

Li Shi-chên does not refer to Ko Hung, the famous Taoist adept of the fourth century,<sup>1</sup> who is the first author to impart a fantastic account in regard to rhinoceros-horn. He is likewise the first to set forth its quality of detecting poison. His text is here translated, as given in *T'u shu tsi ch'êng*.<sup>2</sup>

"Mr. Chêng<sup>3</sup> once obtained a genuine rhinoceros-horn of the kind 'communicating with the sky,' three inches long, the upper portion being carved into the form of a fish. When a man carries such a piece in his mouth and descends into the water, the water will give way for him and leave a vacant space three feet square, so that he has a chance to breathe in the water.<sup>4</sup> The horn 'communicating with the sky' has a single red vein like a silk string running from the base to the tip. When a horn filled with rice is placed among a flock of chickens, the chickens want to peck the grains. Scarcely have they approached the horn to within an inch when they are taken aback and withdraw. Hence the people of the south designate the horn 'communicating with the sky' by the name 'fowl-frightening horn.' When such a horn is placed on a heap of grain, the birds do not dare assemble there. Enveloped by a thick fog or exposed to the night dew, when placed in a courtyard, the horn does not contract humidity. The rhinoceros (*si*) is a wild animal living in the deep mountain-forests. During dark nights its horn emits a brilliant light like torch-fire. The horn is a safe guide to tell the presence of poison: when poisonous medicines of liquid form are stirred with a horn, a white foam will bubble up, and no other test is necessary; when non-poisonous substances are stirred with it, no foam will rise. In this manner the presence of poison can be ascertained. When on a journey in foreign countries, or in places where contagion from *ku*

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was the ivory of an animal which was found shortly after it had died a natural death; least esteemed was that discovered in mountains many years after the animal's death (PELLIOT, *Bulletin de l'Ecole française d'Extrême-Orient*, Vol. II, 1902, p. 166). In Siam, the rhinoceros is still killed with bamboo pikes hardened in the fire and thrust into its jaws and down the throat, as described by Bishop PALLEGOIX (*Description du royaume Thai ou Siam*, Vol. I, p. 75, Paris, 1854).

<sup>1</sup> He died in 330 A.D. at the age of eighty-one; see GILES (Biographical Dictionary, p. 372); MAYERS (Chinese Reader's Manual, p. 86); BRETSCHNEIDER (Bot. Sin., pt. I, p. 42); and PELLIOT (*Journal asiatique*, 1912, Juillet-Août, p. 145).

<sup>2</sup> Chapter on Rhinoceros (*hui k'ao*, p. 3), introduced by the author's literary name Pao-p'u-tse, and the title of his work *Têng shê p'ien*, which is not included in the Taoist Canon.

<sup>3</sup> Presumably Chêng Se-yüan, a relative and spiritual predecessor of Ko Hung (L. WIEGER, *Taoïsme*, Vol. I, Le canon, p. 16; PELLIOT, *l. c.*, p. 146).

<sup>4</sup> It is interesting to note that this belief is still upheld in the modern folk-lore of Annam: "Celui qui peut se procurer une corne de rhinocéros et la sculpte en forme de poisson, s'il la met entre ses dents, peut descendre sans danger, comme le rhinocéros ou le poisson, tout au fond de l'eau" (P. GIRAN, *Magie et Religion Annamites*, p. 104, Paris, 1912).

poison<sup>1</sup> threatens, a man takes his meals in other people's houses, he first ought to stir his food with a rhinoceros-horn. When a man hit by a poisonous arrow is on the verge of dying, and his wound is slightly touched with a rhinoceros-horn, foam will come forth from his wound, and he will feel relief.<sup>2</sup> This property of the horn 'communicating with the sky' of neutralizing poison is accounted for by the fact that the animal, while alive, particularly feeds on poisonous plants and trees provided with thorns and brambles,<sup>3</sup> while it shuns all soft and smooth vegetal matter. Annually one shedding of its horn takes place in the mountains, and people find horns scattered about among the rocks;<sup>4</sup> in this case, however, they must deposit there, in the place of the real one, another horn carved from wood, identical with that one in color, veins, and shape. Then the rhinoceros remains unaware of the theft. In the following year it moves to another place to shed its horn.<sup>5</sup> Other kinds of rhinoceros-horn also are capable of neutralizing poison, without having, however, the wonderful power of the *t'ung-t'ien* variety."

Su Kung, the editor of the *T'ang sin pên ts'ao* (the revised edition of the materia medica of the T'ang dynasty) states as follows: "The *tse* (No. 12,325) is the female rhinoceros. The patterns on its horn are smooth, spotted, white, and clearly differentiated. It is ordinarily called the 'spotted rhinoceros' (*pan si*). It is highly esteemed in pre-

<sup>1</sup> See *T'oung Pao*, 1913, p. 322.

<sup>2</sup> The belief that the horn will check the effects of poisoned arrows is repeated in the *Pei hu lu*, written by Tuan Kung-lu around 875 in the T'ang period (PELLIOT, *Bulletin de l'Ecole française*, Vol. IX, 1909, p. 223). The notes of this book regarding the horn are all based on the text of Ko Hung; instead of *t'ung t'ien si*, the term *t'ung si* is employed.

<sup>3</sup> The animal feeds, indeed, on herbage, shrubs, and leaves of trees.

