines and stomach ③ mixed with monkshood (附子), disperses clogged Lower Focus (下焦) ④ with the medicine of facilitating water (利水藥), improves water (利水); and ⑤ with medicine against blood stasis (瘀血藥) ventilates clogged blood. (Zou Shu, p.260)</p> <p><i>Species Certification of Materia Medica</i> (證類本草)</p> <p>Treat many bad conditions, including abdominal pain; remove blood blockage and moisture; break chronic disease of bad blood (惡血); aid cold-fever abdominal mass, pain, diuresis, and languor; invigorates Energy (Qi 气); smooth the blood vessels; drive out deteriorated blood; promote function of the bladder and intestines; remove carbuncles, intermittent cold and fever, evil states caused by pestilent factors (中惡), abdominal pain, and lumbago; for stopping pain, Angelica used mostly to be used. The Taoist also uses it for drinks, boiled using stones. According to the notes of another edition, there are two kinds: the red kind help pass urine and break wind; while white ones help stop pain and break (blocking) blood; cure lung pathogens, pain in the abdomen, blood accumulation, discharge of gas of the internal organs (Viscera); evil pain and rotten blood (septicemia), mental overstress, and on occasion inflammatory disease of the bone; improve the five internal organs; help kidney function; eliminate women's blood blockage, blood stasis, and pus; treat diseases originated in external causes (風) and modifies the state of exhaustion, women's diseases, (both before and after giving birth), menses, fever, and Energy (气); also eliminate agony and treats epidemic fever (天行熱疾), acute mental illness (癡瘴驚狂), women's sloppy blood, intestinal leaking of blood, hemorrhoids, scabies on the back, headache, dim eyesight, red eye, and pterygium; red peony creates more energy (气) while white peony repairs blood; in each case, both the flower and root are used; if wanting to dispel or forget anxiety, present red spine whose other name is “forgetting anxiety (忘忱)”; if wanting to get rid of anger, then present Silk Tree (青裳) whose other name is Acacia (合歡 happy get-together). According to Zhang</p>	<p>Diskurides, III 140 glykyside (N. p.100 paionia thêlia [i.e. female paionia]) ... Dried peony is used for removing postpartum waste. (Drinking a quantity of almond also promotes menstruation.) Drinking it mixed with liquor helps treat pain in a woman's abdomen, as well as jaundice, nephritis, and cystitis. Drinking a decoction with liquor facilitates intestinal the function. Taking 10 or 12 seeds with hard liquor facilitates the circulation of blood. It is also used for stomach ailments and insect bites and, if one drinks it from childhood, calculus is prevented. It cures nightmares, hysteria and womb pain. Take 15 seeds mixed with honey and liquor.</p>	

Zhongjing, it cures typhoid (伤寒); and soup replete with peonies heals cold-fever (寒热) and helps to pass urine. Some ancients used to drink exclusively this one.

*New Materia Medica* (本草從新)

peony tonifies Spleen-Dark. Its efficacy refers to the Great Dark Meridian (太陰經 - Lungs and Spleen) of the hands and feet. It purges Liver fever (acid astringes Liver, and the Liver, thus astringed, is purged; so the dispersing results in tonifying); stabilizes the Lungs and Spleen; and solidifies the skin. (Lungs supervise the skin system, and the Spleen supervises Flesh. If Liver-Wood does not overcome Earth, the Spleen is stabilized. When Earth prospers, it can raise Metal, and the Lungs are stabilized. When Spleen and Lungs are harmonized and stabilized, the skin is solidified). It harmonizes blood, gathers in Dark Energy, and astricts inversed Energy; and its acrid, sour taste manages astriction, relaxes the middle part of body, and removes pain. (Li Dongyuan said that, whoever hurts his Liver, should relax the middle part of the body. This is why blood can be so modified). It removes agony, astricts sweating, lowers fever, and stabilizes fetuses; it also cures conditions resulting from diarrheal dysentery, empty blood and pain of the abdomen (Diarrheal Dysentery all refers to illness of Great Dark, so peonies should be used; while for Cold Evil (寒邪) and Cold Pain (冷痛), they are prohibited.

White Peony can modulate Managing Energy (營氣) while Glycyrrhiza alleviates Inversed Energy; abdominal illnesses originates in Liver-Wood which overcomes Spleen-Earth. White Peony can conquer Liver-Wood, so that it can end abdominal pain. White Peony not only cures this pain but treats that originating from blood deficiency (emptied blood).

Pain of the flank (where there are Channels of the Liver and Gallbladder): When its fire ascends, the Gastral Cavity (Stomach) experiences pain; if the fire goes sideways (horizontally), the two flanks have pain. White Peony constricts Energy and purges the Fire of Liver; cures lung inflation, asthma and belching; and treats frequent hunger due to Liver fever; cure epistaxis (nosebleed), eye astringent acerbity (目澇), deficiency of Liver blood, children's variola (smallpox), and all blood disease; it also helps pregnancy and childbirth. (If used with Atractyloides, it tonifies Spleen; with ginseng and Astragalus, it tonifies Energy; with Angelica and Rehmannia, it tonifies blood; with ligusticum, it purges Liver; with Glycyrrhiza, and it removes abdominal pain. With Scutellaria (黃芩) and Coptis (黃連), it removes diarrheal dysentery; with Saposhnikovia (防風), it remedies exanthema variolosum (pox); and with ginger and jujube, it harmonizes Managing and Protecting Energies. If cooked or fried with liquor and added to "Decoction tonifying the Middle and Reinforcing Energy (補中益氣湯)", it is especially efficacious for the exhausted and fallen Energy of the Middle. He also said that it should not be used *postpartum* (after childbirth).

赤芍藥 Red Peony, *Paeoniae Rubra*: purge the fire of Liver and disperses bad blood; relieve Little Intestines; cure pain flank,



<p>chronic melancholy (堅積), blood-arthralgia, and abdominal pain (conglomeration). (疝瘕 Shan Jia: also cure amenorrhea, Intestinal Wind, carbuncles, and red eyes. White Peony relieves the Spleen and purges Wood in the Earth; while Red Peony disperses Evil Energy and removes blockages in the blood; when it is used for the Blood system of Women, it is fried with liquor; while for discomfort after Diarrhea, it is not cooked.</p> <p>&lt;Eastern Physicians' Venerable Text&gt;</p> <p>Remove Blood arthralgia (血痺), ventilates blood vessels (通順血脈), warms and harmonizes the inside, disperse bad blood, deletes carbuncles (癰腫), stop abdominal pain, removes clogged blood and pus, improve all women's illnesses including those prior to and after fetal delivery, facilitate menstruation, cure bleeding intestines (腸風瀉血) and Hemorrhoid fistula (痔瘻), carbuncles of the back (發背), scabies (瘡疥), red eye (目赤), and protrusion of the flesh (努肉); also improve eye sight. Peony is divided into two varieties: red and white. The red facilitates urination and Descending Energy (下氣), while the white removes pain and disperses blood. The white supplements (補) and the red discharges (瀉). It enters the Great Bright Meridian of the Hands and Feet, and evacuates the liver and supplements the spleen and stomach; pickled items in liquor have a ventilating effect on the Meridians; or the roasted in liquor or baked in fire is used. Peony which is pickled in liquor is roasted; if mixed with atractylodes (白朮), it supplements the spleen (脾); if mixed with rhizome (川芎), it evacuates the liver; and if mixed with exudation (滲出), it protects Energy. For abdominal pain and diarrhea (腹痛下痢), roasted peony is applied; while for constipation, it should not be roasted. As it has descending properties, adequately reaching the Sea of Blood (血海) (a sea among the four seas (四海), where blood of the 12 Meridians is assembled; i.e. the Chong Meridian [衝脈, Confronting Meridian] or the Liver where blood is saved and modulated), descending to the end of the Lower Focus, and entering Faint Dark of Food (丹心).</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>●remove the filth of postpartum (solid accumulated mass)</li> <li>●promote menstruation</li> <li>●facilitate intestine &amp; circulation of blood</li> <li>●jaundice (purge liver)</li> </ul>		

8. <Comparison of 黄芪 (戴糝 Dai San), Astragalos >

East	Greece	Reference
<p>&lt;Shennong Materia Medica&gt; efficient for carbuncle (癰疽); prolonged use removes ulcers (久敗瘡), pus (排膿), and eliminates pain. It improves leprosy (麻風病: 大風惡疾: 大風癩疾), “five kinds of hemorrhoids (痔疾, 痔瘡)” and scrofula (鼠瘻 fistula of tuberculous lymphadenitis); it makes up for deficiencies and treats many children's weakness.</p> <p>&lt;Famous Doctor's Special Record&gt; Treat troubles of the viscera of women and children, and removes bad blood between the five viscera (五臟). It improves men's deficiencies and exhaustion of the five internal organs; removes thirst; cures abdominal troubles and diarrhea; and tonifies energy and improves Dark Energy. (..... Its stem and leaf alleviates thirst and muscle constriction, and treats abscesses and carbuncles).</p> <p>Cf. &lt;Synopsis of Golden Cabinet&gt; It used to be applied against sweat and dysuria.</p> <p>&lt;New Materia Medica&gt; [Replenish Energy and taken raw solidify skin surfaces, reduce (the Energy of) Fire and create Blood of Dark] Replenish Energy of the Lungs, discharge Dark Fire, and resolve fever of the flesh. Roasted Astragalus is used to supplement the Chest and Abdomen, replenish Vital Energy, warm Three Chao, and make the Spleen and Stomach strong. (Once the Spleen and Stomach are emptied, Earth cannot raise Metal and the Energy of Lungs becomes blocked. When the Spleen and Stomach are relieved, the Energy of Lungs prospers and the surface of the flesh becomes solid and substantial, so that in supplementing the Chest and Abdomen, the surface is solidified.)</p> <p>Creating blood and creating flesh: Energy creates blood, and when blood is replenished, robust flesh is promoted. It is a sacred medicine for carbuncle treatment. Toxic energy is used to create pus, and it is pushed out from inside by replenishing Energy. The carbuncle, if it does not produce pus while withering, cannot be cured. This is why toxic energy prospers and vital Energy weakens. Pox also behaves this way. Astragalus replenishes the Kidney; this is why Energy is the mother of Water. Even if Angelica is used for "Tonifying Energy Broth", its efficacy is suppressed by Ginseng and Astragalus.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Improve deficiency (虛損) and emaciation (羸瘦); tonify energy; increase flesh; stop cold fever and pain; cure weakness of the kidney and deafness, treat chronic carbuncle, and discharge pus (排膿); and remedy all diseases of children as well as women's diseases related to uterine bleeding and leucorrhea (崩漏帶下); also improve weakness of energy, night sweats (盜汗), and sweating (自汗) from stress; treat vomiting of blood (咯血); lubricate the spleen (痺) and stomach (胃) (so it is applied regularly to the spleen and stomach [中州]); treat Febrile Cold which intercepts the ulnar vein (尺脈); and replenish energy of the kidney; and therefore is</p>	<p>Dioskurides, IV 61 astragalos (N. p.24) drinking it [i.e. root] mixed with liquor prevents intestinal flowing (reumatizomenen) and facilitates urine. .... It (is applied)..... against dried scab of old wound. [Stop bleeding.]</p>	

<p>an internal medicine for the Upper, Middle and Lower, the Internal and External, and the Three Foci (三焦), and a medicine which enters the Hand (upper part of Body)-Small Bright Meridian, Foot (lower part of body)-Great Dark Meridian, Foot-Small Dark Meridian, and the Door (Origin) of life (命門: usually refers to right kidney). It has great results for overweight and heavily perspiring persons, but it should not used for men of sturdy black (蒼黑) and sufficient energy (氣實). (正傳). Those which look like soft cotton and arrow shaft are advised; it is taken raw for abscesses (瘡瘍), while for the weakness of lungs (肺虛), a roasted mixed with honeyed water is available; and for weakness of the Lower body, it is advised to take roasted with salty water; its stem and leaf (莖葉) cures thirst, cramps (筋攣), and carbuncles (癰腫) and furuncles (疽瘡). Tonify Protecting Energy (衛氣), warm flesh (肌肉), replenish skin and fatten skin system (腠理); sufficiently supplement Upper, Middle, and Lower, Internal and External, and Three Foci (三焦); for the man of fat and white body (肥白) and weak Energy, frequent drinking of its decoction makes body sturdy and black, while it is not available for the one of weak Energy; improve the weakness of surface (表虛) and self-sweating. For self-sweating astragalos should be applied only in spring and summer; as replenishing Three Foci (三焦) and solidifying Protecting Energy (衛氣), it is a panacea medicine for Upper, Middle, and Lower, Internal and External, and Three Foci (三焦); remedy tired weakness (虛勞), emaciation (羸瘦) and deficiency of all kind of weakness, and discharge Fire of Weakness (虛火); For these to take decoction made from sliced astragalos roasted with honeyed water; (p.959) Mostly cure too much eating by thirst (消渴), exclude pus of carbuncle (癰疽) and chronically purulent furuncle (久敗瘡), and stop pain; thick decoction tonify body after removing deep carbuncle (內托), and cures abscess (瘡瘍) of Dark Disease (陰症).</p>		
<p>Commons:  <ul style="list-style-type: none"> <li>●dried scab of old wound</li> <li>●disuria</li> </ul> </p>		

9. <Comparison of 當歸, root of angelica, Ligusticum>

East	Reference
<p>&lt;Shennong Materia Medica&gt; By drinking juice made from boiled Angelica, it treats coughs with dyspnea (咳逆上气), pyrexial malaria (温疟), cold fever (寒热), scabies (洗: 癬) in the skin, women's menostaxis (漏下), bareness (绝子), various kind of malignant wounds and ulcers (创疡), and wounds caused by iron weapons (金创: weapon puncture).</p> <p>&lt;Species Certification of Materia Medica&gt; Mostly used against coughs with dyspnea, kind of malaria fever, ringworm (癬) in the skin, the leakage of woman, bareness, malignant sore itches, metal-inflicted wounds, all for which it is boiled for drink. It makes pain stop by warming; cures vomiting of blood and internal blockage, paralytic strokes (apoplexia), non-sweating, damp rheumatism, and evil conditions introduced by pestilent factors (中恶), deficient cold (客气虚冷); maintains the five internal organs; and promotes muscle growth; it is used for acute fever and stops vomiting, asthenic fever, diarrhea and abdominal pain, breaks stagnated blood, is effective for treating women's metrorrhagia (崩中), lowers gastrointestinal cold, and aids every kind of deficiency. Just by drinking its boiled juice malarial fever is cured. It is effective for women's bloody lumbago, and cures unbearable tooth pain. It can be used for patients suffering from weakness and cold. Ri-Hua Zi (日华子) says it remedies all disease due to wind and originating from outside infections (风), related to blood and overstress; and it breaks bad blood to raise new blood against concretions and aggregations (症癖); to stop pain and bleeding (analgesic hemostatic), the tail part is used. If applied just once, it is has no effect; cure splitting headaches; mostly it repairs insufficiency and results in immediate effect of medicine. For those whose "energy and blood (气血)" are confusing, drink it and the benefits are realized immediately. By taking this medicine of "energy and blood" can return to its original state and, in postpartum emergencies, can replace deficiency rapidly. Perhaps, for this reason, the saints made a name meaning of "Properly Return (当归) [= Angelica]"; replace women's deficiencies; for this purpose Angelica is mostly used.</p> <p>&lt;New Materia Medica&gt; [Replenishes blood, moistens Dry, lubricates intestines.] It gets into Heart, Liver and Spleen. (Heart supervises blood, Liver saves blood, and Spleen governs blood.) It is the medicine of Energy inside Blood. It cures Empty Tiredness, Typhoid Coldness (寒热), Cough to reverse Energy (when blood is in harmony, Energy goes down), Malaria (Faint Dark [厥陰]-Liver Evil [Morbidly]), afflux dysentery, headache, lumbago, all pain of Heart and Abdomen as well as joints (it disperses Typhoid of Cold and harmonizes blood), blood coagulation and swelling caused by bruises (knocks and falls), tetany (convulsion, cramping), and non-sweating (symptom of a rigid body and stiff neck with opisthotonus contraction is called tetany [convulsion]). Absence of sweating is strongly indicative of tetany, while moderate sweating refers to mild tetany. Angelica disperses Wind through its pungent taste, while harmonizing blood through its warmth. When tetany develops after postpartum, "Great Tonifying Decoction made from Ten Kinds of Botany (十全大補湯 Shiquan Dabu Decoction)" should be used, as muscles receive no nourishment when losing blood. Paralysis (痿痹 Wei Bi) and abdominal mass: when muscles and bones are relaxed, one cannot stand earth, which is named Flaccidity (痿); while when Wind, Cold, and Damp attack the flesh and blood vessels, it is called Numbness (痹). Pox, carbuncle and ulcer sores are cured. It is used when Chong Meridian (衝脈) becomes morbid, and inversed Energy results in abdominal pain; also when Dai Meridian (帶脈) becomes morbid, it results in abdominal pain, swelling of the waist, and a dissolved feeling as when being submerged in water.</p> <p>It cures every deficiency of women, all blood diseases, and being Dark-Emptiness so as Bright not to be supported. It lubricates the spleen and stomach as well as skin; removes Blood Stasis (瘀血 Yu Xue) to facilitate new blood creation; warms the Middle Focus (中焦); supplies nutrition and vitalizes blood; relieves rigidity of the muscle; presses pus out of boils; removes pain (pain stops through harmonized blood); and allows Energy and Blood to return to their original place (thus earning the name "Suitable Return [當歸] Dang Gui = Angelica"). In case of Blood Stagnation, it makes blood pass through; in case of Blood Deficiency (血虛), it can replenish; it lubricates Dry Blood (血枯); it arranges disordered blood; in general, its pungent and warm taste facilitates Energy revitalization, resulting in Energy arranged and blood harmonized. According to Li Dongyuan (李東垣), the head part of Angelica stops bleeding (hemostatis) and allows blood to ascend the body; its middle part raises blood in the middle body (and protects it); the tail part breaks blocked blood and promotes flow downwards; and the whole of Angelica revitalizes blood and cures synthetically all parts of the body. According to another theory of both Lei Xiao (雷斅) and Lai Zang (海藏), its head can be used to break blood. Li Shizhen (李時珍) said its head is used to cure the upper part of body, its middle</p>	<p>West: In Dioscurides, Angelica is not referred to.</p> <p>Cf. Chevallier, (p.166) Angelica [archangelica (Umbelliferae)] severe kind of colic, against which the root of angelica is one of their chief remedies.</p>

<p>part is used for the middle body, its tail part for the lower body, and the whole is used for curing the whole body. Lei Xiao (雷斅) wrote &lt;Leigong “Theory of Concocting” (雷公炮炙論)&gt;, according to Li Shizhen, Leigong refers to Lei Xiao during the period of the Liusong (劉宋) Kingdom (420-479 A.D.: of the South Dynasty 420-589 A.D.), and not to Leigong in the era of the Yellow Emperor (黃帝).</p> <p>However, as it lubricates intestines significantly, whoever suffers diarrhea should avoid using it (Angelica corresponds to Monarch, White Paeony to Minister, Rehmannia to Assistant, and Ligusticum to Messenger); from these, Decoction of Four Drugs (四物湯) is made, which is the complete agent for curing blood. Deficiency of the blood is aided by Ginseng and Astragalus; fever of the blood is aided by Scutellaria (條芩 [or 黃芩]), Gardenia (山梔), and Coptis (黃連). According to Ren An (認菴), Blood belongs to Dark, which should acquire Bright to create Four Things (i.e. to fulfill its function); Pure Dark cannot generate blood. Ginseng and Astragalus should be used for those of depleted Energy and weak blood; this is why, Bright, when it prospers, could vitalize Dark. ... In order to disperse, it should be used mixed with or pickled in liquor; and to cure blood vomiting (hematemesis), it should be fried with vinegar. If taking Angelica mixed with liquor, the unborn fetus should be removed.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Treats the wind, blood, and fatigue (勞); break bad blood and create fresh blood; cure all sores (惡瘡) and malaria (溫瘧), protect the Five Inner Organs, and cultivate flesh. When using its head, it breaks blood; while using the end part stops bleeding; and using both modulates blood, as one part breaks blood and the other stops bleeding; penetrate into Hand-Small Dark (手少陰), as Heart dominates blood; penetrate into Foot-Great Dark (足太陰), as the Spleen (脾) wraps around the blood; and penetrate into Foot-Faint Dark, as the Liver maintains the blood; also promote blood regulation (和血), circulation (行血), and cultivation (養血); surpass others for controlling blood (p.194), vaginal hemorrhaging (崩漏) and irregular menstruation. Mince it for decocting with liquor to treat empty blood and headaches (血虛頭痛), exhaustion (虛勞), emaciation (羸瘦 leishou), and all kind of emptiness; and discharge (瀉) empty Fire (虛火); the decoction of Angelica, which has been parched with honey water, is used to cure many women's diseases as well as abdominal pain after childbirth.</p>	
<p>Commons : ● None</p>	



10. <Comparison of 蒜 (大蒜, 小蒜), Allium sativum (Garlic)>

East	Greece	Reference
<p>&lt;Species Certification of Materia Medica&gt;            蒜 Garlic: Small Garlic, Xin Wen, has slight toxicity; take charge of the spleen &amp; kidney; treat cholera and upset stomach; improve digestion of grain, arrange stomach condition, warm the Middle part, remove evil arthralgia as well as miasma; it tastes spicy (pungent), has a warm nature, and when boiled to drink it is effective for colds and cholera. Also it is effective against the toxins of insects. So eaten it is harmful; it cannot be consumed for a prolonged period; the garlic and shallot (胡葱 Hu Cong) are reciprocally congenial, which is effective for deteriorated conditions due to caterpillar's toxins, and is highly effective against poisonous sand, wind, and water in mountain valleys; it is good but should not be eaten frequently; its small garlic is warm and toxic; enervate energy (气), stop vomiting and diarrhea, eliminate indigestion, cure toxins produced by venomous insects, and should be applied to snake worm (蛇虫) chigger sores. ... According to &lt;Er Ya (尔雅)&gt;, there is Large Garlic, while this is Small Garlic; And in Jiang Nan (江南) there is a kind of Mountain Garlic; its smell is similar to that of Large Garlic. With this garlic, mountain people cure palpable abdominal mass (积块) and women's blood stasis (血癥); ground garlic with bitter vinegar produces multiple benefits. There is also a kind of garlic which is like Large Garlic; it has many petals and cures Beriberi (脚气 dermatophytosis). It should be cooked for women to drink while in childbirth; improves digestion of grain; removes bad (evil) conditions; very effective for removing the venom of insects and for treating furuncles and carbuncles. It should not be eaten daily; cure abdominal flatulence, and non-vomiting; detoxify. Pulverize Small Garlic to a juice and use the sediment to apply to the wound.; upset stomach; promote digestion of grain; arrange conditions of the stomach; warm the Middle, and relieves various kinds of arthralgia.; for toxins in the spleen and kidney, take its decoction; cure heartache; when earthworm has entered the ear, small garlic juice manages to control it; garlic is used for malaria. It is said that when Zhang Qian (张骞) was sent to Da Yuan (大宛), he let the natives' mentality be harmed by eating this.</p> <p>&lt;Eastern Physicians' Venerable Text&gt; Dissipates carbuncles (癰腫) and removes rheumatism (風濕) ... Dispels cold and Wind. Reinforces the spleen (健脾) and warms the stomach (溫胃), and cures acute diarrhea and venomous effects of insect (蠱毒) and snake bites. Being stenchy, it is unpleasant to eat and prolonged use both harms the liver and results in weak eyes. Little Garlic (小蒜) enters the spleen and kidney to warm the inside and facilitates the digestion of grains; cures acute diarrhea, vomiting, diarrhea (吐瀉), and the venomous effects of insects (蠱毒) and snakes (p.925). For dissolving abdominal</p>	<p><b>Discurides:</b> Garlic (Skordon) is caustic and warms efficiently; discharge gas, give impulse to the intestines, alleviate thirst, and treat dry stomach and wounds of the skin as well; taking garlic drives out mawworm and promotes urination; if bitten by vipers or if you suffer bleeding, mix with wine and drink frequently. In the above cases it can also be useful as a poultice (including for other wild animal bites). Eating it helps remove discomfort resulting from water; when taken raw, simmered or boiled, it clears the throat and alleviates chronic cough; when drunk with a decoction of oregano, it eliminates lice and lice eggs; when roasted it can be mixed with honey and applied as an ointment to treat depilation and eye bruises; especially in the case of depilation, it is applied with the fragrance of nardos; used with salt and oil it cures pimples. Used with honey it prevents freckles, speckles, trychophyton, dandruff and leprosy; if boiled with resin and frankincense and applied to the mouth, it relieves tooth-pain; if bitten by mygales (similar to tarantula), you can apply a poultice mixed with the leaves of fig and cumin. Decoction made by distillation promotes menstruation and ejects placentae. Eating what is produced from pulverized garlic and black olives—"myttoton"—promotes urination and appetite, and is useful for treating ascites. Finally, it can be used for fumigating when taking a sitz bath.</p>	

mass (痲癧), frequent application is advisable.		
Commons: ●viper- or beast- biting bleeding ●remove inconvenience resulting from water (poisonous water) ●ascites (abdominal flatulence or mass)		

