



Courtesy of the Royal Ontario Museum, Toronto, Canada

What Is Taoism?
*and Other Studies in
Chinese Cultural History*

HERRLEE G. CREEL

The University of Chicago Press
CHICAGO AND LONDON

The University of Chicago Press, Chicago 60637
The University of Chicago Press, Ltd., London

© 1970 by Herrlee G. Creel

All rights reserved. Published 1970
Phoenix edition 1977
Midway reprint 1982
Printed in the United States of America

International Standard Book Number: 0-226-12047-3
Library of Congress Catalog Card Number: 77-102905

Contents

Preface vii

- 1 What Is Taoism? 1
 - 2 The Great Clod 25
 - 3 On Two Aspects in Early Taoism 37
 - 4 On the Origin of *Wu-wei* 48
 - 5 The Meaning of *Hsing-ming* 79
 - 6 The *Fa-chia*: "Legalists" or "Administrators"? 92
 - 7 The Beginnings of Bureaucracy in China: The
Origin of the *Hsien* 121
 - 8 The Role of the Horse in Chinese History 160
- Index 187

8

The Role of the Horse in Chinese History

The term "chivalry" has come to stand for so much that is so important, in so many aspects of European history, that we may tend to forget that its original sense was "cavalry." The connotations with which the word "chivalry" has become charged underline the fact that the horse, as a cavalry mount, has been by no means a negligible factor. Undoubtedly many of the same phenomena would have occurred in somewhat different form, but European history would not have been entirely the same if the cavalry horse had not been invented.

We may not be accustomed to thinking of the cavalry horse as an invention. But it was one, and not the simplest: like most important inventions it was a combination and culmination of a number of other inventions. It appears to have first been developed in Western Asia or Southeastern Europe. Spreading early to various parts of Europe it became of some importance there. But the cavalry horse had its most extensive and most deadly development among the nomadic peoples of Asia. Its impact was felt by China somewhat later than by Europe, but its influence upon many aspects of Chinese history has been tremendous. For some two thousand years China's foreign relations, military policy, economic well-being, and indeed its very existence as an independent state were importantly conditioned by the horse.

The steppes of Central Asia and Southeastern Europe are the regions in which much of the history of the cavalry horse unfolded. But these arid lands have not always been peopled by fierce, horse-riding, nomadic warriors. Their earliest known inhabitants seem to have been men who were not even pastoral, but at least chiefly agricultural; such agriculture must have been carried on in particularly favorable areas, such as oases. The rearing of domestic animals appears to have been a subsequent

Reprinted from the *American Historical Review*, LXX (1965), 647-672 (© 1965 by Herrlee G. Creel).

development.¹ Both Karl Jettmar and James F. Downs conclude that the technique of the domestication of the horse was developed in the Near East and spread eastward through Asia. If this is correct, it must have reached China quite early, for it appears likely that the horse was domesticated in eastern China in late Neolithic times.² But even after the horse was kept as a domestic animal, this did not mean that its keepers were at once riders, much less mounted warriors.

Downs distinguishes three phases in the employment of the horse for transportation. One (no doubt the earliest) is its use for traction, including the pulling of chariots. The second is the use of the horse as a "moving seat," ridden simply as a means of transportation. The third is the development of the horse into a charger of war.

The transition from the second to the third step is not so simple as it might seem. Downs, who speaks from an extensive practical experience with horses unusual in a scholar,³ points out that training the horse for war is no easy matter. It is a highly temperamental "animal of 'flight' rather than 'fight.'" Yet it must be taught to "face loud noises, leap fences, charge into crowds, and gallop at man's command, often to its own destruction."

