CHINESE MATERIA MEDICA

DRAGON AND SNAKE DRUGS

BY

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The first group of 'scaly animals', 龜麟, includes DRAGONS and those things which for centuries have held the popular imagination as being like or kin to dragons. The famous expeditions to China in recent years and their scientific studies of the remains of gigantic extinct saurians give weight to the old conceptions of and belief in these fabulous monsters. A study of the Pen T'sao upon this subject lends a new light to current ideas concerning the term "dragon", which has been said to have no zoological meaning. In China since the third millennium B. C. this term has been applied to the mixed fossil deposits in Shansi which included a number of the larger prehistoric animals. The term could scarcely be regarded as specific or even general, but it did refer to a definite entity, "animals which yielded large fossilized bones." Considered in its regional aspect this fact gives the name dragon a reality of which the numerous myths associated with the cultures of other parts of the world cannot boast, for however solid a basis of truth such myths might have had in the dim past, there is no record of it and no basis today except in the old interwoven mythologies of mankind.

Elliot-Smith says, "There can be no doubt that the Chinese dragon is the descendant of the early Babylonian monster, and that the inspiration to create it reached Shensi during the third millennium B. C." As set forth by numerous writers the symbolism associated with the dragon appears to have worldwide associations, and the Babylonian myths coming to China may have well attached themselves to these fossil remains, though it would seem likely that this very ancient myth of the dragon may have come to China even earlier and with the finding of fossil remains became established on a material basis.

The other members of this group were added apparently either on account of their large size or because they had somewhat the form of a dragon. In scientific classification the genus Draco includes a number of species of lizards, which indicates how throughout the world this term dragon was applied to a general group of dragon-like reptiles.

The second group of this chapter, the snakes, brings together groups of animals some of which are only remotely related zoologically, but culturally of the closest origin. The Greek word 'drakon' was originally used of any large serpent, so that the dragons of mythology were essentially snakes. Frazer's accounts of serpent cults and
dragon myths show the free use of these two terms, how interchangeable they are in religious literature, and they bring out the origins of many of the ideas associated with the dragon and the various snakes with regard to their supposed virtues and uses in medicine.

Seeing that there are more than 100 known species of snakes in China it is surprising that as compared with the larger animals so few snakes are mentioned in the Pen Ts'ao. This may be accounted for by the fact that early Chinese civilization was north of the Yangtze where only one genus of poisonous snakes is known and the snake cults of the tropics have been slow in penetrating South China. There is need here for good research by modern naturalists.

On the whole this chapter reflects a large degree of cultural exchange with the rest of the world. It revives many outworn theories, and sustains a classification long since revised, but it holds the key to the secret of the dragon myth which has led up to the marvellous discovery of primitive man and prehistoric animal life in North China, which are of immeasurable value to scientific thought.

This free translation of the Pen Ts'ao has been made with the able assistance of Mr. Li Yü-tien. A little comparative material was taken from the Severance Collection made by Dr. Ralph G. Mills, his notes on the terms for disease were particularly valuable. I am indebted to Mr. P. S. Chao and Mr. Y. C. Yuan for help in the preparation of this manuscript and to Mr. R. V. Dent for the excellent photographs reproduced in this article.

**PEN TS'AO KANG MU.**

Chapter 48. **SCALY ANIMALS.** 鱗部 Liu Pu.

There are two groups of scaly animals, terrestrial and aquatic. Although different, they are classified together on account of their scales. The dragons and snakes are clever, but fish are just water animals. Although different their behaviour is the same. This is because the same natural influences act upon different substances (gametes). The scaly animals are all oviparous except the pit viper which is viviparous (placental birth). The aquatic animals are not able to close their eyes except the globe fish (Tetraodon) which is able to wink.

The tail of the indigo snake (an Agkistrodon) is an antidote to the poison in its head, also shark’s skin can dissolve indigestible preserved fish. This can only be unravelled by men of learning and experience.

The Pen-Ts’aos of the T’ang and Sung dynasties did not separate the insects and scaly animals. Now (Li Shih-Chen’s time) we have cut off ninety-four species into a separate group of scaly animals. This group is subdivided into the four classes:—

- dragons, snakes, fish, & nonscaly fish. Formerly there were only fifty-eight species in these four classes.

The original monographs are from the following authorities in old Chinese literature.

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**CHINESE MATERIA MEDICA**

7 species from Shen-Ning’s Pen Ts’ao Ching, commentary written by T’ao Hung-Ching.
10 species from Ming-Yi Pien-Lu, T’ao Hung-Ching, (Liang).
1 species from T’ang Pen-Ts’ao, Su Kung, (T’ang).
28 species from Pen-Ts’ao Shih-Yi, Ch’en Ts’ang-Ch’i, (T’ang).
6 species from Shih-Liao Pen-Ts’ao, Meng Hsien and Chang Ting, (T’ang).
11 species from K’ai Pao Pen-Ts’ao, Ma Chih, (Sung).
1 species from Chia-Yu Pen-Ts’ao, Chang Yu-Hsi, (Sung).
1 species from Jih-Hua Pen-Ts’ao, Jen Ta-Ming, (Sung).
1 species from Shih-Chen Pen-Ts’ao, Ning Yuan, (Ming).
28 species from Pen-Ts’ao Kang Mu, Li Shih-Chen, (Ming).

**SECONDARY REFERENCES:**

Wu-Pu Pen-Ts’ao, Wei dynasty.
Li Tang Chih Yao Lu, Wei dynasty.
Lei Hsiao (Lei Kung) Pao Chih Lun, Sung dynasty.
Hsi Chih Ts’ai Yao Tui, Chi dynasty.
Chen Ch’uan Yao Hsing, T’ang dynasty.
Sun Sun Mo’s Ch’ien Chin Shih Chih, T’ang dynasty.
Li Hsun Hai Yao, T’ang dynasty.
Yang Sun Chih Shan Fan, T’ang dynasty.
Ch’en Shih-Liang Shih Hsing, Southern T’ang.
Han Pao-Sheng, Ch’ung Chu, Shu dynasty.
Su Sung T’u-Ching, Sung dynasty.
Shen-Wei Cheng-Li Pen-Ts’ao, T’ang dynasty.
K’ou Tsung-Shih Yen-Yi Pen-Ts’ao, Sung dynasty.
Ch’en-Ch’eng P’ieh-Shuo, Sung dynasty.
Chang Yuan-Sa Chen-Chu-Nang, Chin dynasty.
Li-Kao Fa-Hsiang, Yuan dynasty.
Wang Hao-Ku T’ang-Yeh, Yuan dynasty.
Wu-Jui Jh-Yung Pen-Ts’ao, Yuan dynasty.
Chu Hsien-Heng Pu-Yi, Yuan Dynasty.
Wang-Ying Shih-Wu, Ming dynasty.
Wang-Chi Hui-Pien, Ming dynasty.
Ch’en Chia-Mo Meng Ch’uan, Ming dynasty.
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**REFERENCES.**

According to the *Shuo Wen* original seal character was a pictogram. The *Sheng-Hsiao-Lun* says that the ear of the dragon lacks perception hence the character was called 'Lung' which in the spoken word means deaf (1). The Sanscrit name is 那伽 Na-Chia. (2) (Japanese name, Tatsu.)

According to the Erh Ya Yi written by Lo Yuan, the dragon is the chief of all scaly animals. Wang Fu described the dragon as being like 9 other animals (3): the head is like a camel's (extended), horns like a deer's (long), eyes like a hare's (protruding), cow's ears, neck like a snake's, belly like a seaseer's, scales like a carp's, claws like a hawk's (4), and feet like a tiger's. It has 81 scales (5) on its back, nine times nine, the largest positive (Yang) digit or odd number (6); it makes a noise like the rattle of a copper tray; it has a moustache and whiskers; it has a pearl under its chin (7); below the neck it has a reversed set of scales; on the head it has a prominence called 博山 Po-Shan or 尺木 C'ih Mu (the foot-rule); without this knob it cannot ascend the heavens (8). Its out-breathings form clouds which change into either water or fire (9).

*Lu Tien's Pi Ya* says that the fire of a dragon when it comes in contact with water vapour bursts into flame, with water it creates a blaze which can be extinguished with ordinary fire (10). Hence it can be compared with the creative powers of man, (sexual power) (11). The dragon is oviparous, it hatches its eggs with its thoughts. The male calls with the wind and the female responds against the wind, the wind is thus used to produce a metamorphosis in the egg.

The Shih Tien (Buddhist) states that in mating, dragons change themselves into two small snakes (12). Folklore has it that the dragon is a wild fierce animal which loves pretty jewelry and malachite. It likes to eat the flesh of swallows (13) and is afraid of iron, *Basilissa cyanuraeformis*, centipedes, neem leaves, and five colored silk. Hence if people eat swallow's flesh they should not go out and cross a river (dragons will eat them if they do); when there is lack of rain swallows ...
are used as an offering; as a preventive against flood and water disasters iron objects are used; as a provocative to action the Bechmannia herb is used upon the dragon; at the patriotic sacrifices to Ch' u Yung on the 5th of the 6th lunar month neem leaves and colored silk are used to wrap up the rice dumplings which are thrown in the river (to drive away the dragons which cause drowning). Dragon bones (14) are used in medical practice so doctors ought to know the likes and dislikes of this animal, (i.e. the adjuvants and incompatibilities)." 

102A. LUNG KU. DRAGON'S BONES. PREHISTORIC ANIMAL BONES, FOSSILIZED. (15, 16, 17, 18)


In the time of the Pien-Lu they were obtained from the rivers and valleys of Shansi, from the cliffs of high hills, and from the caves in the earthy banks of rivers, where there were dead dragons.

They are collected in any season of the year.

In T'ao H'ung-Ching's time (T'ang dynasty) they were found more in Honan, and I-Chou and Pa-Chou (Szechuan) (17). The head and vertebrae were sought for, with a white background covered with embroidered lines. When licked the good kinds stick to the tongue. The teeth are somewhat hard and are like teeth in shape. The horns are strong and not hollow. They are the bones shed by the dragon and not bones from the dead animal.

Lei-Hsiao recorded that the best kinds came from Yenchou (Chekiang), T'ai-angchou (Hopei) and T'ai-yuan (Shansi) (19). The thin bones with wide lines are from the female dragon, and the coarse bones with finely netted veins are from the male. The best samples are variegated in colour (5 coloured red, yellow, blue, white & black), the white and yellow bones are of medium quality, the black ones are of inferior quality. Bones that have been near a menstruating woman are not used. Wu Pu considered those coloured white and dark green to be the best. In Su Kung's time (Wei dynasty) dragon bones came from Shansi. The very hard ones were not good. The bones had various colors, dark green, yellow, pink, white, and black; and according to their colour they were used to treat the organ in the body which was supposed to have a colour corresponding to it. This is similar to the use of the five colored kinds of fungi, five kinds of quartz and the five coloured siliceous earths (20), but these are not discussed in Shen-Nung's original Pen Ts'ao.

In Su Sung's time (Sung dynasty) all of the districts of Shansi produced dragon's bones. In the spring when the waters rose in the yellow river and fish had come upstream as far as the Lungmen, many bones of the five colours were shed and collected for medicine. Lungmen is in Shensi which corresponds to the Shen Nung records. Su Sung questions whether this material was not really fish bone. (The popular idea was that the fish changed into dragons at the Dragon Gate, i.e. Lungmen.) Sun Kuang-Hsien stated that in the time of the Five Dynasties (A.D. 907-959) at Chenchou, (afterwards called Cheng Ting Fu, Hopei) two dragons fought and one was killed. T'ao K'un, the headman of the village, removed the horns, in the forepart of which was a body covered in b influent lines like irregular embroidery which no one was able to identify. This is evidence of the death of a dragon.

Tsung Shih said the above ideas were imaginative. Once upon a time from a rocky mountain there burst forth a body with a dragon's head and horns complete but it was not plain whether they were the shed article or whether they came from a dead animal. However although they were of the correct style the live animal had not been seen, hence they were said to be from a fossilized animal, which had not changed in shape.

Li Shih-Chen said that the dragon was usually considered a supernatural animal which could not have a natural death, but Su Kung records the death of a warring dragon, and in the Tso Chou it tells of dragon breeders who prepared dragonmeat sauce for food. In the Hau dynasty at the time of Ho Ti when there was a great flood a dragon fell down in the palace yard and the Emperor ordered that it be made into broth to be given to the people. Chang Hua in the Po-Wu-Chih also says that preserved dragon's flesh with vinegar produces five colours, and dragons can die a natural death, so one may conclude that Shen-Nung's Pen Ts'ao was right in this matter.

PREPARATION OF THE DRUG. In the time of Lei Hsiao (Sung) dragon bones were washed clean, twice over, in a decoction of fragrant herbs, then after drying they were broken up and put into small silk bags. A swallow was taken, the stomach and bowels removed, and a bag of the dragon bones put in their place. It was then hung at the mouth of a well one whole night, the bones were taken out rubbed to a fine powder, and added to kidney tonics with marvellous effects.

In Li Shih-Chen's time (Ming) the bones were just roasted red and then powdered, and they were also used unroasted. In the Shin-Lin Kuang-Chi, the bones were placed in alcohol one night, then fire dried and powdered. A process of elutriation was then used, the powder being stirred up in water three times, only the suspended material being used; but if one was in a hurry they were just boiled in wine, then dried over a fire; or they were just elutriated in water and subsequently sundried, then they were steamed with one gallon of black beans, sundried and used. If they are not properly prepared they settle on the bowels and stomach & in old age cause inflammation.
Sweet, bland, nonpoisonous. Chen-Ch'aus (T'ang) stated they were slightly poisonous and incompatible with fish and iron utensils. Hu Chik-Tsi'ai (Sung) said they should be used with ginseng and cow bazaar, but not with gypsum. Li Shih-Chen cited Hu-Hang's opinion that while dragon bones and cow bazaar are a bad mixture, the latter is a good adjuvant to the action of the former, for thus its action as a 'Yang' drug has the addition of the 'Yin' principle, which can enter the Shou-Tsu Shao-Yin and the Chueh-Yin parts of the circulation. (See Hubotter).