11. <Comparison of 生薑 (or 乾薑), Zingiber (officinale)>

East	Greece	Reference
<p>&lt;Species Certification of Materia Medica&gt;</p> <p>Raw ginger (生薑): efficacious for treating headaches due to cold fever (傷寒頭痛), nasal obstruction (鼻塞症), nagging cough with dyspnea (咳逆上气), and the cessation of vomiting. Prolonged use removes unpleasant odors and promotes spirits. Its effect refers to the five viscera (五脏), removing phlegm (痰) mitigating breath, stopping vomiting, and removing evil wind (风邪) and cold fever (寒热). On the other hand, prolonged use enfeebls volition, reduces wisdom, and hurts heart energy.</p> <p>Dried ginger (乾薑 or 干薑): efficacious for preventing heart clogging and ameliorating cough with dyspnea (咳逆上气); warms the middle body; stops bleeding; promotes sweating; opens blocked viscera (肠滞); and dispels rheumatic arthralgia (caused by wind and dampness) and dysentery. It is useful for treating abdominal pain caused by cold, pestilence (中恶), acute gastroenteritis (霍乱), swollen intestines (胀满), evil caused by wind 风邪, clotting under the skin, stopping hemoptysis (咯血) (for which raw ginger is better), and all toxins. It also cures apoplexy (风) and descending energy (下气), stops bleeding, facilitates the action of collateral channels (络脉) and induces light sweat. Prolonged use however can damage eyesight. It helps waist discomfort and controls kidney and cold energy; dissolves blood stasis; removes wind (风: paralysis); facilitates the functioning of the four limbs and articulations; vitalizes the five internal organs (五脏) and six bowels (hollow organs 六腑); removes toxins from wind (风毒) as well as cold paralysis (冷痹); and causes frequent urination. Dried ginger remedies coughing and warms the middle body in company with Gentiana macrophylla (秦艽) as a vassal. It is useful for treating chronic gastroenteritis, abdominal pain, swollen intestines (胀满), cold dysentery (冷痢), and blood blockage (amenorrhea 血闭, 闭经). For both avoid and cold body due to disease, dried ginger is highly recommended; dried ginger removes phlegm; mitigates breathing; cures convulsion, vomiting, diarrhea, cold of the abdomen and five viscera, nausea (反胃干呕), blood stasis (瘀血), bruises (扑损) and snoring (鼻洪); removes the toxins of cold and warm (冷热毒); and promotes stomach digestion.</p> <p>&lt;Eastern Physicians' Venerable Text&gt;</p> <p>Entering the Five Viscera, it removes phlegm, lowers Energy, stops vomiting, gets rid of Febrile Cold and Damp; cures panting (咳逆) and asthmatic (喘嗽) cough, and fright from ascending Energy (上气). Its nature is warm but the peel is cold, so to warm up, throw away the peel; conversely, if in need of cold, make use of the peel (本草); remove the toxins of Pinellia Ternata (半夏), Arisaema (南星) and Magnolia (厚朴); it is a sacred medicine (聖藥) for treating nausea (嘔吐) and food vomiting (反胃); it is an excellent medicine (妙藥) for circulating Bright (行陽) and dispersing Energy (散氣); as it facilitates the function of the Viscera and Bowels (臟腑), take daily; its decoction mixed with Pinellia Ternata (半夏) cures acute pain (急痛) of the epigastrium under the heart (心下); its decoction mixed with apricot stone (杏仁) is a</p>		<p>Cf.  <b>Chevallier,</b>            (p.153)            ●Antiemetic,            ●Carminative,            ●Circulatory stimulant,            ●cough            ●Anti-inflammatory,            ●Antiseptic</p>

<p>special medicine for curing clogged Energy (氣結) and rheumatism (痺) of the breast (心胸); applied regularly under the armpits makes malodor disappear; removes phlegm (痰), modulates descending Energy (下氣), dissolves cold phlegm (冷痰) and modulates the Energy of the stomach; remedies fatal symptoms of acute diarrhea; cure mass of the flanks (痰癥), ascending Energy (上氣), acute asthma (喘急), and regular coughing and chronic ascending cough (咳逆).</p> <p>Dry ginger (乾薑) is a source of ample heat; facilitate the function of the Five Viscera and Six Bowels; ventilate limbs and joints; remove Cold Wind (風寒) and rheumatism (濕痺); treat diarrhea and vomiting; remove afflux of the Bowel (腸澀) and pain of the abdomen and heart (心腹痛); stop diarrhea; warm the spleen; improve dyspepsia (宿食); and remove cold phlegm (冷痰); washed and roasted over a low flame results in warming of the internal body; to stop bleeding, ingest after roasting black; eaten raw fulfills the function of dispersing; overdosage hurts Proper Energy (正氣) for which raw Glycyrrhiza is used as an alleviating agent.</p>		
<p>Commons</p> <ul style="list-style-type: none"> <li>• None</li> </ul>		

12. <Comparison of 桂(皮), Cinnamomum (verum)>

East	Greece	
<p><i>Shennong Materia Medica:</i> Treat coughing with dyspnea (上气咳逆), blocking of the respiratory organs (结气), and throat pain while breathing. It is effective for articulation, and replenishes the middle body and promotes energy. Prolonged use promotes spiritual ability, results in light body and slows aging.</p> <p>Flesh of cinnamon (菌桂) treats hundreds of disease, raises spirit, results in fairer complexion, and matches well with every kind of medicine. Prolonged use results in light body, slows aging, and creates a bright face and youthful appearance.</p> <p>&lt;Famous Doctor's Special Record&gt; treats heart and flank pain, warms muscles, ventilates the pulse, removes stuffy feeling, and facilitates sweating.</p> <p>Cf. &lt;Famous Doctor's Special Record&gt; In the &lt;Theory of Febrile Disease &amp; Synopsis of Golden Cabinet&gt; ... Decoction of Ramulus Cinnamomi (Branch of Cinnamon) and Minor Decoction of Radix Bupleuri (小柴胡湯) are all to modulate the Managing Energy.</p> <p>&lt;Species Certification of Materia Medica 證類本草&gt; By warming the middle body, it promotes energy of the liver and lungs, and is efficacious in curing chills and fever (寒热) of the heart and abdomen (心腹), cold (冷疾), convulsions due to acute gastroenteritis (霍乱), headaches and backaches, and sweating. It suppresses spitting (止烦止唾) and alleviates tension, coughing and nasal congestion. It facilitates abortion, reinforces articulations, promotes the furthering of blood veins, allows deficiencies to be communicated, and harmonizes every kind of medicine. Prolonged use makes one deified (神仙) and slows aging. ... Combined with Ginseng, Broadleaf Liriope (麦门冬), Glycyrrhiza (甘草), rhubarb (大黄) and skullcap (黄芩), it tunes up the middle and promotes energy; and cures vomiting when combined with Bupleurum falcatum (此胡), amethyst (紫石英), and dried Rehmannia glutinosa (干地黄); cinnamon flesh (桂心: cinnamon without the outer skin) called “zi gui” (紫桂: purple cinnamon), meaning “the monarch” among botanical medicines, it removes the toxins of trees and plants; cure various kinds of heart pain (九种心痛), effective in killing parasites, dissolves blood stasis (瘀血), improve irregular menstruation, control paralysis (plus is an anesthesia for weak legs), facilitate pushing placenta out, remove coughs due to panting breath and phlegm blocking the respiratory tract, bring to an end intense pain associated with cold inside the bowels, cure dysentery (下痢), and control rhino polypus mucosa (鼻息肉) due to hypertrophy of mucosa; cinnamon flesh (桂心) controls every kind of paralysis (风气); remedy every kind of weakness and disease (五劳七伤); facilitate communication between the Nine Orifices; salutary to the joints; reinforce energy; improve eyesight; warm the waist and knees; remove swollen abdominal veins (疝癖) and abdominal mass (症瘦); dissolve blood stasis; treat wandering arthritis (风痹) and contracture in joints (骨节挛缩); promote muscle and bone adhesion; and create new flesh; cinnamon soup (桂枝汤) can be used to treat cold fever (伤寒); when one has a headache (头痛) and head paralysis (头风), and the pain begins as when clouds announce storms, it is effective to plaster the crown and temple of the head with an ointment made from the powder of cinnamon flesh (桂心) mixed with liquor. It also treats various heart pain and choking; cure cold abdomen (寒疝) disease due to cold limbs, loss of appetite, the feel of choking due to bad blood converging on the</p>	<p>Cf. Chinese Cinnamomum is supposed to be one of three kinds of Cassia which are referred to in Dioskurides [used as fragrance and pharmacy].</p> <p>[P.G. Gennadiou, p.476. β] ... όπερ είναι φλοιός των κλαδίων του δένδρου και υποτίθεται ότι αποτελεί μίαν των τριών κασσιών του Διοσκρ. Το σινικόν κιννάμωμον αποσταζόμενον παρέχει αιθέριον έλαιον χρήσιμον εις την οικιακήν οικονομίαν, την σακχαροπλαστικήν και την μυρεψίαν. Οι άωροι καρποί του δένδρου τούτου είναι επίσης αρωματικού και φαρμακευτικοί ...</p>	



<p>heart after fetal delivery, energy blockage, and suppressed desire; children's bed-wetting is also cured; when the alveolar bones are straying off from each other, owing to paralysis which causes a strained and twisting of the face and a sluggish tongue, then cinnamon flesh is to be simmered with liquor and with a cloth soaked in its juice applied as a plaster on an affected area until the condition mends; if straying occurs toward the left side, apply such a plaster on the right part; if straying occurs toward the right side, plaster the left; for inaccurate word pronunciation, the same simmered concoction should be placed under the tongue with the porridge swallowed gradually and in small amounts; it can be used to treat heart pain owing to apoplexy (卒中); if one's heart and abdomen are inflamed (脹滿) and experiencing pain, and accompanied by panting or irregular breath, 100g (2 liang) of cinnamon flesh should be powdered and mixed with 220g (1.2 sheng) of water, boiled down to 160g (0.8 sheng), and drunk at once with the residue removed. If without cinnamon flesh, instead use dried ginger (干姜: 乾薑) for effective results. For treating cold (厥寒: 逆冷) of limbs owing to paralysis, accompanied by vomiting transparent liquid and symptoms of rolling over and groaning; another prescription is to plaster the part experiencing pain with ground and sifted powder of cinnamon mixed with bitter liquor. According to <i>《Ge-Shi's Prescription》</i> (葛氏方 Ge-Shi Fang), cinnamon cures sudden vomiting of blood.</p> <p>Cf. Dongyuan (東垣): The inner bark of Cinnamon is to descend to protect the kidneys (腎). (This demonstrates the different uses between the branch and inner bark of Cinnamon)</p> <p>&lt;Eastern Physicians' Venerable Text&gt;</p> <p>Cassia (桂皮 bark of cinnamon): warm the Middle (溫中), facilitate Energy of the liver and lungs entering into the bloodstream, and remedy the cramping of muscles (轉筋) caused by acute diarrhea (癰亂); Flesh of Cinnamon (桂心) cures nine kinds of heart pain (心痛), exterminates three kinds of insects (三蟲), removes Cold pain of the abdomen, and cures all kinds of Wind; effective for five kinds of exhaustion (五勞) and seven kinds of injury (七傷); communicate with the Nine Orifices (九竅), facilitate joints (articulations), increase emotions, improve eyesight, warm the waist and knees, remove rheumatism (風痺), disperse hypochondrium or abdominal mass (疝癰癥瘕), clear extravasated blood (瘀血), connect muscles with bone, create flesh (肌肉), and pushe out placentae (胞衣); it is applied for Cold Colic Pain [寒疝痛], inverse Cold [逆冷] of limbs [四肢], and pain due to tumid Outward-Kidney [外腎].</p> <p>Branch of Cinnamon (桂枝): Branch (枝) refers to twig, and not bough. Entering Foot-Great Bright Meridian (足太陽經), it excludes Cold Evil (寒邪) from the blood system (血分) (本草). In case of external weakness and sweating, the branch disperses Evil (邪) and allows Protecting (衛) Energy to be mild-tempered, so that the skin becomes dense and sweating stops of itself; without use of the branch, sweating cannot be controlled. The energy and taste (氣味) of the cinnamon branch is all of the same light, so that it ascends freely upward to radiate outward (丹心).</p>		
<p>Commons:</p> <ul style="list-style-type: none"> <li>● Used as pharmacy</li> </ul>		

13. <Comparison of 人蔘, Ginseng>

East	Reference
<p>&lt;New Materia Medica&gt;</p> <p>人蔘 Ginseng: Cures Weakness, fatigue and endogenous infections. When injured by the Seven Emotions and Six Desires, such endogenous infections should be treated by filling up Fair (Energy). When injured by Wind, Cold, Warmth, Damp, Dry, Fire, such exogenous infections should be treated by removing Evil (Morbid) spirits. For example, if a fever is exogenous in origin, the fever is not settled down; while if it is endogenous in origin, the fever waxes and wanes. If the syndrome of an extreme Cold is exogenous, it does not diminish even if one is next to a fire with padded clothes; while if it is endogenous, warming oneself immediately reduces the fever. If the headache syndrome is exogenous, the pain is persistent; while if it is endogenous, the pain intermittently grows and vanishes. If headache syndrome is exogenous, fever develops in the back of the hand; while if it is endogenous, fever remains in the hand's center. If it is exogenous, you have nasal impassability; while if it is endogenous, you have no appetite and everything is tasteless.</p> <p>Development of fever and spontaneous perspiration: Spontaneous perspiration belongs to Bright-Weakness; it should be recuperated by increasing Energy through Ginseng and Astragalus. If much of the perspiration is due to fever of the lungs, perspiration is augmented by taking Ginseng; to that end, clean the sweat and foster the blood to stop the sweat. If an injury is due to exopathic Wind, fever and sweat develops and the pulse slows; eliminate coughing and panting breath; coughing is due to lung injury originating in (Cold) fever, if the lungs have fever of fullness, Ginseng should be avoided, but if they have fever of voidness, no harm is done by Ginseng; pain of the abdomen and heart should not be supplemented with these medications because its energy is full; however, when illness is due to Emptiness-Cold, these medications should immediately be taken.</p> <p>Cold Injury (Typhoid Fever): Ignorant people do not pay due regard to Emptiness-Fullness; as soon as fever is discovered, they treat it by attacking. It is also said that there is no supplementary treatment for Cold Injury, but in the Zhongjing” &lt;Theory of Cold Injury (傷寒論)&gt; 397 kinds of treatment are introduced; and for treating Emptiness-Cold, there are about a hundred methods of treatment and 113 medications, including 50 medications using Ginseng and Monkshood. The plague (epidemic disease): In case of plague, when Bright Pulse (陽脈) is weak, it means the Fair (Energy) is empty; when Dark pulse is light, it means the Evil (Energy) is full. If Fair (Energy) is empty and Evil (Energy) is full, a mass of evil toxin results in inside flaming not being dispersed; disease thereby settles firmly in the body and accumulates. When someone who cannot maintain spiritual energy (精) comes into contact with this (Evil) Energy, vulnerability to disease infection is increased; cure retching nausea, malaria, and diarrheal dysentery; and generally cures stomach ailments and aids the function of the spleen. Only when the lungs transmit fever to the large intestine is diarrheal dysentery fomented; and, even if it is chronic, the degenerated center of the lungs should be cleared; when chronic diarrhea and chronic dysentery keep remaining influenced by the Wind to come into the stomach, evil Wind should be removed by directing it out of the surface of the flesh. In these cases, Ginseng should be avoided.</p> <p>Dysuria: when the Energy of lungs is degenerated, frequency of urination reduced.</p> <p>Fullness of abdomen: when the chest suffers inverse Fullness, it should be treated with the method of repletion, and the abdomen will be improved, regarding which makes sense the Classic phrase: the method of blocking is used against blocking (塞因塞用). However, vulgar physicians, being tied to the letter (i.e., unreceptive to reading between the lines), did not dare to use much Ginseng. If a little is applied, blocking is increased; if plentiful is used, blocking is dissolved. Supplementing is a proper method in this case.</p> <p>Disease of many dreams, dizziness, and strangely separated spirits. There was a person who, whenever he slept, kept feeling detached from his other; and he recognized no difference between the two. Usually, when people sleep, the spirit comes back to the liver, but when the liver is empty and suffers from evil Energy, the spirit cannot return to its own</p>	<p><b>Cf. Chevallier, Encycloedia</b> (p.116) Ginseng, Ren shen (Chinese) [Panax ginseng (Araliaceae)]</p> <p>Ginseng is the most famous Chinese herb of all. It has been valued for its remarkable therapeutic benefits for about 7,000 years and was so revered that wars were fought for control of the forests in which it thrived. An Arabian physician brought ginseng back to Europe in the 9<sup>th</sup> century, yet its ability to improve stamina and resistance to stress became common knowledge in the West only in the 18<sup>th</sup> century.</p> <p>In the West, ginseng is viewed not so much as a medicine, but life-enhancing tonic.</p>

home. This disease is named the “Separation of Spirit”; effective for tingling of the heart, abdominal pain, being unable to eat, and vomiting water during pregnancy; All emptiness syndromes of pregnancy and childbirth, children’s sudden convulsion, terrible pustule; the color of pustule is ruby red if recent; while if its top is sunken, its skin is thin and the pus translucent, it frequently itches and falls out, and is accompanied by diarrhea: all these cases belong to Emptiness of Energy, and Ginseng should be used; if pus is not the cause of lung fever, and for those not readily falling out after having been sunken, Ginseng is absolutely prohibited from use; if diarrhea causes lung fever, Ginseng is also prohibited from use.

Poison of Dark available by surgery is quite excellent to cure the mouth opening after the discharging of carbuncle pus. A plastering powdered one is also available. It cures anemia caused by Emptiness. According to the ancients, to cure anemia and a weak pulse, Ginseng is used because it promotes active Energy, in turn resulting in supporting blood. In case of blood loss, Energy should be supplemented. Generally, blood is not created by itself, but only by taking medicine which promotes the Bright Energy. It means that Bright (陽) first should be raised in order to augment Dark (陰). If the use of medicaments for supplementing blood gets no results, when the Energy of Fire turns up reversely, and the fever of blood rages frantically, Ginseng should not be used. For those exhausted by Emptiness Energy, take thickly decocted soup made solely of Ginseng. For those suffering from Cold, a little monkshood is added to. I wonder, even if the efficacy of Ginseng surpasses other medicine, but it used to block Energy; so, when there is hot Fire and the Energy of Lungs is in adverse condition, Ginseng should not be used. Since Ginseng tends to reinforce the surface, so that, when Evil Spirit has invaded the surface, Ginseng should not be used. The toxin of efflorescent pox is supposed to be discharged, yet does not come out and, with the heat closed, the spots are not discovered; in such a state, if Ginseng is used, the problem is exacerbated. ... For constant bleeding, if Ginseng mixed with child's urine is taken, it stops. The properties of these two are mutually exclusive, yet their efficacy as a combination is marvelous.

*<Eastern Physicians' Venerable Text>*

Relieve deficiency of the Energy of Viscera (臟氣), pacify the mind and spirit (魂魄), improve eye sight, open the mind, increase intelligence, supplement deficiencies, stop diarrhea and retching; and cure purulent spit (吐膿) and phlegm (痰) caused by atrophic lung disease (肺痿). As ginseng motivates the Fire of Lungs (肺火), it should not be used by those who vomits blood, suffers from chronic coughing, has a dark face or has sufficient Energy but finds himself in state of blood deficiency (血虛) and Dark-Deficiency (陰虛). For them, instead of ginseng, codonopsis (沙蔘) is advised. As ginseng is bitter and warm, it replenishes the Bright of Five Viscera; while, as Codonopsis is cold, it helps the Dark of Five Viscera (丹心). Taken little by little in summer results in tightened heart through accumulation (心疝) as it enters into Hand-Great Dark (手太陰經); improve the shortness of breath (氣短), weakness of Energy (氣弱), and absence of Energy (氣虛); remedy convulsion (驚悸) of mind and spirit, and increase humor and wisdom and thereby reinforces memory capacity; using it regularly for a hundred days lusters the skin and allows one to remember a thousand words; replenishes Bright in the lungs and treat acute panting caused by ascending Energy; it is also available for the state on the edge of collapse, trembling shoulders, and shortage of Energy of the Lungs (肺氣); supplement the Energy of the stomach (胃氣), improve appetite (開胃) and digestion; replenish the Vital Energy (元氣) of Upper Focus (上焦); even if on the brink of death by inversed stomach (反胃), one can be cured by taking Ginseng. It is highly efficacious in treating weakness of the lungs (肺虛), shortness of Energy (短氣) and breath (氣促), coughing accompanied by phlegm (咳嗽), and asthma (喘息); Ginseng is used for weakness of the Lungs; however, it does not remedy the Evil (邪) flourishing from damage caused by Windy Cold (風寒) and feverish suffocating (鬱熱) caused by chronic cough. Moreover, it aggravates panting asthma and coughing. For the latter conditions, codonopsis (沙蔘) or scrophularia (玄蔘) is advised instead of ginseng.

Commons (in comparison with modern Western use) ●sedative

14. <Comparison of 銀杏, Ginkgo biloba >

East	Greece	
<p>&lt;Eastern Physicians' Venerable Text&gt; Cold, sweet, and non toxic. It clears impure Energy of lungs and stomach, and removes cough (入門). ... The raw stimulates throat; when children takes the raw, it suffers convulsion (日用).</p> <p>&lt;Emperor's Encyclopedia of Current Farming Affairs&gt; It detoxifies alcohol poisoning, removes phlegm, removes toxin, and kill insects; while the boiled one makes the lungs warm, promotes Energy, and pacifies cough; washing clothes with its juice deletes oiled filth. Taking it too much makes the gas fill up and the abdomen swell up, and attains into absent-minded. Keeping moderation for all, passion, dwelling and eating, produces longevity. According to a traditional record, eating 1,000 numbers of ginkgo biloba makes man die. Since old times, in a year of bad harvest people used to eat ginkgo instead of rice and whoever ate his fill was found all dead next day. When immature child eats it too much, he loses his mind (昏霍), fell into a fit of convulsions (發驚), and suffers indigestion (引疳); Taking it together with eel (鰻鱺) brings about light paralysis (軟風).</p>	<p><b>Discurides, Ginkgo biloba;</b>            Σαλισβουρία ή αδιαντόφυλλος (Salisburia adiantifolia ή Ginkgo biloba, γαλλ. Arbre aux quatre écus, αγγλ. Maidenhair tree, τάξις Κωνοφόρων), ..... Η Σ. Πολλαπλασιάζεται δια σποράς, απαντά δε ήδη θεραπευομένη πολλαχού της Ευρώπης και αντέχει εις την ξηρασίαν, ωε και εις τα δριμύτερα ψύχη των παραμεσογειών χωρών....</p>	
<p>Commons:            ●cough (asthma)</p>		

## VI. Conclusion

### 1. The transition of the philosophy of medicine in China

Eastern traditional medicine developed a close relationship with Confucianism as it was influenced by its philosophy. During the Song Dynasty (960-1279 AD) of China, when Neo-Confucianism (性理學) became established with the professed aim of more rationally understanding human nature and natural laws, a group referred to as Confucian-physicians (醫儒) emerged.

Neo-Confucianism was quite different from the original Confucianism founded in the 6<sup>th</sup> century (B.C. 551-479 B.C.). The successor school tended to be more speculative and secular in its approach to comprehending the nature of humanity and the cosmos. By comparison, original Confucianism was just one school among the many known as ‘The Hundred Schools of Thought (諸子百家)’. Furthermore, it had no special relationship with medicine. The Hundred Schools of Thought prevailed in the period of the so-called ‘Spring and Autumn (meaning Chronicle, originating in the title of a history) and Warring States (originating in the title of a history)’ which spanned about 550 years, from 770 to 221 B.C. During this period, medicine was influenced much more by Taoism than Confucianism.<sup>221</sup>

In later times, especially from the beginning of the early period of the Song Dynasty (960-1127), the polity changed into a more feudalistic and hierarchical one. In this political environment, Neo-Confucianism emerged as the dominant philosophy, in large part because its ethics were congenial with the pronounced feudalistic and authoritarian nature of the new political system. Once established as the pre-eminent school, Neo-Confucianism was used to oppress other schools of philosophy.

Neo-Confucianism focused on the relationship between the cosmos and the human mind. The cosmos consisted of Logos (理) and Material (氣). The human mind was made up of two elements, consisting respectively of the Four Causes (四端: Benevolence, Justice, Courtesy, Knowledge) and Seven Emotions (七情: Delight, Anger, Sorrow, Pleasure, Love, Dirt, Shame). The former originated from Logos, which used to be considered Good, and the latter from Material, which used to be Evil. Various arguments have been suggested regarding Logos (理) and Material (氣), which are alternately viewed as being connected to each other; or, conversely, separated from each other, with one having priority over the other. The philosophy of Neo-Confucianism tended to vindicate the authority of the Emperor; it regarded the heart as being foremost among the body organs, with the heart being metaphorically identified with the Emperor who was placed at the center of the world. Furthermore, the body as well as the cosmos was used to convey notions of orderly relations and contemporary social values, such as feudalistic virtue of obedience or conventional concept of Good and Evil, which in turn influenced Chinese understanding of the efficacy of botanical medicine.

The theory of medicine altered its concern for objective, natural phenomena of the earlier period to the social morality connected with contemporary political ideology in the latter. This altered perspective, however, was experienced not only in the Eastern countries, but in Europe too. The ethics of Good and Evil influenced the understanding of medicine in Europe during the Middle Ages; and this differed from that of Hippocrates of

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<sup>221</sup> Taoism (or Daoism) is a philosophical, ethical, political and religious tradition of Chinese origin that emphasizes living in harmony with the *Tao* (also romanized as *Dao*) which is a kind of ‘logos of nature.’ The Tao is somewhat opposed to Confucian ideas of courtesy or manners which is not seen as natural but acquired through social learning.



Ancient Greece, whose goals for medicine mirrored the objective approach adopted of his contemporaries more generally to understanding nature.

As the physical as well as social environments of the two regions were not similar, the medicinal understanding, too, demonstrated differences in many ways: concepts of diseases, methods of treatment, and the alleged composition of the elements of nature. For example, though the elements of water, air, and earth are common to both regions, wood, gold, and fire applies only to the Eastern countries, while yellow and black bile is unique to Greece.

Based on the differences between the two regions related to physical and social environments, as well as to thinking styles and world views, it will be discussed how these differences affected medicinal practices in the respective societies, especially regarding the understanding of medicinal uses of pharmaceutical botany.

## 2. A comparison of philosophy of traditional medicine between Hippocrates and the East - Centering on *On the Nature of Man*, *On the Archaic Medicine* and *On the Airs, Waters, Places of Hippokrates* and 'Great Theory of the Five-Elements Rule' in the *Emperor's Canon for Internal Body* (皇帝內經), *Simple Question*(素問)

There are common elements as well as differences of medicinal philosophy between Hippocratic and Eastern modes.

First of all, in supposing that nature consisted of Cold, Warmth, Dryness and Dampness, a common feature is shared between Hippocrates and <The great Political Theory of Five Phases 五常政大論> in the East. The former four climatic elements correspond respectively to Blood, Phlegm, Black Bile and Yellow Bile, and the latter elements (寒熱燥濕) correspond to the Five Energies. The four climatic elements are related not only to the constituents of the human body, but to the seasons in both regions.

However, there is a difference, too, as in the East 'Wind' is added to the four constituents to compose Five Energies (五氣), and 'Fire' is then added to form Six Energies. So, Cold, Warmth, Dryness and Dampness refer to the phenomena of climate, while Wind and Fire belong rather to material substances. Fire assumes a special role, which is affiliated not only with Six Energies, but to Five Phases (五運 or 五行: Wood, Fire, Earth, Metal and Water). Furthermore, Fire used to be defined as a component part of the Sky (天), while the four elements of climate belong to the components of the Earth (地).<sup>222</sup>

On the other hand, it should be noted there is a discrepancy in the same works of Hippocrates, as in < *On the Archaic Medicine* > the objective existence of the four elements of climate is denied, being attributed to no more than the properties of materials.

Second, the four constituents of the human body—Blood, Phlegm, Black Bile and Yellow Bile—in Hippocrates are applied throughout the body, even if each is created from a different internal organ. But in the East, Five Phases or Five or Six Energies correspond to each internal organ. For example, Wood to Liver, Fire to Heart, Earth to Spleen, Metal to Lungs, and Water to Kidney.

Third, in Hippocrates the body is healthy when each organ sustains its original nature of Cold, Warmth, Dryness or Dampness. According to a definite season one element prevails, but there is not any contradictive relationship among them. They do-exist with each other, and when an element gets insufficient, one would be attacked by disease. In the East, however, the Five Phases as well as the five internal organs are found in a supportive relationship with a definite one among them, on the one hand, and at the same time in a competitive, exclusive against other, on the other. One keeps his health, when there is a harmony of co-existence among these elements in the relationships supportive with one, as well as contradictive against other one.