Furthermore, Downs argues, the development of really effective mounts for war required the breeding of horses larger than those found in the wild state. "The only wild breed of horses known in recent history, Przevalsky's horse (*E. przewalskii poliakoff*) of the Central Asian Steppe, averages about 13 hands" (a hand equals four inches). Such a horse, he says, is so small that its value "in war or hunting would have been negligible." The modern domestic horse, averaging fifteen hands, is a product of selective breeding and feeding.⁴

In our information concerning the characteristics of the horses that were early used as cavalry mounts in East Asia, the factor of size is rarely mentioned.⁵ But it is perfectly clear that horses preferred for war were

1. Karl Jettmar, "Les Plus Anciennes Civilisations d'éleveurs des steppes d'Asie Centrale," *Cahiers d'histoire mondiale*, I (no. 4, 1954), 760-783; James F. Downs, "The Origin and Spread of Riding in the Near East and Central Asia," *American Anthropologist*, LXIII (Dec. 1961), 1199; Owen Lattimore, *Inner Asian Frontiers of China* (New York, 1940), 157-163, 328.

2. Downs, "Origin and Spread of Riding," 1201; Jettmar, "Éleveurs des Steppes," 775; H. G. Creel, *Studies in Early Chinese Culture, First Series* (Baltimore, 1937), 189-90.

3. Downs, "Origin and Spread of Riding," 1202, says: "The observations on the nature of the horse are drawn mainly from my own experience as an amateur and professional horseman in the show ring, hunt field, racing, and occasionally as a cowboy."

4. *Ibid.*

5. Though there seem to be no specific statements in the early Chinese materials that

greatly superior to ordinary horses in speed, agility, and stamina. It seems evident, then, that the successful use of cavalry in war required three things: the mastery of the technique of riding and using the paraphernalia of cavalry warfare; the technique of training horses for war; and the breeding of, or acquisition of, horses suitable for mounted warfare, which must possess qualities not found in the ordinary horse.

In China the horse, which may have been domesticated in late Neolithic times, was driven to chariots in the Shang (?1765–1123 B. C.) and Chou (1122–256 B. C.) periods. There seems to be no clear evidence that horses were ridden in China until very shortly before 300 B. C.⁶ Two well-known books, which are commonly dated as having been written around this time, fail to mention riding in contexts where we would certainly expect such reference if riding had been at all common.⁷ And a very clear

horses used for cavalry mounts needed to be larger than other horses, there is much ground for inference that they were. Thus the proposal made in 146 B. C. that horses taller than thirteen hands, whose teeth were not yet smooth, be forbidden to be exported from the imperial domain, was almost certainly designed to conserve large horses for cavalry use. (See *History of the Former Han Dynasty*, trans. Homer H. Dubs [3 vols., Baltimore, 1938–1955], I, 321.) Much later, in A. D. 1061, we find the superintendent of imperial pastures complaining that careless practices in breeding produced horses so small that they were not equal to the demands of war. (Sung Ch'i 宋祁, *Ching-wen Chi* 景文集, *Kuo-hsiieh Chi-pen Ts'ung-shu* ed. [Shanghai, 1937], 368).

6. Eduard Erkes, "Das Pferd im alten China," *T'oung Pao*, XXXVI (pt. 1, 1942), 50–52, cites a number of passages that have been held to prove that riding took place earlier, but shows that they do not. A single Shang burial in which one man accompanies one horse has been argued to indicate horseback riding in the Shang period, but the evidence seems quite inadequate. (See Shih Chang-ju 石璋如, *Yin-hsi Tsui-chin chih Chung-yao Fa-hsien, Fu Lun Hsiao-t'un Ti-ts'eng* 殷墟最近之重要發現附論小屯地層, in *Chung-kuo K'ao-ku Hsueh-pao* 中國考古學報, II [1947], 21–24; Franz Hančar, *Das Pferd in prähistorischer und früher historischer Zeit* [Vienna and Munich, 1956], 275–276.) Homer H. Dubs, "The Great Fire in the State of Lu³TU in 492 B. C.," *Journal of the American Oriental Society*, LXXXIV (no. 1, 1964), 15–16, finds in the *Tso-chuan* a reference to cavalry at this early date. But neither James Legge nor Séraphin Couvreur, in translating this passage, supposes there to be any reference to cavalry, and in my opinion both the text and the commentary indicate that the horses mentioned here were to be used to draw vehicles.