Given for gaseous distention of the stomach and abdomen, for stoppage and ulceration of the bowels, for paralysis of the extremities, for night sweats and frightening dreams, to contract the penis, for hematuria, a seminal tonic. A mental and general sedative. The white bones are specially good for spermatorrhoea, gonorrhoae, and nymphomania; they quieten the mind and prevent troublesome dreams and dispel noxious influences, such as devil possession and spells. For diarrhoea resulting from a cold, intermittent dysentery, bloody stools, for leucorrhoea and menorrhagia, placental bleeding during pregnancy, for intestinal flatulence, epistaxis, and hematemesis. For the thirst sickness (diabetes), a spleen tonic and astrigent to the stomach and bowels. A sexual tonic, anticonvulsant, for feverish children, for chronic malaria, prolapse of the rectum, astrigent to wounds forming new tissue. For absent mindedness, enuresis, chronic diarrhoea, for the diarrhoea of typhoid fever and other fevers.

Applied to bloody discharges from the ear, epistaxis, umbilical sores in children, and to a sweaty irritant scrotum.

Porter-Smith p. 89 states they are the fossil teeth of Stegodon sinensis, Owen; Hanbury, Science Papers, p. 273; Kingsmill.

The teeth and horns are prepared by the same washing methods as dragon's bones, or they may be roasted with cream.

Astringent, cooling, nonpoisonous.

Able to kill sprites and bogeys. A cure for convulsions in the adult, all kinds of arthritis, madness, and running amok. For gastralgia, nervous fear and convulsions of all types in children. For raging fever in children, osteomyelitis, worm toxemia. It quiets the mind and spirit. It cures a feeling of depression, delirium, and devil possession.

The dragon is one of the spirits of the east (wood), hence the bones, teeth and horns are good for liver diseases. The liver as the seat of the soul makes it fluid in its behaviour, but the astrigent character of dragon teeth fixes it in the liver substance.

102B. LUNG CH'IH. DRAGON'S TEETH. FOSSILIZED TEETH OF PREHISTORIC ANIMALS, chiefly rhinoceros, horse and deer:

Porter-Smith p. 89 states they are the fossil teeth of Stegodon sinensis, Owen; Hanbury, Science Papers, p. 273; Kingsmill.

The teeth and horns are prepared by the same washing methods as dragon's bones, or they may be roasted with cream.

Astringent, cooling, nonpoisonous.

Able to kill sprites and bogeys. A cure for convulsions in the adult, all kinds of arthritis, madness, and running amok. For gastralgia, nervous fear and convulsions of all types in children. For raging fever in children, osteomyelitis, worm toxemia. It quiets the mind and spirit. It cures a feeling of depression, delirium, and devil possession.

The dragon is one of the spirits of the east (wood), hence the bones, teeth and horns are good for liver diseases. The liver as the seat of the soul makes it fluid in its behaviour, but the astrigent character of dragon teeth fixes it in the liver substance.

102C. 龍角.  
**LUNG CHUEH.** **DRAGON'S HORMS. FOSSILIZED HORNS OF THE CHALICOTHERIUM SINENSE,** Swinhoe: Porter Smith, p. 96.

Sweet, bland, nonpoisonous.
Incompatible with shellac, xanthoxylum, and marble.
For convulsions, fevers, diarrhoea with fever and hardened belly. Taken continuously it lightens the body, enlightens the soul and prolongs life. For infantile fevers, convulsive fevers.

102D. 龍脳.  
**LUNG NAO.** **DRAGON'S BRAINS. A CALCAREOUS ALGA, COLLENIA SINENSIS?** type of Sinian limestone.

T'ao Hung-Ching used this fatty soft substance to stop diarrhoea.

102E. 龍胎.  
**LUNG T'AI.** **DRAGON'S PLACENTA.** Unidentified.

Also called 龍胞 Lung Pao. Obtained from Pa-Chou (Chung-shan) in Szechuan, like dried fish scales which boiled with water stink like fish.
For diseases after childbirth and for amenorrhoea.

102F. 龍涎.  
**LUNG YEN.** **(DRAGON'S SALIVA). AMBERGRIS**(26,27,28)


Syn. 龍涎香 Lung Yen Hsiang:

From the oceans of the southwest.(29) In spring when schools of dragons(30) (whales) are about they vomit their saliva which floats on the surface of the water. It is collected by the shore natives who sell it for a 1,000 cash an ounce. It is also obtained from the bellies of the big fish they cut up.(31) When fresh it is like a fatty gum of yellowish white colour(32). When dry it forms yellowish black lumps like 荷麝香 Po Yao Chien, with a fine grain. The old material is purplish-black like flying-fox dung, shiny and slippery, light in weight, floating on water like pumice-stone and with a rank odour(33).
1. Psalm 58 refers to the "deaf adder that stoppeth her ear." The Greek word 'drakon' simply meant serpent or snake. Robin says this idea of deaf snakes or dragons is frequently mentioned by patristic and medieval writers, e.g. Isadore who gives Augustine as his authority.

2. The Indian word 'naja' refers to the hooded cobra. Naja worship was a generalised ophiolatry with origins in Egyptian, Babylonian and Vedic cults, see Elliot-Smith, Visser and Ingersoll. The latter states that sun worship, serpent worship, phallicism, and dragons are inextricably interwoven in Oriental mythology. "In the Indian 'makara' we have the link between the western conception and that of the Chinese as to the shape of this fabulous water spirit."

3. G. D. Hornblower in "Man" May 1933 discusses the form, origin and distribution of the dragon, and states that Scythian elements were introduced into China during the Han and Tsin dynasties. This interesting article is the basis of further discussion by Sowerby in the China Journal 1933, 19, 64. Elliot-Smith says, "There can be no doubt that the Chinese dragon is the descendant of the early Babylonian monster, and that the inspiration to create it reached Shensi during the third millennium B.C."

4. Eagles and birds in general usually have four claws. Old Chinese coins and standards show four-clawed dragons driven by the early Emperors. In recent history the dragon according to social standing is distinguished by the number of its claws. Imperial dragons proper alone had five claws, those of the nobility had four claws and plebeian forms had three. These forms have varied throughout the centuries, also the addition of wings in the Han dynasty was a variation dropped in later years. See Ingersoll.

5. The scales are regarded as piscine rather than ophidian. Both golden and silver scales are spoken of in the Classics, there is a story on this point cited by Ingersoll from the annals of Wenhaiwei studied by R. F. Johnston.


7. Joly adds, "In front of its horns it carries a pearl of bluish color striated with more or less symbolical lines." Carter in discussing the metaphysics and mythology of the dragon emphasizes the importance of the dragon constellation Draco, and its place in the astrology of the ancients making a distinction between their mythopoetic thought, by which they attempted to show man's relation to the stars in his life, habits and mind, contrasting it with the Alchemists (Chinese Taoists) who sought for a soul in all matter with transmutations and analogies in man and the protean force found in their philosophic chemistry. The constellation Draco has the appearance of guarding and encircling the northern pole which is the centre of the movement of the fixed stars. The Chinese paintings of the Dragon straining after a mystical "Pearl" undoubtedly to this relationship to the North Pole star, though other explanations are given for this; Plapper says really this is a spider which the dragon fears will envelop him in its net, Werner considers that this explanation seems less plausible than that which interprets the ball as representing the sun, the idea being that swallowing the sun is impossible. Dictionary of Chinese mythology, Shanghai, 1932.

8. The dragon holds first place in old mythology as a rain god. In China the dragon is not usually regarded as a power for evil, but a beneficent being producing rain and representing the fecundating principle in nature. See "Myths of the waters" by E. T. C. Werner chap. VII, Myths and Legends of China, London, 1922. The Chinese Classics have many legends and stories of dragons, with drawings and accounts in the Erb Ya 終雅 and the Shau-Hai Ching 山海經. Yuan Chien lei han 龍顯晦 has eighty pages of quotations, and other Chinese writers cited in Werner's Dictionary of Chinese Mythology.

While the dragon in China is regarded as a beneficent being, droughts, floods and all disasters of aquatic origin are associated with the behaviour of the dragon. See Du Bose, H. C.; Dragon, Image and Demon, London, 1889; Johnston, and others.

9. See Werner's Myths, Chapter VIII.

10. Ingersoll traces the idea of the dragon as a fire-god back to Zoroaster, whose religion was based upon the practices of the Medes and the Vedic legends of India.

11. "The great winged serpent, in the old Gentile belief, generated and hatched out of the egg of the Aeon. The new terrific vision of life, encoiled in its folds, burst from the world egg, after the winds of the four quarters had blown upon it, setting up a rotatory motion, whilst the fire within caused it to burst into being... called alternatively Pan, Phanes, Dionysos etc. according to the cult... This myth is important, particularly on account of the frequency with which the symbol of the Dragon or serpent is used, as if it had simply a generative or sexual meaning." Carter.

12. "The old tag that a serpent becomes not a dragon save by devouring another serpent, has an alchemical sense. There are two dragons, male and female: they destroy one another, or one destroys the other and a new or mightier one is born." Carter.

13. Joly adds the flesh of sparrows.

14. "There are three dragons, the lung in the sky, the li in the sea and the kiao in the marshes." "The type of the dragon is probably the Boaconstrictor or sea serpent, or other similar monster, though the researches of geology have
brought to light such a near counterpart of the lung in the iguanodon as to tempt one to believe that this has been the prototype." Williams, Middle kingdom, Vol. 1, p. 344, London, 1883. Werner also gives a list of different kinds of dragons, dragon kings, dragongods &c. and shown under subsequent headings the word lung compounded with other characters refers to various large animals, but the Pen T’sao here attempts to be specific, and regards the t’ien lung 天龍 as the only authentic animal while the above description is purely mythological, the conclusion shows that Li Shih-chen associated this animal in his mind only with the genuinely fossilized material described below which is of prehistoric origin.

18. The investigations of 1927-28 by the Geological Survey of China are recorded by Teilhard de Chardin and C. C. Young, and establish the age of some of these fossil deposits as Early Pleistocene. (Bulletin of the Geological Society of China, 1929, Vol. VIII, No. 3, p. 173.) These palaeontological studies establish the exact origin of our material, which shows a very wide range of prehistoric animal forms. However it is assumed that they are all of equal therapeutic value as calcium compounds of special psychological value.

19. The recently published memoir upon, "Fossil man in China" edited by Dr. Davidson Black gives such a comprehensive review of the fossil deposits in China that to deal with the subject of Dragon’s bones in an adequate manner full reference should be made to that work. Hanbury’s earlier examinations of dragon bones and teeth purchased upon the Chinese drug market did not include any reference to the hominid material which Schlosser in 1903 reported as occurring among the material purchased by Dr. K.A. Haberer from the drug merchants of Peking, but this is of minor importance here where the bulk of the material is from numerous other fossilized animal bones. Black gives a short summary of the most characteristic fauna of the Lower Pleocene, Middle Pleocene, Late Pleocene, and Upper Pleistocene to be found in North China which includes various carnivora, rodents, perissodactyls, artiodactyls, and proboscidsians. When sold for therapeutic use there is no apparent distinction made in the fossil material chosen, so it would be out of place for a more detailed report to appear in this monograph. However it is important to note how these ancient writers recognized the existence of these fossils. We have drawn a map compounding the four maps published by Black from the four formations above mentioned, marking the cities mentioned in old Chinese literature famous for their dragon bone markets. The provinces mentioned in the Pen T’sao text are quite exact with the present known facts. & the cities marked for the most part come within the areas of these fossil deposits. Further detailed reference can be made to the work of——


The five organs are: liver, lung, heart, kidney and spleen.

21. Belemnites and various fossils have been used in Ancient Western Medicine for numerous purposes, concerning which reference can be made to Tschirch, A., Allgemeine Pharmacognosie, Vol. II, pp. 882-889, who summarizes the information from the old pharmacopoeias of Europe and Egypt.
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22. Porter Smith says that the fossil teeth of *Stegodon sinensis* Owen were found in the marshy beds of the country around Shanghai, by Lockhart, and Swinhoe found another species near Ch'ung-king-fu in Szechuan. He also mentions the teeth of *Hyla sinensis*, and the molars of mastodons, elephants, sheep &c.

23. Mr. G.R. Waterhouse of the British Museum examined the specimens collected by Daniel Hanbury and was able to distinguish the following:—Molars of the lower jaw of *Rhinoceros tichorhinus*, Cuv., fragments of tooth of *Mastodon*; of *Elephas* near *E. inaequis*, Fei C.; many molars of *Equus*, teeth of *Hippotherium*, comprising molars of both jaws, agreeing perfectly with those of the *Hippotherium* of Germany and France; and upper molar of a *Hippotherium* probably distinct from the preceding; portion of an upper jaw, with the four posterior molars, of a Ruminant allied to the sheep, but of smaller size: molar teeth of two species of stag; molar tooth of bear. Hanbury states that Prof. W. Boyd Dawkins of Owens College Manchester, has ascertained that there are caves in Borneo which are extensively worked for teeth for the Chinese Market. This may refer to the Canton market or the overseas Chinese drug markets which are quite large. D. Hanbury, Pharmaceutical Journal London, 1860-62.

24. Subfossil teeth of both these species, (viz. *Elephas primigenius* and *Rhinoceros tichorhinus*), are commonly to be found in the medicine shops, and one of the localities given for their occurrence is North China and Mongolia. T. W. Kingsmill, Proc. N. China Royal Asiatic Soc. 1877. II. 1.

25. DeGroot expresses these theories as "an unfathomable lake of metaphysical wisdom". The dragon plays the most important part in geomancy, and is said to have made possible the golden age. It symbolises the season of Spring, the colour Blue, and represents all the most important features of the water part of "feng-shui", of wood in its associations with the East, and of heaven with the *Yang* principle, the latter being the predominant idea in its use as a therapeutic agent. Cf. J. J. M. DeGroot, the Religious Systems of China, London, 1901.

26. This subheading together with that under "semen of the tiao" No. 103, and the extensive notes in the Pen T'sao Appendix are given at length by the author in the Chinese Medical Journal 1932, 46, 478. Porter Smith thought that it was probably the origin of William's *Lung-yen-hsiang*, a name applied to a counterfeit ambergris made by mixing together Borneo camphor and musk. The Pen-t'sao appendix leaves no doubt that it referred to genuine ambergris, a substance well known to the ancient Chinese, by whom it was collected from the sperm-whale in the China Seas.