Fourth, in Hippocrates, when one element that prevails in a definite season is plentiful, it could cure illness. A disease that attacks in winter would be cured in spring; conversely, a disease raging in summer should wait until winter. In the same way, a disease breaking out in spring would be cured in autumn. In the East, however, evil energy (邪氣 illness) would attack the internal organs when a corresponding Energy, destined to prevail in a season, is either excessively plentiful or insufficient. Thus, one should be careful that specific internal organs, one after another according to the season, be neither over-prosperous nor insufficient.

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<sup>222</sup> Cf. In the East, summer is the rainy season, while Greece's rainy season is the winter (summers are dry).



Fifth, Five Phases and Five Energies described in the <Great Political Theory of Five Phases (五常正大論)> are related not only to seasons, but other diverse natural phenomena. Each of them refers not only to one of the five internal organs, but to respectively the five directions (East, South, Center, North, West), five (oriental) notes, and to numbers, animals, years, etc.

In Hippocrates, however, climate, air and water are not related to specific internal body organs, but are spread over everywhere, and show differences according to regions. In the same way, the directions and even astronomy are connected to the practical geography of place, alteration of climate according to seasons, and the traditional customs which alter according to natural environments. For example, Europe and Asia came into discussions, among the later Egypt, Libya, and the River Rion [main river of western Georgia] discussed and, among the former, the Scythians. The argument for years is that none were attached to the determinism shown in the East, but to various climactic conditions of probability which could affect the outbreak of illness.

Sixth, for Hippocrates, illness breaks out because of the unnatural state of the four climactic elements (Cold, Warmth, Dryness and Dampness), as well as the conditions of climate, air and water in the region. The method of therapy refers to diet, pharmacy and physical exercise; and not just in respect to the physical condition of the body, but to ethnic dispositions: accordingly, mildness and courage were supposed to be influenced by climates.

Each of the Five Phases in the <Great Political Theory of Five Phases> in the East, however, respectively refer to dispositions of mildness, impatience, obedience, solidness, peacefulness or chasteness. As described in the <Great Alteration Theory of Phases (氣交變大論)>, they are schematically related to each of the human emotions: happiness, anger, anxiety, sorrow over death, abundance or gauntness (喜怒哀喪澤燥).

Hippocrates warned against naive philosophers whose dogmatic theories were not supported by evidence. Medical techniques should not be concerned with superficial theory, but empirical data. For example, he explained that empirical studies prove that each of the Four Elements (blood, yellow gall, phlegm, black gall) of the body gains the upper hand during one of the four seasons. As bile or gall (chole) predominates in summer and autumn, the discharge or vomiting of bile often occurs by itself during these seasons even without any cause. Further, Hippocrates affirmed, if we make one discharge or vomit via a cathartic drug, in winter it will be phlegm, in spring blood, in summer yellow gall, and in autumn black gall.

In the East, however, each correlation of the Five Phases (Wood, Fire, Earth, Metal, Water) and the Five Organs of the human body (Liver, Heart, Spleen, Lungs, Kidney), or other elements of natural phenomena as well as abstract concepts as presented in the "Great Political Theory of Five Phases", is more or less arbitrary; these propositions are not supported by empirical data.

Thus, we could conclude, the philosophy of traditional Eastern medicine has a tendency toward arbitrary abstractionism, far from the clinical, empirical research of Hippocrates.

### **3. Contradictory tendencies in medical treatment of the Hellenistic Age: diversity versus simplification, chronic extension of physical therapy versus rapidity, and benevolent medical treatment versus worldly success<sup>223</sup>**

It is perhaps biased to view the greatness of Hippocrates through his quest of scientific medicine (*medicina scientia*) while sublating supposed superstitious treatments. Scientific medicine did not begin with Hippocrates, and succeeding generations were not one and the same in opinion. For example, there were the confrontations between the schools of Kos and that of Knidos during the very age of Hippocrates, as well as the conflict between rationalism and empiricism in later periods.

The school of Kos was presumed to have succeeded the tradition of Hippocrates, taking into consideration individual physical conditions and being based on the principle of various clinical methods of physical therapy extended over time. In contrast, the school of Knidos tended to define diseases in simple terms, paying little attention to the differences in physical conditions and developmental stages of illness. Moreover, the latter understood diseases in relation to disorders of individual organs rather than in view of the condition of the whole body. It can be said that anatomical knowledge was more developed and applied by the school of Knidos. The difference between the two schools can also be found in what purpose the medical profession sought after.

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<sup>223</sup> Cf. Jayoung Che, "The Contradictive tendencies in the Medical Treatment of the Hellenistic Age," *Korean Journal of Medical History* 17 (2008), pp.1-21.

Hippocrates attached much importance to physical therapy and the well-being of patients, including the poor. However, there were doctors in no small number in pursuit of money, power and worldly glory. As time passed, the tradition of Hippocrates faded away.

The opposition between rationalism and empiricism in the Hellenistic Age manifested itself, in certain respects, in the differences between Kos and Knidos. According to Hippocrates, this conflict did not involve pharmacy or anatomy, but merely diet. Rationalism developed various methods of therapy that considered environmental situations as well as individual physical conditions, but the empiricism in reality tended to expedite simplification of treatment. This latter tendency of simplification corresponded to the contemporary needs of society—viz, the speedy and effective treatment of the wounded in war, and epidemics in the army, on farms, and in crowded cities. The bigger the groups were, the more the methods of treatment became simplified; specific contexts or conditions were not much accounted for. Under these circumstances, empiricism came to be closely connected with anatomy whose primary focus was on treating the wounded in war.

On the other hand, for Hippocrates drug applications came to be viewed in contrast to diet. While the latter was to help health and rehabilitate physical conditions, the former were devised to facilitate cures. The drugs typically acted like toxins; for instance, eye-salves and ointments were used for rapid, effective changes in physical conditions or for treatments of a specific part of the body. They were also much needed in the state of chronic war of the Hellenistic Age. Needless to say, in the initial stages, the toxic drugs as well as surgical operations must have been developed for peaceful purposes, such as 'theriaca' treatments (antidotes) for animal poisons or for easing childbirth. With the increase of social inequality and inexhaustible human desire, however, toxic drugs and anatomical knowledge came to be used for less noble purposes.

Thus, we cannot evaluate Hippocrates simply from the point of view of whether he developed scientific medicine or not. His great fame rests rather on his principle and method of medical treatments, as he believed that medicine should not be exploited for worldly power or wealth but for the good of all people. He counseled a healthy life according to nature (*physis*) and took much account of the physical deviances of individuals in order to develop various methods of standardized treatments, which presupposed long observation. As seen, contrary to the Hippocratic approach to medicine was the focus on the wounded in war or epidemics related to war and collective labor, for which treatments emphasized anatomical surgery as well as drugs with rapid, strong effects.

#### 4. Comparison of clinical applications between the two regions

##### 1) Comparison regarding traditional medical botany between the East and Greece

There were various trends both in traditional Eastern and Greek medicine according to the period, which are well demonstrated in botanical medicine. Eastern botanical medicine verifies the transition from the stage in which the Theory of Yin-Yang (Dark-Bright, or Negative-Positive), or the Yin-Yang Five Elements was not yet applied to, through the stage where these theories began to appear originally to the later phase wherein they reinforced themselves. The less the influence of the Yin-Yang theory related to Five Elements is, the more it resembles Greek botanical medicine in its earlier stage.

There are common viewpoints regarding the efficacy of botanical plants shared between the older Chinese books *Shennong's Materia Medica* [神農本草經] and *Special Script of Famous Doctor* [名醫別錄], which were scarcely influenced by the metaphysical theory of Yin-Yang, and the *Theory of Typhoid Fever [Harm-Cold]* of Zhang Zhongjing, which was comparatively less influenced by it, on the one hand, and the *On Medical Material (De Materia Medica)* of Dioskurides of Greece, on the other. However, they also reveal some inconsistencies with each other. The results of comparison can be summarized as follows.

First, in China, illness used to be described as an abnormal condition of a whole body, so that the use of botany is mostly directed at improving or reducing Energy, supplementing physical weakness (虛), removing Cold and Fever, encouraging sweating, as well as intensifying the muscles and bones and removing hunger. In Greece, however, there is mostly no reference to general conditions, and the use of medicine is applied to abnormal cases concretely detailed; that is, to a specific body organ or disease, such as curing jaundice and nephrolithiasis (kidney stone), improving menstruation or sexual ability, facilitating abortion, or removing the toxins of various biting and poisonous animals such as scorpions and vipers. Needless to say, what kind of botany is the large part of botanical medicines demonstrates idiomatic similarity in its efficiency according to each region.

Second, the purpose of using botanical pharmacy even for the same body organ can deviate between two regions. For example, when discussing the discomfort of intestines, in Greece it is used to refer to awkwardness

or discomfort caused by constipation; but in China it mostly refers to indigestion as well as to an abnormal relationship with other internal organs allegedly often caused by typhoid fever (傷寒). And in China, the expression 'to lighten or discharge the body' is used, but in Greece much concern instead is concentrated on 'removing flesh.' The former does not necessarily mean the reduction of weight, but to improve the vital energy of body. On the other hand, in China great concern is given to removing weakness (虛). In Greece, however, references are frequently made to blood angiostenosis (blockage of vessel) and constipation, which used to be caused by oversupply of nutrition. Thus, the therapy of Greece refers more to evacuating fullness, but in the East it refers more to supplementing weakness or vacancy.

Third, there are plants whose practical use shows a great difference between the two regions. For example, cinnamon, which is widely used as a medicinal plant in China to warm the body and raise energy, is known only as a spice in Greece.

The difference of knowledge in the effect of medicinal plants cannot be explained without taking into consideration the living environment. China was a country of grain agriculture, labor intensive and densely populated, usually not accumulating enough foodstuffs for all of society. In contrast, Greece consumed a lot of meat and dairy products which led to excretion difficulties and blood angiostenosis, as it does even today. The lime-rich water in Greece made nephrolithiasis an endemic disease far more frequently than in the East, and the customary pastoral life in the open air made inevitable the frequent medical care required for bites by insects, scorpions, snakes, etc. In addition, with regard to cinnamon, and contrary to the largely vegetable diets of Orientals, arguably the Greeks heavy consumption of animal sources led to comparatively less need for medicines to warm the body.

## 2) Clinical appliance presented in the modern botanical therapy after contact between the West and the East

The differences presented in the traditional botanical therapies between China and Greece still continue. Today's Far Eastern countries have accepted extensively Western medicinal practices; yet traditional Eastern medicine has survived as a separate entity, so that tension between the two systems has built up against each other.

On the other hand, despite having no logical connection to each other and operating as separate entities, there are modern attempts to reconcile these different medicinal practices, both in the East and West. One example from the East is *The Dictionary of Eastern Medicine* published in North Korea, which shows the attempt to combine the respective medicinal traditions. A notable example in the West is *The Complete New Herbal*<sup>224</sup>, published in England in 1988. England is the only country in Europe, as far as I know, where traditional popular therapies are lawfully permitted. *The Complete New Herbal* actually provides much coherence as it partly acknowledges the Eastern medicinal concept of Cold and Warm and the practical supplement of weak energy; on the other hand, it mostly excludes the abstract concept of the Five Phases and the philosophy of Dark-Bright.

Even though there has been an attempt to combine the two traditions, however, there remains a persistent tendency to follow their own respective traditions. For example, in Eastern medicine, even when the issue of circulation is referred to, it is not limited to mechanical circulation, but is extended to the concept of vitality. The concept of Vital Energy presupposes implicitly that a large part of disease is caused by the excess or deficiency of Energy, which has been a key note in the theory of the Eastern medicine. And much concern is still given to deficiency as a condition requiring supplementation. However, in *The Complete New Herbal*, while considerable concern is directed at easing both the circulation of blood and the condition of constipation, it is done so in the absence of the concept of deficiency.

Furthermore, between two worlds there persists contradictory knowledge concerning the efficacy of botanical medicines. For example, in the case of artemisia, in the East it raises flesh, while in Greece it reduces flesh.

Various trends co-exist within each of the two regions. In the East, there is various and discursive knowledge of empirical clinics related to medicinal botany; at the same time, the abstract, philosophic theory of Dark-Bright and Five or Six Phases continues to be developed. In the West, too, there is various empirical knowledge of medical botany; at the same time, they coexist with extremely analytical, experimental medicines such as macro- as well as micro-anatomy cellular pathology. There thus remains a great gap between the

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<sup>224</sup> A. Chevallier, *The Complete New Herbal* (London: Gaia Books Ltd, 1988).

extremely analytical, experimental medical practices of the West and the extremely abstract theories of Dark-Bright as well as the Five or Six Phases of the East.

On the other hand, both worlds basically show common understanding in the detailed empirical effects of some medicinal botany, while at the same time some distinctions remain, too. As in past times, in the West, as the diet consisted of much more meat than in the East, botanical therapy frequently involved the facilitation of intestinal functions and blood circulation. In the East, however, the traditional diet stemmed mostly from vegetables and the therapy is still much concerned with complementing energy (氣) or modulating uneven energy.

In the contemporary world, however, the social environment of the East and the physiological state of individuals' bodies have gradually changed owing to the increase of world commerce as well as industrialization. The Westernized diet has caused an increase in adult diseases in Eastern countries and thus encouraged Eastern medicinal practices to borrow from Western knowledge. Actually, the trends do not simply show a one-way transfer of Western knowledge to the East, but encompass elements of symbiosis in the evolution of the global environment itself. Today in Greece, for example, there is much more interest than before in Eastern methods of botanical therapy to empty the body, as well as in acupuncture treatments to facilitate the flow of energy throughout the body.

### 3) Comparison of understanding of the effects of therapeutic botany between the two countries

In Eastern countries the prescriptions of almost all the materia medica are related to abstract concepts or the condition of whole body, while in Greece specific organs or practical uses are referred to. For example, in the former, great concern is given to supplementing deficiency, ascending or descending Energy, reinforcing muscles and bones, and removing febrile disease. In the latter, however, general conceptions are not applied; instead, jaundice, calculus, menstruation, sexual desire, abortion, or animal-biting is referred to more frequently than in Eastern countries.

In case the same organs are referred to, the contents of prescriptions might be different between Eastern countries and Greece. For example, when the internal organs are discussed, the purpose in Greece used to be that the stomach or intestines should be evacuated, while in China it was to remove febrile disease of the Five Viscera. Moreover, in China the description 'make the body light' is frequently used, whereas in Greece 'reduce weight' is. The former does not necessarily mean 'reducing weight', but often to improve the function of the body, such as circulation of the blood by replenishing, or, less usually, by descending Energy. However, in Greece it is a matter of concern to actually reduce weight, as disease mostly originates in excess rather than in deficiency. The divergence between the two countries is shown in the cause of the hindrance of circulation: in China it is due to the deficiency of Energy, but in Greece it is mostly due to the blockage of blood vessels resulting from excess.

Otherwise, there is botany which demonstrates differences in medicinal application between the two countries, involving: menthe, Artemisia, Angelica, ginger, Cinnamomum, and ginseng.

The understanding of medicinal efficacy of Artemisia shows a definite contradiction, as it raises flesh in China while it reduces flesh in Greece. In my opinion, the opposite understanding regarding Artemisia may also originate from different lifestyle environments. The Greeks depended on animal sources of food much more than Eastern peoples whose foodstuff consisted mostly of vegetables; hence diseases originated from excess flesh due to meat-eating. In contrast, diseases in China mostly originated from deficiency resulting from its largely vegetable diet.

On the other hand, Cinnamomum in China has frequently been used like Glycyrrhiza, that is to protect or descend Energy. However, in Greece it was known as a spice which came from foreign lands in Africa or Arabia. Angelica was also much used in China, while it was not in Greece despite being copiously native there. Ginger was also known as a spice food in Greece as well as Europe.

## VII. Abstract

Abstract (English)

### **Comparison of Traditional Botano-therapeutics between Far-Eastern Countries and Greece**

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In Eastern countries the prescriptions of almost all the materia medica are related to abstractive concepts or the condition of the whole body, while in Greece definite organs or practical usages are referred to. For example, in the former, great concern is given to supplementing deficiency, ascending or descending Energy, reinforcing muscles and bones, and removing febrile disease. In the latter, however, the general conception is not the focus, and, instead, jaundice, calculus, menstruation, sexual desire, abortion, or animal and viper-biting is referred to more frequently than in Eastern countries.,

In cases where similar organs are referred to, the contents of prescriptions might be different between Eastern countries and Greece. For example, when the internal organs are discussed, in Greece the stomach or intestines were evacuated for convenience, while in China they were treated to remove febrile disease of Five Viscera. Moreover, in China the description 'make the body light' is frequently used, but in Greece the term 'reduce weight' is used. The former does not necessarily mean 'reducing weight', but often to improve the function of the body, such as the circulation of blood, by replenishing, or more rarely, descending Energy. However, in Greece a matter of concern is actually to reduce weight, as disease mostly originated in excess rather than deficiency. The divergence between the two countries shows a cause of hindrance to circulation: in China it is due to a deficiency of Energy, but in Greece mostly as a blocking of blood vessels resulting from excess.

Otherwise, there is botany which shows more or less deviances in medicinal application between the two countries: menthe, artemisia, angelica, ginger, cinnamomum, and ginseng.

The understanding of the medicinal efficiency of Artemisia shows a definite contradiction, as it raises flesh in China, while it reduces flesh in Greece. In my opinion, the opposing interpretation of Artemisia may originate from different living environments. The Greeks depended relatively more on animal food than Eastern people whose foodstuff consisted mostly of vegetables, so disease also came from an excess of flesh due to meat-eating. On the contrary, disease in Chinese mostly came from deficiency which resulted from vegetable diets.

On the other hand, in China Cinnamomum has been used as frequently as glycyrrhiza, to protect or lower Energy. However, in Greece it was known as a spice which came from foreign lands, Africa or Arabia. Angelica was also much used in China, while it was not in Greece even though it was grown everywhere. Ginger was also known as a spice for food in Greece as well as Europe.



## Σύγκριση της παραδοσιακής βοτανοθεραπευτικής μεταξύ των χώρων της Άπω Ανατολής και της Ελλάδας

Jayoung Che

Ιστορία της Ιατρικής  
Τομέας Κοινωνικής Ιατρικής και Ψυχικής Υγείας  
Τμήμα Ιατρικής  
Σχολή Επιστήμων Υγείας  
Πανεπιστήμιο Ιωαννίνων

Στις χώρες της Άπω Ανατολής, η χορήγηση σχεδόν όλων των φαρμακευτικών φυτών αφορά σε ασθένειες που αναφέρονται κατά τρόπο αφηρημένο και περιλαμβάνουν ολόκληρο τον οργανισμό. Αντίθετα, στην Ελλάδα γίνεται αναφορά σε συγκεκριμένες παθήσεις οργάνων και υπάρχουν λεπτομερείς οδηγίες χρήσης. Για παράδειγμα, στην πρώτη περίπτωση, δίνεται μεγάλη προσοχή στην αποκατάσταση κάποιας έλλειψης, στην εξισορρόπηση της ενέργειας του οργανισμού, στην ενδυνάμωση των μυών και των οστών, στην αντιμετώπιση του υψηλού πυρετού, κλπ. Στη δεύτερη περίπτωση, όμως, δεν χρησιμοποιούνται αφηρημένες έννοιες αλλά προσδιορίζονται με σαφήνεια διάφορες καταστάσεις, όπως ίκτερος, νεφρολιθίαση, εμμηνόρρια, σεξουαλική επιθυμία, δάγκωμα από φίδι ή άλλα ζώα κλπ.

Ακόμη και όταν πρόκειται για τα ίδια όργανα, ο σκοπός της συνταγής μπορεί να διαφέρει ανάμεσα στις δύο αυτές θεραπευτικές προσεγγίσεις. Για παράδειγμα, όταν γίνεται αναφορά σε εσωτερικά όργανα, η ελληνική ιατρική αποσκοπεί στην εκκένωση του στομάχου και των εντέρων, ενώ η κινέζικη ιατρική επιδιώκει την ανακούφιση της υψηλής θερμοκρασίας των σπλάχνων, που χαρακτηρίζονται ως «Πέντε εσωτερικά όργανα». Επιπλέον, στην Κίνα η έννοια «ελάφρυνση του σώματος» υποδηλώνει την ενίσχυση της λειτουργίας του οργανισμού, όπως είναι η βελτίωση της κυκλοφορίας του αίματος και η αποκατάσταση της «ενέργειας». Στην Ελλάδα, όταν μία θεραπεία γίνεται για να «μειώσει το βάρος» αυτό αποτελεί κυριολεξία και αντανακλά την πεποίθηση ότι η κακή κυκλοφορία του αίματος προκύπτει περισσότερο από το «πλεόνασμα» πάρα από την «έλλειψη». Αντίθετα, στην Κίνα η αντιμετώπιση αυτού του προβλήματος θεωρείται ως αποτέλεσμα της «έλλειψης ενέργειας».

Ενδιαφέρον παρουσιάζει και η σύγκριση της χρήσης ορισμένων φαρμακευτικών φυτών, όπως η μέντα, η αρτεμισία, η αγγελική κ.ά. Ειδικά η αρτεμισία παρουσιάζει μεγάλες διαφορές εφαρμογών. Στην Κίνα υπήρχε η πεποίθηση ότι η αρτεμισία αυξάνει το σωματικό βάρος, ενώ στην Ελλάδα ότι το μειώνει. Αυτή η αντίθεση ως προς τα αποτελέσματα της αρτεμισίας υποδηλώνει και μία αντίθεση στον γενικότερο τρόπο ζωής. Οι Έλληνες τρέφονται με περισσότερα ζωικά προϊόντα σε σύγκριση με τους Ασιάτες, η διαίτα των οποίων αποτελείται κυρίως από φυτά. Έτσι, η ασθένεια του οργανισμού θεωρείται για τους Έλληνες ως μία δυσκρασία που απορρέει από το «περιττόν», δηλαδή ως ένα πλεόνασμα ενέργειας, ενώ για τους Ασιάτες αποτελεί αντίθετα το αποτέλεσμα της έλλειψης ενέργειας.

Πρέπει να αναφερθεί ότι ορισμένα φυτά έχουν εντελώς διαφορετικές εφαρμογές. Στην Κίνα, η κάσσια και η γλυκύριζα ήταν δημοφιλή μέσα θεραπείας, επειδή ήταν αποδεκτό ότι προστατεύουν τον οργανισμό κατεβάζοντας την ενέργεια. Το ίδιο ισχύει για την αγγελική, η οποία είχε πολύ διαδεδομένη χρήση στην Κίνα, ενώ στην Ελλάδα είχε ελάχιστες εφαρμογές, παρά το γεγονός ότι πρόκειται για φυτό που φυτρώνει παντού.

Τέλος, αρκετά είδη ήταν γνωστά στην Ελλάδα ως εισαγόμενα από το εξωτερικό (Ινδία, Μέση Ανατολή, Αφρική), χωρίς να έχουν ιατρικές εφαρμογές. Τα φυτά αυτά χρησιμοποιούνται ακόμη ως αρτυματικά στη μαγειρική και τη ζαχαροπλαστική, με κύριους εκπροσώπους την κανέλλα και το ζιγίβερι.