7. The *Sun-tzu* 孫子 is said to be the earliest extant Chinese work on the art of war. Its date and authorship are uncertain, but it is generally considered to date from the Warring States period. (See Chang Hsin-ch'eng 張心澂, *Wei-shu T'ung-k'ao* 偽書通考 [Changsha, 1939], 797–801; Samuel B. Griffith, *Sun Tzu, The Art of War* [Oxford, 1963], 1–12.) This text includes no mention of cavalry, though it does refer to the use of horse-drawn chariots in war. (See: *Sun-tzu* [Ssu-pu Pei-yao ed.], 2.1a, 9.14b, 16b, 18a. Griffith, *Sun Tzu, The Art of War*, 72, 119, 120.) Griffith says: "It is significant that Sun Tzu does not refer to cavalry. Cavalry was not made an integral branch in any Chinese army until 320 B. C. when King Wu Ling of Chao State introduced it—and trousers. It is reasonable to assume that if cavalry had been familiar to Sun Tzu he would have mentioned it." (Ibid., 11.) The *Chuang-tzu* is commonly dated from around 300 B. C. Its ninth section, called "Horses' Hoofs," denouncing the restraints that government lays on men, decries the

account tells us that King Wu-ling of the northern Chinese state of Chao, who reigned from 325 to 299 B. C., took over the technique of riding and cavalry warfare in openly avowed imitation of the practice of the nomads.⁸

The time and place of "the invention of riding" might well be impossible to determine. There is reason to believe that other animals may have been ridden long before the horse.⁹ But our concern is with a more complex and specific technique: that of the mounted archer. The mounted nomads of Asia, who took the cavalry horse to the borders of China and compelled the Chinese to deal with it as a problem, were bowmen, and it is the technique of archery from horseback that the Chinese adopted. It seems to be generally agreed that this technique first comes to our knowledge, and was probably first developed, among nomadic peoples living in Western Asia and Southeastern Europe. Although mounted archers may have existed much earlier, the typical mounted nomadic Bowman seems first to have been pictured in an Assyrian relief of the ninth century B. C.¹⁰

The technique of riding diffused through Eastern Europe rapidly, from about 800 B. C. onward.¹¹ It would seem logical to suppose that the technique of the mounted Bowman would have spread across Asia, through nomadic peoples, quite rapidly, but in fact it seems to have been remarkably slow in penetrating to the borders of China. The excavation of the "Pazyryk kurgans"—five splendid subterranean tombs of nomadic chiefs, located near Pazyryk in the Altai Mountains not far from the western tip of Outer Mongolia—has made it clear that fine saddle horses were being bred and ridden in that area not later than the fifth century B. C. The men buried in them had many Chinese objects and were apparently influenced

unnatural treatment to which horses used by men are subjected. And while it refers to the harnessing and yoking of horses, nothing in the chapter seems to make any reference to riding or the paraphernalia of riding. (See: *Chuang-tzu* [Ssu-pu Pei-yao ed.], 4.6a–8b. *The Writings of Kwang-ze*, trans. James Legge, *Sacred Books of the East*, XXXIX and XL [2 vols. reprinted in 1, London, 1927], I, 276–280.)

8. *Chan-kuo Ts'ue* 戰國策 (Ssu-pu Pei-yao ed.), 19.5b–9b; Takigawa Kametaro 瀧川龜太郎, *Shih-chi Hui-chu K'ao-cheng* 史記會注考證 [referred to hereafter as *Shih-chi*] (10 vols., Tokyo, 1932–1934), 43.50–69; Se-ma Ts'ien, *Les Mémoires historiques*, trans. Édouard Chavannes (5 vols., Paris, 1895–1905), V, 71–94.

9. Downs, "Origin and Spread of Riding," 1196–1197.

10. Hančar, *Das Pferd*, 551–563; T. Sulimirski, "Scythian Antiquities in Western Asia," *Artibus Asiae*, XVII (pts. 3–4, 1954), 282–318; Downs, "Origin and Spread of Riding," 1200–1202.