27. Nadkarni gives the following note upon Indian material:—a single excretion has been found to weigh 750 lbs. It is opaque, seldom white, often darkish brown, grey or of a pink colour........nearly tasteless. It contains ambrein 85 per cent. It is stimulant and antispasmodic; used in general
weakness, epilepsy, spasms, and nervous debility &c. Dose 5 to 15 grains; used as a confection. Indian Materia Medica, Bombay, 1927.

28. This is discussed in the Pen T'ao Shih Yi as Lung Yen Hsiang, synonym 龍涎, exudation of the dragon. There are three classes of ambergris. (1) 浮水 育, a very light material which can float. The fishermen wait around until it is emitted from the mouth of the whale and collect it. (2) 沙洗 砂, the old samples collected on the sands. (3) 魚食 魚, which is the feces excreted by the whale on the shore. The fecal kind is said to be inferior. It is incompatible with gypsum, and iron utensils should not be used in its preparation.

It is a circulatory stimulant, aphrodisiac, and promotes the growth of marrow and semen. The Liao Yung-Yen recommends it as a diuretic, for gravel and stoppage of the bowels, and for asthma.

29. The Ao-Me-Chi-Lu 澳門記略 says the Arabian ambergris is the best. The material on the Western markets comes from the Persian Gulf. The K'un Yu T'u Chi 坤與圖記 says that it is obtainable chiefly from the Bay of Bengal and the Arabian Sea, either side of India.

30. The Hai-Tung-Cha-Chi 海東札記 refers this to the 魚翁鯨 hai weng, a fish weighing three to four thousand catties (4000 to 5330 lbs), which it says is the same as the 魚鯨 hai ch'in. These exact terms are not cited in modern literature but similar ones are to be found applying to large animals such as the sperm whale. Zoological Nomenclature, Commercial Press, Shanghai, 1924.

31. Ainslie writing upon Indian drugs in which ambergris is cited as an aphrodisiac, states that, "it seems a fact now generally understood that all ambergris is generated in the bowels of the whale...the spermaceti whale".

Ainslie, W., Materia Medica of the Hindoos, London, 1826.

32. Mohammedan travellers of the 9th century record the finding of huge lamps of this material on the Islands of the Indian Archipelago, and say the best is of a whitish colour. Renaudot, E., Translation from the Arabic of, "Ancient accounts of India and China by two Mohammedan travellers, 9th century A.D.," London, 1783 A.D.

33. It is used today in the West in perfumery more for the purpose of fixing delicate floral odours than for any odour that it contributes to the mixture itself. In Western medicine it was formerly regarded as a cordial and antispasmodic like musk, useful in typhoid fever and various nervous diseases. U. S. Dispensatory and the Extra Pharmacopoeia.

103. TIAO. WHALES. CETACEA.(13)

Pen-Ts'ao Shih-Yi: Porter Smith p. 89 a kind of sea serpent, the name is singularly like the Greek name for a sea-monster: Encyclopedia Britannica V, 166-174, 14th edition: Roy Chapman Andrews,

There was formerly no proper description of this animal. Su Kung records the fat, and says that they are born of dragons.

It is a kind of dragon(2) which produces a light labile oil. Apparently in transcribing the books about dragons various errors crept in, particularly concerning this one. The character Tiao was changed to 龜 in the Kwang-chou-chi, and a mistake in reading the original words led to the false idea that it had a body like a turtle and a serpent's head, and that the fat was good for leech bites, but there is no foundation for the truth of such statements. The name of the semen is 紫稍花 Tzu-Shao-Hua, i.e. ambergris, (the uses of which are given in the appendix to the Pen-Ts'ao.)

Ch'en Tsu-Ming in his Fu-Yen-Liang-Fang says that Tzu-Shao-Hua is found in ponds and pools, the eggs of fish and shrimps which collect on the bamboo and trees. It is like granulated sugar in appearance. This description differs from Sun Kuang-Asien's who wrote that fishermen said that the Chi-Tiao is hatched from one of every two eggs laid by dragons, and that it goes about like the deer, producing an excretion which drops and dries out on the trees at the waters edge; (3) like the top of a bulrush, coloured dark-yellow or greyish, termed Tzu-Shao-Hua and used in making broths.

In Li Shih-Chen's time they used a greyish-white light brittle material as a domestic sexual tonic but he doubted if it was the genuine article. It was probably the same class of thing as ambergris.(4)

The older writers like Ch'en Ts'ang-Chi said that the Tiao occurred in Canton, serpent headed and with a body like a tortoise, residing in the water or on trees. The fat was exceedingly labile, able to seep through copper or pottery, but it could not filter through an egg shell. The part which could filter through was more limpid than ghee, and most effective for rubbing on septic sores.

Su Sung's record says that the oil came from Fukien and that it was exceedingly rare. It must be stored in a glass bottle kept in a camphor wood box, otherwise it sweats through the container & is lost.

Tiao Chik. CETACEUM. SPERMACETI.(4)(5)


AMBERGRIS(6) (A concretion from the sperm Whale.)

Applied to scabies, pruritus, septic boils, cold sores, hemorrhoids and fistula, surface anesthesia, sprained ankle, fractures, internal injuries with areas of blood stasis, dropped into the ear for earache.

Sweet, warming, nonpoisonous, in pill or a decoction.

Aphrodisiac to the male, curing sexual neurasthenia, impotency, spermatorrhoea, gonorrhoea, incontinence, wet eczema of the scrotum, given for lack of sexual desire in women.

If one is unable to secure this drug, the horsetail (equisitum) may be used in its place.(10)(11)

1. There is little in the text to indicate which family is meant. A number of whales occur in the China Seas and Rivers, one of the Platanistidae, Lipotes vexillifer occurs in Tung Ting lake, species of Solatia occur in fresh water in China, and one of the dolphins Neomeris occurs up the Yangtse Kiang, hundreds of miles from the sea. E. B. The last mentioned has skin-tubercles and corresponds to the 海龜 hui-weng-yu or 海鱉 hai-chiu' mentioned in the Hai-tung-cho-cti 江東札記, which is said to have nodules on the skin and to spurt out ambergris. Faus-Iselin's Formosan Record says that according to folklore ambergris is the semen of the 獸 chiu', which floating on the surface of the water congeals. That obtained from non-saline waters is light yellow and never black. It is more probable that this monograph only refers to SPERM WHALES, PHYSETERIDAE, which occur in all tropical seas and yield spermaceti wax, and ambergris, the two products from this animal indicated below. With numerous other references, Read, China. Med. J. 1932, 46. 478.

2. In Biblical literature the terms dragon and whale are alternate readings in various passages, see Psalm 74. 13. In old English literature dragons of the deep refer to whales.

3. This suggests the musk droppings from the musk-deer which is also highly valued as a sexual stimulant.

According to Andrews the Physeter macrocephalus is taken at Aikawa, Japan; although it keeps to warm currents and is normally found in the Southern Seas. The old Chinese whaling expeditions in search of ambergris are well described in the appendix to the Pen T’sao.

5. Whale oil is produced by all Cetacea but the sperm oil of the sperm whales and beaked whales differs in constitution from the train oil or whale oil of other whales. The Chinese names Tiao chih and Tiao kao suggest spermacteis, the solid part that separates out of sperm oil, but its limpid character repeatedly emphasized leaves it rather in the category of whale oil including spermacteis.

6. Porter Smith’s remarks are quite confusing regarding this substance—"the egg of the dragon or a kind of sea serpent named 青蛇 chi tiao ..........a similar substance to ambergris."

There is no basis for these ideas in the Chinese text.

7. Magnus also had the idea that ambergris (fragrant amber) was the semen of the whale, see Tschirch.

8. Ambergris is said to be a pathological product, supposed by some to be caused by indigestible portions of the Whale’s food setting up irritation in the intestine (Morris). Cattle fish are often found in it, and according to the Kwangtung Tung Chih the flowers of the marine plant Hibiscus mutabilis drop into the sea and are eaten by the whales and subsequently cause them to vomit. We are inclined to group 'Lung yen' as the first grade light yellow ambergris, and to define Tiao-Shao-hua, as the dark or deep violet type possibly the feces of the whale. The Pen T’sao Appendix recognised three grades of Ambergris according to colour.

9. In India it is also regarded as aphrodisiac, see Watts.

10. This is hard to follow, and may mean that equisetum might be used to replace Hibiscus as an emetic for the whale.

11. “The genitalia of the whale” is included in the old pharmacopoeias of Ratisbonense and Taxe, Vienna and Wurceburg, 1727 to 1798. Used as an aphrodisiac by Tschirch II. 846: This class of oil was listed in the Swedish Pharmacopoeia 1917:

12. The occurrence of whales off the Shantung coast has been the subject of recent comment in the China Journal, 1933, 19, 268.

104. 蛇龍. CH’UN. Crocodiles. Crocoddilus Porosus. Schneider(1)


CHINESE MATERIA MEDICA 104


According to the Shu-Yi-Chi written by Jen-Fang, the Chiao is a kind of dragon, the eyebrows of which run together in a continuous growth (安生). Four kinds are cited, (1) those with scales are called 青龍 Chiao Lung, (ZN, 1782 Monasaurus), (2) winged species are 青龍 Ying Lung, (3) horned species are 丹龍 Ch’iu Lung, (4) without horns 丹龍 Ch’iu Lung. The Sanscrit name is 宫主精 Kung Pi Lo. (ZN, 宮龍 Lung=Naasaurus.)

In the Kwang-Chau-Chi by Pei-yen it says the crocodile is over 10 feet long, like a serpent with four feet, flat shaped like a shield; it has a small head and thin neck, the throat is tasselled; the check is vermilion red; on the back are numerous dark markings; the sides have an embroidered pattern; the tail is corrugated with fleshy rings. The large species have a girth several arm lengths, the eggs are big. It is a swift leader to all the other fish, but the presence of a turtle prevents this. The Shih-Yi-Lu of Wang-Tze-min states that in the Han dynasty the Emperor Chao-ti caught a white crocodile in the Wei river (tributary of the Yellow River in Shensi). It was like a scaleless snake, the head had soft horns, and the teeth protruded from its mouth. He ordered the official caterer to pickle it for food, which was very tasty. The bones were dark colored and the meat was purple. From which it is known that crocodiles are edible.

Poisonous.

In spring and summer crocodiles shed their semen on to Ch’iu Ts’ai, celery like plants, which are then poisonous. The poisoning is treated by swallowing 2 to 3 catties of brown sugar and thus causing emesis.
For difficult childbirth, and applied to improve the complexion.

1. This is erroneously given by some writers as Crocodylus vulgaris, Cuv., Sowerby says this species, the estuarine crocodile C. porosus, is found in the rivers of South China, its range extends from India to Australia. The Encyclopedia Britannica states that it extends from South China to Bengal. Earlier records note that it is accidental on the coasts of Hainan and Kwangtung. N. Gist Gee, Peking Nat. Hist. Bulletin, 1929-30, 4, II, 56. This early Han record may refer to the crocodile or it may have been confused with the alligators found in Chinese rivers. Sowerby says that it is probable that in ancient times crocodilians were more widely distributed in the Yangtse basin than today. Williams says it has been nearly driven out of South China into Siam, and is now regarded as mythical, by the Chinese.

2. In the Revised Version of the Old Testament the alternative reading of crocodies is suggested in the margin for the Authorized Version reading 'dragon', though in most instances jackals are substituted. Giles translates it as a scaly dragon.

3. The Severance collection included some 鳄鰲卵 Chiao-lung-luan, Eggs, identified as Lizard's egg, Takysius septemtrionalis, Gunther. Origin not stated. This material apparently is limited to use in Korea. True crocodiles' eggs of the C. porosus are well illustrated in the Encyclopædia Britannica.

4. Crocodile fat was used in the 13th century for crocodile bite and fever; the Ebers Papyrus, BC. 1600 quotes it as a hair tonic. It was also used for earache and nerve and muscle pain. Tschirch II 841. In India the flesh is said to be used medicinally, Watts.

5. Crocodile flesh in Indian medicine is considered sweet and soothing, cooling, strengthening, vitalizing, increases faecal refuse, checks Vasu and Pitta. Nadkarni, Indian Materia Medica, p. 1074:

105. 鳄龍。 T'o LUNG. ALLIGATORS. ALLIGATOR SINENSIS, Fauvel(1)


The skins were used in olden times for drums, see the Shih Ching and Li Chi, (Fauvel, q. v.)

Ch'en Ts'ang Chi states that it is shaped like a dragon, making a fearful noise, it grows up to ten feet long (4), it can give out clouds which descend like rain. Although Shen-Nung's Pen-Ts'ao called it 蜘 T'o, it is a dragon and the fish radical should be omitted.

The character is a pictogram of the head, body, feet and tail. The scales were listed in the Pien Lu and were said to come from the seas and waterways of the south (5), at all times of the year. Tao Hung-Ching said the skins were used for covering drums. An animal very hard to kill. Quite a long time after boiling water has been poured down its throat, it dies and is skinned.

It is a sleepy animal, lying about with its eyes constantly closed. Exceedingly strong and fierce. It can break down the banks of rivers. People dig it out of its hole. In the time of Su Sung they were exceedingly common. They are shaped like a lizard or a pangolin. Ten to twenty feet long (4) with scales on the back and tail. It makes a great noise at night and is feared by boatmen.

Alligator holes are exceedingly deep. Fishermen take a line made of pigs bristles and bait it. They wait until it has swallowed the hook and gradually draw it out. It can fly sideways but not upwards. It makes a noise like a drum and sounds the watches in the night. The natives foretell rain by its call. The skeleton of the head is cleaner and more shiny than that of a fish. It lays many eggs up to one hundred in number, which it eats itself. Southerners prize its flesh which they use for wedding presents. Lu-Tien said that the alligator resembled twelve other animals; the scales in the tail are like a snake's and are most poisonous.

肉。 T'o Chia. ALLIGATOR SCAL ES. Cooked in butter or wine.

Acid, slightly warming, poisonous.

Used with Szechuan lacquer. Incompatible with dog's gall, Euphorbia sieboldiana and Daphne genkwa.

For stoppage of the bowels, for pain in the lower abdomen in women, for menorrhagia; for scabies, necrotic sores, and boils. For hypersecretion from the eyes and nose with periodic fits of nervousness. For lumbago. For children with apnoea & constant lachrymation. For ptosis of the eyelid and toothache. Anthelmintic. For scrofula, hemorrhoids, rheumatism, and the itch.