## VIII. Appendices

- i. Diagrams
  - 1) Restaining Cycle of the 5 Phases
  - 2) Generating Interaction & Overcoming Interaction of Five Phases
  - 3) Six Elements (of the World), Organs of body, Time
  - 4) Twelve Earthly Branches: Month, Six Elements, Seasons, Zodiacs
  - 5) The Heavenly Stems & Twelve Earthly Branches
  - 6) Three Darks / Three Brights & Six Meridians
  - 7) Twelve Meridians, Zodiacs
  
- ii. Figures of Plants
- iii. Ancient Chinese Text
- iv. Terminology
  - 1) Chinese to English
  - 2) English to Chinese
- v. Bibliography and Index
  - 1) Primary source
  - 3) Eastern books and authors in order of Chinese
  - 4) Eastern books and authors in order of English
  - 5) Western books
  - 2) Selected secondary sources

i. Diagrams

Restraining Cycle of the 5 Phases

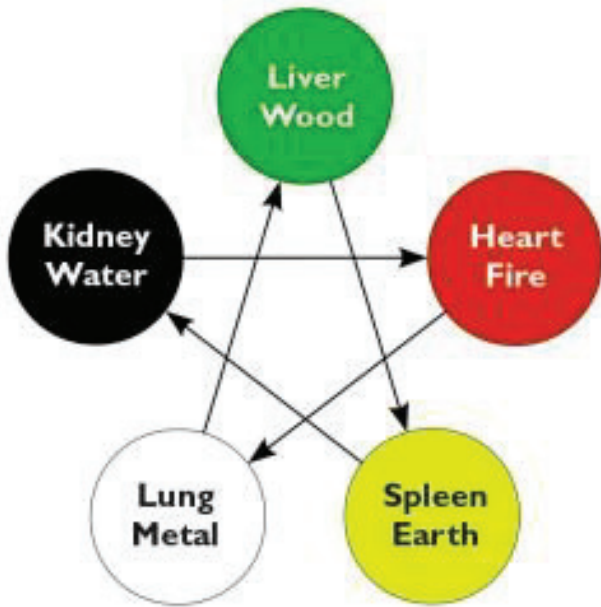


Diagram 1)

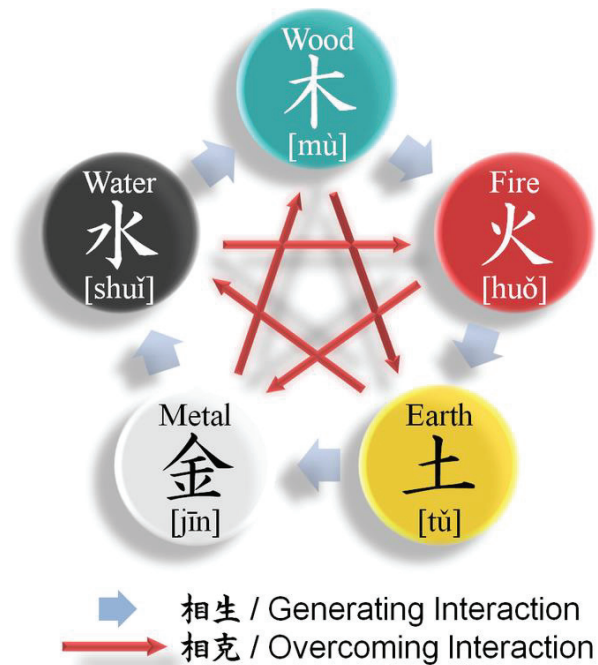


Diagram 2)

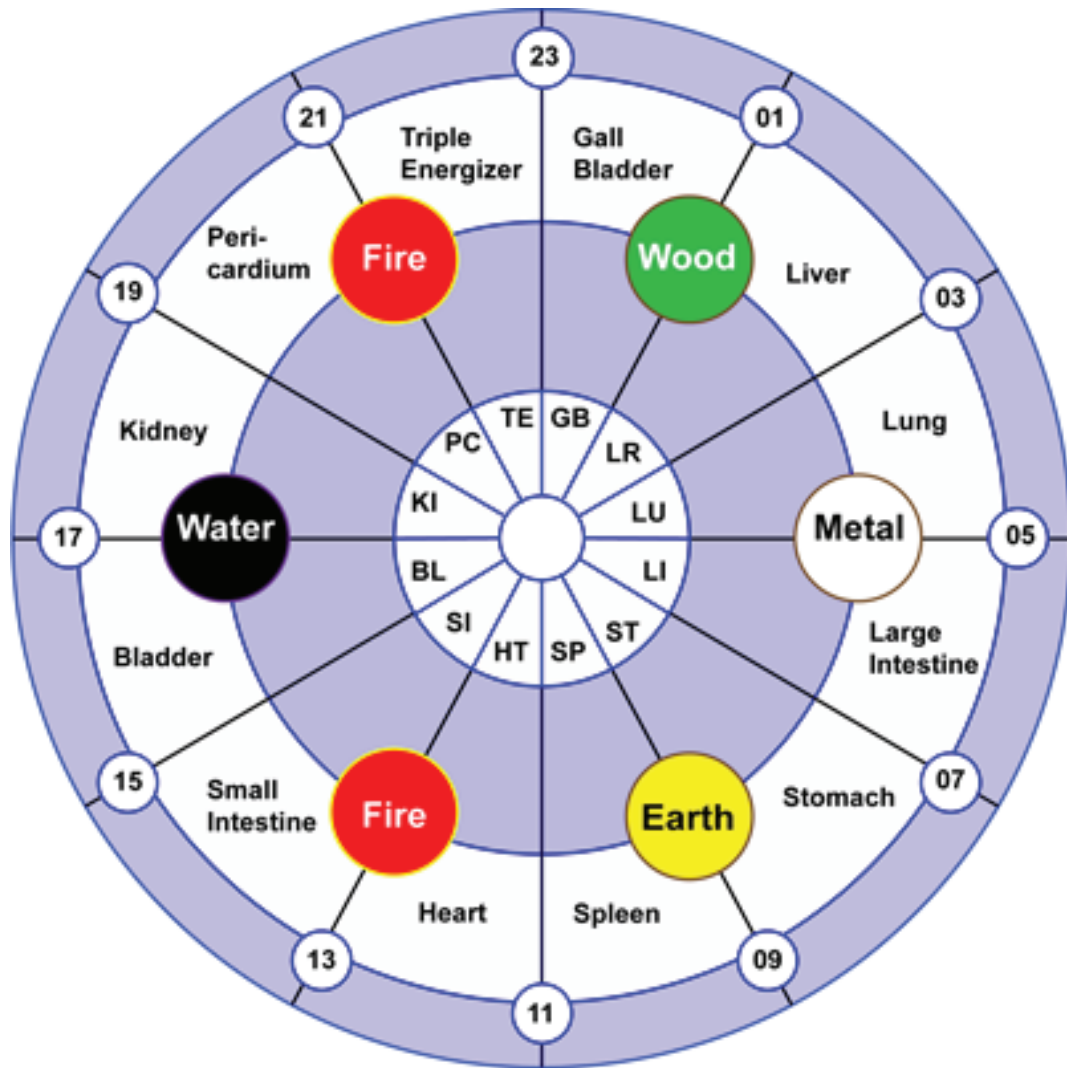


Diagram 3) Six Elements (of the World), Organs of Body, Time

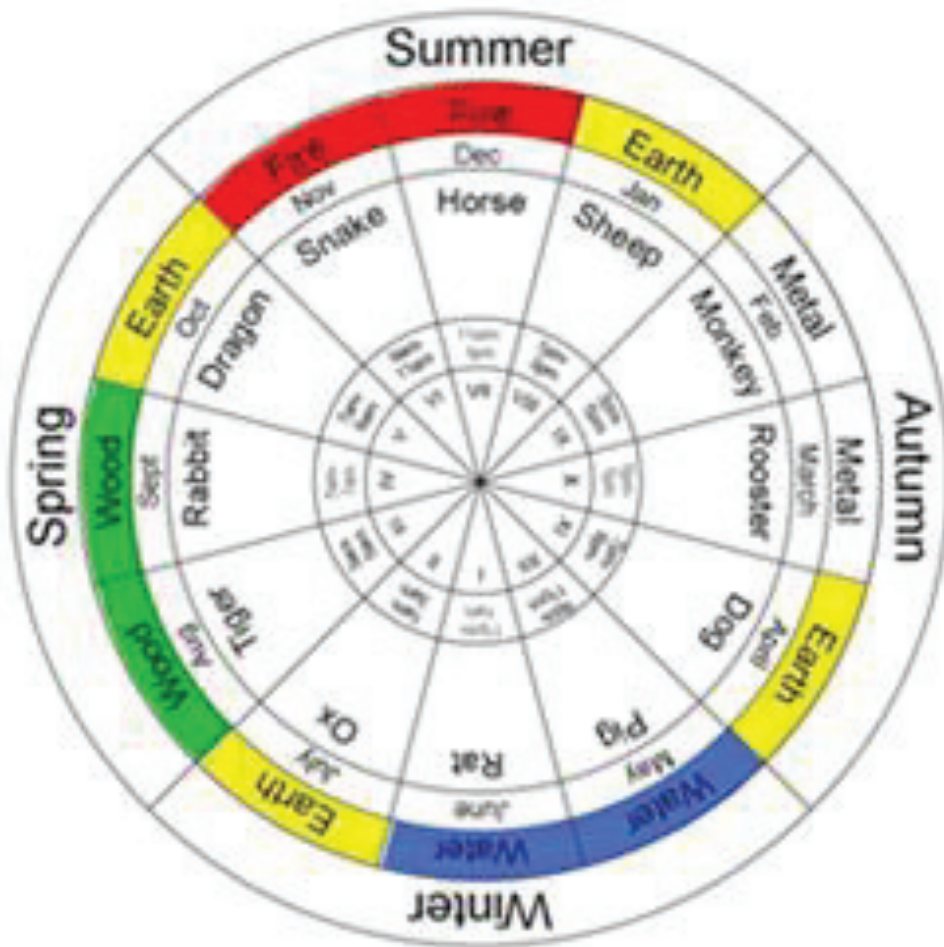


Diagram 4) Twelve Earthly Branches: Month, Six Elements, Seasons, Zodiacs

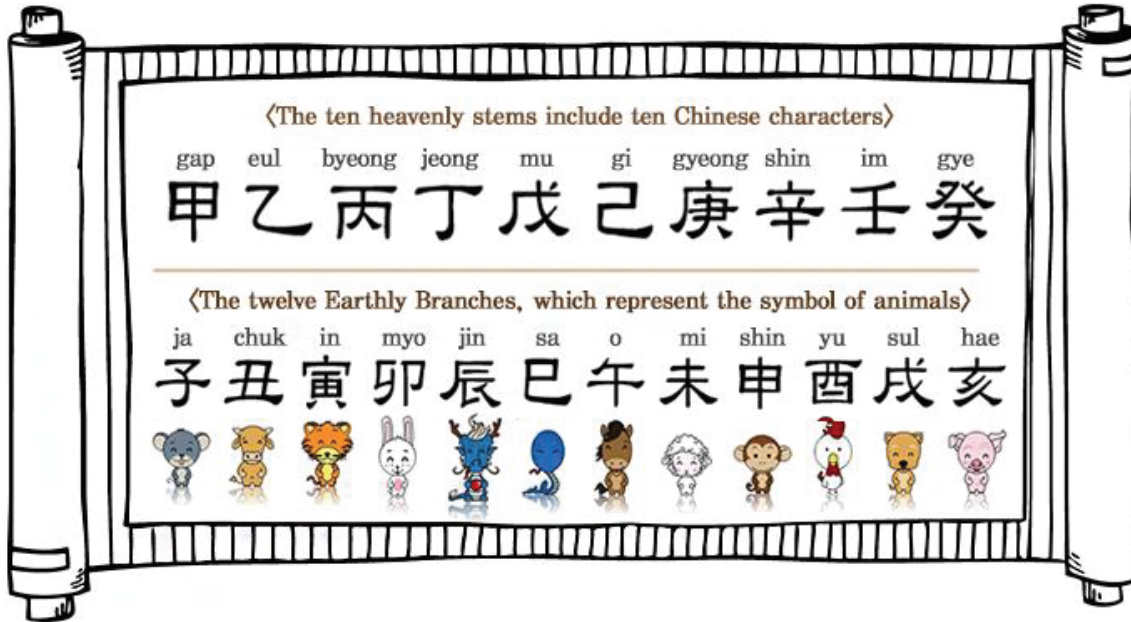


Diagram 5) Ten Heavenly Stems & Twelve Earthly Branches

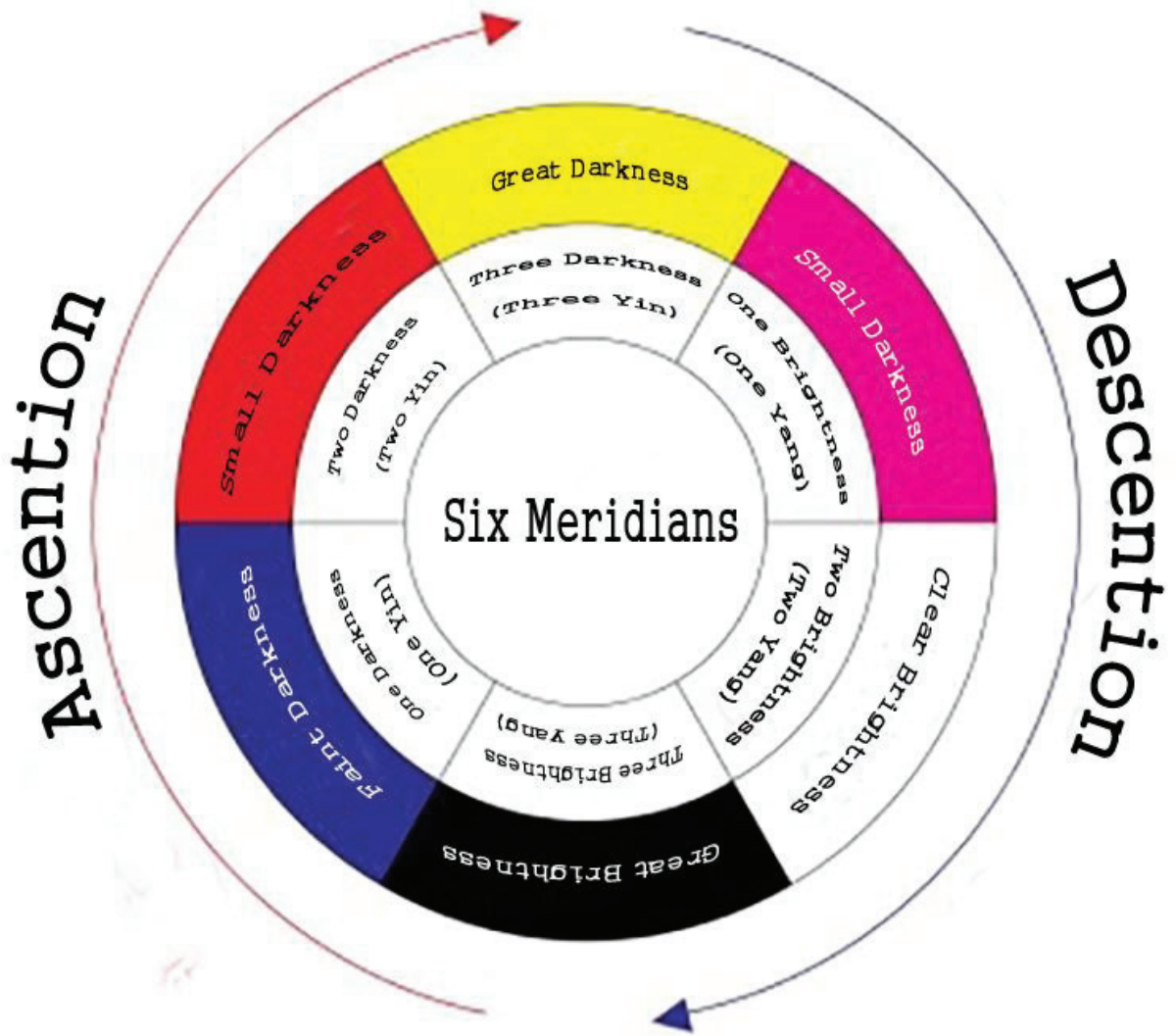


Diagram 6) Three Darkness/Three Brightness & Six Meridians (三陰/三陽 & 12 經)



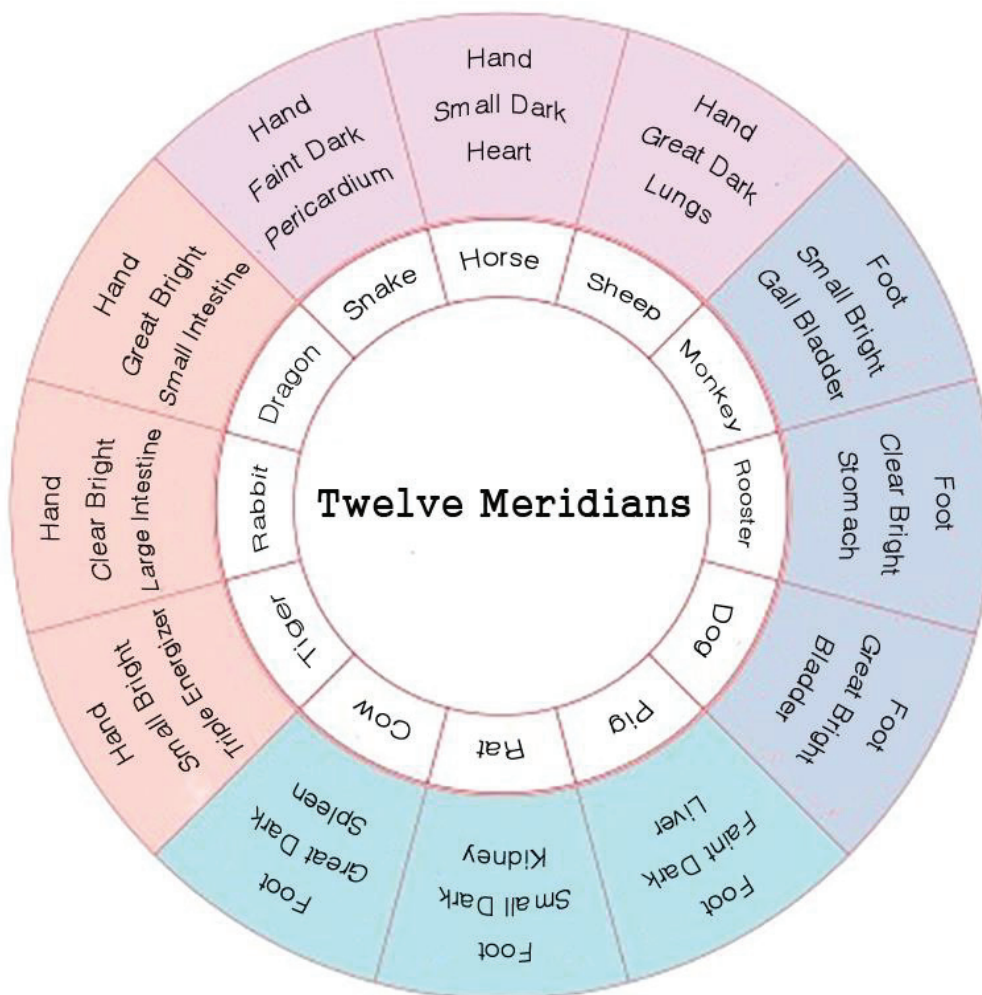


Diagram 7) Twelve Meridians (12 經)

## ii. Figures of Plants

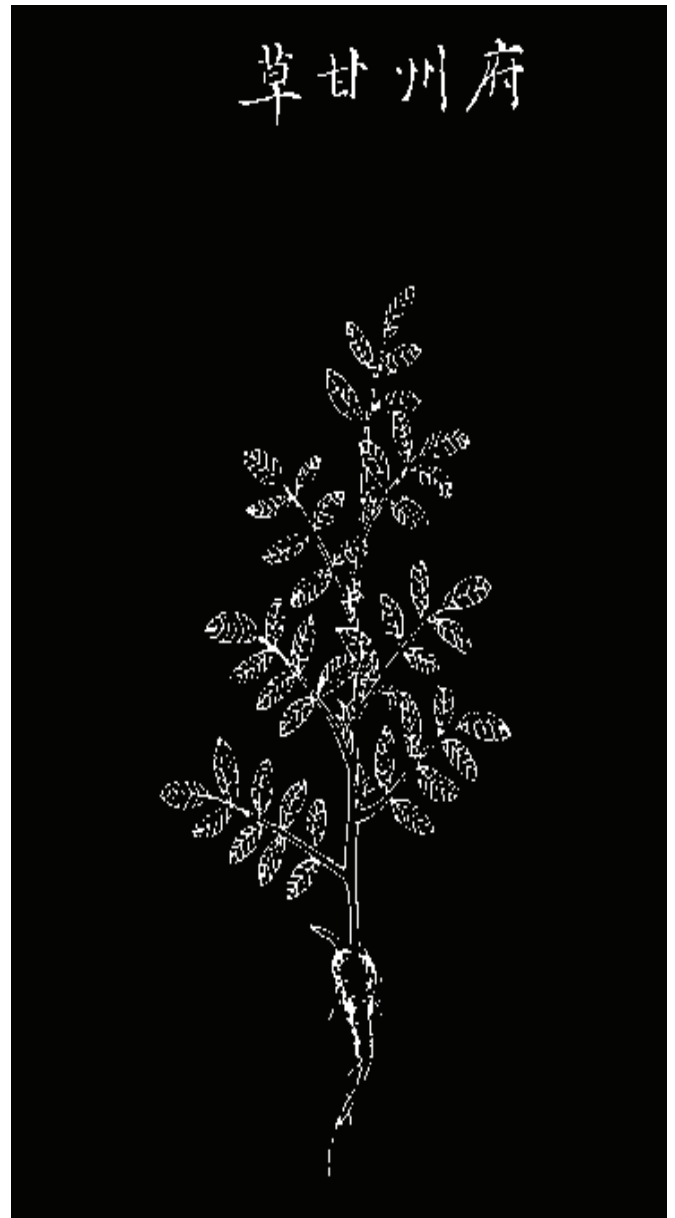
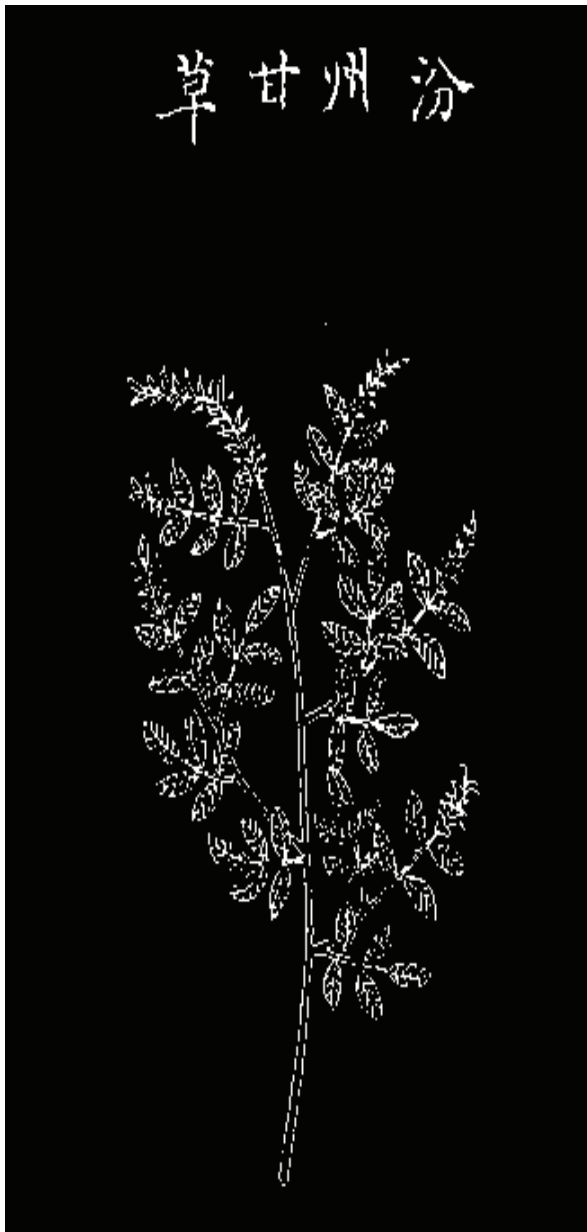
### 14 Plants

1. 甘草, Glycyrrhiza
2. 菊花 Chrysanthemum & 甘菊 Chamaimelon
3. 旋覆花 (金佛草), Konyza (Inula)
4. 大棗, Jujube (ziziphus, ramnos)
5. 薄荷, Hedyosmon emeron, kalaminthe orine
6. 艾葉 & 茵陳蒿 Artemisia (hetera polyklonos)
7. 芍藥, Paionia thelia
8. 黃芪 (戴糝 Dai San), Astragalos
9. 當歸, Angelica, ligusticum (root) [궁궁이, 승검초, 천궁]
10. 蒜 (大蒜, 小蒜), Allium sativum (garlic)
11. 生薑 (or 乾薑), Zingiber (officinale)
12. 桂(皮), Cinnamomum (verum)
13. 人蔘, Ginseng
14. 銀杏, Gingko biloba

1) 甘草, glycyrrhiza

Fen Zhou (汾州) <Species Certification of Materia Medica 證類本草>

Fu Zhou (府州) <Species Certification of Materia Medica 證類本草>





Glykyriza [= Glykyrrhiza] (left)



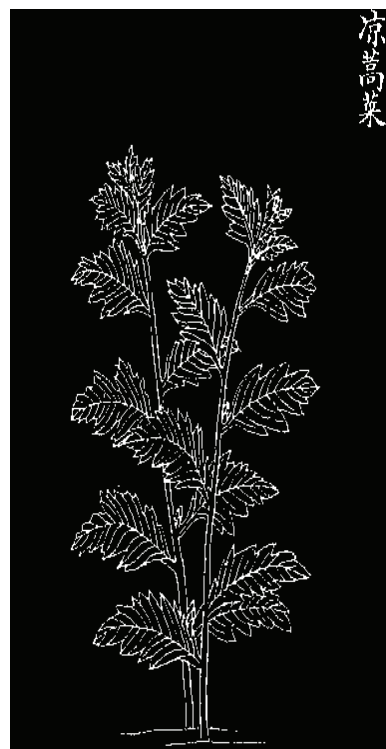
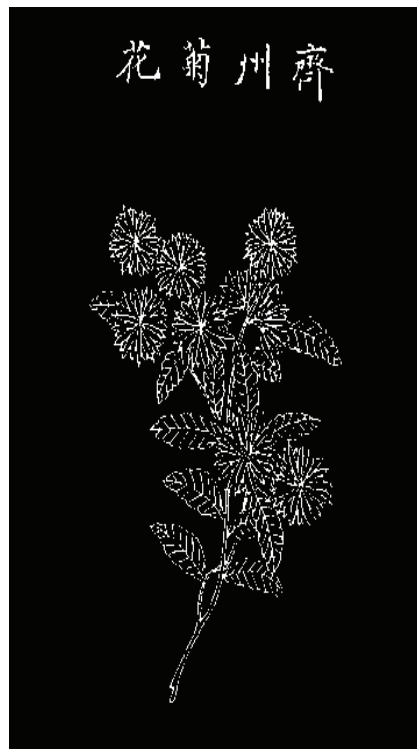
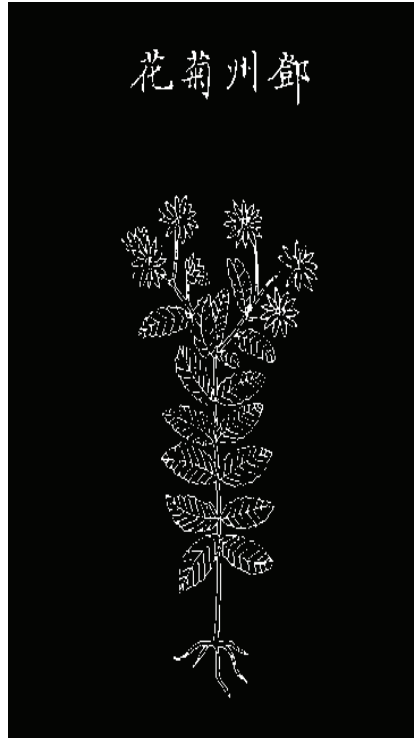
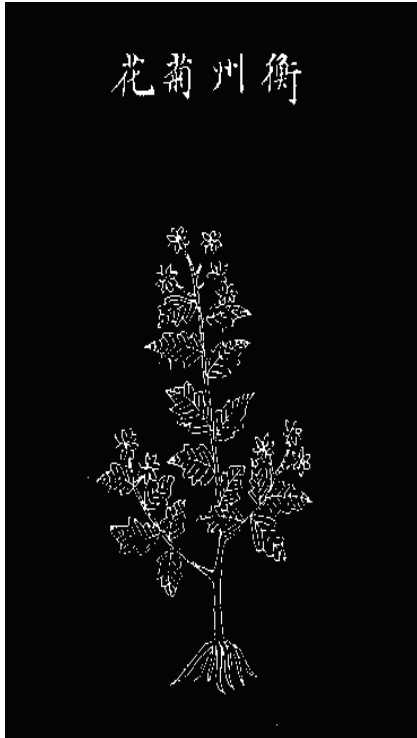
2) 菊花 chrysanthemum, 甘菊 chamamêlon

菊花 Heng Zhou (衡州) <Species Certification of Materia Medica 證類本草>

菊花 Deng Zhou (鄧州) <Species Certification of Materia Medica 證類本草>

菊花 Qi Zhou (齊州) <Species Certification of Materia Medica 證類本草>

Camomile(甘菊) [Also called Cool Tarragon (涼蒿菜) in <Materia Medica Relieving Famine 救荒本草>





Chrysanthemum (left)



Chamaimelon (right)