11. *A History of Technology*, ed. Charles Singer et al. (5 vols., Oxford, Eng., 1954–1958), II, 555.

by Chinese art.¹² Nevertheless, there seems to be no indication in Chinese literature that the nomadic peoples with whom the Chinese were in contact fought from horseback at an early date. Accounts of battles in 714 B. C. and again as late as 541 B. C. state specifically that the nomadic tribes of the northern border regions with whom the Chinese fought were foot soldiers.¹³

It may be, in fact, that mounted men are not clearly mentioned in Chinese literature until the account of the manner in which King Wu-ling of Chao adopted the technique of the mounted nomadic bowmen.¹⁴ It is very detailed and circumstantial. Even though the danger from the mounted warrior was pressing, the Chinese resisted riding because, among other things, it required the wearing of a short jacket rather than the long gown which, in Chinese eyes, was obligatory for a man of status. The King succeeded, by a combination of persuasion and force, in forming a corps of mounted archers, which was very successful in defending the state and even extending its borders.¹⁵

12. A. P. Okladnikov, *Ancient Population of Siberia and Its Cultures* (Cambridge, Mass., 1959), 36-39. Ellis H. Minns, "The Art of the Northern Nomads," *Proceedings of the British Academy*, 1942, XXVIII (London, 1942), 47-99. M. P. Griaznov and Eugene A. Golomshtok, "The Pazirik Burial of Altai," *American Journal of Archaeology*, XXXVII (no. 1, 1933), 30-45. Franz Hančar, "The Eurasian Animal Style and the Altai Complex (Cultural Historical Interpretation with a Consideration of the Newest Pazyryk Discoveries of 1946-1949)," *Artibus Asiae*, XV (pts. 1-2, 1952), 171-194. Karl Jettmar, "The Altai before the Turks," *Bulletin of the Museum of Far Eastern Antiquities, Stockholm*, XXIII (1951), 135-223. Otto Maenchen-Helfen, "A Chinese Bronze with Central-Asiatic Motives," *ibid.*, XXX (1958), 168-169. John F. Haskins, "The Pazyryk Felt Screen and the Barbarian Captivity of Ts'ai Wên-chi," *ibid.*, XXXV (1963), 141-160; M. P. Griaznov, *L'Art ancien de l'Altai* (Leningrad, 1958). Chester S. Chard, "First Radiocarbon Dates from the U. S. S. R.," *Arctic Anthropology*, I (1962), 84-86, publishes data indicating that Pazyryk Kurgan 5 has been dated to 530-430 B. C., and Kurgan 2 to 530-250 B. C. Haskins, "Pazyryk Felt Screen," 157, n. 91, gives a different radiocarbon dating from Soviet sources for Kurgan 5, indicating a mean date of 390 B. C.

13. *The Ch'un Ts'ew [Ch'un-ch'iu] with the Tso Chuen [Tso-chuan]* [referred to hereafter as *Tso-chuan*], trans. James Legge (2 vols., London, 1872), 27 (translation, 28), 572 (translation, 579).

14. There may be such references, but I know of none, and none of those who have studied the matter, whose works I have read, seems to mention them. (See Erkes, "Das Pferd," 54-55; Lattimore, *Inner Asian Frontiers of China*, 60-61; William Montgomery McGovern, *The Early Empires of Central Asia* [Chapel Hill, N. C., 1939], 100-101.)

15. *Chan-kuo Ts'ê*, 19.5b-9b; *Shih-chi*, 43.50-69; Se-ma Ts'ien, *Mémoires historiques*, V, 71-94. There is no assurance, however, that the discussion of this problem actually took place in the precise form in which it is set down. The language of the debate, with some variations, is used in a quite different context in *Shang-chün Shu* (*Ssu-pu Pei-yao* ed.), 1.1a-3b; *The Book of Lord Shang*, trans. J. J. L. Duyvendak (London, 1928), 167-175. The detailed resemblance of these texts is discussed in Ch'i Ssu-ho 齊思和, *Shang Yang Pien-fa K'ao* 商鞅變法考, *Yen-ching Hsiieh-pao* 燕京學報, XXXIII (1947), 172-176.