肉。 ALLIGATOR FLESH. (6)

Sweet but slightly poisonous. (The saliva is poisonous)

For asthmatic spasms with collapse, edemas, for all kinds of intestinal parasites, stoppage of the bowels, and toxic boils. While it is a vitalizing remedy, it is not a good food for it will cause chronic complaints to break out afresh.

ALLIGATOR FAT.

Applied to cold sores and toxic boils.

LIVER.

One whole organ cooked with leeks is given for the five kinds of infections spread from corpses.

1. The Zoological Dictionary p. 2618 lists it without identity next to the Alligator mississippiensis 异吻鱷 短吻鱷 Tuan-wen-e, which is similarly divided in the nasal bones by a nasal aperture. The Zoo!. Dict. p. 2620 gives the Chinese name for A. sinensis 为 植子鱷 yang-tse-e, about six feet long, used in medicine as a digestive, and as a heart medicine.

2. Stanley says that the first intimation of its existence in the Yangtse River was made by Swinhoe in 1870. Described nine years later by Fauvel as A. sinensis. According to Boulenger it is a near ally of A. mississippiensis. A torpid creature on the way to extinction, it is the last living reminder of the former periarctic distribution of the order.

3. The gavial is listed in the Zoological Dictionary as 長吻鱷 ch’ang-wen-e.

4. The length of the largest in the Shanghai Museum is 5 to 8 inches. Stanley. Sowerby says the largest recently caught was about six feet long, but usually the specimens that make their appearance in these parts are only three to four feet. Su Sung’s record of the Sung dynasty making them ten to twenty feet long may be lack of proper measurement at the time, or it may be in accord with Sowerby’s idea that the present alligator represents the last of a once numerous group of reptiles in Asia.

5. According to Sowerby it occurs in certain swamps of the Lower Yangtse, and possibly in most of the large lakes. Said to be quite common in the Wuhu district, where Clifford Pope secured nineteen specimens.

6. Fauvel says the skin with the head attached was common as a medicine at Wuhu, Chinkiang.

PANGOLIN. (SCALY ANT EATER) MANIS DALMANNI, Sun. And M. AURITA, Hodgson. (2)

106A. CHIA. SCALES OF THE PANGOLIN. (6) (7)


Those from the tail are most potent. Roasted,ashed, cooked in oil, butter, vinegar, boys urine, or roasted with earth or oyster shells according to the prescription. Never eaten fresh.

Saline, slightly warming and poisonous.

For excessive nervousness and hysterical crying in children. For nervous prostration from grief. For women possessed by devils and orges (hysteria and madness?). Given with aconite and oyster shells for paralysis of the hands or feet; scales from the right side of the animal are given for affections on the left side of the body and vice versa. For malaria fever. For bloody dysentery. Charred and given with powdered nutmegs for hemorrhoids. For fistula. For painful vagina with hard swollen labia. In powder form one teaspoonful of the charred material is given as a galactagogue, and for breast abscess. Given with Akelia for sore breasts. With oyster shells, musk and wine for black smallpox. Roasted in rice husks and subsequently powdered given with a trace of musk in doses of about 10 grams for newly formed toxic swellings, and with Fritillaria for toxic boils. For chancre and infectious sores on the penis.
21 scales burnt and powdered are applied to scrophula. Scales from the shoulder region are similarly prepared and applied to eczema of the eyebrows. The powder is mixed with water and introduced into the ear to remove ants, for ears running with pus, and for earache. The ash of one big piece is mixed with an oyster shell, seven scorpions tails, a little musk, linseed oil and wax to form a small rod which is wrapped in cotton and rammed in the ear for ringing sounds and deafness due to sexual weakness. The scale is powdered and made into a spill with ordinary white paper and burnt; the fumes are used to treat conjunctivitis. For 2 months the powdered ash blown into the nose while the patient holds water in the mouth is used to cure eyelashes which curve inwards. For scabies, expectorant and anthelmintic.

**106B. 肉. JOU. FLESH OF THE PANGOLIN. (5)**

Sweet, astringent, warming, poisonous.

When eaten by rheumatic subjects a few bites will immediately accentuate their trouble and cripple the four extremities. (This is said to apply to subjects of "wind" diseases, which might include anything from insanity to leprosy, the more limited interpretation seems more reasonable). Sufferers from "wind" diseases have poor circulation, pangolin meat is a strong circulatory stimulant and causes marked disturbance in the system. It is so unpalatable that it is not usually eaten. (A comparison of the ideas associated with wind diseases and the old humeral theories, especially the neighbouring Ayurvedic system with its interpretations of nerve force &c., suggests that this word might cover all those factors which influence both the peripheral and central nervous systems. In this case particularly stasis of the circulation and lack of oxygenation of the tissues.)

1. Porter-Smith gives Manis javanica, L. This species is found in Java and Malay, and is more than two feet long. The Chinese pangolin is often referred to the *M. pentadactyla*, L., but this species is only found in India and Ceylon. However as far as the material on the market is concerned Hooper says much is collected in the Malay States for export to China, in which case the scales should be larger.

2. The chief difference between these two species is that the latter has 16 and the former 19 keeled scales along the border of the tail. Sowerby.

3. The supposed metamorphosis of the carp into the dragon when it attains the upper reaches of the Yangtse River is part of the folklore which links up this class of animals. Williams.

4. Porter Smith gives Hupeh, Kiangnan and the Southern provinces. Sowerby states they range as from Chekiang (possibly Southern Kiangsu), through Southern Kiangsi, Southern Anhui, Fukien, Kwangtung, Southern Hunan, Kwangsi, and Yunnan into Indo-China. It may also occur in Kweichow and Southern Szechuan. Pope found them extremely common in Hainan. Kubo.

**Chuan Shan Chia.**

106. Chinese Pangolin. (Reproduced by kind permission of Mr. Arthur de C. Sowerby from the China Journal) A. The dry scales. B. Prepared by boiling in boy’s urine. Specimens from Shanghai Drug Stores.
Yunnan as the place of origin. Hosie states that one frequently meets loads of the dried scaly skins being carried north into Szechuan from Yunnan. The East coast obtains its supplies from Canton. Braun gives Hupeh and Kiangnan, Tls. 80 a picul.

5. Sowerby gives a good modern description, see figure. His specimens reached a maximum of four feet long, of which over one third is taken up by the tail. Its flesh is said to be very good eating. The medicine shops will pay up to $8.00 for a specimen. The Japanese use it as a galactogogue.

6. Those of the tail are considered the finest. Brown semitransparent scales, roughly triangular, concavoconvex, marked at the attached end with fine grooves like a bivalve shell. Nowadays principally used for scratching itching surfaces, for which purpose they are fixed on a length of bamboo as a kind of curry-comb. Porter Smith.

7. Watson says the entire skin with scales attached is sometimes found in Chinese commerce, but as a rule the scales are sold detached from the skin. All of the shops and markets visited had the detached scales, usually in the dry natural state, some places had them as prepared by boiling in boy’s urine, the boiling making them swell to nearly twice their original size, light in texture like an arabella coloured driedout fungus, measuring up to 60 by 50 millimetres and weighing up to 3 grams. The original scales are thin horny plates, shaped and marked with grooves like a flat triangular bivalve shell; they vary in size up to about 40 by 30 millimeters (1 3/5 by 1 1/5 inches), some are squat 50 by 34 millimeters, others are more acute 35 by 27 mm., with an average weight of about one gram (0.65 to 1.42 grams). See figure. The under surface has a rough line marking the place of attachment to the skin. We have never seen these scales used in the north for making curry combs. Watson says they are used chiefly in the treatment of venereal diseases, the above text indicates a much wider therapeutic interest. In Annam they are used for various skin diseases, hemorrhoids &c. Annamese name, Vây-con-tê-tê.

107. 石龍子. SHIH LUNG TZU. LIZARDS. THE SAURIA. (Scincidae)(1)


Syn. 山鱷子 Shan Lung Tzu, PT: 泉鱷 Ch‘uan Lung, PT: 石鱷 Shih Yi, PT, G 5500: 蟒鱷 Hsi Yi, PT, G 4047, ZN 347: 蜥蜴 Ch‘u Po She, PT; W 396: 守宮 Shou Kung, PT, see No. 108;
Korean name, Suk ryong cha: Canton 狗蜥蛇 Kou Tzu She W. 296:

It is called a "dragon's offspring" because it lives in hill valleys, can spit out hailstones, and is used to petition rain. Lu Tien explained the 'yi' as meaning an animal easily changed (chameleon-like) according to environmental influences. Hsu Shen (Shuo Wen) says that the character is a pictogram.

Li Shih-Chen in commenting on the confused state of the earlier literature says there are distinct groups (2):

107a. 石龍. SHIH LUNG or SHAN LUNG. (Rocky dragons.)

SCINCIDAE, Skinks. (4)


This is the Hsi Yi, or Chu P'o She. Found in rocky hills.

Like a four-footed snake, with a flat head and long tail. The body is thin, 7 to 8 inches long. There is a large kind, one to two feet long, which has fine scales with a blue-green metallic lustre; the male is 5 coloured and is the best kind for making medicine.

107b. 蛇醫. SHE YI (The snake doctor) LACERTIDAE. (4)

ZN, 1320: Sowerby IV p. 9: Gee p 60: Stanley No. 10:

Syn. 蛇師 She Shih, 蛇醫 Chu Mu, 水蜥蜴 Shui Hsi Yi, 蟬蜥 Jung Yuan, also colloquially known as Chu P'o She, because when serpents are wounded it drops into the grass and applies herbs to the wound. They are found in marshy grasslands. It can interbreed with fish hence the various names. It is shaped just like a lizard but the head is large, the tail is short (1), and the body is thick, and it is greenish yellow, sometimes striped white. It is not used in medicine.

107c. 蛭蜥. YEN T'ING, Geckos. GEKKONIDAE. (See No. 108)

or 守宮 SHOU KUNG. ZN, 382. Sowerby IV, p. 8:

Like group 107b, but it is small and short, and of a greyish brown color. It does not sting people. It is found in peoples houses.

According to the Yi-Chien-Chih, Liu Chu-Chung saw a hundred large lizards in the hills, three to four feet long, as glossy as fat, they spat out hailstones as large as marbles and after awhile there was a thunderstorm with wind, rain and hail.

The Shou-Nung Pen-T'iao used the name Shih Lung, which later doctors called Hsi Yi, they are both the same thing, but later Su Kung used the She Yi in medicine which was an entire change in the practice. Worse still the geomancers used the Shou Kung for obtaining rain instead of the Hsi Yi.

The Pick-Lu indicates that the lizard is collected at Ping-Yang-Fu (Shansi) and Chingchow (Hupeh) in the month of June, and dried out on the stones. Pav-Sheng stated that they were collected in April, May, September and October, and were smoke-dried after the entrails had been removed.

Saline, cooling, slightly poisonous.

Its action is antagonised by sulphur, elm bark or cantharides.

For anuria, hematuria, stone in the bladder, gravel, and strangury. For edema. It should not be taken by pregnant women. For all kinds of fistula. (5)

肝. KAN. LIVER OF THE LIZARD. (6)

Mixed with cicada skin and alcohol and rubbed on the navel it produces abortion.

(1) The Zoological Dictionary (Chinese-English) lists these as Eumeces quinquelineatus and E. latiscutatus, Hallowell. As Li Shih-chen points out in the text this name Shih lung tse is not specific nor even generic, it refers to the large class of lizards, a cosmopolitan group of which about 2500 species are known in the world, but which by subdivision and elimination reduces this class for practical purposes in Chinese medicine to the very common genus Eumeces, of which Sowerby says the commonest form is E. elegans which extends from Fukien to Central China. Von Mollendorf's identification Phrynopus cachoror boulengeri is certainly incorrect, which more likely refers to Ke chieh, No. 109. Williams says this is a species of lizard like the Lacertes muralis.

(2) Sowerby gives the distinctive points of these three families of lizards, which were so confused in old Chinese literature. The Lacertidae have long tails and there are other wrong details in the text, but Li Shih-chen clearly recognised the three main divisions of this class, of which the first only is intended here, the Lacertidae not being used in medicine, and the Gekkos are dealt with under the next heading, 108.

(3) Gee lists 33 skinks of which the only one from Hupeh is Eumeces elegans, Boulenger. However, large and small kinds are mentioned, and Shansi is not referred to by Gee or Stanley, as the habitat of that genus, so probably other genera in this family are included.

(4) According to Gee the true lizards have 13 species in China of Takydromus and Eremias, of which the most widely spread is T. septentrionalis, Gunther, the common long-tailed lizard which ranges north from Fukien throughout East China and west to Shansi, Szechuan and Kansu.

(5) The flesh of several species of lizards in India is recommended as a domestic medicine. It is credited with tonic, stimulant and alterative properties, and is particularly useful in syphilis. Watts, p. 430: The ash of lizard's skins was applied to wounds. Tschirsch II 837.

(6) Lizard's liver was used by Dioscorides and Galen. Tschirsch II 830.
109. 守宮. SHOU KUNG. THE GECKOS. GECKONIDAE. (1)

Pen-Ts‘ao Kang-Mu: ZN, 383: VM, Gecko japonicus, C & B; SC. Korean name, 
Ssobong, Eun Chung: G, 10012, it also means a eumuch: 
Stejneger, Proc. U. S. Nation. Mus. 1932, Vol 82, No 2943; also 
1907, 58, 168: Gunther, Reptiles Br. India 1864, p. 104, pl. XII fig. 
Ind. Prod. India VI, 1, 434: Kubota, Japanese Domestic Medicine: 
Gadow p. 506: Perrot p. 63: 

Syn. 壁宮 Pi Kung, PT; 壁虎 Pi Hu, PT; 蝾虎 Hsieh Hu, (2) PT; 蝾蝪 
Yen T‘ien (T‘ing) PT: 

It loves to crawl on fences and walls. It is fed cinnabar until 3 catties have 
been consumed, when it is killed, dried and powdered, then it is used for painting 
on the legs of young virgins (some books say it is tattooed), deflation removes 
the colour otherwise it remains on the skin as a mark of virginity. This is the 
statement given by T‘ao Hung-Ching for the name Shou-Kung, meaning guardian 
of the chamber. The gecko is good for catching flies and scorpions, hence it 
is called the scorpion-tiger, Hsih Hsü. The statements of Huai Nan Tzu and 
others that it is tattooed on the arms is incorrect, there are other methods now, 
this one being lost. In Shou‘s time this practice was not in vogue, he denies 
its existence and says the name Hsou-Hung comes from the constant occurrence of 
the gecko in people’s rooms protecting them from scorpions &c. 