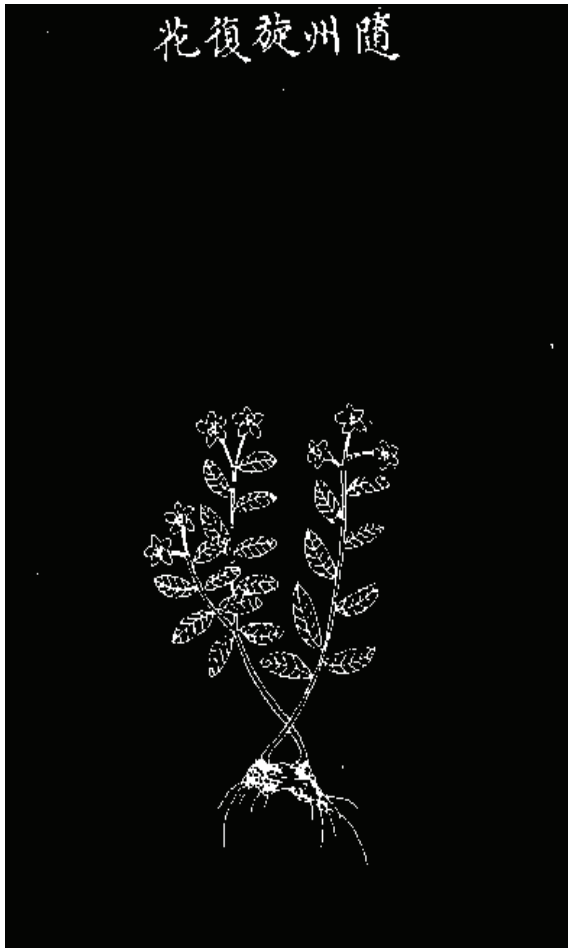


3) 旋覆花 (金佛草), *Konyza (Inula)*

Xuan-Fu Hua (旋覆花) of Sui Zhou (隨州) From <證類本草>

Xuan-Fu Hua (旋覆花) From < *Materia Medica Relieving Famine* 救荒本草 >

'Fu' = 'Dao Geng' (覆盜庚) < *Er Ya Acousto-gram* 爾雅音圖 >



Konyza (Inula)



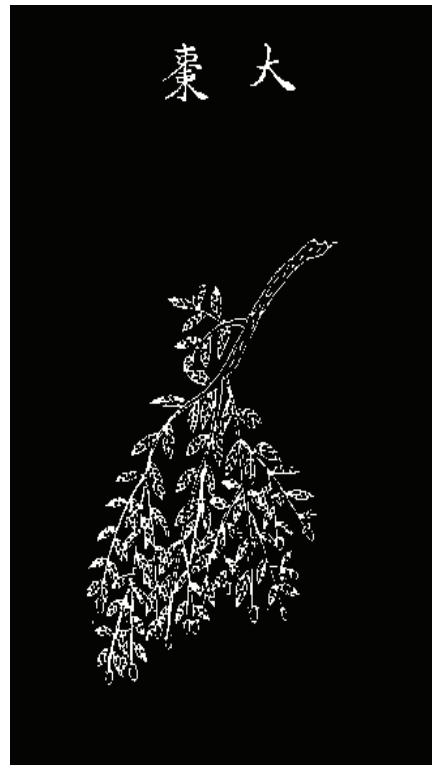
4) 大棗, jujube (ziziphus, ramnos)

< *Emperor's Encyclopedia of Current Farming Affairs* 欽定授時通考 >

棗樹 < *Materia Medica Relieving Famine* 救荒本草 >

酸棗 < *Species Certification of Materia Medica* 證類本草 >

大棗 < *Species Certification of Materia Medica* 證類本草 >





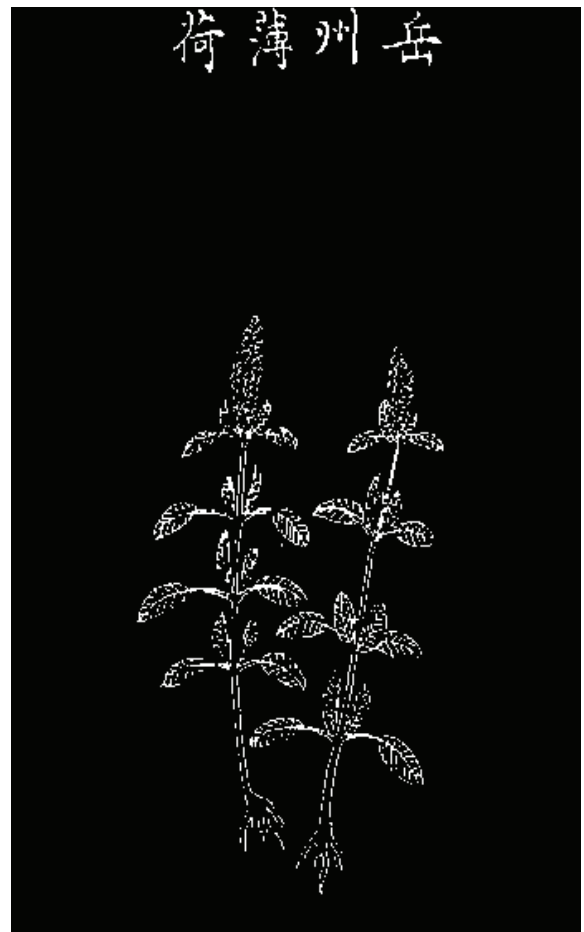
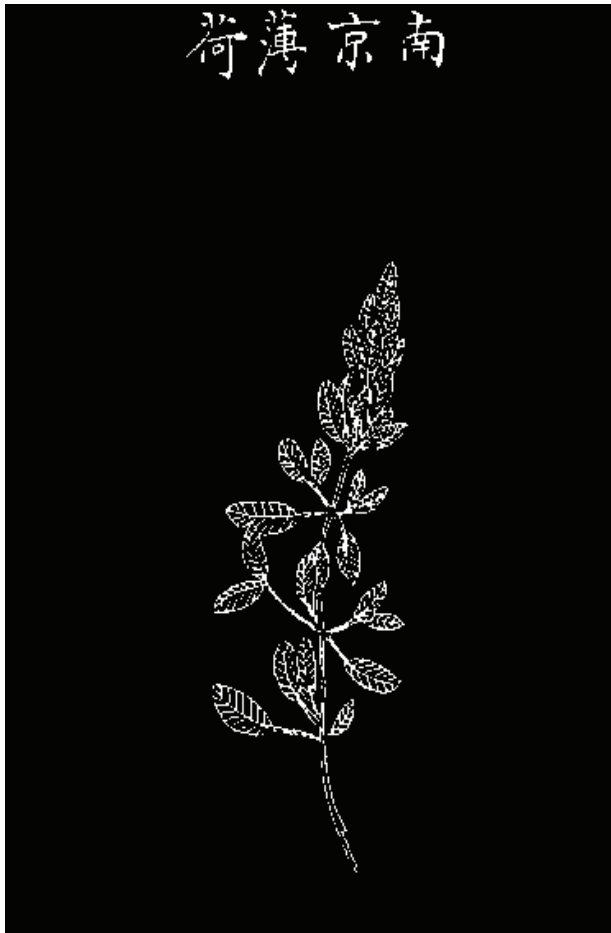
Ramos (left)



5) 薄荷, hedyosmon emeron. kalaminthe orine

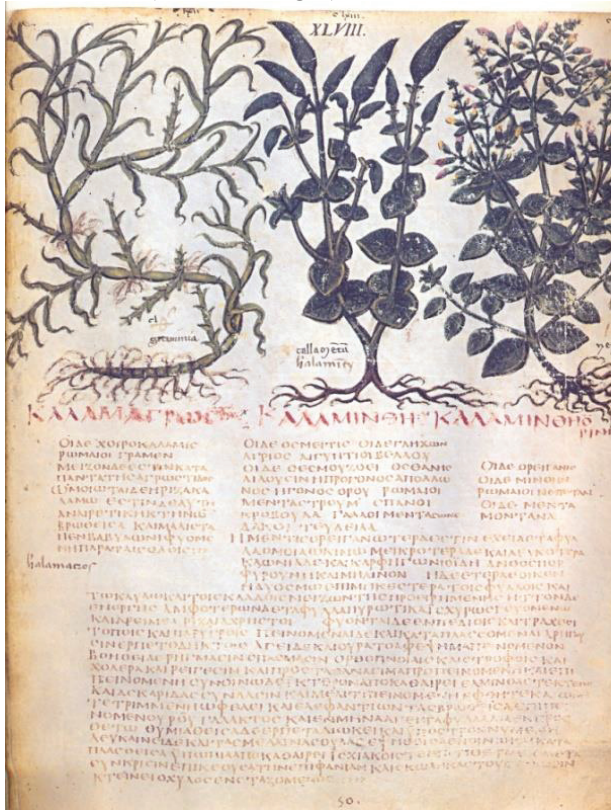
Nan Jing (南京) <Species Certification of Materia Medica 證類本草>

Yue Zhou (岳州) <Species Certification of Materia Medica 證類本草>





Kalaminthe (middle & right)



Hedyosmon

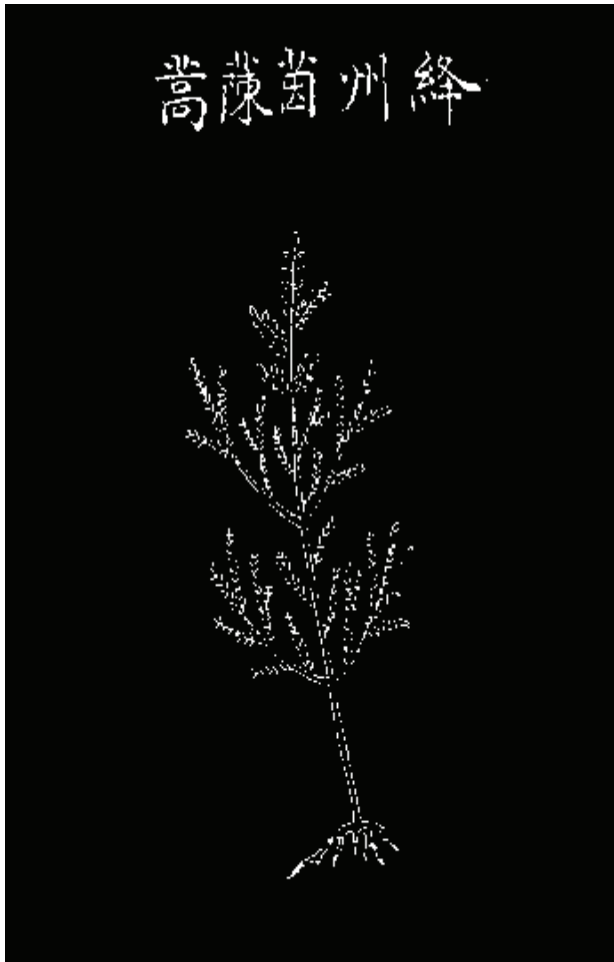


6) 艾葉 & 茵陳蒿, *Artemisia (hetera polyklonos)*

Yin-Chen Hao (茵陳蒿): Jiang Zhou (絳州) <*Species Certification of Materia Medica* 證類本草>

Yin-Chen Hao (茵陳蒿) of Jiang Zhou (絳州) <*Species Certification of Materia Medica* 證類本草>

www.baidu.com([http://image.baidu.com/search/index?tn=baiduimage&ct=201326592&lm=-1&cl=2&ie=gbk&word=%D2%F0%B3%C2%DD%EF&fr=ala&ori\\_query=%E8%8C%B5%E9%99%88%E8%92%BF&ala=0&alatpl=sp&pos=0](http://image.baidu.com/search/index?tn=baiduimage&ct=201326592&lm=-1&cl=2&ie=gbk&word=%D2%F0%B3%C2%DD%EF&fr=ala&ori_query=%E8%8C%B5%E9%99%88%E8%92%BF&ala=0&alatpl=sp&pos=0))







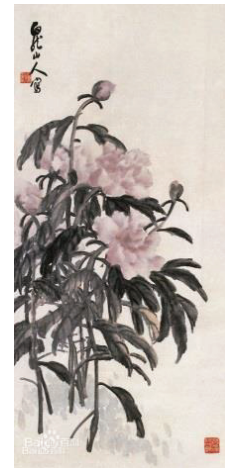
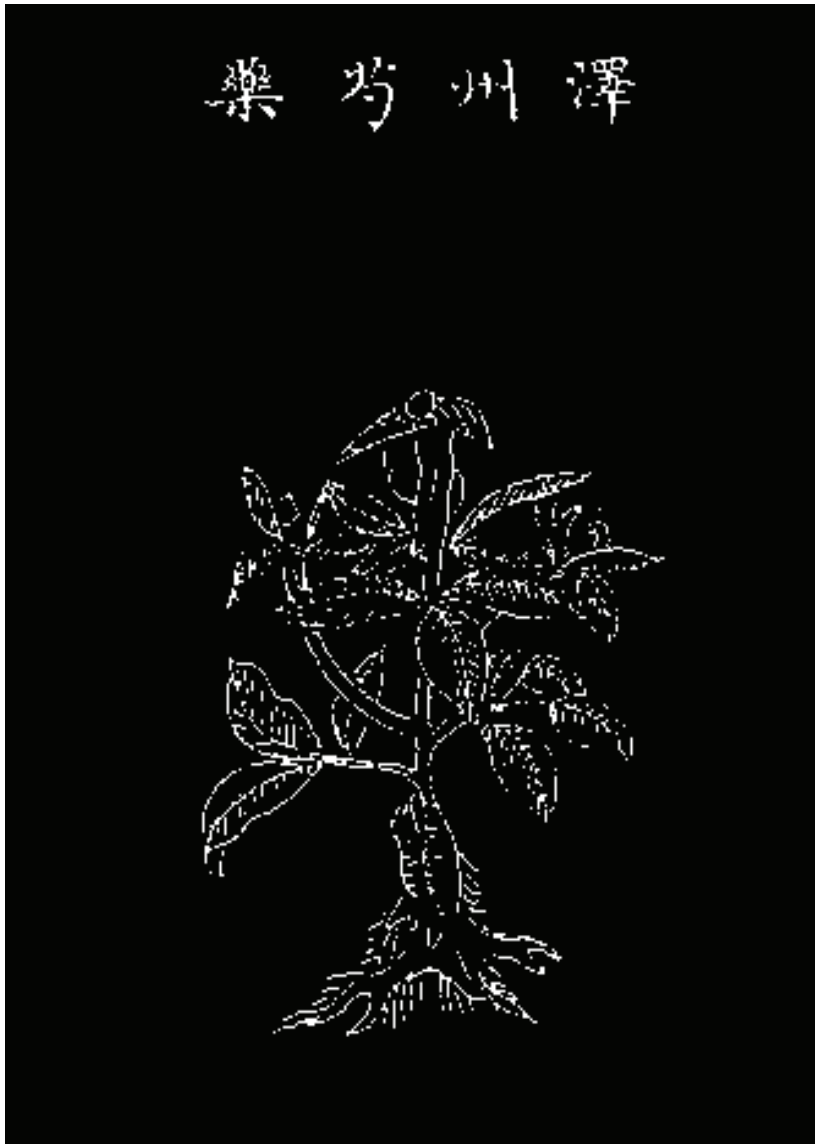
7) 芍藥, *Paonia thelia*

Ze Zhou (澤州) From <*Species Certification of Materia Medica* 證類本草>

[www.baidu.com\(http://baike.baidu.com/link?url=z0ctz-jQhRr1ceBjagli-Q1FJ7ljet-g0bw7TYjnn-K81mX2kIRArnUCsHNe2Ag2wKxQBoQf5VaEaPYmlMYgCHgi319KtqnmvNxtMPCHli\)](http://www.baidu.com/http://baike.baidu.com/link?url=z0ctz-jQhRr1ceBjagli-Q1FJ7ljet-g0bw7TYjnn-K81mX2kIRArnUCsHNe2Ag2wKxQBoQf5VaEaPYmlMYgCHgi319KtqnmvNxtMPCHli)

From

[www.baidu.com\(http://image.baidu.com/search/detail?ct=503316480&z=&tn=baiduimagedetail&ipn=d&word=%E8%8A%8D%E8%8D%AF%E6%A0%B9&step\\_word=&ie=utf-8&in=&cl=2&lm=-1&st=-1&cs=81985952,3050019708&os=2543456223,1703365048&pn=1&rn=1&di=19337722140&ln=1984&fr=ala&fmq=1438380262243\\_R&ic=0&s=undefined&se=&sme=&tab=0&width=&height=&face=undefined&is=0,0&istype=0&ist=&jit=&bdtype=0&gsm=0&objurl=http%3A%2F%2Fwww.user1.jqw.com%2F2011%2F10%2F29%2F399289%2Fproduct%2Fb201111141604570984.jpg#pn=1&spn=0&di=19337722140&adpicid=0&pi=&objurl=http%3A%2F%2Fwww.user1.jqw.com%2F2011%2F10%2F29%2F399289%2Fproduct%2Fb201111141604570984.jpg&fromurl=ippr\\_z2C%24qAzdH3FAzdH3Fooo\\_z%26e3B3qo\\_z%26e3Bv54AzdH3Fr6517vjSi5oAzdH3F8888AzdH3F89AzdH3F8ncla0b\\_z%26e3Bip4s&W=543&H=604&S=&TP=jpg\)](http://www.baidu.com/http://image.baidu.com/search/detail?ct=503316480&z=&tn=baiduimagedetail&ipn=d&word=%E8%8A%8D%E8%8D%AF%E6%A0%B9&step_word=&ie=utf-8&in=&cl=2&lm=-1&st=-1&cs=81985952,3050019708&os=2543456223,1703365048&pn=1&rn=1&di=19337722140&ln=1984&fr=ala&fmq=1438380262243_R&ic=0&s=undefined&se=&sme=&tab=0&width=&height=&face=undefined&is=0,0&istype=0&ist=&jit=&bdtype=0&gsm=0&objurl=http%3A%2F%2Fwww.user1.jqw.com%2F2011%2F10%2F29%2F399289%2Fproduct%2Fb201111141604570984.jpg#pn=1&spn=0&di=19337722140&adpicid=0&pi=&objurl=http%3A%2F%2Fwww.user1.jqw.com%2F2011%2F10%2F29%2F399289%2Fproduct%2Fb201111141604570984.jpg&fromurl=ippr_z2C%24qAzdH3FAzdH3Fooo_z%26e3B3qo_z%26e3Bv54AzdH3Fr6517vjSi5oAzdH3F8888AzdH3F89AzdH3F8ncla0b_z%26e3Bip4s&W=543&H=604&S=&TP=jpg)





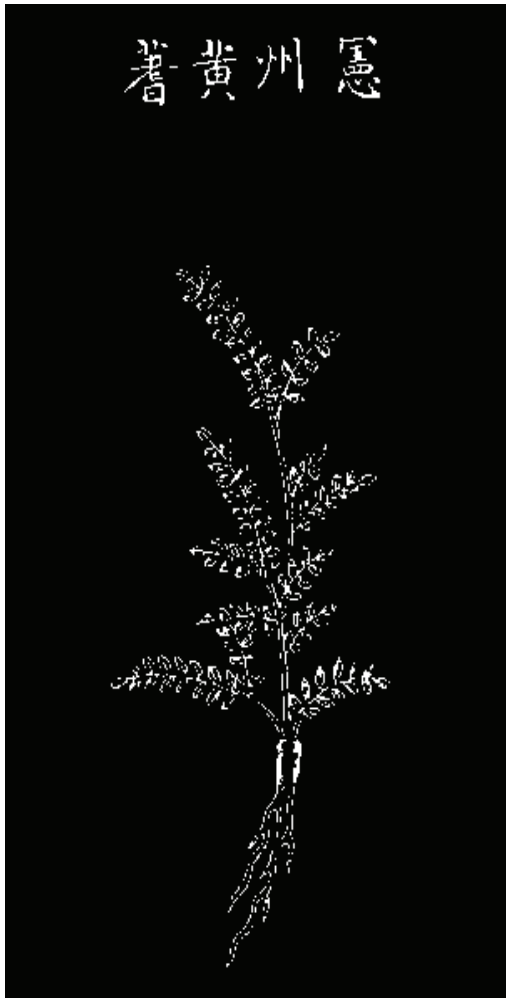
Peony (Paionia)





8) 黄耆 (戴糝 Dai San), Astragalos

Xian Zhou(憲州黄耆) <Species Certification of Materia Medica 證類本草>  
<Materia Medica Relieving Famine 救荒本草>



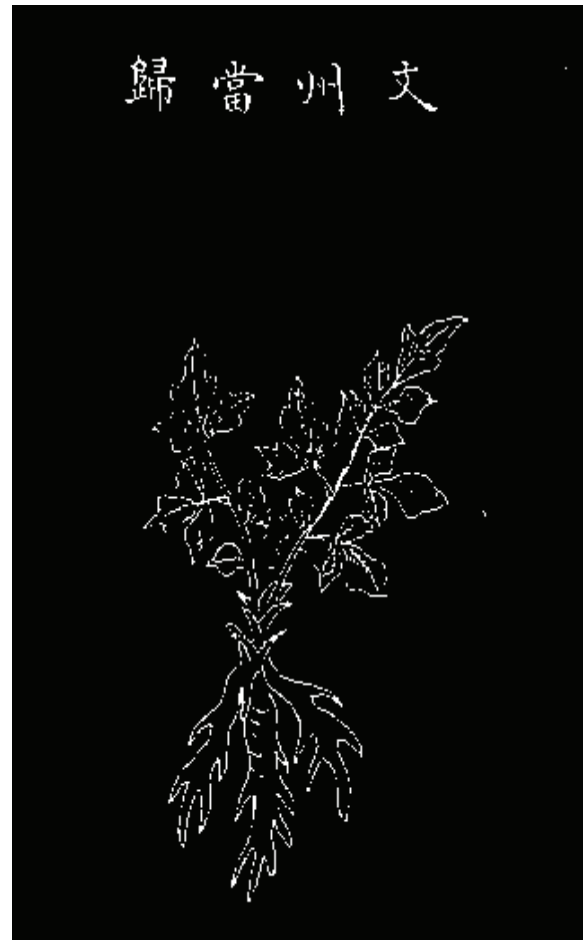


9) 當歸, Angelica

Angelica Sinensis (当归): Chu Zhou (滁州) < *Species Certification of Materia Medica* 證類本草 >

Angelica Sinensis (当归): Wen Zhou (文州) < *Species Certification of Materia Medica* 證類本草 >

Baidu.com ([http://image.baidu.com/search/index?tn=baiduimage&ct=201326592&lm=-1&cl=2&ie=gbk&word=%B5%B1%B9%E9&fr=ala&ori\\_query=%E5%BD%93%E5%BD%92&ala=0&alatpl=sp&pos=0](http://image.baidu.com/search/index?tn=baiduimage&ct=201326592&lm=-1&cl=2&ie=gbk&word=%B5%B1%B9%E9&fr=ala&ori_query=%E5%BD%93%E5%BD%92&ala=0&alatpl=sp&pos=0)) [p. 1 & 2]



10) 蒜 (大蒜, 小蒜), *Allium sativum* (Garlic)

< *Species Certification of Materia Medica* 證類本草 >

'Hao' = 'Shan Suan'(蒿山蒜) < *Er Ya Acousto-gram* 爾雅音圖 >









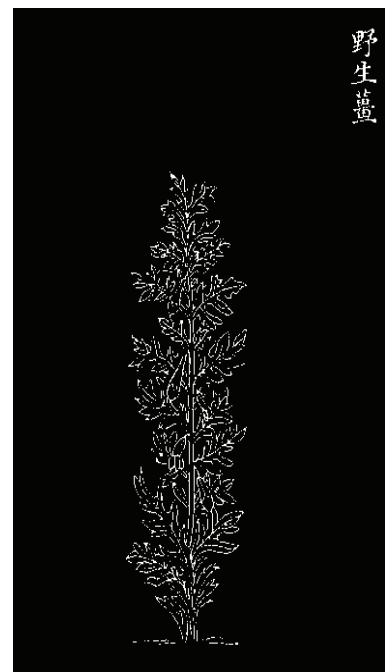
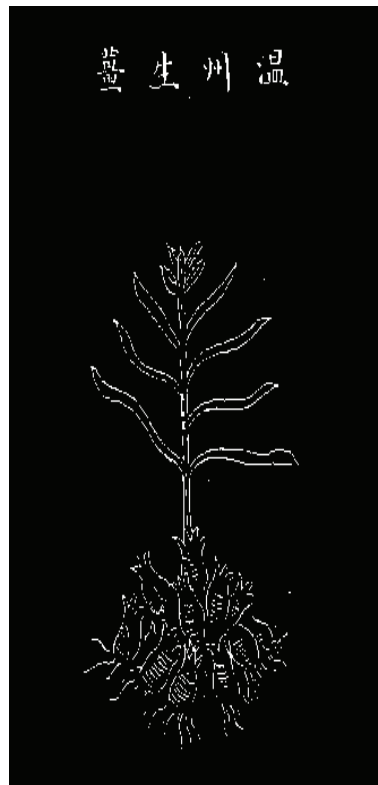
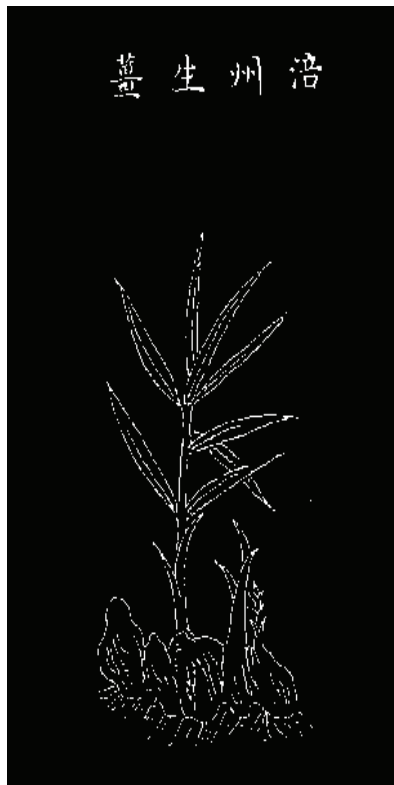
11. 生薑 (or 乾薑), Ginger, Zingiber (officinale)