Even though there seems to be no earlier reference to them, we may be perfectly sure that mounted nomads had been encountered by Chinese well before that time. The first Chinese who saw them may have laughed at such "barbarian antics"; certainly they could not possibly have understood the gravity of this portent for China's future. It is also clear that, while we have such an explicit record only for Chao, other Chinese states must have taken over the technique of riding at about the same time if not even earlier.¹⁶ Many historical events of the greatest moment must necessarily go unrecorded simply because historians would have to be prophets to recognize their importance.

The unobtrusive manner in which the phenomenon of the mounted archer appears in Chinese history would seem to corroborate Owen Lattimore's contention, which archaeological data subsequently discovered seem to support, that "horse nomadism" was not brought to the borders of China by any sudden migration, or conquest by a particular people.¹⁷ Instead there would seem to have been a movement across Asia, from west to east, of the technique of mounted warfare. And if this required superior horses, there must have gone with it either superior breeding stock, a superior technique of breeding and rearing horses, or both.¹⁸

Many scholars have held, on the basis of considerable evidence, that the technique of cavalry warfare that the Chinese adopted from their nomadic neighbors was transmitted across Asia from a place of origin in Iran or among nomads living in areas bordering on Iran.¹⁹ And Iran and the lands adjacent to it have been, from very early times, an almost legendary reservoir of superior horses. P. N. Tretiakov and A. L. Mongait

Ch'i appears to think that the version concerned with King Wu-ling is the original, and this may be true. It seems likely, however, that the text as we have it is a literarily elaborated version of a discussion and an incident that did, nevertheless, actually take place.

16. Erkes, "Das Pferd," 52-54, cites evidence that riding was well known in some other states at around this same time, or very shortly thereafter.

17. Lattimore, *Inner Asian Frontiers of China*, 162-163.

18. This thesis of the eastward movement of horse culture has been vigorously denied by a recent Chinese writer. He finds the domestication of the horse to have begun in China as early as anywhere else, and the chariot and the technique of riding to have been invented in China. (See Hsieh Ch'eng-chia 謝成俠, *Chung-kuo Yang-ma Shih* 中國養馬史 [Peking, 1959], 26-27, 74-75, 79, 89.) Concerning the first two, it would seem that in fact our evidence does not really permit a certain conclusion either way; as for riding, the evidence cited by Hsieh is distinctly weak. Since so many Western writers have tended to insist that almost everything important must have gone from the West to China, it is not surprising to find a Chinese reversing the thesis.

19. Berthold Laufer, *Chinese Clay Figures*, Pt. I, *Prolegomena on the History of Defensive Armor* (Chicago, 1914), 222-232; McGovern, *Central Asia*, 99-104; Minns, "Art of the Northern Nomads," 76-77.

point out that "the thoroughbred horses raised on Armenian pastures were so famous that they ranked first on the list of tributes due the Achaemenians. . . . the Armenians had to contribute 20,000 foals to the king on Mithra's holiday."²⁰ Darius I, the Achaemenian ruler who reigned from 521 to 486 B. C., and whose conquests gave Persia an extent "greater than that of any earlier empire west of China,"²¹ called Persia a land "beautiful, possessing good horses, possessing good men," and therefore fearing no enemy.²² Herodotus relates that Darius and his allies agreed that the rule should go to him "whose steed first neighed after the sun was up," and that Darius gained the throne by a trick that caused his horse to neigh first.²³ This is doubtless legend, but significant in the importance it gives to the horse.