The gecko in China is said to be found everywhere on the walls and fences 
of peoples houses. Shaped like a 嬰壽 She Yi, greyish black in colour, with a 
flat head, long neck, fine scales, and four feet. It is six to seven inches long, (3) 
and is said not to bite people. In the south there is a 5 coloured, species, like the 
chameleon. 

108. A. 十二時屬, SHIH ERH SHIH CH‘UNG. CALOTES ALTICRIS- 
TATUS, Schmidt. 

518: Couling p. 479: 

Syn. 選役 Pi Yi, ZN: 五色守宮 Wu Se Shou Kung, PT, ZN: 
變色龍 Pien Se Lung, PT, ZN: 

It occurs at Jungchow and Chiaochoow (Yunnan) in people’s houses and on 
trees and logs. It is a kind of lizard, fngershaped, with a fleshy comb extending 
from the head down the back. Long neck and legs. The body is a dark green 
color. The large ones are about a foot long with the tail as long as the body. If 
they bite a person there is no cure. The Lingnan Yi-Wu-Chih says that the head 
according to the hour of the day changes its colour. It is very lucky to see one. 
The Po-Wu-Chih says the genitalia are a light yellow green colour. It changes 
colour at midday, either dark green, green, vermilion, or red. The Pei Hu Lu 
says that it cannot turn into 12 different colours, only the four colours yellow, 
brown, dark green, and vermilion are possible. It is certainly not an ordinary 
lizard for its bite is fatal and its pigments are used for tattooing on girls arms. 
Saline, cooling and slightly poisonous. 

For paralysis of the hands and feet, rheumatism of the joints, convulsions, 
chronic diarrhoea in children, blood stasis, scrophula, and scorpion stings. For 
abdominal colds in children, tetanus, excessive nervousness, cold sores, opisthotonic 
convulsions and lockjaw. For indigestion and wind. (4) 

Ex. Fen. EXCRETA OF THE GECKO. 

For conjunctivitis. 

(1) Gee lists sixteen geckos in China, of which eight belong to the genus 
Gekko. 

(2) Sowerby says Swinhoe’s gecko is five inches long including the tail, 
and that the Chinese always express fear of its poisonous character, the name 
might have a wider significance than here indicated. Specimens on the Shanghai 
drug market have an average length of four inches, including the tail which is two 
inches long. They weigh about three grams. See figure. 

(3) The ordinary chameleon is not listed in China by any of the above 
authors. The geographical range of this group is limited to the whole of Africa 
and Madagascar, Arabia, Southern India and Ceylon. This lizard as a native of 
Yunnan may be connected with the fauna of India, or it may be one of the other 
numerous lizards to be found in that province, such as the Calotes, though the 
Zoological Dictionary calls this the Chameleum vulgaris. 

(4) Galen used them for toothache and killing mice, see Kühn’s Claudii 
Galeni Opera Omnia, Leipzig, 1821-33, XIV. 427: Hindu doctors consider the 
gecko good for leprosy. Watts. 

(5) Hubotter p. 133 translates chameleon as hai-ma 赫馬 

(6) In Annam it is used for hemoptysis, asthma, phthisis &c. Perrot p. 63. 

109. 蛤蜊.  

**KE CHIEH.  TOAD-HEADED LIZARD. PHRYNOCEROPHALUS FRONTALIS (1), STRAUCH.**


Syn.蛤蜊  Ke Hsien, PT:  傳艙 Hsien Ch'an, PT:

The name Ke Chieh is phonogrammatic. Hsien Ch'an the fairy toad, refers to its toadlike appearance. The Cantonese name for a frog is Ke 蛤蜊, because this animal has a toad or froglike head. Lei Hsiao said Ke refers to the male, and Chieh to the female. They always call out their own names.

It is found in the hill valleys of Kwangtung on the city walls, and in the big trees. It is shaped like a large lizard (2) with a body four to five inches long and a tail of equal length, of which it is particularly proud, so much so that when it spies a man hunting for it, it will bite off its tail and run away. The therapeutic virtue resides in the tail, which must be complete for it to be effective. In the Yang-Hsuan-Fang-Yen it says there are lizard-like animals, called Ke Chieh, in the cinnamon forests which can sing.

Li Shih-Chen's description is taken from Tuan Kung-Lu's Pei-Hsü-Lu which says it has a head like a toad, green backed with yellow spots like old embroidery, about a foot long, and short-tailed. It has a very loud voice, and lives chiefly in the hollows of trees, and is a kind of lizard. Ku-Chieh's Hai-Ch'ü-Lu says that they are very plentiful in Kwanghsi at Hengchow, where they are found on the trees one mate calling to the other up and down the tree trunks. After two or three days courtship they mate in close embrace falling to the ground unconscious even of capture, and even when torn to death they are inseparable. They are bound up with vines, steamed, sundried and sold for the preparation of very effective aphrodisiac remedies. For veterinary purposes or for unimportant uses the mixed material is prepared, but Su Sung definitely directed that men should use the male animals and women the female.

According to the Ling-Piao-Lu-Yi, it not only had a frog-shaped head, it also had fine scales on its back like silkworm eggs, a yellow earth colour. (3) The body was short, tail long, found chiefly in the bastard banyan trees or in the city gate towers in pairs. They call once in the morning and once at night, other reports say they only call once a year. The natives who sell them recommend them for lung diseases.

Li Hsiou's record states that this lizard is found in the south of Canton, in watery places; it resides in the bastard banyan trees at night. They always travel in pairs, so that if one is found there is always another to be caught. In his time
they also occurred in Kwanghsi, where the species is small but they are equally effective. The natives catch them, split up their bellies, stretch them open with bamboo and dry them in the sun for sale.

Su Sung noted that if one wished to secure whole specimens, a 2 pronged iron fork should be used to spear them through the head and tail at one blow so as to prevent them biting off their tails. Men use the male animals and women take the females as medicine.

The eyes contain poison, so they should be removed, also the hair from the scales, tail, and belly, then after steeping the specimens in alcohol, they are taken out, wrapped in two thicknesses of paper, and dried in a warm place. Placed in a porcelain pot and hung in the east corner of the room, after one night the potency is increased tenfold, but one must be careful not to injure the tail.

The Jik-Hua says the head and feet should be removed, and the dirt thoroughly washed from the scales and mane. It is then cooked in butter or honey till it is a crisp brown, and powdered. A little of the genuine article held in the mouth while one runs very fast will prevent any sign of breathlessness. It is made up into pills and powders.

Saline, bland, slightly poisonous.

Given for chronic cough, phthisis, and to dispel all evil influences of supernatural origin. A diuretic. For stone in the bladder and gravel. For amenorrhoea, hemoptysis, and dyspepsia. For fractures. A respiratory stimulant, good for asthma and a cough-sedative. Aphrodisiac. For diabetes.

(1) The toad-headed lizard (*Phrynocephalus frontalis*) occurs in North China and Mongolia. Sowerby, Naturalist in Manch. IV, 11. The three species of toad-headed lizards listed by Gee are all from the extreme North. Kubota calls this "Giant lizard", and refers it to *Phrynocephalus frontalis* from the 国本, as bought at Ch'i Chow in the Hopei market. The Zoological Dictionary calls this the *Phrynosoma cornuta* (horned toad) which does not correspond with the Pen T'sao description.

(2) This is a common article on the Chinese market, measuring up to 1 foot in length including the tail which may be fully six inches long. In smaller specimens the tail is about 3 inches and the whole length over eight inches. The big thick head measures nearly two inches long and one and a quarter inches broad. The legs are 1 ½ to 1 ¾ inches long. The back is studded in regular rows from the head to the tail. The greyish black skin is marked with rusty brown spots particularly clear on the lighter under-part of the body. When detached from the wooden sticks over which it is stretched to dry, it weighs ½ to 1 ounce. See figure.
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(3) The *Phrynocephalus frontalitis* is described by Sowerby:—Sandy colour with mottlings of grey or dusky on the back, and a bright mauve patch on the side of the body just behind the fore limb. Notebook p. 48. Gee. p. 60, lists two other species from the Ordos & Mongolia; Proc. U.S. Nat. Mus. 1935 66, 43-44 P. Potaninii, Bedirliga.


In Ho-Yuan's Ch'un-Chu-Chi-Wen there is mention of the "Yen Lung" captured by the military general Hsiao-Chu who conquered the southern borderland tribes in the reign of Hui Tsung, of the Sung dynasty. These animals were over a foot long, which when put in a silver dish with a jade drinking cup and food, seasalt with a pair of jade chopsticks, from each scale there was a salty exudation(1) which people collected and used as an aphrodisiac.(2) One drachm was taken with warm wine.

Later on Ts'ai-Ching found one, which died and was salted for some days and was found to be still quite potent. Li Shih-Chen found that it was not native to China and even as brought in by southern tribes it was quite rare.

(1) The scales of lizards are sometimes underlain by bony plates, and the horny outer scales are shed piecemeal at irregular intervals.

(2) The monitor is recommended by the Vyttians as a strengthening medicine. Watts. The aphrodisiac properties of lizards were extensively believed in by ancient people, see references by Tschirch.

111. 蛇蜕. *SHE T'O*. THE SLough OF A SNAKE. PELLIS SERPENTIS.(1) (She T'ui)


Syn. 蛇皮 She P'i, PT: 蛇皮 She Ch'ueh, PT: 龍皮 Lung T'ui, PT: 龍皮 Lung T'ou Yi, PT: 龍皮 Lung T'ou P'i, PT: 蛇皮 Kung P'i, PT: 蛇皮 She Fu, PT: 蛇皮 She Chin, PT:

The original character for a snake was a pictogram of its contorted body. The specific character T'o has the same meaning as the ordinary word for shedding or sloughing off a body. The various synonyms are fanciful expressions of the same ideas associated with the shape of the snake or its slough.

In the time of the P'ieh Lu the best were collected in the mountain valleys and grasslands of Chingchou in Hupeh on the 5th and 15th of the fifth month. T'ao Hung-Ching found that very few sloughs of vipers could be collected in the fields, there are simply the long specimens of red snakes and cobras which are hard to identify, so only those complete ones found on stones were considered good. Su-Sung said that snakes shed their skins at no particular season, whenever they became dirty or if they had overeaten, and that in the south they were found on trees, stones or in private dwellings. Lai-Hsiao said that green, yellow and brown skins should not be used, only white silvery looking ones were good, which should be put in a pit one foot two inches deep for one night. They were then steeped in vinegar and subsequently taken out and heated to dryness and used. In Li Shih-Chen's time they were always washed with soap-bean water, and then twisted on a bamboo stick, steeped in wine, vinegar or honey, and then roasted till yellow, or charred, or packed in salt or earth and roasted.

Saline, bland, nonpoisonous. The best is made by prolonged fire-drying. Chen-Ch'uan states they are poisonous. (Many spurious specimens are certainly likely to be so.) Incompatible with magnetite and alcohol. Not to be taken during pregnancy.

Given for the 120 different kinds of convulsions in children. For insanity, epilepsy, feverish colds, rectal fistula and worm toxaemia. For delirium and devil possession. To cure vomiting, to clarify the vision. Ashed it is applied to all kinds of toxic boils. For nervousness in children, swollen sores, difficult labour, and as a foetal sedative. For malaria. Anthelmintic. For tonsilitis and throat...
affections in children, for inflamed breast, swelling of the tongue and gums in children. For hematemesis in children. Diuretic. For transverse presentation and abnormal conditions at childbirth. For hard non-suppurating boils. For suppurating boils, corneal ulcers, suppurating fistulas and sudden earache &c (3)(5).

(1) There is a difference between the shed skin, the slough of the snake, and the article skinned from the animal, which Hooper does not make clear in his notes upon Chinese drugs in Malaya. The slough is a keratinous dry wrapper free from all ordinary muscle tissue and is semitransparent, the skins of the CH'I she & others which are scraped have the original markings with a much denser texture.

(2) Dioscorides cooked them in wine and used them for earache, and bad teeth, also as an eye medicine. Galen used them cooked in vinegar for toothache. Mansur muwaffak (10th century) used them for painful hemorrhoids. Avicenna applied the ash for baldness. Schroder (Frankfurt 1718) records the use of the powder or the ash for falling hair and for skin eruptions: For epilepsy, Tschirch.

(3) A general note on Western mythology with regard to Snakes would apply to this whole group. The well known figure of Aesculapius with a serpent, or Apollo with a snake in the right hand, is associated with the power accredited to him of restoring the dead to life. The association of ideas in the shedding of the snakes slough and immortality is discussed in detail by Frazer. Then there is the story of Melampus who when asleep had his ears treated by snakes, so that when he awoke he could easily understand the language of birds and hear a thousand things previously hidden from man. Woolton. The majority of the supposed virtues of snake slough are undoubtedly in one way and another related to mythology.