Raw Ginger 生薑 (Fu Zhou 涪州) <Species Certification of Materia Medica 證類本草>

Raw Ginger 生薑 (Wen Zhou 溫州) <Species Certification of Materia Medica 證類本草>

Dried Ginger 乾薑 from <Species Certification of Materia Medica 證類本草>

Wild Ginger 野生薑 <Materia Medica Relieving Famine 救荒本草>



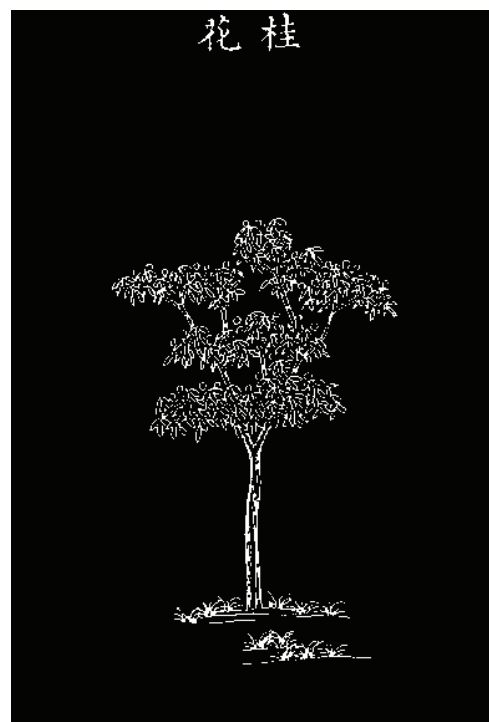
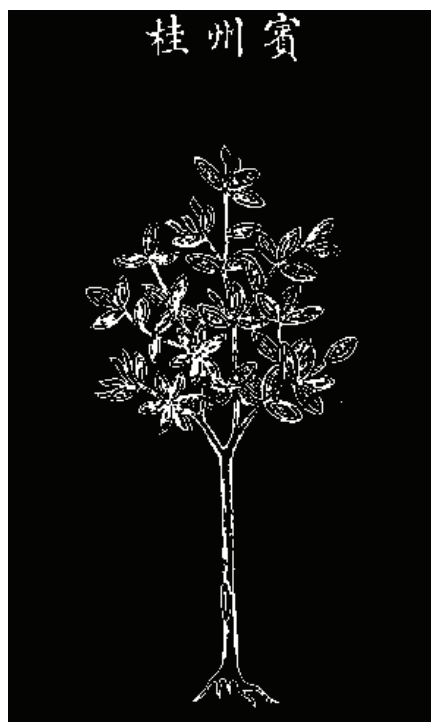
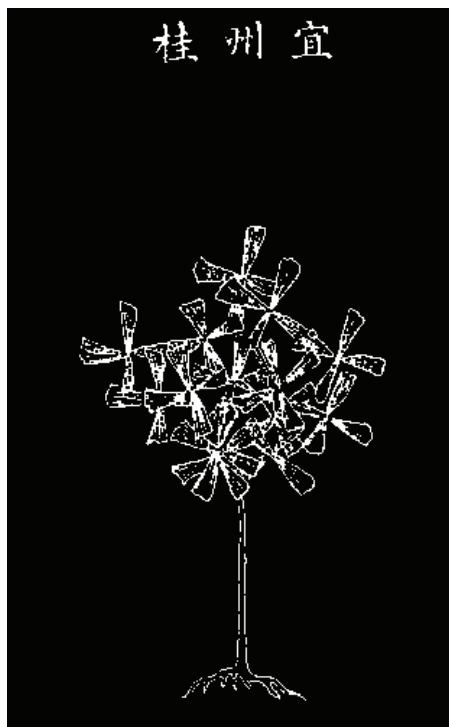
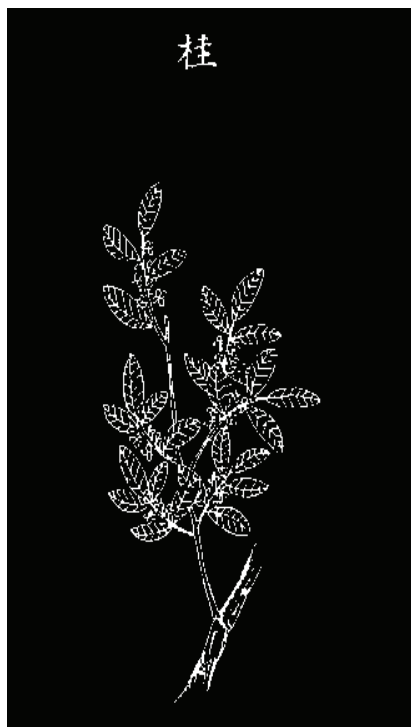
12. 桂(皮), *Cinnamomum (verum)*

桂 <*Species Certification of Materia Medica* 證類本草>

桂 (宜州 Yizhou) <*Species Certification of Materia Medica* 證類本草>

桂 (賓州 Binzhou) <*Species Certification of Materia Medica* 證類本草>

桂花 <*Species Certification of Materia Medica* 證類本草>

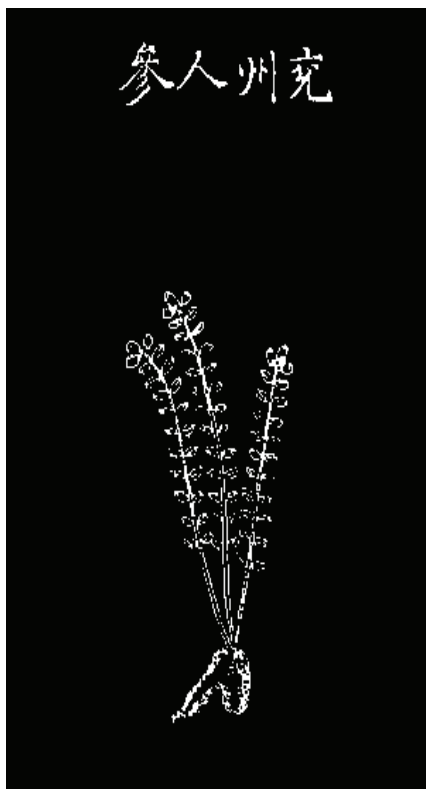
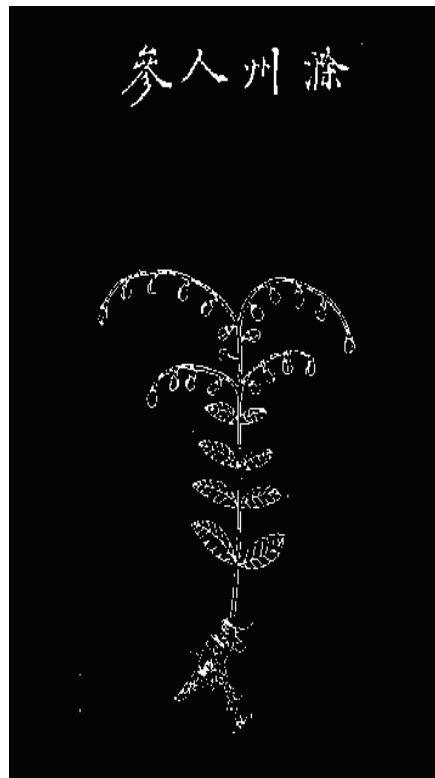
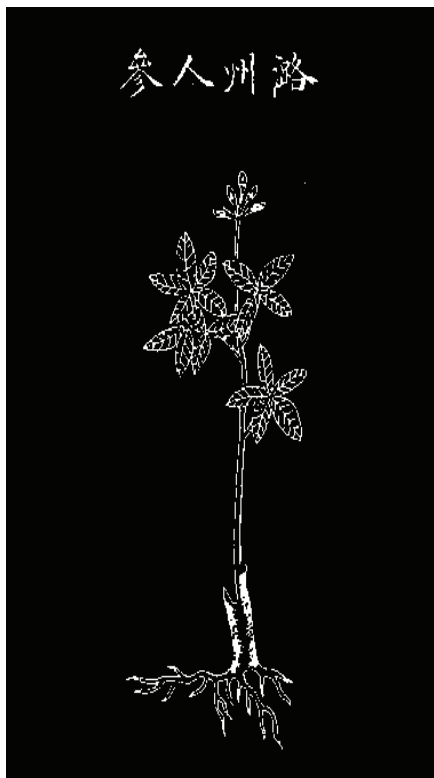


13) 人蔘, Ginseng

Lu Zhou (潞州) < *Species Certification of Materia Medica* 證類本草 >

Chu Zhou (滁州) < *Species Certification of Materia Medica* 證類本草 >

Yan Zhou (兗州) < *Species Certification of Materia Medica* 證類本草 >



14. 銀杏, Ginkgo biloba

< Emperor's Encyclopedia of Current Farming Affairs 欽定授時通考 >



### iii. Ancient Chinese Text

#### 1) 證類本草

##### 9 Plants:

3. 旋覆花 (金佛草), *Konyza (Inula)*
4. 大棗, *Jube (Ziziphus, Ramnos)*
5. 薄荷, *Mintha*
6. 茵陳蒿 *Artemisia*
7. 芍藥, *Paionia*
9. 當歸, *Angelica, Ligusticum (root)*
10. 蒜, *Allium Sativum (garlic)*
11. 生薑 (or 乾薑), *Zingiber (Officinale)*
12. 桂(皮), *Cinnamomum (Verum)*

#### 3. 旋复花 (v.10)

味咸、甘，温、微冷利，有小毒。主结气胁下满，惊悸，除水，去五脏间寒热，补中下气，消胸上痰结，唾如胶漆，心胁痰水，膀胱留饮，风气湿痹，皮间死肉，目中眵（音嗤）（音蔑），利大肠，通血脉，益色泽。一名戴椹，一名金沸草，一名盛椹。其根主风湿。生平泽川谷。五月采花，日干，二十日成。陶隐居云：出近道下湿地，似菊花而大。又别有旋根，出河南，来北国亦有，形似芍，唯合旋膏用之，余无所入，非此旋复花根也。唐本注云：旋复根在中品。陶云：苗似姜，根似高良姜而细，此是山姜。证，不是旋复根。今复道从北国来，似芍，芍与高良姜全仿佛尔。臣禹锡等谨按蜀本图经云：旋复花，叶似水苏，花黄如菊。今所在皆有，六月至九月采花。药性论云：旋复花，使，味甘，无毒。主肋气下，寒热水肿，主治膀胱宿水，去逐大腹，开胃，止呕逆不下食，尔雅云：，盗庚。注：旋复似菊，疏：，一名盗庚也。萧炳云：旋（平声）复用花，（音福）旋（徐愿反）用根。日华子云：无毒。明目，治头风，通血脉。叶止金疮血。图经曰：旋复花，生平泽川谷，今所在有之。二月以后生苗，多近水旁，大似红蓝



而无刺，长一、二尺以来，叶如柳，茎细。六月开花如菊花，小铜钱大，深黄色。上党田野人呼为金钱花，七月、八月采花。曝干，二十日成。今近都人家园圃所莳金钱花，花、叶并如上说，极易繁盛，恐即经旋复也。张仲景治伤寒汗下后，心下痞坚，噫气不除，有七物旋复代赭汤。杂治妇人，有三物旋复汤。胡洽有除痰饮在两胁胀满等旋复花丸，用之尤多。雷公云：凡采得后，去裹花蕊壳皮并蒂子，取花蕊蒸，从巳至午，晒干用。外台秘要：救急续断筋法：取旋复花草根洗净土捣，量疮大小敷之。日一、二易，以瘥为度。又方：破斫筋断者。以旋复根捣汁沥疮中，仍用滓封疮上，十五日，即断筋便续。此方出苏景中家獠奴用，效。经验后方：治中风及壅滞。以旋复花洗尘令净，捣末，炼蜜丸如桐子大。夜卧以茶汤下五丸至七丸、十九。梅师方：治金疮止血，捣旋复花苗敷疮上。衍义曰：旋复花，叶如大菊，又如艾蒿。八、九月有花，大如梧桐子，花淡黄绿，繁茂，圆而覆下，亦一异也。其香过于菊，行痰水，去头目风。其味甘、苦、辛，亦走散之药也。其旋花，四月、五月有花，别一种，非此花也。第七卷已具之。

#### 4. 大棗 乾棗

大棗，味甘，平，無毒。主心腹邪氣，安中養脾，助十二經，平胃氣，通九竅，補少氣少津液，身中不足，大驚，四肢重。和百藥，補中益氣，強力，除煩悶，療心下懸，腸癖。久服，輕身，長年不飢神仙。一名乾棗，一名美棗，一名良棗，八月採，暴乾三歲，陳核中仁，燔之味苦，主腹痛，邪氣。生棗味甘辛，多食，令人多寒熱，羸瘦者，不可食，葉覆麻黃，能令出汗，生河東平澤。殺烏頭毒，陶隱居云，舊云，河東猗氏縣棗特異。今青州出者，形大，核細，多膏，甚甜。鬱州玄市亦得之，而鬱州者亦好，小不及爾。江東臨沂金城棗，形大而虛少脂，好者亦可用。南棗大惡，殆不堪噉。道家方藥以棗爲佳餌，其皮利，肉補虛，所以合湯皆擘之也。唐本注云，別錄云，棗葉散服，使人瘦，久即嘔吐，措熱，癩瘡良。臣禹錫等謹按，孟詵云，乾棗，溫。主補虛液，強志。三年陳者核中仁生惡氣，卒疰忤，又療耳聾，鼻塞。不聞音聲香臭者，取大棗十五枚，去皮核，草麻子三百顆，去皮，二味和搗，綿裹塞耳鼻，日一度易，二十餘日，聞聲及香臭，先治耳，後治鼻，不可並塞之。又方，巴豆十粒，去殼，生用松脂，同搗，綿裹塞耳。又云，洗心腹邪氣，和百藥毒，通九竅，補不足氣。生者食之過多，令人腹脹，蒸羹食，補腸胃，肥中益氣第一，青州次蒲州者好，諸處不堪入藥。小兒患秋痢與蟲，

棗食，良。日華子云，乾棗，潤心肺，止嗽，補五藏，治虛勞損，除腸胃癖氣。和光粉燒治疔痢，牙齒有病人切忌啖之。凡棗亦不宜合生葱食。又云，棗葉，溫。無毒，治小兒壯熱，煎湯浴。和葛粉褒痲子佳及治熱瘤也。

## 5. 薄荷

味辛、苦，溫，無毒。主賊風傷寒發汗，惡氣，心腹脹滿，霍亂，宿食不消，下氣。煮汁服，亦堪生食。人家種之，飲汁發汗，大解勞乏。唐本注云：莖、葉似荏而尖長，根莖冬不死，又有蔓生者，功用相似。（唐本先附）臣禹錫等謹按藥性論云：薄荷，使。能去憤氣，發毒汗，破血，止痢，通利關節。尤與薤作菹相宜。新病瘥人勿食，令人虛汗不止。陳士良云：胡菝，能引諸藥入營衛，疔陰陽毒，傷寒頭，主風氣，壅并攻胸膈，作茶服之，立效。俗呼為新羅菝。日華子云：治中風失音，吐痰，除賊風，疔心腹脹，下氣，消宿食及頭風等。圖經曰：薄荷，舊不着所出州土，而今處處皆有之。莖、葉似荏而尖長，經冬根不死，夏秋采莖葉，曝干。古方：稀用，或與薤作齏食。近世醫家治傷風，頭腦風，通關節及小兒風涎，間多蒔之。又有胡薄荷，與此相類，但味少甘為別。生江浙間，彼人羅薄荷。近京僧寺亦或植一、二本者。《天寶方》名錢草者是。石薄荷，生江南山石上，葉微小，至冬而紫色，此一種不聞有別功用。凡新大病瘥人，不可食薄荷。字書菝。食療：平。解勞，與薤相宜。發汗，通利關節。杵汁服，去心臟風熱。外台秘要：治蜂螫。挪貼之，瘥。經驗方：治水入耳。以汁點，立效。食醫心鏡：煎豉湯，暖酒和飲、煎茶、生食衍義曰：薄荷，世謂之南薄荷，為有一種龍腦薄荷，故言南以別之。小兒驚風，壯熱，須此引藥，貓食之即醉，物相感爾。治骨蒸熱勞，用其汁與眾藥熬為膏。

## 6. 茵陳蒿 (v.7)

味苦，平、微寒，无毒。主风湿，寒热，邪气，热结，黄胆，通身发黄，小便不利，除头热，去伏瘕。久服轻身，益气耐老，面白悦长年。白兔食之仙。生太山及丘陵坡岸上。五月及立秋采，阴干。陶隐居云：今处处有，似蓬蒿而叶紧细，茎，冬不死，春又生。唯入疗黄胆用。《仙经》云：白蒿，白兔食之仙。而今茵陈乃云此，恐是误尔。今按陈藏器本草云：茵陈本功外，通关节，去滞热，伤寒用之。虽蒿类，苗细经冬不死，更因旧苗而生，故名茵陈，后加蒿字也。今又详：此非菜中茵陈也。臣禹锡等谨按蜀本图经云：叶似青蒿而背白，今所在皆有，采苗阴干。药性论云：茵陈蒿，使，味苦、辛，有小毒。治眼目通身黄，小便赤。日华子云：石茵陈，味苦，凉，无毒。治天行时疾，热狂，头痛头旋，风眼冬，瘴疠，女人症瘕，并闪损乏绝。又名茵陈蒿、山茵陈。本出和州及南山、岭上皆有。图经曰：茵陈蒿，生泰山及丘陵坡岸上，今近道皆有之，而不及泰山者佳。春初生苗，高三、五寸，似蓬蒿而叶紧细，无花实，秋后叶枯，茎秆经冬不死，至春更因旧苗而生新叶，故名茵陈蒿。五月、七月采茎叶阴干，今谓之山茵陈。江宁府又有一种茵陈，叶大根粗，黄白色，至夏有花实。阶州有一种名白蒿，亦似青蒿而背白，本土皆通入药用之。今南方医人用山茵陈，乃有数种。或着其说云：山茵陈，京下及北地用者，如艾蒿，叶细而背白，其气亦如艾，味苦，干则色黑。江南所用，茎叶都似家茵陈而大，高三、四尺，气极芬香，味甘、辛。俗又名龙脑薄荷。吴中所用，乃石香也，叶至细，色黄，味辛，甚香烈，性温。误作解脾药服之，大令人烦。以本草论之，但有茵陈蒿，而无山茵陈。本草注云：茵陈蒿叶似蓬蒿而紧细。今京下北地用为山茵陈者是也。大体世方用山茵陈疗脑痛，解伤寒发汗，行肢节滞气，化痰利膈，治劳倦最要。详本草正经，唯疗黄胆，利小便，与世方都不应。今试取京下所用山茵陈，为解肌发汗药，灼然少效；江南山茵陈，疗伤寒脑痛绝胜。此见诸医议论，谓家茵陈亦能解肌下膈，去胸中烦。方家少用，但可研作饮服之。本草所无，自出俗方。茵陈蒿复当别是一物，主疗自异，不得为山茵陈，此说亦未可据。但以功较之，则江南者为胜。以经言之，则非本草所出。医方所用，且可计较功效，本草之义，更当考论尔。雷公云：凡使，须用叶有八角者，采得阴干，去根细锉用，勿令犯火。千金方：治遍身风痒，生疮疥。茵陈不计多少，煮浓汁洗之，立瘥。食医心镜茵陈，主除大热，黄胆，伤寒头痛，风热瘴疠，利小便。切煮羹，生食之亦宜人。衍义曰：

茵陈蒿，张仲景治伤寒，热甚发黄者，身面悉黄，用之极效。又一僧因伤寒后发汗不澈，有留热，身面皆黄，多热，期年不愈。医作食黄治之，治不对病，不去。问之，食不减。寻与此药，服五日，病减三分之一，十日减三分之二，二十日病悉去。方用山茵陈、山栀子各三分，秦艽、升麻各四钱，末之。每用三钱，水四合，煎及二合，去滓，食后温服，以知为度。然此药以茵陈蒿为本，故书之。

## 7. 芍药 (v.8)

味苦、酸，平、微寒，有小毒。主邪气腹痛，除血痹，破坚积，寒热疝瘕，止痛，利小便，益气，通顺血脉，缓中，散恶血，逐贼血，去水气，利膀胱、大小肠，消痈肿，时行寒热，中恶，腹痛、腰痛。一名白木，一名余容，一名犁食，一名解仓，一名 。生中岳川谷及丘陵。二月、八月采根，曝干。（须丸为之使。臣禹锡等谨按别本作雷丸，恶石斛、芒硝，畏硝石、鳖甲、小蓟，反藜芦。）陶隐居云：今出白山、蒋山、茅山最好，白而长大。余处亦有而多赤，赤者小利，俗方以止痛，乃不减当归。道家亦服食之，又煮石用之。今按别本注云：此有两种：赤者利小便下气。白者止痛散血。其花亦有红、白二色。臣禹锡等谨按吴氏云：芍药，神农：苦。桐君：甘，无毒。歧伯：咸。季氏：小寒。雷公：酸。药性论云：芍药，臣。能治肺邪气，腹中痛，血气积聚，通宣脏腑拥气，治邪痛败血，主时疾骨热，强五脏，补肾气，治心腹坚胀，妇人血闭不通，消瘀血，能蚀脓。日华子云：治风补劳，主女人一切病，并产前后诸疾，通月水，退热除烦，益气，天行热疾，瘟疫惊狂，妇人血晕，及肠风泻血，痔，发背疮疥，头痛，明目，目赤肉。赤色者多补气，白者治血，此便芍药花根。海、盐、杭、越俱好。图经曰：芍药，生中岳川谷及丘陵，今处处有之，淮南者胜。春生红芽作丛，茎上三枝五叶，似牡丹而狭长，高一、二尺。夏开花，有红、白、紫数种，子似牡丹子而小。秋时采根，根亦有赤白二色。崔豹《古今注》云：芍药有二种：有草芍药、木芍药。木者花大而色深，俗呼为牡丹，非也。又云：牛亨问曰：将离相别，赠以芍药，何也？答曰：芍药一名何离，故相赠。犹相招召，赠以文无，文无一名当归；欲忘人

之忧，则赠以丹棘，丹棘一免忘忧，使忘忧也；欲蠲人之忿，则赠以青裳，青裳一名合欢，赠之使忘忿也。张仲景治伤寒，汤多用芍药，以其主寒热，利小便故也。古人亦有单服食者。安期生服炼法云：芍药二种：一者金芍药；二者木芍药。救病用金芍药，色白多脂肉；木芍药色紫，瘦多脉。若取，审看勿令差错。若欲服饵，采得净刮去皮，以东流水煮百沸，出阴干。停三日，又于木甑内蒸之，上覆以净黄土，一日夜熟，出阴干，捣末。以麦饮或酒服三钱匕，日三。满三百日，可以登岭。绝谷不饥。《正元广利方》治妇女赤白下，年月深久不瘥者，取白芍药三大两，并干姜半大两，细锉，熬令黄，捣下筛，空肚和饮汁服二钱匕，日再，佳。又金创血不止而痛者，亦单捣白芍药末，敷上即止，良验。唐本注：益好血。雷公云：凡采得后，于日中晒干，以竹刀刮上粗皮并头土了，锉之，将蜜水拌蒸，从巳至未，晒干用之。经验后方：治风毒，骨髓疼痛。芍药二分，虎骨一两，炙为末，夹绢袋盛，酒三升渍五日，每服三合，日三服。博济方：治五淋。赤芍药一两，槟榔一个，面裹煨为末，每服一钱匕，水一盞，煎七分，空心服。广利方：治金疮血不止，痛。白芍药一两，熬令黄，杵令细为散。酒或米饮下二钱并得，初三服，渐加。初虞世：治咯血衄血。白芍药一两，犀角末一分，为末。新水服一钱匕，血止为限。别说云：谨按《本经》：芍药生丘陵川谷，今世所用者，多是人家种植。欲其花叶肥大，必加粪壤，每岁八、九月取其根分削，因利以为药，遂曝干货卖，今淮南真阳尤多。药家见其肥大，而不知香味绝不佳，故人药不可责其效。今考，用宜根据《本经》所说，川谷丘陵有生者为胜尔。衍义曰：芍药，全用根，其品亦多，须用花红而单叶，山中者为佳。花叶多即根虚。然其根多赤色，其味涩苦，或有色白粗肥者益好。余如《经》。然血虚寒人，禁此一物。古人有言曰：减芍药以避中寒。诚不可忽。

## 9. 当归 (v.8)

味甘、辛，温、大温，无毒。主咳逆上气，温疟寒热洗洗（音癖）在皮肤中，妇人漏下，绝子，诸恶疮痒（音羊），金疮，煮饮之。温中止痛，除客血内塞，中风，汗不出，湿痹，中恶，客



气虚冷，补五脏，生肌肉。一名干归。生陇西川谷。二月、八月采根，阴干。（恶 茹，畏菖蒲、海藻、牡蒙）。陶隐居云：今陇西叨阳黑水当归，多肉少枝，气香，名马尾当归，稍难得。西川北部当归，多根枝而细。历阳所出，色白而气味薄，不相似，呼为草当归，缺少时乃用之。方家有云真当归，正谓此，有好恶故也。俗用甚多，道方时须尔。唐本注云：当归苗有二种：于内一种，似大叶芎 。一种似细叶芎 ，唯茎叶卑下于芎 也。今出当州、宕州、翼州、松州，宕州最胜。细叶者名蚕头当归，大叶者名马尾当归，今用多是马尾当归，蚕头者不如此，不复用，陶称历阳者，是蚕头当归也。臣禹锡等谨按尔雅云：薜，山蕲。注《广雅》曰：山蕲，当归也。当归今似蕲而粗大。吴氏云：当归，神农、黄帝、桐君、扁鹊：甘，无毒。歧伯、雷公：辛，无毒。季氏：小温。或生羌胡地。范子云：当归无枯者善。药性论云：当归，臣，恶热面。止呕逆，虚劳寒热，破宿血，主女子崩中，下肠胃冷，补诸不足，止痢腹痛。单煮饮汁，治温疟，主女人沥血腰痛，疗齿疼痛不可忍。患人虚冷，加而用之。日华子云：治一切风，一切血，补一切劳，破恶血，养新血及主症癖。图经曰：当归，生陇西川谷，今川蜀、陕西诸郡及江宁府、滁州皆有之，以蜀中者为胜。春生苗，绿叶有三瓣。七、八月开花似时罗，浅紫色。根黑黄色。二月、八月采根，阴干。然苗有二种，都类芎 ，而叶有大小为异，茎梗比芎 甚卑下。根亦二种，大叶名马尾当归，细叶名蚕头当归。大抵以肉浓而不枯者为胜。谨按《尔雅》云：薜（布革切），山蕲（古芹字巨斤切）。郭璞注引《广雅》云：山蕲，当归也。似蕲而粗大。释曰：《说文》云：蕲，草也。生山中者名薜，一名山蕲。然则当归芹类也。在平地者名芹，生山中而粗大者名当归也。雷公云：凡使，先去尘并头尖硬处一分以来，酒浸一宿。若要破血，即使头一节硬实处。若要止痛止血，即用尾。若一时用，不如不使，服食无效，单使妙也。外台秘要：治头疼欲裂。当归二两，酒一升，煮取六合，饮至再服。又方：治心痛。当归为末，酒服方寸匕。肘后方：治小儿多患胎寒好啼，昼夜不止，因此成病。当归末一小豆大，以乳汁灌之，日夜三、四度服，瘥。葛氏方：治小便出血。当归四两细锉，酒三升，煮取一升，顿服之。梅师方：治胎动下血，心腹疼，死生不知，服此汤，活即安，死即下。用当归四两，芎 九两，细锉，以酒三升，水四升，煎取三升，分服。子母秘录治倒产，子死腹中。捣当归末，酒服方寸匕。又方：治小儿脐风疮久不瘥，用当归末