Franz Hančar, in his extensive study of the early history of the horse, concludes that the art of breeding fine horses arose in the great area of Western Asia lying just north of Iran, including the regions now known as Kazakhstan, Turkmenistan, Uzbekistan, Tadzhikistan, and Kirghizistan; he calls this area "Turan." It is here, he believes, that the type of the riding horse, as a goal for breeding, was established during the first millennium B. C.²⁴

In the Altai Mountains, on the eastern edge of this area, lie the Pazyryk kurgans. Here, frozen in solid ice since as early as the fifth century B. C., were excavated the remains of what are doubtless the best - preserved early horses known. From them, Hančar believes, we can know what the early horses of Turan were like. Sixty-nine complete horses, and partial skeletons of eighteen more, were exhaustively studied by V. O. Vitt. He found that their size ranged from only 128 centimeters (12.59 hands) to 150 centimeters (14.76 hands). Thus while the smallest of these horses were even smaller than the average wild Przewalski's horse, the largest were taller than the minimal height attained by the highly prized Arab horse today.²⁵

"Quite contrary to all expectations," Eugene A. Golomshtok writes, "the Pazirik horse is not the well known type of wild horse found in Siberia (*Equus Przewalskii*), or the short sturdy Kirghizian type, but

20. P. N. Tretiakov and A. L. Mongait, *Contributions to the Ancient History of the U. S. S. R., with Special Reference to Transcaucasia*, trans. Vladimir M. Maurin, ed. Henry Field and Paul Tolstoy (Cambridge, Mass., 1961), 62.

21. *Cambridge Ancient History* (12 vols., Cambridge, 1923-1939), IV, 2.

22. *Ibid.*, 4; Laufer, *Chinese Clay Figures*, 210.

23. *The History of Herodotus*, trans. George Rawlinson (New York, 1932), 179-180.

24. Hančar, *Das Pferd*, 355-372.

25. *Ibid.*, 362-363; Brian Seymour Vesey-FitzGerald, *The Book of the Horse* (Los Angeles, 1947), 147.

shows evidence of long domestication and breeding, reminding one of the racing type found among the Arabs." A. P. Okladnikov says that the Pazyryk horses "were excellent riding horses of the best breeds of the East, of noble blood, stately and lively jumpers of gold-brown color. They were not fed green fodder but selected grain, and were kept in well-attended stalls."²⁶

These statements presumably refer to the larger Pazyryk horses, which differ so much from the smallest that they have sometimes been supposed to be a different breed, imported from the famous horse-raising lands to the west of the Altai. But Vitt, on the basis of his study, believes that the variation is due not to difference of breed but rather to the use of such techniques as better feeding, selective breeding, and castration.²⁷ It would seem entirely likely that as the interest in superior horses grew there occurred both a diffusion of techniques of breeding and some movement of superior breeding stock across Asia.

Concerning the horses of the nomads who lived farther east, on the borders of China, we are dependent for information on Chinese sources. Regarding the horse in China itself, our information is by no means so complete as could be wished.²⁸ There seems to be general agreement, however, that the basic stock of early Chinese horses was the wild Przewalski's horse.²⁹ It was undoubtedly improved somewhat in breeding by the Chinese and may early have been crossed with some imported stock. A recent archaeological find indicates that at least some Chinese horses of the tenth century B. C. had a configuration remarkably similar to that of the typical "Mongol pony" of the present day.³⁰ As early as the

26. Griaznov, "The Pazirik Burial of Altai," 45, n. f (by Eugene A. Golomshtok); Okladnikov, *Ancient Population of Siberia*, 37.

27. Hančar, *Das Pferd*, 363-364.

28. While many skeletons of horses, dating from late Neolithic times onward, have been excavated in China, I have been able to find no published data giving the results of expert examination and measurement of these materials.

29. Hančar, *Das Pferd*, 265-266; W. Perceval Yetts, "The Horse: A Factor in Early Chinese History," *Eurasia Septentrionalis Antiqua*, IX (1934), 242; Arthur de Carle Sowerby, "The Horse and Other Beasts of Burden in China," *China Journal*, XXVI (Dec. 1937), 282; Edward H. Schafer, *The Golden Peaches of Samarkand: A Study of Tang Exotics* (Berkeley and Los Angeles, 1963), 61-62. Many fossils of the Przewalski's horse have been excavated in China, showing that it was present from an early time. (Hsieh, *Yang-ma Shih*, 21-25.)