112. 蝸蛇. JAN SHE. THE PYTHON. PYTHON MOLURUS, L. (1)


Syn. 南蛇 Nan She, PT, ZN: 埋頭蛇 Mai T'ou She, PT; G: 蜴 Mang ZN; W 558: (4)

The tortuous movement of this snake causing such gradual progress accounts for the name Jan. It is also said to be called a Janu-She because the scales are hairy or whiskered 蟠 Jan. It is found in Kwangtung and is differentiated from other kinds by holding its head downwards, which fact accounts for its other Chinese name, mai t'ou she.
According to Liu-Hsun’s *Lu-Yi-Chi* the python is 50 to 60 feet long, with a
girth of 4 to 5 feet, even the small ones are at least 30 to 40 feet long. (2) The
skin is mottled like old embroidery. In spring and summer they prey upon deer
in the mountain forests. After swallowing a deer their tissues are quite thin for
its takes all their reserve strength to digest the animal, after which they become
fat. It is said they eat one deer a year. In *Ku Chieh’s Hai-Ch’a-Lu* it says that
pythons swallow their victims hind quarters first, and that by breathing their
poison on to the horns they spontaneously drop off. Those with small gall-bladders
are preferred. *Wang Ch’i’s Shou-Chi* states that pythons are common in the
hills of Nan-Ning-Fu Kwanghsii. The large ones are more than 100 feet long.
They live on deer and can digest their bones and horns. The natives gather
poisonous vines and plug up their holes, and the poisonous fumes narcotise the
snakes, then the nest is broken up and the snakes easily taken out. The flesh is
good eating. The skins are used to cover drums, knife handles, and musical
instruments. *Fan Ch’eng-Ta’s Yu-Heng-Chih* states that armed troops catch
pythons for food by camouflaging their heads with many branches of flowering
shrubs and creeping up on them and beheading them. The *Shao-Hai-Ching* says
that pythons can eat elephants, the bones of which they emit every three years.
Gentlemen who take these bones as medicine never suffer from heart or visceral
ailments. They are referred to as *Pa She*, that is the great snake.

_T’ao Heng-Ching_ said they were found in his day in Fukien, Kueilin
(Kwanghsii), and in southern Kwangtung. He also pointed out that the gall is
often adulterated with the fat. *Han Pao-Sheng* found them about one foot in
circumference. The Cantonese make them into dried meat to make the most
highly esteemed dishes. If dipped into vinegar the slices wind themselves round
the chopsticks and cannot be removed, unless the chopsticks be made of _Erianthus_
wood from which they are easily pulled off.

_Tuan Ch’eng-Shih* found them 100 feet long and states that after eating and
digesting a deer they wind themselves round tree trunks to get rid of the bones
which come out between the scales, while healing the tears in the skin they are
very fat and tasty, and can be caught by throwing women’s clothing to them.
They encircle the dress without further movement.

12. _Tan_. **PYTHON’S BILE.** (3)

Watts, p. 435:

_Su Seng_ says that at Leichow (Kwangtung) people raise snakes, on the 5th
of the 6th moon every year they take them to the Yamen to extract the bile which
is dried and sent as tribute to the throne. Each python is brought in a basket
with straw. Ten or a dozen people come with forks, take the python out of
the basket and hold it on its back, while after careful measurement the gall-bladder is
taken out and everything is sewn up again. The bladder is the size of a duck egg. T'ao Hung-Ching said that the true article was narrow and long in a very thin black skin. It has a bitter sweet taste, dropped into water it sinks and does not dissolve. Su Kung has pointed out that if one takes just a tiny grain of the dried material and place it in water, it floats around rapidly on the surface. Sparious pig's bile sinks at once. Other have found pig's bile and tiger's bile float but they do not swim around rapidly on the surface like python's bile.

Sweet, bitter, cooling, slightly poisonous.

Used for applying with alum to pyorrhoea and toothache. It clarifies the vision and removes growths over the eyes and is good for painful and swollen eyes. For infantile convulsions, also given for diarrhoea and bloody dysenteries. Anthelmintic. Mixed with water it is poured into the nose to cool a child with fevered brow. Applied to painful fistula.

肉. Jou. PYTHON FLESH. Not eaten in the 4th moon (May). (3)

Sweet, warming, slightly poisonous.

Given for paralysis, rheumatism and arthritis. People travelling through Kwangtung take it to prevent malaria. Anthelmintic & taken to cure scabies and ringworm. It removes necrotic tissue, & is taken in half drachm doses three times a day for dogbite.

脊. Kao. PYTHON FAT.

Sweet, bland, and slightly poisonous.

It occurs in very small pellets, specimens as large as plum stones come from other snakes.

Used for scabies, for pain after childbirth, and for cold sores. Wrapped in cotton it is inserted in the ear for deafness.

牙. Ya. PYTHON TEETH. Six to seven inches long.

Carried as a lucky charm against disease.

油. Yu. PYTHON OIL. In the Pen T'sao Appendix.

(1) Gee lists three pythons in China. This one is identified by some as the P. molurus; seeing that the skin is embroidered and it is so long it would seem more nearly to approach P. reticulatus, which is found in Fulicen and Hongkong.

(2) Sowerby states that the largest snake in China is the python, the former found being the Indian python, P. molurus. It has been stated this does not run over ten feet in size. Stanley lists a 20 foot Python reticulatus, Gray, in the Shanghai Museum.

(3) The gall-bladder of the python is much sought after by the natives of Burma for its supposed medicinal virtues. The flesh is eaten by the Karen. Watts p. 438.

The Zoological Dictionary refers to the Boa constrictor which is not native to China, ZN. 1137:

113. 鱗蛇. LIN SHE. PYTHON. PYTHON BIVITTATUS, Schlegel.


Syn. 巨蟒 Ch'i Mang, PT, The Great python:

According to the Fang Yu Sheng Lau this snake is found in Anmnan, Yunnan Chenk'ang, Chekiang Hangchow, Nanking, Shensi, and Yunnan Vengyang (borderland tribes). It is over 10 feet long with four feet, with yellow scales and black scales, and lives on deer, and in winter and spring it lives in the hills but in summer and autumn it is aquatic. It can injure people, so the natives kill it and eat it, and extract the gall for use as a much valued medicine; that from the yellow scaled species is considered best. It is a kind of Jan She (No. 112, Python molurus) with the addition of fevers. T'ao Hung-Ching regarded this as a true python, from which the bile could be used in medicine.

膽. Tou. PYTHON'S BILE.

Bitter, cooling, slightly poisonous.

An antidote to an overdose of any poisonous drug. For toothache and toxic boils.

114. 白花蛇. PAI HUA SHE. THE EMBROIDERED PIT-VIPER. AKGI demoTRON HALYS BREVI-CAUDUS, Stejneger.(6)


Syn. 鳴蛇 Ch'i She, PT, W. 薄鼻蛇 Ch'ien Pi She, PT: 五步蛇 Wu Pu She, ZN: 百步蛇 Pai Pu She, ZN A. bifonfossi:

This class of snakes alone has the snout turned upwards.(2) On the back it has a double-lozenge marking ☐, called in Chinese 万字 Fung Sheng, which accounts for the name given to this snake. It occurs in Kuphe and Szechwan, the most famous and highly prized are not common. Those in the shops and those bought by the officials for gifts as tribute come from south of the Yangtze river in the hills at Hsing Kou Chou in Kiangsu.
It has a dragon shaped head with a tiger mouth, the skin is embroide red white on a black background with 24 Fang Sheng marks on the sides, and down the middle of the belly is a rosary of spots. It has four long teeth. There is a hor ny covering at the tip of the tail one to two tenths of an inch long (like a Budha's finger nail). The intestines are like a string of beads. They love to eat the leaves and flowers of the Rhododendron metranchii. S et Z., where they are found in the bushes. First a handful of gravel is thrown which causes them to coil up and cease movement, then after spearing with a fork they are tied up with rope and suspended on a pole. The viscera are cut out, and the belly spread open with a bamboo stick; then the snake is tied up in a coil, and dried over an oven. The Ch'i Chou species even when dried has bright protruding eyes, others dry out and sink into their sockets. The Erk Ya Yi says that after snakes close their eyes when dead, but the pitviper of Ch'i Chou keeps its eye open in a lifelike manner. In the district between Shou Chou and Chi Chou the snakes have one eye open and one eye shut. Yuen Chen states that of the 100 kinds of snakes in Szechuan, the pitviper is seldom seen, but it bites people when poisoned have their hair stand on end. These vipers drink from mountain pools and pits and are eaten by the T'an Niao 鶏股. The people of Pachou are able to catch the small ones by uttering spells, after smoking them with the fumes of arsenic sulphide their heads split open.

Su Sung said the "white flowered viper" of Kueichow was the same, but Li Shih-Chen found those caught at Chi Chou (Hupeh) not so poisonous, & states that while Szechuan and Kueichow have similar looking snakes they are not the same species. (Szechuan also has the A. strauchi, Bedriaga, Gee.)

In the provincial records this snake is listed in southern China and various parts of Szechuan. In the ninth and tenth moons they are caught and fired and Su Sung recorded them not only from Hupeh, Kweichow and Szechuan, but also from Honan, Nanyanghsien. When they bite people's feet, in Kweichow the foot is immediately amputated and an artificial wooden foot is used in its place. When this snake occupies a human dwelling it is detected by a peculiar odour of decaying melons, and people keep at a distance till means have been found for quickly disposing of it.

The head and tail are cut off and used separately, being more poisonous than the other parts. The Kueichow species is large and a foot is cut from each end, the Chi Chou one is smaller and only three inches is cut off. The remainder when skinned and boned even from a large snake only yields 4 ounces of meat. Kept a long time it easily becomes wormy, when properly sealed it can be kept ten years without spoiling. The Sheng Chi T'ang Lu says that in spring and autumn it should be placed in wine for three nights (days), one day in summer and five days in winter, then it is taken out & dried over a charcoal fire. After this process has been repeated three times it is placed in an earthenware pot and buried in the ground one night to remove the smoky taste.
(5) The cooked flesh was used to strengthen the eyesight, cure nerves, pains, and lessen swellings of the joints. Dioscorides, De materia medica, 1st century. Galen used it in the form of Trochiscia. Andromachus made the famous Theriak with it. In the Pharm. Gallica 1815, Hispanica III 1803, and the Wurtemberg Pharmacopoeias 1798 to 1838; See Tschirch.

(6) Braun says the Chi She is only found in the neighbourhood of Ch'i-chou, about 100 miles below Hankow.

(7) Annamese name, Thi'en-sa, Perrot p. 60. The flesh is used for rheumatism, macerated in alcohol.

115. 鳥蛇. WU SHE. BLACK GRASS SNAKES. NATRICIDAE

(Syn. Tropidonotus.)


Syn. 鳥蛇 Wu Shao She, PT: 黑花蛇 Hei Hua She, PT: 鄭州劍脊細蛇 PT: 114.

There are two kinds, the better kind is knife-backed and thin tailed, the other has a blunt tail and is very long and not knifebacked. The latter is known as 鳥蛇 Feng Shao She being used for 'wind' diseases, but it is not as potent as the former.

This grass snake is recorded from Shang Chou and Luyang in Honan, it has three ridges on the back, it is a shiny black colour, it is harmless. In Chekiang there is a similar snake called 鳥蛇 Hei Shao She which crushes things to death. Shu-Sung reported these snakes from the hills of Ch'i-Chou and Huangchou in Hupeh. The Ch'ien-Ning-Chi states that they do not take life and do not injure people. They are found in the reeds and rushes on the south side, they inhale the floral scents. They are very difficult to catch. They have round heads and pointed tails. The eyes are red, which even after they are dead and dried stand open like a live animal. The best weigh from seven drams to one ounce. They is a second class material weighing ten to twenty ounces which is big and thick but they are not very potent. The black grass snakes are adulterated with others that have been smoked black but their eyes are not bright. Tsung-Shih recorded this snake as the commonest one used in medicine. Their length was measured with copper cash, on to the best one could thread one hundred coins. (2) They over 10 feet fear rats and wolves. Lei Hsiao made a difference between the sex of...
snakes and their use in medicine, also the source of production and the character
of the district in which they breed. This snake he said had a two inch line of
reversed hair on the head, 1/20th of an inch long. Those used in medicine
weighed less than one ounce. At the place of origin they are collected in
quantity to send to the throne as tribute. The males have a one inch white stripe
on the belly and make the best medicine.

It is prepared by beheading, and skinning, so as to remove the scales and
striped skin on the belly. Chopped into small pieces it is placed in bitter wine
overnight, then dried over a willow charcoal fire. Subsequently it is fried in
butterfat, planted in the ground to the east of the house overnight, and then
roasted dry. Or it is boiled in alcohol and simply dried for use.

115a 肉. JOU. FLESH OF THE BLACK GRASS-SNAKE.(5)

Tschirch, II, 814: Hubotter p. 132:

Sweet, bland, nonpoisonous. (It has been said to be slightly poisonous.)
Its action and uses are considered identical with those of the pitviper (114),
but is not poisonous. For paralysis, skin eruptions, leprosy, scabies, loss of the
eyebrows and moustache, and all kinds of 'wind' diseases affecting the skin.(4)
(The text implies that on account of cold winds the skin loses its vitality, and
subsequently becomes diseased. Snake meat is apparently considered of the
greatest importance as a vitalizer to the peripheral circulation.)

115b 燕. KAO. FAT FROM THE BLACK GRASS-SNAKE.(5)

Applied on cotton into the ear for deafness.

115c 胆. TAN. BILE OF THE BLACK GRASS-SNAKE.

For leprosy and plagues. For swollen tongue (a fatal disease with symptoms
of paralysis of the nerve endings in the tongue, with loss of taste &c. Its close
association with these so-called wind diseases suggests pellagra.)

115d 皮. P'I. SKIN OF THE BLACK GRASS-SNAKE.

Hubotter p. 201:

For ulcers on the lips, toxic infections of the skin, and pterygium caused by
an emotional storm. For inflammation of the spleen causing dry and ulcerated
lips in children.

115e 卵. LAUN. EGGS OF THE BLACK-SNAKE.

For leprosy and uses similar to the snake-meat.
Thirty nine species of *Natrix* are listed by Gee of which the only one found in Honan, Hupeh and Chekiang is *Natrix tigrina lateralis* Berchtold. This may be one of the various species indicated in the text, but according to Sowerby, it is a brightly marked snake. The fishing snake *N. piscator* Schneider common to South-east China has no brilliant markings, and for colouring corresponds better to the dried material sold in the drug shops of Peking and Shanghai. There is a four lined species *N. quadrilineata* Boulenger found in Yunnan. The heading may also include some of the closely allied harmless snakes, the Colubrinae.

Those commonly sold on the drug markets of Peking and Shanghai weigh more than this, they have not been beheaded nor skinned. They occur open, wound round a rough wooden frame, measuring over three feet long, and half to two thirds of an inch thick. Obviously smoked dried, the original marking of the snakes are obscure. The scales are much smaller than those of the pit-vipers, being about 6 by 3 mm. in size. A specimen bought in Shanghai weighed 109 grams. The head measured 25 by 18 mm. See figure.