敷之。贾相公进过《牛经》，牛有尿血病。当归、红花各半两，为末，以酒半升煎，候冷，灌之瘥。支太医方治妇人百病，诸虚不足。当归四两，地黄二两，为末，蜜和丸如梧子大。食前米饮下十五丸。别说云：谨按当归，自古医家方论，用治妇人产后恶血上冲，仓卒取效，无急于此，世俗多以谓唯能治血。又《外台秘要》、《金匱》、《千金》等方，皆为大补不足，决取立效之药。气血昏乱者，服之即定。此盖服之能使气血各有所归，则可以于产后备急于补虚速效。恐圣人立当归之名，必因此出矣。衍义曰：当归，《广雅》云：山蕲（古芹切），当归也，似芹而粗大。《说广》云：蕲，草也，生山中者名薛（音百）。新书《图经》以谓当归，芹类也。在平地者名芹，生山中粗大者名当归。若然，则今川蜀皆以平地作畦种，尤肥好多脂肉。不以平地、山中为等差，但肥润不枯燥者佳。今医家用此一种为胜。市人又以薄酒洒使肥润，不可不察也。《药性论》云：补女子诸不足，此说尽当归之用也。

## 10. 蒜 (v.29)

小蒜也 味辛，温，有小毒。归脾、肾。主霍乱，腹中不安，消谷，理胃，温中，除邪痹毒气。五月五日采之。陶隐居云：小蒜生叶时，可煮和食。至五月叶枯，取根名（音乱）子，正尔啖之，亦甚熏臭。味辛，性热，主中冷，霍乱，煮饮之。亦主溪毒。食之损人，不可长服。唐本注云：此蒜与胡葱相得，主恶毒、山溪中沙虱水毒大效。山人、俚、獠时用之也。臣禹锡等谨按蜀本图经云：小蒜野生，小者一名莨，一名。苗、叶、根、子似葫而细数倍也。尔雅云：，山蒜。释曰《说文》云：葷菜也。一云菜之美者，云梦之葷菜。生山中者名。孟诜云：良。不可常食。日华子云：小蒜，热，有毒。下气，止霍乱吐泻，消宿食，治蛊毒，敷蛇虫，沙虱疮。三月不可食。图经曰：蒜，小蒜也，旧不着所出州土，今处处有之。生田野中，根、苗皆如葫而极细小者是也。五月五日采。谨按《尔雅》（力的切），山蒜。释曰：《说文》云：蒜，葷菜也。一中者名。今《本经》谓大蒜为葫，小蒜为蒜。而《尔雅》、《大蒜也。乃今小蒜也。书转载物之别名不同，如此用药不可不审也。古方：多用小蒜治霍乱，煮汁饮之。南齐褚澄用蒜治李道念鸡瘕，便

瘥。江南又有一种山蒜，似大蒜臭。山人以治积块及妇人血瘕，以苦醋摩服多效。又有一种似大蒜而多瓣，主脚气。宜煮与蓐妇饮之，易产。江北则无。食疗：主霍乱，消谷，治胃温中，除邪气。五月五日采者上。又，去诸虫毒、疗肿、毒疮，甚良。不可常食。肘后方：治霍乱，心腹胀满气，未得吐下。小蒜一升 咀，以水三升，煮螯人。杵小蒜饮汁，以滓敷疮上。葛氏方：水毒中人，一名中溪射工而无物。以小蒜三升咀，于汤中莫令大热，热即无力，捩去滓，适镜：主霍乱，腹中不安，消谷，理胃气，温中，除邪痹，毒气，归脾、肾，煎汤服之。兵部手集治心痛不可忍，十年、五年者，随手效。以不用着盐。绛外家人患心痛十余年，诸药不差，服此更不发。又方：蚰蜒入耳。小蒜汁理一切虫入耳，皆同。治疟用蒜不拘多少，研极烂，和黄丹少许，以聚为度，丸如鸡头大，候干。每服一丸，新汲水下，面东服，至妙。广韵：张騫使大宛，食之损人心力。食小蒜，啖生鱼，令人夺气。衍义曰：蒜，小蒜也。又谓之 ，苗如葱针，根白，大者如乌芋，子兼根煮食之。又谓之宅蒜，华佗用蒜齏，是此物。

## 11. 生薑斗 乾薑

生姜，味辛，微温。主伤寒头痛鼻塞，咳逆上气，止呕吐。久服，去臭气，通神明。生犍为川谷及荆州、扬州，九月采。秦椒为之使，杀半夏、莨菪毒，恶黄芩、黄连、天鼠粪。陶隐居又云，生姜，归五脏，去痰下气，止呕吐，除风邪寒热。以服少志少智，伤心气。如此则不可多食长御，有病者是所宜尔。今人啖诸辛辣物，唯此最常。故《论语》云：不彻姜食。言可常啖，但勿过多尔。唐本注云：姜，久服通神明，主风邪，主痰气。生者尤良。《经》云久服通神明，即可常啖也。今云少智少志，伤心气，不可多食者。谬为此说，检无所据。今注陶注生姜，别出菜部韭条下，今并唐本注移在本条。臣禹锡等谨按药性论又云，生姜，使。主痰水气满，下气。生与干并治嗽，疗时疾，止呕逆，不下食。生和半夏，主心下急痛。若中热不能食，捣汁和蜜服之。又汁和杏仁作煎，下一切结气实，心胸拥隔，冷热气，神效。萧炳云：生姜，一名母姜。孟诜云：生姜，温。去痰下气，多食少心智，八、九月食伤神。又冷痢，取椒焙之为末，共干姜末等分，以醋和面作小馄饨子，服二七枚。先以水煮，更稀饮中重煮，出停冷，吞之，以粥饮下，空腹日一度作之良。谨按止逆，散烦闷，开胃气。又姜屑末和酒服之，除偏风。汁作煎，下一切结实，冲胸膈恶气，神验。陈藏器云：生姜，本功外，汁解毒药，自余破血，调中，去冷，除痰，开胃。须热即去皮，要冷即留皮。图经曰：生姜，生犍为山谷及荆州

、扬州，今处处有之，以汉、温、池州者为良。苗高二、三尺，叶似箭竹叶而长，两两相对。苗青根黄，无花实。秋采根，于长流水洗过，日晒为干姜。汉州干姜法：以水淹姜三日，去皮，又置流水中六日，更刮去皮，然后曝之，令干，酿于瓮中，三日乃成也。近世方有主脾胃虚冷，不下食，积久羸弱成瘵者。以温州白干姜一物，浆水煮，令透心润湿，取出焙干，捣筛，陈廩米煮粥饮，丸如梧子。一服三、五十枚，汤使任用，其效如神。又《千金方》：主痰，以姜附汤治之，取生姜八两，附子生用四两，四破之，二物以水五升，煮取二升，分再服。亦主卒风。禁猪肉、冷水。崔元亮《集验方》：载敕赐姜茶治病方，以生姜切如麻粒大，和好茶一、两碗，呷，任意，便瘥。若是热痢即留姜皮，冷即去皮，大妙。刘禹锡《传信方》李亚治一切嗽及上气者。用干姜，须是合州至好者，皂荚炮去皮子，取肥大无孔者，桂心紫色辛辣者削去皮，三物并别捣下筛了。各秤等分，多少任意，和合后更捣筛一遍，炼白蜜和搜，又捣一、二千杵。每饮服三丸，丸稍加大如梧子，不限食之先后。嗽发即服，日三、五服。禁食葱、油、咸、腥、热面，其效如神。刘在淮南与李同幕府，李每与人药而不出方，或讥其吝。李乃情话曰：凡人患嗽，多进冷药，若见此方用药热燥，即不肯服，故但出药多效，试之信然。李卿换白发方云：刮老生姜皮一大升，于铛中以文武火煎之，不得令过沸，其铛唯得多油腻者尤佳，更不须洗刷，便以姜皮置铛中，密固济，勿令通气。令一精细人守之，地色未分，便须煎之，缓缓不得令火急。如其人稍疲，即换人看火，一复时即成，置于瓷钵中，极研之。李云：虽曰一复时，若火候匀即至日西药成矣。使时先以小物点取如麻子大，先于白须下点药讫，然后拔之，再拔以手指熟拈之，令入肉。第四日当有黑者生，神效。食疗生姜，温。去痰下气，除壮热，治转筋，心满，去胸中臭气，通神明。又，胃气虚，风热，不能食。姜汁半鸡子壳，生地黄汁少许，蜜一匙头，和水三合，顿服立瘥。又，皮寒，性温。作屑末和酒服，治偏风。又，姜汁和杏仁汁煎成膏，酒调服，或水调下，善下一切结实冲胸膈。外台秘要：治霍乱，注痢不止，转筋入腹欲死。生姜三两捣破，以酒一升，煮三、四沸顿服。又方：久患咳噫，连咳四、五十声者。取生姜汁半合，蜜一匙头，煎令熟，温服。如此三服，立效。又方：治咳噫。生姜四两烂捣，入兰香叶二两，椒末一钱匕，盐和面四两，裹作烧饼熟煨，空心吃，不过两、三度。又方：去燥粪。生姜削如小指，长二寸，盐涂之，纳下部中，立通。千金方：治干啰，若手足厥冷。宜食生姜，此是呕家圣药。又治心下痞坚不能食，胸中呕啰。生姜八两细切，以水三升，煮取一升，半夏五合洗去滑，以水五升，煮取一升，二味合煮取一升半，稍稍服之。又方：治喉闭并毒瓦斯。生姜二斤捣汁，好蜜五合，慢火煎令相得，每服一合，日五服。又方：治产后秽污下不尽，腹满。生姜二斤，以水煮取汁服，即出。肘后方：治霍乱，心腹胀痛，烦满短气，未得吐下。生姜一斤切，以水七升，煮取二升，分作三服。经验方：善治狐臭，用生姜汁涂腋下，绝根本。梅师方：治霍乱吐下不止，欲死。生姜五两，牛儿屎一升，切姜以水四升，

煎取二升，分温服。又方：治腹满不能服药。煨生姜绵裹，纳下部中，冷即易之。孙真人治小儿咳嗽，用生姜四两，煎汤沐浴。孙真人食忌正月之节，食五辛以辟疠气，一日姜。又方：八月、九月食姜，至春多眼患，损寿，减筋力。食医心镜治呕吐，百药不瘥。生姜一两切如绿豆大，以醋浆七合，于银器中煎取四合，空腹和滓旋呷之。又，生姜归五脏，理伤寒，头痛，去痰下气，通汗，除鼻塞，咳逆上气，止呕吐，去骨蒸，胸膈中臭气，除风邪，伤寒，调和饮食。汤壶居士云：姜杀腹内长虫，久食令人少智慧，伤心性。兵部手集治反胃，羸弱不欲动。母姜二斤烂捣，绞取汁作粥服。作时如葛粉粥法。杨氏产乳胎后血上冲心。生姜五两切，以水八升，煮三升，分三服。唐崔魏公铉夜暴亡，有梁新闻之，乃诊之曰：食毒。仆曰：常好食竹鸡，多食半夏苗。必是半夏毒，命生姜振汁，折齿而灌之，活。衍义曰：生姜，治暴逆气，爵三、两皂子大，下咽定，屡服屡定。初得寒热痰嗽，烧一块，啗之终日间，嗽自愈。暴赤眼无疮者，以古铜钱刮净姜上取汁，于钱唇点目，热泪出。今日点，来日愈。但小儿甚惧，不须疑，已试良验。

## 12. 桂 (v.6)

桂，味甘、辛，大热，有小毒。主温中，利肝肺气，心腹寒热，冷疾，霍乱转筋，头痛腰痛，出汗，止烦止唾，咳嗽，鼻鼈。能堕胎，坚骨节，通血脉，理疏不足，宣导百药，无所畏，久服神仙不老。生桂阳。二月、八月、十月采皮，阴干。（得人参、麦门冬、甘草、大黄、黄芩，调中益气。得茈胡、紫石英、干地黄，疗吐逆。）陶隐居云：按《本经》唯有菌、牡二桂，而桂用体，大同小异。今俗用便有三种。以半卷多脂者，单名桂，入药最多。所用悉与前说相应。《仙经》乃并有三桂。常服食，以葱涕合和云母，蒸化为水者，正是此种尔。今出广州者好，湘州、始兴、桂阳县即是小桂，亦有而不如广州者。交州、桂州者，形段小，多脂肉，亦好。《经》云：桂，叶如柏叶泽黑，皮黄心赤。齐武帝时，湘州送树以植芳林苑中。今东山有桂皮，气粗相类，而叶乖异，亦能凌冬，恐或者牡桂，诗人多呼丹桂，正谓皮赤尔。北方今重此，每食辄须之。盖《礼》所云姜桂以为芬芳。唐本注：菌桂，叶似柿叶，中有纵纹三道，表里无毛而光泽。牡桂，叶长尺许，陶云小桂，或言其叶小者。陶引《经》云似柏叶，验之，殊不相类，不知此言从何所出。今按桂有二种，桂皮稍不同，若菌桂，老皮坚板无肉，全不堪用。其小枝薄卷及二、三重者，或名菌桂，或名筒桂。其牡桂，嫩枝皮，名为肉桂，亦名桂枝。其老者，名木桂，亦名大桂。得人参等良。本是菌桂，剩出单桂条，陶为深误也。今按陈藏器本草云：菌桂、牡桂、桂心，以上三色并同是一物。按桂林、桂岭，因桂为名，今之所生，不离此郡。从岭以南际海尽有桂树，唯柳、象州最多。味既辛烈，皮又浓坚，土人所采浓者必



嫩，薄者必老。以老薄者为一色，以浓嫩者为一色。嫩既辛香，兼又筒卷。老必味淡，自然板薄。板薄者，即牡桂也，以老大而名焉。筒卷者，即菌桂也，以嫩而易卷。古方有筒桂，字似菌字，后人误而书之，习而成俗，至于书传，亦复因循。桂心即是削除皮上甲错，取其近里辛而有味。臣禹锡等谨按蜀本注云：按此有三种：菌桂，叶如柿叶；牡桂，叶似枇杷叶；此乃云叶如柏叶。

苏以桂叶无似柏叶者，乃云陶为深误。剩出此条。今据陶注云：菌桂正圆如竹，三重者良。牡桂皮薄，色黄多脂肉，气如木兰，味亦辛，此桂则是半卷多脂者。此云《仙经》有三桂，以葱涕合和云母，蒸化为水服之。此则有三种明矣。陶又云：齐武帝时，湘州得树，以植芳林苑中。陶隐居虽是梁武帝时人，实生自宋孝武建元三年，历齐为诸王侍读，故得见此树而言也。苏恭但只知有二种，亦不能细寻事迹，而云陶为深误，何臆断之甚也。抱朴子云：桂可以竹沥合饵之，亦可以龟脑和服之。药性论云：桂心，君，亦名紫桂，杀草木毒，忌生葱。味苦、辛，无毒。主治九种心痛，杀三虫，主破血，通利月闭，治软脚，痹不仁，治胞衣不下，除咳逆，结气壅痹，止腹内冷气，痛不可忍，主下痢，治鼻息肉。日华子云：桂心，治一切风气，补五劳七伤，通九窍，利关节，益精明目，暖腰膝，破瘀癖症瘕，消瘀血，治风痹骨节挛缩，续筋骨，生肌肉。图经曰：菌桂，生交趾山谷；牡桂，生南海山谷；桂，生桂阳。旧经载此三种之异，性味、功用亦别，而《尔雅》但言，木桂一种。郭璞云：南人呼桂，浓皮者为木桂。苏恭以谓牡桂即木桂，及单名桂者是也。今岭表所出，则有筒桂、肉桂、桂心、官桂、板桂之名，而医家用之罕有分别者。旧说菌桂正圆如竹，有二、三重者，则今所谓筒桂也。筒、菌字近，或传写之误耳，或云即肉桂也。牡桂，皮薄色黄，少脂肉，气如木兰，味亦相类，削去皮，名桂心，今所谓官桂，疑是此也。桂是半卷多脂者，今所谓板桂，疑是此也。今观宾、宜、韶、钦诸州所图上者，种类亦各不同，然皆题曰桂，无复别名。参考旧注，谓菌桂，叶似柿叶，中有三道纹，肌理紧，薄如竹，大枝、小枝皮俱是筒，与今宾州所出者相类。牡桂，叶狭于菌桂而长数倍，其嫩枝皮半卷多紫，与今宜州、韶州者相类。彼土人谓其皮为木兰皮，肉为桂心。此又有黄、紫两色，益可验也。桂，叶如柏叶而泽黑，皮黄心赤，今钦州所出者，叶密而细，亦恐是其类，但不作柏叶形为疑耳。皮浓者名木桂，即板桂是也。苏恭以牡桂与单名桂为一物，亦未可据。其木俱高三、四丈，多生深山蛮洞中，人家园圃亦有种者。移植于岭北，则气味殊少辛辣，固不堪入药也。三月、四月生花，全类茱萸。九月结实，今人多以装缀花果作筵具。其叶甚香，可用作饮香尤佳。二月、八月采皮，九月采花，并阴干，不可近火。中品又有天竺桂，云生西胡国，功用似桂，不过烈，今亦稀有，故但附于此。张仲景治伤寒，用桂枝汤。《甲乙经》治阴受病发痹内熨方：用醇酒二十斗，蜀椒一斗，干姜一斗，桂一斗，凡四物，咀着清酒中。绵絮一斤，细白布四丈，皆并内酒中，置马矢燼中，善封涂，勿使泄气。五日五

夜出布、绵絮，曝干复渍之，以尽其汁。每渍必其日，乃出布绵干之，并用滓与絮复布为巾，其布长六、七尺，为六、七巾。即用之，生桑炭炙巾以熨寒痹，所刺之处，令热入至于病所。寒复炙巾以熨之，三十遍而止。汗出，炙巾以拭身，亦三十遍而止。起步内，无见风。每刺必熨，如此病已矣。此所谓内熨也。又治筋急，亦以白酒和桂涂之。《续传信方》造桂浆法，夏月饮之，解烦渴，益气消痰。桂末二大两，白蜜一升，以水二斗，先煎取一斗。待冷，入新瓷瓶中，后下二物，搅二、三百转令匀。先以油单一重覆上，加纸七重，以绳封之。每日去纸一重，七日开之，药成，气香味美，格韵绝高。今人亦多作，故并着其法。雷公云：凡使，勿薄者，要紫色浓者，去上粗皮，取心中味辛者使。每斤大浓紫桂，只取得五两，取有味浓处，生用。如末用，即用重密熟绢并纸裹，勿令犯风。其州土只有桂草，元无桂心。用桂草煮丹阳木皮，遂成桂心。凡使，即单捣用之。圣惠方治头风痛，每欲天阴雨风先发者。用桂心一两为末，以酒调如膏，用敷顶上并额角。又方治九种心痛妨闷，用桂心一分为末，以酒一大盏，煎至半盏，去滓，稍热服，立效。又方治寒疝，心痛，四肢逆冷，全不欲食，用桂心二两去皮，捣罗为散。不计时候，热酒调下一钱匕。又方治产后恶血冲心痛，气闷欲绝，用桂心三两，捣罗为散，狗胆汁和丸如樱桃大。不计时候，用热酒磨，下二丸。外台秘要疗，小儿睡中遗尿不自觉，桂末、雄鸡肝等分，捣丸服如小豆大，温水下，日三服。千金方治中风，面目相引偏僻，牙车急，舌不可转，桂心以酒煮取汁，故布蘸搥病上，正即止，左喎搥右，右喎搥左，常用大效。又方大治失音，末桂着舌下，渐咽汁。又方治卒中恶心痛，桂心八分，咬咀，以水四升，煮取一升，分二服。肘后方治卒心痛，桂心八两，咬咀，水四升，煮取一升，分三服。又方治心腹俱胀痛，短气欲死，或已绝，桂二两，切，以水一升二合，煮取八合，去滓，顿服。无桂，用干姜亦得。又方治中风，四肢逆冷，吐清水，宛转啼呼者，取桂二两，咬咀，以水三升，煮取二升，去滓，适寒温服。又方治反腰有血痛。捣桂筛三升许，以苦酒和涂痛上，干复涂。葛氏方治卒吐血。桂屑方寸匕，昼夜含二十许服。亦疗下血，大神验。《千金方》同。又方治产后腹中痠痛。末桂，温酒服方寸匕，日三。《子母秘录：》同。孙真人食忌治中风失音方：桂一尺，以水三升，煎取一升服，取汗。又方治唾血。取桂心捣作末，以水下方寸匕。梅师方蜀椒闭口者有毒，误食之，便气欲绝，或下白沫，身体冷急。煎桂汁服之，多饮冷水一、二升，忽食饮吐浆，煎浓豉汁服之。又方治卒外肾偏肿疼痛方：桂心末和水调方寸匕，涂之。又方治产后血泄不禁止，余血弥痛兼块。桂心、干姜等分，为末，空心酒调服方寸匕。斗门方治中风失音。用桂心一两，去其粗皮，近人身体怀之，至两时辰许，为末，分为三服，每服用水二盏，煎取一盏，服之瘥。大妙。《圣惠方》同。姚和众方治小儿脐肿。取桂心炙令热，熨之，日可四、五度。抱朴子云桂可以合葱涕蒸作水，亦可以竹沥合饵之，亦可

以龟脑和而服之，七年，能步行水上，长生不死。又云：赵他子服桂二十年，足下毛生，日行五百里，衍义曰：桂，大热。《素问》云：辛、甘发散为阳。故汉·张仲景桂枝汤，治伤寒表虚，皆须此药，是专用辛、甘之意也。本草第一又云：疗寒以热药。故知三种之桂，不取菌桂、牡桂者，盖此二种，性止温而已，不可以治风寒之病。独有一字桂，《本经》言甘、辛，大热，此正合《素问》辛、甘发散为阳之说，尤知菌、牡二桂不及也。然《本经》只言桂，仲景又言桂枝者，盖亦取其枝上皮，其木身粗浓处，亦不中用。诸家之说，但各执己见，终无证据。今又之官桂，不知缘何而立名？虑后世为别物，故书之。又有桂心，此则诸桂之心，不若一字桂也。

## 2) 本草從新 (草部)

### 9 Plants:

1. 甘草, Glycyrrhiza
2. 甘菊, Chrysanthemum
3. 旋覆花 (金佛草), Konyza (Inula)
5. 薄荷, Mntha
6. 茵蔯 Artemisia
7. 白芍藥, Peonia Alba
8. 黃芪 (戴糝 Dai San), Astragalos
9. 當歸, Angelica, Ligusticum (root) [궁궁이, 승검초, 천궁]
13. 人蔘, Ginseng

#### 1. 甘草 (山草流)

[有补有泻、能表能里、可升可降、生阴血]

味甘。生用气平。补脾胃不足。而泻心火。(能生肺金。)炙用气温。补三焦元气。而散表寒。入和剂则补益。入汗剂则解肌。(解退肌表之热。)入凉剂则泻邪热。入峻剂则缓正气。(姜附加之、恐其僭上、硝黄加之、恐其峻下、皆缓之之意。)入润剂则养阴血。能协和诸药。使之不争。生肌止痛。(脾主肌肉、甘能缓痛。)通行十二经。解百药毒。故有国老之称。疗诸痛肿疮疡。惟中满证忌之。(甘令人满、然亦有生用为泻者、以其能引诸药至于满所、经云:以甘补之、以甘泻之是已、故陶隐署名医别录、甄权药性论并云除满、脾健运、则满除也。又甘草得茯苓、则不资满而反泄满、故云:下气除满、仲景有甘草泻心汤、治痞满。)大而结者良。出大同。名粉草。(弹之有粉出。)细者名统草。补中炙

用。宜大者。泻火生用。宜细者。（去外赤皮。）

甘草头。（宣、涌吐。）消肿导毒。（在上部者效。）宜入吐药。

甘草梢。（达茎中。）止茎中痛。淋浊证用之。（取其径达茎中也。）白术、苦参、干漆为使。恶远志。反大戟、芫花、甘遂、海藻，然亦有并用者。（胡洽百病方、治痰癖、十枣汤加甘草、东垣治结核、与海藻同用、丹溪治劳瘵、与芫花同行、非妙达精微者、不知此理。）

## 2. 甘菊花 (隰草类)

[宣、祛风热、补肺肾、明目]甘苦微寒。备受四气。（冬苗、春叶、夏蕊、秋花。）饱经霜露。得金水之精。能益肺肾二脏。以制心火而平肝木。木平则风息。火降则热除。故能养目血。去翳膜。（与枸杞相对、蜜丸久服、永无目疾。）治目泪头眩。散湿痹游风。家园所种。杭产者良。（花小味苦者、名苦薏、非真菊也、景焕牧竖闲谈云：真菊延龄、野菊泻人。）有黄白二种。单瓣味甘者入药。点术、枸杞子、地骨皮为使。菊青叶。救垂危疗毒。（以叶捣烂、入酒绞汁饮之、其渣敷于毒上、神效。）

## 3. 旋复花 (隰草类)

[一名金沸草。泻、下气消痰]苦辛。能下气行水。咸能软坚。微温。能通血脉。入肺、大肠经。消痰结。坚痞。唾如胶漆。噫气不除。（噫、于介切、俗作暖、胸中气不畅、故暖以通之、属不足、亦有挟痰挟火者、属有余、仲景治汗吐下后、痞硬噫气者、有代赭旋复汤。）大腹水肿。风气湿痹。走散之药。冷利大肠。虚人禁之。根治风湿。叶治疗疮肿毒。傅金疮。（止血。）类金钱菊。去皮蒂蕊壳。蒸用。入煎剂。须用绢包好。（有细毛、恐射肺令人嗽。）

## 5. 薄荷

[轻、宣散风热]辛能散。凉能清。（本经温、盖体温而用凉也。）升浮能发汗。搜肝气而抑肺盛。疏逆和中。宣滞解郁。消散风热。清利头目。治头痛头风。中风失音。痰嗽口气。语涩舌胎。（含漱、或和蜜擦之。）眼耳咽喉口齿诸病。（辛香通窍、而散风热。）皮肤瘾疹疮疥。惊热（小儿治惊药蒸。消宿食。止血痢。（血痢病在凝滞、辛能散、凉能清。）通关节。定霍乱。猫咬蛇伤。（薄荷、猫之酒也、犬、虎之酒也、蜈蚣、鸡之酒也、桑甚、鸠之酒也、莽草、鱼之酒也、食之皆醉、被猫伤者、薄荷汁涂



之。) 辛香伐气。多服损肺、伤心。虚者远之。(每见小儿多食薄荷糕者、汗多体弱。) 苏州所蒔者。茎小而气芳。最佳。江西者稍粗。次之。四川者更粗。又次之。野生者。茎叶气味都相似。入药以苏产者为胜。(张杲医说方、灸火毒瓦斯入内、两股生疮、汁水淋漓者、用薄荷煎汁、频涂立愈。)

## 6. 茵陈 (隰草类)

[通、利湿热、治诸黄] 苦燥湿，寒胜热。入足太阳经。(膀胱。) 发汗利水。以泄太阴、阳明之湿热。(脾、胃。) 为治黄胆之君药。(脾胃有湿热则发黄、黄者脾之色、身如橘色、汗如汁而色明者热多、熏黄而色暗者湿多、须五苓之类、佐助成功。) 又治伤寒时疾。狂热瘴症。头痛头旋。女人瘦疔。(皆湿热为病。) 按黄胆须分阴黄、阳黄。阳黄宜茵陈。阴黄宜温补。若用茵陈。多致不救。