<sup>4</sup> The supposition of the rhinoceros shedding its horn regularly has not been ascertained by our zoölogists; but it is not very probable that it does so, nor have the Chinese made the actual observation. It is clear that their conclusion is merely based on the circumstantial evidence of detached horns occasionally found and picked up in the wilderness, which suggested to them the notion of a natural process similar to the shedding of cervine antlers.

<sup>5</sup> A similar story is told in regard to the elephant by Chên Kūan, who wrote two treatises on the medical virtues of drugs, and who died in the first part of the seventh century (BRETSCHNEIDER, *Bot. Sin.*, pt. I, p. 44): "The elephant, whenever it sheds its tusks, itself buries them. The people of K'un-lun make wooden tusks, stealthily exchange them, and take the real ones away." K'un-lun is the Chinese designation for the Malayan tribes of Malacca, and was extended to Negrito, Papua, and the negroes of Africa (see HIRTH and ROCKHILL, *Chau Ju-kua*, p. 32). In this connection we should remember also the words of PLINY (*Nat. hist.*, VIII, 3, §7), that the elephants, when their tusks have fallen out either accidentally or from old age, bury them in the ground (*quam ob rem deciduos casu aliquo vel senecta defodiunt*). It is not impossible that the great quantity of fossil ivory mentioned as early as by THEOPHRAST (*De lapidibus* 37, *Opera* ed. F. WIMMER, p. 345; compare the interesting notes of L. DE LAUNAY, *Minéralogie des anciens*, Vol. I, pp. 387-390, Bruxelles, 1803) may have given rise to this notion.

scriptions, but is not such an efficient remedy as the horn of the male rhinoceros."<sup>1</sup>

Ch'ên Ts'ang-k'i, who lived in the first half of the eighth century, states in his work *Pên ts'ao shi i* ("Omissions in Previous Works on Materia Medica") as follows: "There are not two kinds of the rhinoceros, called the land and water animal. This distinction merely refers to finer and coarser qualities of horns.<sup>2</sup> As to the rhinoceros 'communicating with the sky,' the horn on its skull elongates into a point after a thousand years. It is then adorned, from one end to the other, with white stars, and can exhale a vapor penetrating the sky; in this manner it can communicate with the spirits,<sup>3</sup> break the water, and frighten fowl. Hence the epithet 'communicating with the sky' is bestowed on it. Pao-p'u-tse<sup>4</sup> says, 'When such a rhinoceros-horn is carved into the shape of a fish, and one holding this in his mouth descends into water, a passage three feet wide will open in the water.'<sup>5</sup>

Su Sung, author of the *T'u king pên ts'ao*, published by imperial order in the age of the Sung dynasty, has the following: "Of rhinoceros-horn, that coming from the regions of the Southern Sea (*Nan hai*) takes the first place; that from K'ien and Shu<sup>6</sup> ranks next. The rhinoceros resembles the water-buffalo, has the head of a pig, a big paunch, short legs, the feet being similar to those of the elephant and having three toes. It is black in color, and has prickles on its tongue. It is fond of eating thorny brambles.<sup>7</sup> Three hairs grow from each pore in its skin,

<sup>1</sup> Li Shi-chên's text exactly agrees with that given in the *Chêng lei pên ts'ao*. It is an interesting coincidence that the horn of the female rhinoceros (*tse si kio*) is mentioned in the Annals of the T'ang Dynasty (*T'ang shu*, Ch. 40, p. 6 b) as the tribute sent from the district of Si-p'ing in Shen chou, the present territory of Si-ning in Kan-su. The Annals therefore confirm the statement of the contemporaneous *Pên ts'ao*.

<sup>2</sup> It will be seen below that Li Shi-chên does not share this opinion.

<sup>3</sup> The same paragraph is found in Li Shi, the author of the *Sü po wu chi* (Ch. 10, p. 8 b; ed. of *Pai hai*), ascribed by tradition to the T'ang period, but in fact coming down from the Sung. He interprets the expression *t'ung t'ien* by the words, "It is capable of communicating with the spirits" (*nêng t'ung shên*). According to him, "the horn communicating with the sky" is a thousand years old, long and pointed, overstrewn with white stars, the tip emitting a vapor.

<sup>4</sup> Surname of Ko Hung, a famous Taoist writer, who died at the age of eighty-one about 330 A.D. (see p. 138).

<sup>5</sup> The text in the *Chêng lei pên ts'ao* is somewhat fuller. It opens by saying that the flesh of the rhinoceros cures all poisons, especially poisoning caused by the bites of snakes and mammals. On Java bits of the horn are considered as an infallible antidote against snake-bites (P. J. VETH, *Java*, Vol. III, p. 289). At the close of Ch'ên Ts'ang-k'i's text it is added that the horn is called also *nu kio* (literally, "slave horn") and *shi kio* ("the horn, with which the animal feeds"); the word *nu* seems to be the transcription of a word from a non-Chinese language.

<sup>6</sup> Ancient designations for the present territory of the provinces of Kuei-chou and Sze-ch'uan.

<sup>7</sup> The entire definition, except the "prickles on the tongue," is derived from Kuo P'o (see p. 93). MARCO POLO (ed. of YULE and CORDIER, Vol. II, p. 285), speaking of