Cooked in oil black snakes were used by Avicenna, Leonards del Preda (for fistula), Gilbertus de Anglica (for paralysis), and a snake oil was used for itching or unclean skin diseases. These are recorded by Manusius of Bosco Alexandrinus and Nicolaus Praepositus 15th century publications: The Vienna Dispensatory 1729 distilled an oil from the dried snake, used for hysteric convulsions.

Nadkarni quotes Shafa-ul-Inraz, that the blood of a black snake is the best application for ulcers.

Serpent fat was quoted in the early Egyptian records as a hair tonic. Tschirch II. 843. Also in Mongol medicine, Hubotter p. 200:

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116. 金蛇. **CHIN SHE. GOLDEN SNAKES. CORONELLA BELLA**


Syn. 銀蛇 Yin She, PT: 金蛇地錢 Chin Hsing Ti Shan, Pen-Ts'ao Tien Ching: 錫蛇 Hsi She, PT:

These names are all related to the metallic lustre of the scales.

According Liu Huan's *Ling-Ping-Pao-Lu Yi* the best are found in Ch'ing Chou (Kweichow) and a second quality comes from Kweichow (Kwanghsii). As large as ones thumb and up to one foot in length, according to the golden or silver colour of the scales they are used as an antidote to gold or silver poisons.

Su-Sung records them from Pinchou (Kwanghsi) and Ch'enchou (Kwangtung). They usually climb the trees to drink the dew. Their scales are so shiny they reflect the light. They are rarely caught. In Kianghsi at *Ling Shan* Hsiang in *Shang-Jao Hsien* there is a glossy snake exceedingly like this, which is caught in winter and has antitodal properties.

肉. **FLESH OF THE GOLDEN SNAKE.**

Saline, bland, nonpoisonous. An antidote to metallic poisons. For positive diagnosis a silver coin held in the mouth one whole night will turn a golden yellow. The skin cracks in chicken-claw lines. Four inches of the snake are taken and toasted brown, it is then stewed and constantly stirred until recovery occurs. It cures the diarrhoeas of heavy metal poisonings, it relieves the inflammation, and is also used to treat dysentery.

117. **水蛇. SHUI SHE. FRESH-WATER SNAKES. HOMALOPSINAЕ**


Syn. 電蛇 Kung Li She, PT: 黒蛇 Hei Li She, ZN:

It is found all over China wherever there are pools and streams. As large as an eel, yellowish-black color with chequed stripes. Its bite is not very poisonous; it should not be mixed up with the mud eels 黝蛇 Ni She, which live in mud holes, and are black and toxic.

肉. **FLESH OF THE WATER-SNAKE.**

Sweet, saline, cooling, nonpoisonous. For diabetes, dysentery, and depression from fever.

皮. **P'I. SKIN OF THE WATER-SNAKE.**

Ashed and applied with oil to osteomyelitis in children. Applied fresh to whitlows.

(1) Of the Oriental fresh water snakes Gee lists the *Hypsinoha eukhysis* Schneider from Hongkong described in the history of Amphibians, 1799, I. 245. Two species are in the Shanghai Museum from Amoy listed by Stanley as *H. sinensis*, Gray and *H. plumbea*, Boie. This Chinese name is referred by the Zoological Dictionary to *Elaphis bicolor*, Daud., synonym *Hydrophis biclor*.

118. **蛇婆. SHE P'I. SEASNAKES. HYDROPHINAE**.

They are found floating in the deep ocean waters of the Eastern Sea, shaped like snakes. There is no particular season for their collection. Li Shih-Chen says that in form and use they are apparently identical with the fresh water snake. (117)

Saline, bland, nonpoisonous.

For white and red dysentery, worm toxemia with blood in the stools. For five kinds of fowl sickness? and for toxic boils. Two drachms are taken with rice of the toasted and powdered material.

Of the fourteen species of sea snakes listed by Gee, Sowerby says that *Hydrus platurus*, L. is one of the commonest forms. Three species of *Distelles*, one *Lapemis* and two *Laticauda* are found off the coast of Kwangtung, characterized by their short blunt structure, Bulletin 58, U. S. Nat. Mus. 1907, pp. 402-409. There is another with a head shaped like a turtle, *Omydogocophus limai*, Stejneger recorded from Formosa. The Chinese name means literally "the old snake hat."

(2) The Chinese Zoological Dictionary refers this to *Platurus fasciatus*, Duad. or *P. schistostomus*.

(3) Stanley records three species in the Shanghai Museum, *Hydrus platurus*, L. from Pratas Island *Distelles cyanocincla*, Duad. from Poochow, and *D. melanocephala*, Gray from Wenchow.

**119. 黃鸂蛇. HUANG HAN SHE. THE CHICKEN-SNAKES. ELAPHE (COLUMBER)*(1)**


Syn. 黃鸂蛇 Huang Hou She, PT: 桑槸蛇 Sang Ken She, PT: 赤縛蛇 Ch'ih Lien She, PT: 赤蛇 Ch'ih Lien, T'ao Hung-Ching:

The name "Huang Han She" refers to the yellow throated species of *Elaphe*. However Li Shih-Chen includes under this heading the whole group of snakes commonly used in the old medical classics, the *Ch'ien Chiu Fang*, Cha Hou Fang, and *Wai Tai Mi Yoo*, which prescribed rats and frogs swallowed by snakes and snakes that had died of their own accord. Rats swallowed by vipers are dealt with separately. The rats used by the necromancers, T'ao Hung-Ching stated, were obtained from the *Huang Han* and Ch'ih Lien snakes, which we found chiefly in people's houses where they catch rats and sparrows. When people saw them distended, they were caught and cut open, and the contents dried. In discussing the well known remedy snake-slug it is said that one does not often find the shed skin of vipers they are chiefly from the elaphe snakes mentioned. Li Shih-Chen then describes various species.

**119 A. 赤縛蛇. CH'IH LIEN SHE. THE SCARLET NEEM SNAKE. NATRIX TIGRINA, Boie.**

ZN, 1797: NGG, Peking Nat. Hist. Bull., 1929, 4 11, 78; 38 species of Natrix are listed from China: Sowerby IV. 13 describes a subspecies in Manchuria: Boie, Isis 1826, p. 205:

Alternately striped red and black like the neem tree and mulberry tree roots.

**119 B. 赤縛蛇. HUANG HAN SHE. THE YELLOW-THROATED SNAKE. ELAPHE CLIMACOPHERA, Boie.(2)**

ZN, 1637: Gee, 24 species of *Elaphe* are listed from China:

Striped yellow and black, yellow throated, large up to 10 feet long, never very poisonous. It is this kind the snake charmers breed for use in exhibitions of their skill. People eat these snakes.

**119 C. 竹根蛇. CHU KEN SHE. BAMBOO VIPER. TRIMERESURUS GRAMINEUS, Shaw.**


*Chou Hau Fang* name, 赤縛蛇 Ch'ing K'uei She.

It is exceedingly poisonous and not used in medicine. It is usually found on the branches of bamboo, of similar natural coloring. The mature snakes are 4 to 5 feet long, with a tail 3 to 4 inches long.

**119 D. 媾尾蛇. K'AO WEI SHE. NATRIX VIBAKARI, Boie.**


These are most poisonous of all. If bitten by them the bite is immediately cauterized by burning three or four moxa on the place, then the toxin cannot circulate. Subsequently other drugs are applied.

**119 E. 菜花蛇. TS'AI HUA SHE. ELAPHE QUADRIVIRGATA, Boie.**

ZN, 1638: Gee, p. 70 Hankow, Hupeh:

A large yellowish green species used in medicine.

肉. FLESH OF THE ELAPHE SNAKE.

Sweet, warming, slightly poisonous.
Made into a tincture, or pills, from snakes which have died a natural death. Roasted, powdered and applied to mad dog bite. Dead snakes collected on the 5th of the 5th moon ashed and given with spring water for hysteria. Placed in little water and allowed to putrify, the liquified material from which the bone have been removed is applied to ringworm. Internally it is given for eczema and skin diseases, and toxic boils. The expressed fluid from the snakes is applied to scabies. The decoction is given for rheumatism of the arms and wrists. Ash is it is applied with lard to hemmorhoids, eczema, and breast abscess.

Snake. *She T'en.* HEAD OF THE ELAPHINE.

The ash is given in powder or pill form for chronic malaria and ulcer of the small intestine. Applied to carbuncles on the back, and fistula.

Bone. *Ku.* BONES OF THE ELAPHINE SNAKES. (7)

Roasted and powdered. Given for malaria. Applied to necrotic fistulas.

Venom. *Ven.* VENOM OF THE ELAPHINE SNAKE. Very poisonous. (8)

In Kiangnan the hill-tribes make a poisonous medicine from this venom which causes cancer, this is treated with opium (arsenic sulphide) and centipedes.

Snake. *She T'en Shu.* RATS SWALLOWED BY SNAKES.

Fried in lard, and strained. The lard is applied to buboes and fistulas perforated by fistulas.

Snake. *She T'en Wu.* FROGS SWALLOWED BY SNAKES.

Wrapped in mud and roasted. Powdered and given with rice for belching. Green frogs similarly treated are given for chronic cough with purulent sputum. Applied to chronic fistulas.

(1) Gee lists twenty four species of *Elaphe* in China. Stanley lists eighty species in the Shanghai Museum. Sowerby says there are about a dozen species known from China, of which the commonest in the North is *E. dios* Pallas, frequenter of dry areas. The commonest in the North East and East is the striped water snake *E. rufodorata,* Cantor. In the Lower Yangtse and southward is the *E. taeniurus,* Cope. The species identification given in our subheadings are taken from the Zoological Dictionary, although these are from different genera. Shih-chen definitely includes those snakes which in old medical literature were used for the rats and frogs which they were in the habit of swallowing.

(2) This species is only reported from Quelpart Island. This would appear to refer more likely to *Natrix tigrinua latissima,* Berhold, reported more or less from all over the country.

(3) While a specific name is here given, the text implies that several species were used, large and small, nonpoisonous and those slightly so.

(4) It seems quite doubtful if this be the correct identification. The text above states that the rats swallowed by vipers are dealt with separately, and here it says that this snake is exceedingly poisonous and not used in medicine.

(5) This identification from the Zoological Dictionary is undoubtedly of Japanese origin. Sowerby says the Japanese name for this snake is *Hibakari,* as it is erroneously supposed to be very poisonous. It puts this identification under suspicion both for this Chinese material and for the *Hibakari.* Sowerby describes it as, "a graceful reptile of a smoke-grey colour above, slightly darker on the top of the head and along the middle of the back: Whitish below with a few dusky spots".

(6) This species-name is not listed by Gee. It is of Japanese origin.

(7) The powdered vertebrae of snakes were used in old European medicine, see *Dispensatorium Valerii Cordi,* (Norimbergense) 1666 A.D.

(8) In Hindu medicine arsenic or bile is considered antidotal to Snake venom. Nadkarni p. 1133. Snake venom was a relatively recent introduction into Ayurvedic medicine in India, its properties and use are discussed by Chopra, Indigenous drugs of India, Calcutta, 1932.

120. 蛇。*Fu She.* PIT VIPERS. AGKISTRODON ACUTUS, Gunther. (1)


Syn. 反鼻蛇 Fan Pi She, PT:

In Wang-Chieh-Fu's entomological dictionary it says that this snake when hit doubles up from head to tail, and man when bitten does the same thing, hence the name *Fu* which is derived from 彩 *Fu.*

Ts'ao Hung-Ching differentiated between the Agkistrodon 禄 and the Trimeresurus 蠍 Hui (see No. 121) although Se Kung regarded them as the same, as did the Erh Ya. Kuo Fu said that this Agkistrodon was limited in distribution to the south of China (A. halys No. 114 occurs north of the Yangtse, A. acutus is southern in its distribution.) and was known as Fan Pi She, (snake with the turned-up nose), thin necked, big headed, brown tail, on the nose is a needle, its markings are like embroidery, it has hair on its spots like pig's bristles, seven to eight inches long when full grown. The *Trimeresurus* is found all over China.
On account of its earthy colour it has the colloquial name 砂蛇 天蛇. The
two genera are easily distinguished for the agkistrodon is long and big, the
trimeresurus is short and small.

Liu Tzu-Hou (T'ang dynasty scholar) wrote a treatise on this subject, and
stated that the eyes were like wasps and scorpions, the colour was earthy, the
neck was contracted and wrinkled, it crawled slowly, the nose upturned, the tail
hooked. It came out of its nest and liked to live in hazel bushes. When angered
it coils up, gathers its poison in its mouth and darts out at people.

Pao Fu Tzu said that of the numerous kinds of snakes the Agkistrodon was
the most poisonous. When people were bitten, the bite should be immediately
cut out with a knife, only so can the patient live.

T'ao Hung-Ching said they were a dark yellow colour like earth with white
stripes and yellow throat, pointed mouth and very virulent. Shaped like
Trimeresurus short and flat, and identical in the character of the poison. Of the
many kinds of snakes these two genera with the 青蛇 Ch'ing K'uei are the most
poisonous, if not immediately attended to, their bite is fatal. South Shansi and
Hankow were said by Su Kung to be the natural habitat of the vipers(1). Sung
described it with a short flat head, spotted body with red stripes and some
dark green spots.

Ch' en T' ang-Ch' i stated that this snake alone was viviparous, (Gadow says
this is true of the vipers and thoroughly aquatic kinds of snakes.) When the
foot or hand is bitten it should be cut off, otherwise the whole body becomes
gangrenous. The venom it most toxic in August and September, when vipers
feeling uncomfortable may shed their venom on the trees; the trees will sub-
sequently die. If the venom is shed on grass or trees and people come into con-
 tact with it they will develop boils with swelling of the body, a condition called
蛇淫痘 She Mo Ch' uang, which is a long time getting well, and should be treated
with the same drugs as for ordinary snake bite.