## 7. 白芍药 (芳草类)

[补血、泻肝、敛阴] 苦酸微寒。入肝脾血分。(白术补脾阳、白芍补脾阴、为手足太阴行经药。(肺、脾。) 泻肝火。(酸敛肝、肝以敛为泻、以散为补。) 发脾肺。固腠理。(肺主皮毛、脾主肌肉、肝木不克土、则脾安、土旺能生金、则肺安、脾和肺安、则腠理固矣。) 和血脉。收阴气。敛逆气。(酸主收敛。) 缓中止痛。(东垣曰:损其肝者缓其中、即调血也。) 除烦敛汗。退热安胎。治泻痢后重。血虚腹痛。(泻痢俱太阴病、不可缺此、寒泻冷痛忌用、古方治腹痛、白芍四钱汤、盖腹痛因营气不从、逆于肉里、白芍能调营气、甘草能缓逆气、伐肝故也、其治腹痛、止血虚腹痛、余痛不治、以其酸寒收敛、无温散之功也。) 胁痛。(胁者、肝胆二经来往之道、其火上冲、则胃脘痛、横行则两胁痛、白芍能敛气泻肝火。) 肺胀喘噎。(噎同。) 脾热易饥。其收降之性。又能入血海。(冲脉为血海、男女皆有之。) 而至厥阴。(肝经。) 治鼻衄目涩。肝血不足。小儿痘疮。(地红血散、毒妇人胎产。及一切血病。(同白术补脾、同参补气、同归地补血、同芍泻肝、同甘草止腹痛、同苓连止泻痢、同防风发痘疹、同姜枣和营卫、酒炒加入补中益气汤中、治气虚下陷、尤称神妙。) 又曰。产后忌用。(丹溪曰:以其酸寒、伐生生之气也、必不得已、酒炒用之可耳、时珍曰:产后肝血已虚、不可更泻也、寇宗本草衍义曰:减芍药、以避中寒、微寒如芍药、古人犹谆谆戒谨、况大苦大寒、可肆行而莫之忌耶、按产后虚热多汗、阴气失散、用白芍以收敛之、取微寒以退虚热、正其相宜、前言亦失之太过耳、景岳全书内、所论极为中正。) 赤芍药(泻肝、散瘀。) 泻肝火。散恶血。利小肠。治腹痛胁痛。坚积血痹疔瘕。

(邪聚外腎為疝、腹內為瘕。)經閉腸風。痛腫目赤。(皆散瀉之功。)白補而斂。赤散而瀉。白益脾。能于土中瀉木。赤散邪。能行血中之滯。虛者忌用。赤白各隨花色。單瓣者入藥。酒炒用。(制其寒。 ) 婦人血分醋炒，下痢后重不炒。惡芒硝、石斛。畏鱉甲、小蘗。反藜蘆。

## 8. 黃耆

黃耆〔補氣固表，生亦瀉火，生陰血。〕甘溫、生用固表、無汗能發、有汗能止、(丹溪曰：黃耆大補陽虛自汗、若表虛有邪、發汗不出者、服之又能自汗)。溫分肉、實腠理、補肺氣、瀉陰火、解肌熱、炙用補中、益元氣、溫三焦、壯脾胃 (脾胃一虛、土不能生金、則肺氣先絕。脾胃緩和、則肺旺而肌表固實。補中既所以固表也)。生血生肌(氣能生血、血充則肉長)、排膿內託、瘡癰聖藥、(毒氣化則成膿、補氣故能內托。癰疽不能成膿者、死不治、毒氣盛而元氣衰也、痘證亦然)。痘症不起、陽虛無熱者宜之(合人參甘草生薑為保元湯、治痘虛不起、或加芍藥糯米助之。王好古、湯液本草曰、實衛氣、是表藥；益脾胃、是中州之藥；治傷寒尺脈不至、補腎元、是裏藥、甄權謂、其補腎者、氣為水母也。日華大明本草謂：其止崩帶者、氣旺則無陷下之患也。〈蒙筌〉曰：補氣藥多、補血藥亦從而補氣、補血藥多、補氣藥亦從而補血。益氣湯雖用當歸、因勢寡、功被參、者所據、補血湯黃耆數倍於當歸、亦從當歸所引而補血。補血湯、黃耆一兩、當歸二錢、氣藥多而云補血者、氣能補血、又有當歸為引也。為補藥之長故名耆)形如箭筈者佳。綿軟而嫩無丫枝(故又名綿耆。切片外白中黃金井玉蘭。五臺耆口耆皆不堪入藥)入補中藥搗扁蜜炙如欲其稍降鹹水炒(有謂補腎崩帶及淋濁藥宜鹽水炒。汪詡菴曰此說非也。前證用黃耆非欲抑黃耆使入腎也。取其補中升氣則腎受蔭而崩帶淋濁之病自愈也。有上病下取下病上取、補彼經而益及此經者、此類是也)達表生用或酒炒亦可茯苓為使、惡龜甲、白鮮皮畏防風(東垣曰黃耆得防風其功益大乃相畏而更以相使也)按黃耆極滯胃口胸胃不寬者、勿用實表有表邪及表旺者、勿用助氣、氣實者、勿用多怒則肝氣不和、亦禁用陰虛者、宜少用恐升氣於表而裏愈虛爾(用鹽水炒以制其升性亦得)熬膏良。

## 9. 當歸 (芳草類)

[補血、潤燥滑腸]甘溫和血。辛溫散內寒。苦溫助心散寒。(諸血屬心、凡通脈者、必先補心、當歸苦溫助心。)入心肝脾。(心生血、肝藏血、脾統血。)為血中氣藥。治虛勞寒熱。咳逆上氣。(血和則氣降。)溫症。(厥陰肝邪、痢。頭痛腰痛。心腹肢節諸痛。(散寒和血。)跌打血凝作脹。風痿无汗

。(身强项直、角弓反张曰痉、无汗为刚痉、有汗为柔痉、当归辛散风、温和血、产后亦有发痉者、以脱血无以养筋也、宜十全大补汤。)痿痹症瘦。(筋骨缓纵、足不任地曰痿、风寒湿客于肌肉血脉曰痹。)痘证痛疽疮疡。冲脉为病。气逆里急。带脉为病。腹痛满。腰溶溶如坐水中。(冲脉起于肾下、出于气街、挟脐上行、至胸中、上颡颥、渗诸阳、灌诸经、下行入足、渗三阴、灌诸络、为十二经脉之海、主血、带脉横围于腰、如束带、总约诸脉。)及妇人诸不足。一切血症。阴虚而阳无所附者。润肠胃。泽皮肤。去瘀生新。温中养营。活血舒筋。排脓止痛。(血和则痛止。)使气血各有所归。故名。(血滞能通、血虚能补、血枯能润、血乱能抚、盖其辛温能行气分、使气调而血和也、东垣曰：头止血而上行、身养血而中守、尾破血而下流、全活血而统治、雷、海藏并云：头破血、时珍曰：治上用头、治中用身、治下用尾、统治全用。雷着雷公炮炙论、时珍曰：此雷公、是刘宋时雷、非黄帝时雷公也。)极善滑肠。泻者禁用。(当归为君、白芍为臣、地黄为佐、芎为使、名四物汤、治血之总剂、血虚佐以人参黄、血热佐以条芩梔连、庵曰：血属阴、须得阳生血、气虚血弱之人、当用参、取阳旺生阴之义。)川产力刚善攻。秦产力柔善补。以秦产头圆尾多。肥润气香。里白不油者为良。名马尾当归。尾粗坚枯者。名头当归。只宜发散用。宜酒制。治吐血。宜醋炒。畏菖蒲、海藻、生姜。恶湿面。(当归和酒服、治倒产子死不出。)

### 13. 人参 (山草类)

大补元气、生阴血、亦泻虚火。甘温微苦。大补肺中元气。(李东垣用药法象曰：肺主气、肺气旺则脏腑之气皆旺、精自生而形自盛。十剂曰：补可去弱、人参羊肉之类是也、人参补气、羊肉补形。)泻火。(东垣曰、参甘草、退火之圣药、按烦劳则虚而生热、得甘温以益元气、而虚热自退、故亦谓之泻。)除烦，生津止渴，开心益智。(心气强、则善思而多智。)聪耳明目。(洗与服俱佳。)安精神。定魂魄。止惊悸。通血脉。(气行则血行。)破坚积。(气运则积化。)消痰水。(气旺则痰行水消。)气壮而胃自开气和而食自化。治虚劳内伤。(伤于七情六欲、饮食作劳为内伤、宜养正、伤于风寒暑湿燥火为外感、宜祛邪、如发热证、外感则发热无间、内伤则时热时止、恶寒证、外感虽絮火不除、内伤则得暖便减、头痛证、外感则常痛不休、内伤则时痛时止、外感则手背热、内伤则手心热、外感则鼻塞不通、内伤则口淡无味。)发热自汗。(自汗属阳虚、宜参补气、亦有因肺热汗多者、服参汗必更多、

宜清热而兼养血、汗自止矣。凡外感风邪、每多发热自汗、脉必浮缓、而外证亦自可辨。)虚咳喘促。(陈嘉谟本草蒙筌曰:咳有肺热还伤肺之句、唯言寒热、不辨虚实、若肺中实热者忌之、虚热者、服之何害。)心腹寒痛。(方书谓痛无补法、以其气实也、若虚寒作痛、急宜用之矣。)伤寒。(庸浅之辈、不察虚实、但见发热、动手便攻、且曰伤寒无补法、独不观仲景伤寒论、立三百九十七法、而治虚寒者、一百有奇、垂一百一十三方、而用人参附子者、五十有奇乎。)瘟疫。(瘟疫病、阳脉濡弱、正虚也、阴脉弦紧、邪实也、正虚邪实、则一团毒邪内炽、莫能解散、病固缠身为累、而冬不藏精之人、触其气者、染之尤易、所以发表药中、宜少用人参三、五、七分、以领出其邪、喻嘉言寓意草中、论之甚详。)呕哕反胃。疴泻痢。(皆理胃培脾之功。唯肺遗热于大肠、而为泻痢、虽日久、宜清肺之化源、及风入肠胃、而致久泻久痢、宜祛风邪从肌表出、俱忌用。)淋漓。(肺气化、则溺行而不频数。)胀满。(皇甫嵩本草发明云:胸膈逆满、宜补之而胀自除、经所谓塞因塞用也、俗医泥于作饱不敢用、不知少用反滋壅、多用则宣通、补之正所以导之也。)多梦纷纭。离魂异疾。(有人觉卧则身外有身、一样无别、盖卧则魂归于肝、此由肝虚邪袭、魂不归舍、病名离魂、夏子益奇疾方、同龙齿赤茯苓朱砂各一钱、临睡煎服、三服愈。)妊娠吐水。(酸心腹痛、不能饮食、惠民和剂局方、炮姜等分为末、生地黄汁和丸桐子大、每服五十丸、米汤下。)胎产诸虚。小儿慢惊。痘科险证。(凡痘证颜色娇红、而不苍老、或顶陷、或皮薄浆清、或痒塌泄泻、俱属气虚、宜用。若因肺热、浆不大行、及靥后难脱者、均忌、泄泻由于肺热者、亦忌之。)外科阴毒。(痈疽出脓后收口、其效尤神、掺药用之亦妙。)因虚失血。(古人治大失血、脉芤洪者、并用人参、气旺则能摄血也、又凡血脱者、须益其气、盖血不自生、须得生阳气之药乃生、阳生则阴长之义也、若单用补血、无由而生矣、若火气方逆、血热妄行、则咸忌之)气虚甚者。浓煎独参汤进之。挟寒者。稍加附子。按人参功能在诸药之上。但闭气。肺有火热。及肺气不利者忌之。实表。表有邪者忌之。凡痧痘斑毒。欲出未出。但闷热而不见点。若误用之。以阻截其路。为祸尤烈。产辽东。宁古台出者。光红结实。船厂出者。空松铅塞。并有糙有熟。宜隔纸焙用。忌铁。不宜见风日。茯苓为使。畏五灵脂。恶皂角、黑大豆、紫石英、人溲。反藜芦。(李言闻曰:东垣理脾胃、泻阴火、交泰丸内、用人参皂角、是恶而不恶也、古方疗月闭、四物汤加入参五灵脂、是畏而不畏也、又疗痰在胸膈、人参藜芦同用、而取其涌越、是激其怒性也、非洞奥达权者、不能知也。凡失血不止、人参和童便服、即止、因相恶而效更奇也。)

## iv. Terminology

### 1) Chinese to English

經氣 Jing Qi, Channel Energy [Two kinds of Channel Energy: Protecting Energy (衛氣: Bright) and Managing Energy (營氣: Dark)]

經絡 Jing Luo, Main (Pulse) and Collateral (Extra) Channels. Cf. 十二經脈 shier jingmai [twelve pulse channels (for biochemical actions of gut)] & 奇經八脈 qijing bamai [eight extra channels (for physical movement of all organs)] [cf. <http://cafe.naver.com/sotexercise/17398> (April 9, 2016 searched)]

經脈 Jing Mai, Pulse Channel. Cf. 十二經脈 [twelve pulse channels (for biochemical actions of gut)]

季節(계절) Seasons

季夏 Rainy Summer

冬 Winter

秋 Autumn

春 Spring

夏 Summer

古文說 Theory of Ancient Text

癘亂 = 霍亂: [Medicine] cholera; [Chinese Medicine] acute gastroenteritis

关节 joint 관절

九竅 Nine Orifices : ears (2) · eyes (2) · nose (2) · mouth [Bright Holes of face (陽竅)], 前陰(前陰) · 후음(後陰) [Two Dark Holes of Lower body 陰竅]

君臣佐使 jūn chén zuǒ shǐ, monarch, minister, assistant and employed worker

厥陰 Jueyin, Faint Dark

歸經 Correspondent Relationship Theory [between medicine and the organ or meridian of body]

金 Metal

今文說 Theory of Present Text

氣 (Vital) Energy (force)

奇經八脈 qijing bamai: eight extra channels (for physical movement of all organs)]

氣味陰陽 Energy, Taste, Dark and Bright

岐伯派 Qi Bo Group

帶脈 Dai Mai: one of Eight Peculiar channels (奇經八脈) [It is like the belt around the waist]

絡脈 Luo Mai, Collateral Channel

馬王堆墓 Mawangdui Tomb



脈 Pulse or Channel

脈象 Situation of Pulse

脈証 Pulse Syndrome

木 Wood

排膿 drainage of pus

伯高派 Bo Go Group

保 tonify

補中益氣湯: Decoction Tonifying the Middle and Reinforcing Energy

腹瀉痢疾 diarrheal dysentery

本草 fundamental grass or Materia Medica (θεμελιώδης χλόη)

附方 Attached prescriptions

煩熱 vexed fever

弁脈法 Extraordinary pulse Mode

辨証論治 Treatment by Symptom Discussions

痞 Pi (or 痞積 Pi Ji): a lump in the abdomen

瀉痢 diarrheal dysentery

疝瘕 Shan Jia : abdominal pain (conglomeration) [When evil (morbidness) is assembled in the outside of Kidney, called '疝 Shan', while it is assembled in the inside of abdomen, called '瘕 Jia.']

三焦 Three Foci, or Three Energizer (or Warmer): consisting of Upper Focus (Energizer) (上焦) Middle Focus (Energizer) (中焦), Lower Focus (Energizer) (下焦). The Upper houses the Heart and Lung; the Middle the Spleen and Stomach; the lower Liver, Kidney, Urinary Bladder, Small and Large Intestines.

上焦 Upper Focus (Energizer): one of Three Focus (Energizers), consisting of Heart and Lung.

暑 Warm

性質 (人體):

厥陰 Jueyin, Faint Dark

少陽 Shaoyang, Small Bright

少陰 Shaoyin, Small Dark

陽明 Yangming, Clear Bright

太陽 Taiyang Great Bright

太陰 Taiyin, Great Dark

少師派 Shao Shi Group

消谷 polypepsia

小便: urine, urination

少陽 Shaoyang, Small Bright

少俞派 Shao Yu Group

少陰 Shaoyin, Small Dark

消中 splenic diabetes

水 Water

數秘學 Mystery of numbers

濕 Damp

濕痹 damp rheumatism

昇降浮沈 Ascending, Descending, Floating and Sinking

十二經 Twelve Meridians (or Channels)

十二經脈 shier jingmai [twelve pulse channels (for biochemical actions of gut)]

十二地支 (支干) Twelve Earthly Branches

十天干 Ten Heavenly Stems

陽明 Yangming, Clear Bright

熱 Heat

五常 Wǔcháng: Five Motions (Normal activities of the Five Phases)

烏芋 Wu Taro (= 葶芥): Water Chesnut [Eleocharis Dulcis]

五運 Five Phases

五行

癰腫 Carbuncle

六經 Six Meridians (Channels)

六氣: Six (Vital) Energy (or Force)

陰 Yin, Dark

癰腫 절종(腫氣, Furuncle),

燥 Dry

瘡 ulcer, sore, tumor, abscess

春秋 *Spring and autumn*, i.e. *Chronical (Spring and autumn) History* (770-403 B.C.), and its period.

衝脈 Chong Meridian: one of Eight Extrameridians (奇經八脈). It begins at Womb and goes upwards according to the back bone

陽 Yang, Bright

陽氣 Bright Energy

陽易 Bright Alteration

易學 Mechanism (Dynamism) of Change, which concerns the geometrical, mysterious alteration of numbers.

營氣 Managing Energy: Spirit and Energy (精氣) of food, modulate Five Internal organs, passes through inside the Blood Vessel, creating blood and supplying nutrition to whole body 《Cf. *Internal Classic*

(內經)·Simple Questions (素問)》. Managing Energy is generated from food by the function of Spleen and Stomach, penetrating in the Blood Vessel to become blood, and supply nutrition to arms and legs, reaching Five Jang and Six Fu Organs.

五運 Five Movements or Five Circuit Phases: Wood, Fire, Earth, Metal and Water.

五行: Five Phases or Five Evolutive Phases, a theory explaining the relationship between the human body and worldly matters, and the physio-pathological relationship among the Five Internal Organs (五臟) themselves.

五氣: Five (Vital) Energies (Substances): Wind (風), Cold (寒), Summer-Heat (熱), Damp (濕), Dry (燥)]

五臟, 五藏: Five Internal Organs (Viscera): Heart, Liver, Spleen, Lung and Kidney

要素 (宇宙構成) Elements composing the world

金 Metal

木 Wood

水 Water

濕 Damp

陽 Yang, Bright

熱 Heat

陰 Yin, Dark

燥 Dry

風 Wind

土 Earth

寒 Cold

火 Fire

衛氣 Protecting Energy: passing outside of Channels, keeping body temperature and defending Evil Energy from outside.

六經辨証 Symptoms of Six Meridians

六氣: Six Energies (Atmospheric Influences): Wind(風), Cold(寒), Summer-Warmth (暑), Damp (濕), Dry (燥) and Fire (火)

六腑 Six Bowels: Stomach 胃、 Bile 胆, Triple Energizer 三焦, Bladder 膀胱、 large intestine (intestinum crassum 大腸、 small intestine (intestinum tenue 小腸)

陰陽易 Dark and Bright Alteration

陰氣 Dark Energy

陰易 Dark Alteration

戰國 *Warring States* (403-221 B.C.): title of a history book and the span of a period which it deals with.

中焦 Middle Focus (Energizer): one of Three Foci (Energizers), consisting of Spleen and Stomach.

尺度(Chinese) Measures

10 微 = 1 忽

10 忽 = 1 絲

10 絲 = 1 毫

10 毫 = 1 釐

10 釐 = 1 分

10 分 = 1 錢

10 錢 = 1 兩 [≐37.5g or 50g]

16 兩 = 1 斤 [≐ 600g or 500g]

天 Sky

土 Earth

炮製 processing of medicament

平脈法 Average Pulse Mode

風 Wind

太陽 Taiyang Great Bright

太陰 Taiyin, Great Dark

下劑 purgative agent

下焦 Lower Focus (or Energizer): one of Three Foci (Energizers), consisting of Liver, Kidney, Bladder, Small and Large Intestines.

寒 Cold

脇: flank

血海 Sea of Blood [a sea among four seas (四海), where all blood of 12 Meridians assembled; i.e. Chong Meridian (衝脈, Confronting Meridian) or Liver where blood saved and modulated].

火 Fire:

黃帝派 Huang Di Group

## 2) English to Chinese

abdominal pain 疝瘕 Shan Jia (conglomeration) [When evil (morbidness) is assembled in the outside of

Kidney, called '疝 Shan', while it is assembled in the inside of abdomen, called '瘕 Jia.']

abscess, tumor, sore, ulcer 疮

Autumn 秋

Ascending, Descending, Floating and Sinking 升降浮沈

Attached prescriptions 附方

Average Pulse Mode 平脈法

Bo Go Group 伯高派

Bright 陽 Yang

Bright Alteration 陽易

Carbuncle 癰腫

Channel (or Pulse) 脈

cholera or acute gastroenteritis 霍亂 = 霍乱: [Medicine] cholera; [Chinese Medicine] acute gastroenteritis

Chong Meridian 衝脈: one of Eight Extrameridians (奇經八脈). It begins at Womb and goes upwards according to the back bone

*Chronical (Spring and Autumn) History (770-403 B.C.)* 春秋 Title of a history & the period it deals with.

Cold 寒

Collateral Channel 絡脈 Luo Mai

Dai Meridian 帶脈, One of Eight Extrameridians (奇經八脈) [It is like the belt around the waist]

Damp 濕

damp rheumatism 濕痹

Dark 陰 Yin

Dark Alteration 陰易

Dark and Bright Alteration 陰陽易

Decoction Tonifying the Middle and Reinforcing Energy 補中益氣湯:

diarrheal dysentery 瀉痢 or 腹瀉痢疾

drainage 排膿

Dry 燥

Earth 土

Elements composing the world

Bright 陽 Yang

Cold 寒

Damp 濕



Dark 陰 Yin,

Dry 燥

Earth 土

Fire 火

Heat 熱

Metal 金

Water 水

Wind 風

Wood 木

Seasons

Autumn 秋

Rainy Summer 季夏

Spring 春

Summer 夏

Winter 冬

(Vital) Energy (or Force) 氣

Energy, Taste, Dark and Bright 氣味陰陽

Extraordinary pulse Mode 弁脈法

Five (Vital) Energies (Substances) 五氣: Wind (風), Cold (寒), Heat (熱), Damp (濕), Dry (燥)

Five Internal Organs (Vicera) 五臟, 五藏:: Heart, Liver, Spleen, Lungs, Kidney

Five Motions 五常 Wǔcháng: (Normal activities of the Five Phases)

Five Phases 五運

Five Movements or Five Circuit Phases 五運: Wood, Fire, Earth, Metal and Water.

Five Phases or Five Evolutive Phases 五行: a theory explaining the relationship between the human body and worldly matters, and the physio-pathological relationship among the Five Internal Organs (五臟) themselves.

flank 脇:

Furuncle 癰腫 (腫氣)

Geometric numbers (數秘學) (or Mystery of Numbers)

Heat 熱

Huang Di Group 黃帝派

joint 關節

Lower Enerziger (下焦), one of Three Foci, consisting of Liver, Kidney, Bladder, Small and Large Intestines.

lump in the abdomen 痞 Pi (or 痞积 Pi Ji)

Main and Collateral Channels 經絡 Jing Luo

Materia Medica or fundamental grass 本草 (θεμελιώδης χλόη)

Meridian (Main Channel) 經脈 Jing Mai

Meridian (Main Channel) Energy 經氣 Jing Qi, [Two kinds of Channel Energy: Protecting Energy (衛氣: Bright) and Managing Energy (營氣: Dark).

Mystery of Numbers 數秘學 (or Geometric numbers)

Managing Energy 營氣: Spirit and Energy (精氣) of food, modulate Five Internal organs, passes through inside the Blood Vessel, creating blood and supplying nutrition to whole body 《Cf. *Internal Classic* (內經)·Simple Questions (素問)》. Managing Energy is generated from food by the function of Spleen and Stomach, penetrating in the Blood Vessel to become blood, and supply nutrition to arms and legs, reaching Five Jang and Six Fu Organs.

Mawangdui Tomb 馬王堆墓

Metal 金

Middle Enerziger (中焦), one of Three Foci, consisting of Spleen and Stomach.

Neo Confucianism 性理學

Nine Holes 九竅: ears (2) · eyes (2) · nose (2) · mouth [Bright Holes of face (陽竅)], 전음(前陰) · 후음(後陰)  
[Two Dark Holes of Lower body 陰竅]

Monarch, Minister, Assistant and Employed Worker 君臣佐使 Jun Chen Zuo Shi

polypepsia 消谷

processing of medicament 炮製

Protecting Energy 衛氣: passing outside of Channels, keeping body temperature and defending Evil Energy from outside.

Pulse (or Channel) 脈

Pulse syndrome 脈証

purgative agent 下劑

Qi Bo Group 岐伯派

Rainy Summer 季夏

Sea of Blood 血海 [a sea among four seas (四海), where all blood of 12 Meridians assembled; i.e. Chong Meridian (衝脈, Confronting Meridian) or Liver where blood saved and modulated].

Shao Shi Group 少師派

Shao Yu Group 少俞派

Sin (新) Dynasty (8-23 AD)

situation of pulse 脈象

Six (Vital) Energy (or Force) 六氣:

Six Meridians (Channels) 六經

Six Bowels 六腑: Stomach, Bile 胆, Bladder 膀胱、 large intestine (intestinum crassum 大腸、 small intestine (intestinum tenue 小腸), Triple Enerziger (三焦)

Sky 天

Special correspondent relationship between medicine and organ or meridian of body 歸經

splenic diabetes 消中

Spring 春

*Spring and Autumn* 春秋, i.e. *Chronical (Spring and Autumn) History* (770-403 B.C.) & the period it deals with..

Summer 夏

'Symptoms of Six Meridians (六經辨証)

Ten Heavenly Stems 十天干

Theory of Ancient Text 古文說

Theory of Present Text 今文說

Three Foci [(or Energizers)](三焦), one of Six Bowels, consisting of Upper Focus (上焦) Middle Gocus(中焦) Lower Focus (下焦). The Upper houses the Heart and Lung; the Middle the Spleen and Stomach; the lower Liver, Kidney, Bladder, Small and Large Intestines.

tonify 保

Treatment by Symptom Discussions 辨証論治

tumor, sore, abscess, ulcer 瘡

Twelve Earthly Branches 十二地支 (支干)

Twelve Meridians (or Channels) 十二經

ulcer, sore, tumor, abscess 瘡

Upper Enerziger (上焦), one of Three Foci, consisting of Heart and Lung.

urine, urination 小便

vexed fever 煩熱

*Warring States* 戰國 (403-221 B.C.): title of a history book and the span of a period which it deals with.

Water 水

Wind 風

Winter 冬

Wood 木

Wu Taro 烏芋 (= 葶芥): Water Chesnut [Eleocharis Dulcis]

## iv. Bibliography and Index

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