120 A. 千歳蝮. CIP' EN SUI FU.

In the eastern provinces there is a viper much like the ordinary Agkistrodon
but shorter with four feet, which can spring up and bite people. Its bite
absolutely fatal. As soon as it has bitten a person it climbs up a tree and makes
a noise (rattles?) "Ch' e Mu Ch' e Mu" (chop the tree) which indicates the bite
fatal, but if it says "Po Shu Po Shu" the bite can be cured by applying immediate
equal quantities of Asarum and arsenious sulphide and repeating the applica-
three or four times a day. People also carry seall tubes of powdered cinna-
and the root of Trichosanthes japonica which is immediately applied in cases
of snake bite.
Li Shih-Chen describes the 蟒 L:in list in the 'an Lin, which says this snake is like a washing baton, the head and tail being of similar appearance, it is like a 蟒 Yi and is found at 魏 Heng. Colloquial name 合木蛇 Ho Mu She (The snake that will put a person in their coffin). One or two feet long. T an Yeh-Weng cites the 蟒 Mu She, also called 望板蜣 Wang Pan Kuri, the bite of which is treated by applying the crushed leaves of young vitex plants.

胆。Tan. **Bile of the Pit Viper.**

Bitter, slightly cooling, poisonous.

Applied to worm infested wounds. A vermicide for the lower part of the body. For fistula, if too painful apply crushed apricot seeds.

肉。Jeu. **Flesh of the Pit Viper.**


Sweet, warming, poisonous.

Applied to leucoderma. Internally it is given in the form of a tincture made by placing one snake in a gallon of wine, and burying the sealed jar containing it, in the stable under the place where the horses urinate. After one year it is all liquified but the wine has not lost its smell. Not more than one pint is taken as a cure for apoplexy, leprosy, fistula, stomach and heart pain, colic, worm toxemia, hemorrhoids, flatulence and bleeding from the bowel, all kinds of toxic boils, syphilitic, anaesthetic areas on the skin, and all serious ailments of the hands, feet, and internal organs.

脂。Chih. **Fat of the Pit Viper.**

Tschirch II. 884: Hubotter p. 200

Applied to deaf ears and toxic swellings.

皮。Pi. **Skin of the Pit Viper.**

Ashed and used for treating osteomyelitis and carbuncles.

蜕。To. **Slough of the Pit Viper.**

For scabies, eczema, itching of the skin, and blisters on the hands.

骨。Ku. **Bones of the Pit Viper.**

Three drachms of the ashed material is given for hemorrhagic dysentery.

屎。Shi. **Feces of the Pit Viper.**

Obtained in captivity.

For fistulas and hemorrhoids.
DEAD RATS FROM THE STOMACH OF THE PIT VIPER

Slightly poisonous.

For buboes. (This term “rat sores” in Peking often refers to suppurating tuberculous neck glands.)

(1) This should be compared with No. 114, the Pai hua she which is also a pit-viper. This species Kuo Pu says is only of southern distribution. Su King, in adding South Shansi and Hankow must have included the "pai hua she" in a generic sense.

(2) Viper fat and wine were used extensively in old European medicine see Pliny, Galen, &c. A. C. Wootton, Chronicles of Pharmacy, II, p. 20, London, 1910.

(3) Present day use in Britain, Pharmaceutical J. 1933, 131, 368.

(4) According to Charas (1869) the fat was a valuable application for gonorrheal ulcers and for tumours. The skin fastened round the right thigh of a woman was an excellent aid to delivery in child-birth. It cures mange in dogs.

(5) The skin, flesh, fat, liver and heart of vipers were used in Italy for plague and lung diseases. Tschirch II. 821. The fat was used by Dioscorides for dimness of eyesight, and for the hair. It is quoted in all the official drug books of the 17th and 18th centuries, Tschirch.

122. 藍蛇. LAN SHE. THE BLUE SNAKE. DISTEIRA CYANOCINCTA, Daud.?

Pen-Ts’ao Shih-Yi: SC, Korean name, Nam Sa:

From Kwanghsii, Tsangwu Hsien. It is shaped like an Agkistrodon. The Cantonese call it 藍藥 Lan Yao, the blue medicine. The body has a circular furrow, which when cut divides the poisonous head from the harmless tail.

People when poisoned by being given the head to eat, are cured by eating the tail.

123. 兩頭蛇. LIANG T’OU SHE. TWO HEADED SNAKES. CALAMARIA SEPTENTRIONALIS, Boulenger.(1)


Ch’eu T’sang-Ch’i recorded them as big as one’s finger with one head with a mouth and eyes, but it could progress either forwards or backwards. It was unlucky to see them. The Erh Ya says they occur in the Central Provinces, Liu Hsuan in the Lung Piao says they are common in provinces other than Canton.(2) Over a foot long as thick as the little finger, with an embroidered back and ruddy belly. The Erh Ya Yi states they are very common in Anhui,(2) found in nests of ten. They have black scales and white spots. There is a separate species which appears after the summer rains, they look like earth worms, scaled, and with head and tail alike. They are also called Liang T’ou She. The Hupeh species is called 山婦 Shan Yin, which moves very slowly in a most circuitous manner.

124. 紅蛇. RED SNAKE. TRIMERESURUS.

(1) Gee lists eight species in China, of which three were listed by Stanley in the Shanghai Museum. T. mcrusquamaatus, Cantor is a dull greyish or brownish mottled form, Sowerby.

(2) Giles (No. 5182) translates this, Trigonocephalus blumhoffii, Strauch, which is a synonym for Agkistrodon b., which is not a short earth-colored spotted snake.

FLESH OF THE CALAMARIA.

Harmless, eaten by natives.

For malaria. Worn by the hill tribes as a charm.

(1) Pliny VIII. 25 says “The amphibiaena has two heads, that is, it has one at the rear also.” Robin.
124. 天蛇.  T'IEH SHE.  BIPALIUM.

Pen-Ts'ao Kang-Mu: ZN, 1529:

A Chekiang snake said to come out after the rains. Living in shady spots. Like a chopstick, flat, three to four feet long, a yellowish red colour. It dissolves in vinegar, and will die if lime be sprinkled on it. (There are other descriptions which cast doubt on its identity, but establish it as a poisonous enemy greatly feared by the Chekiang people.)

125. 舒印.  KOU YIN.  UNIDENTIFIED.

Pen-Ts'ao Shih-Yi:

Syn. KOU Tou, Ch'en Ts'ang-Chi:

From Kwangtung, Ch'a-ichow; like a four-footed snake:

背.  KAO.  FAT OF THE KOUYIN.

Dropped into deaf ears, the hearing is made quite acute in both ears.

126. 蛇角.  SHE CHIAO.  THE RHINOCEROS VIPER.  BITIS NASCORNIS.  

Pen-Ts'ao Kang-Mu: ZN, 1667 星角蝰 Hsi Chiao K'uei: Gadow p. 60

West African viper: the horned viper of West Asia is Cerastes cornutus.

Syn. 骨頂蝰 Ku Ch'o Hsi, PT: 碧星 Pi Hsi, PT.

The horns of a big snake which is not native to China. T'ang dynasty records refer to this snake from the 古都 Gu Tu Ku? and the name Ku Ch'o probably came from this. The medicine was famous as a poison antidote in rhinoceros horn, hence the term Hsi rhinoceros. The Ming records say the these horns come from Hami and Turkistan: like pale blue jade, with a yellowish tinge. When struck it has a high clear note like jade. When scraped it has a fragrant smell. When burnt it does not have a disagreeable smell. The grain is fine like ivory. It is made into costly knife handles.

Poisonous.

It is famous as a poison antidote and as cure for inflamed toxic boils.

127. 各蛇.  CHU SHE.  VARIOUS SNAKES.

Listed by Li Shih-Chen in the Pen-Ts'ao Kang-Mu:

The character 蛇 She was originally written 蛇, which had a colloquial rendering 蛇, pronounced in three different ways She, Yi, and T'o. The old seal character was a pictogram showing the coils of a snake; this character She comes from the slowness (沱 T'o) of its movement. The Cantonese eat snakes and call them 蛇, or 蛇蛇 Mao Shan-grass eels. According to the Shan Hai Ching, the people to the Southwest beyond the seas consider worms to be snakes, and real snakes are called fish.

There are numerous kinds of snakes which cannot be included in the genera already mentioned which can be briefly considered as follows.

Snakes are classed with birds in geomancy as winged fire belonging to the south part of the compass. In the Pa Kua it is southeast and associated with "wind" (the curing of wind diseases.) The snake god is Yu-an Wu. The Shu-wen class them among the poisonous insects. In the Pei Hui Lu they are classified in five groups, marine, fire, grass, wood and earth types. Snakes are found with the following colours, dark green, yellow, red, white, black, golden, bluish-green, spotted, and embroidered. There are poisonous and nonpoisonous snakes, the golden colored and the water snakes are nonpoisonous. Snakes have scales, there are also hairy forms such as the Pit-vipers. They are oviparous also viviparous. They travel on their bellies, there are also those that have four legs such as some of the pythons and others. There are those that have a comb (hooded) which are most poisonous. 蛇角蝰 Shan Chiao She has horns. The Hsi-Shen Ching lists a snake with six legs and four wings called the 蝮蛇 Fei Yi. There are flying snakes without feet such as the 蝮蛇 T'eng She. The 蛇 She has an animal head with a snakes body. There are said to be snakes with a human face which can call out peoples names and are harmful, named 人面 She. Two headed have been already mentioned, Calamaria No. 123, there are also snakes with two bodies called 蛇角 Fei Yi. In Yunnan there are snakes with forked tails; there are also those with hooked tails by which they can drag their prey under water and eat them. Those with tails three to four inches long of a toasted colour are most poisonous. Those with rudder like tails seven to eight feet long are most poisonous, and are treated with washing with an infusion of shavings from the rudder of an ordinary boat.

In the fourth and fifth month the poisonous snakes are the 蛇 She Chi'ing K'uei, 畫蛇 Ts'ang Hui 白頸 Pai Ching, 大蟒 Tu Yi. In the sixth and seventh...
Snakes come out in spring for food, they hibernate in autumn and winter. During hibernation they swallow earth. In spring they spit out this earth. They have a forked tongue, are deaf (see note to 102) but can hear sounds with their eyes. When curled up, the head points south. The venom is in its spittle, when angry it is said to enter its tail (1) and head. Similar to a dragon it has a pearl in its mouth. (1) It travels in a circumstantial manner. It gobbles its food. It sheds its skin repeatedly. It has a knowledge of medicinal plants. In coitus the male enters the belly of the female. They are also said to cohabit with pheasants, turtles, fish and peahens. Bamboo sticks are said to be able to metamorphose into snakes, and snakes into pheasants etc. The great python has round eyes, and can swallow an elephant. The python (Jan) eats deer, the Chinese (She) eats the very large deer called Cervus. The azure snake (Huo In She) is a rat catcher. Rats that eat snakes can also catch them. There are frog eating snakes, there are also some frogs that can control snakes. Snakes can frighten panthers but there are certain species of the latter which eat snakes. Turtles and snakes are of common origin, but there are some turtles that eat snakes. Certain centipedes like to eat snakes. Cranes, storks, kites, eagles and falcons all eat snakes. Tigers, monkeys, musk deer, the "Chi" deer, and cows all eat snakes. Snakes eat frogs, rats, swallows, sparrows, bats, and nestlings. They eat celery, eggplant, rhododendron, Eremocistus undulatum, and Cuthona mascula. They fear mioga ginger, Artemisia Kriniana, Polygonum multiflorum, goose excreta, the sulphides of arsenic, centipedes and antelope horn. If they run into lettuce plants they lose their vision. Their feet are indistinct, and can only be seen if the animal be burnt with a burning mulberry stick. If a snake coil itself around a man's leg it can be removed by pouring on hot urine or scalding hot water, or if a snake penetrate any of the body orifices it should be burnt with a moxa or warmed with powdered chilies rubbed into the cut end of the tail.

Internal antidotes to snake venom are, arsenic sulphide, fritillaria, garlic, shallot, Xanthium strumarium. External remedies are, indigo, "Crane lice", cichorium, celery, acini juice, turmeric, ginger, alum, black-soy bean leaves, vitex leaves, Goujus dyaleoides, dog's excreta, goose excreta, and Ts'ai Chi and Phin.

(1) Pliny XXXVII. 158 "Dracontites or Dracontia is a stone engendered in the brains of serpents". Further reference is made in "Animal Lore of English Literature" by P. Ansell Robin, London, 1932.

(2) See various references in English literature cited by Robin.
ground, and the wild hogs can smell it, they turn over the stones, root up the ground and eat them. Snake meat is very warming, a wild pig can survive the coldest winter if he eats three snakes.

The Pen Ts'ao Kang Mu has two headings the 红 Fu and 豕 Hui, the former is the Fang Sheng Pan, the latter is known as 土墊 Tu Chin "earth embroidery" a colloquial name is 灰地鼠 Hai Ti Pien.

Rheumatism, paralysis and diseases associated with the toxic miasmas need drastically hot medicines to eradicate them, and enable a person to use their arms and legs, which otherwise will be constantly crippled. Probably this poison is an antidote to these toxins.

Li says there are a number of different names to this particular class of vipers which need further study.

489. 蝮油 MANG YU. PYTHON FAT. see II2.

Syn. 蝮王蛇 Mang Wang She, Erh Ya, PT. 王蛇 Wang She, ZN, PT.

It is the largest of the snakes hence the name "snake king". It is found in all high mountain areas, large and small kinds. It is marked like a 蝮花蛇, Ts'ai Hua She, a little yellower. They all have a 王 Wang character on the head. There is a black variety called 蝮毒 Wu Mang.

Snake catchers have a method of calling them (snake charming methods) which brings out every kind of snake to them, when the python comes out they all fall prostrate and allow the catcher to pick out any that he wants, but if he touch the python they all set on him and bite him. The snake-charmers say that as soon as the python comes, large or small bearing the 王 Wang character on the head all the others are quiescent and will not harm people. Chao Hsiu-Min said he found a beggar at Fenghua with one of these snakes in his hand which he bought for a thousand cash.

The snake fat is heated in a caldron with beeswax and made into a plaster and applied to hemorrroids.

490. 断草烏 TUAN TS'AO WU NATRIX.

One of the 烏蛇 Wu She.

In the Kwaungtung records it is listed, as thick as one's finger but only five to six inches long. It has a small dragon like head, and completely black body. Wherever it goes, the grass is cut and it is easily caught in trails unless the catcher be too late, for fearing man the snake leaves the trail about ten feet and straightening itself out like an arrow it shoots off into its hole and one can never find it.

The 烏蛇 Wu Shao She of the Pen Ts'ao is like it but has no dragon like head.

Cooked in wine it is good for leprosy.

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