30. A bronze statuette of a horse, nearly thirteen inches high, was dug up in 1956. Its inscription, deciphered by Kuo Mo-jo, indicates that it was cast in the tenth century B. C. to commemorate a gift of two horses from the king. (See Kuo Mo-jo 郭沫若, *Li Ch'i-ming K'ao-shih* 秦器銘考釋, in *K'ao-ku Hsüeh-pao* 考古學報 [no. 2, 1957], 1-6; on the "Mongol pony," see Sowerby, "Beasts of Burden in China," 284 and facing illustration.) Interestingly enough, the "Mongol pony" is also believed to be the Przewalski's horse altered by an undetermined amount of interbreeding with imported stock.

fourteenth century B. C. matched teams of various kinds of horses, distinguished both as to color and to size, were available in the stables of the Shang kings.³¹ Clearly, some skill in breeding had already been developed. Poems and documents dating from early in the first millennium B. C. refer frequently to prized horses of special colors and characteristics.³² The judging of horses was early recognized as a special art; a work written in the middle of the third century B. C. lists ten men who were "skilled at judging horses in antiquity."³³

We have little evidence from which to deduce, with certainty, the size of early Chinese horses, but there is reason to believe that they were ordinarily rather small.³⁴ As late as 146 B. C. the Chinese Imperial

31. Kuo Mo-jo, *Pu-tz'u T'ung-tsuai* 卜辭通纂 (Tokyo, 1933); *K'ao-shih*, 155b-157a.

32. *The Shoo King [Shu-ching]*, trans. James Legge (2 vols., London, 1865), II, 562; *The She King [Shih-ching]*, trans. id. (2 vols., London, 1871), I, 131, 193-194, II, 260, 291, 532; *The Book of Songs [Shih-ching]*, trans. Arthur Waley (Boston and New York, 1937), 110, 111, 123, 134, 289; Erkes, "Das Pferd," 41-43.

33. *Lü-shih Ch'un-ch'iu* 呂氏春秋 (*Ssu-pu Pei-yao* ed.), 20.19a; *Frühling und Herbst des Lü Bu We*, trans. Richard Wilhelm (Jena, 1928), 372.

34. They were not so small, however, as a passage in W. Eberhard, *Lokalkulturen im Alten China*, I (Suppl. to Vol. XXXVII, *T'oung Pao* [1942]), 14, would indicate. He writes: "Die Pferde sind 3½ Fuss (rund 81 cm) hoch und 4,4 Fuss (rund 102 cm) lang (Hou-Han-shu 54, 5a)." It seems clear that he has misinterpreted the text. The passage is discussing a bronze model of a horse that the Han general Ma Yüan caused to be cast. The text (*Hou-Han-shu*, in *Er-shih-ssu Shih* [Shanghai, 1884], 54.11b) says that this bronze "horse was three ch'ih five ts'un high, and four ch'ih four ts'un in circumference." There were, to be sure, horses even smaller than this in Latter Han times. (See *ibid.*, 115.10b.) But these were curiosities. It is clear that the usual horse at this time was not 81 centimeters in height. The work known as the *Chou-li* 周禮 cannot be dated with certainty, but must have come to its present form during one of the late centuries B. C. It classifies horses as those six, seven, and eight ch'ih 尺 ("Chinese feet") tall. (See *Chou-li Chu-su*, in *Shih-san Ching Chu-su* [Nanchang, 1815], 33.8a; *Le Tcheou-li [Chou-li], ou Rites des Tcheou*, trans. Édouard Biot [2 vols., Paris, 1851; photographic reprint, Peking, 1940], II, 261-262.) But it is impossible to tell what is the actual height referred to, since we cannot date the *Chou-li*, and the length of the ch'ih in Chou times probably varied with the time and place. Wu Ch'eng-lo 吳承洛, *Chung-kuo Tu-liang Heng Shih* 中國度量衡史 (Shanghai, 1937), 130-131, calculates that the early Chou ch'ih measured only .1991 meter, which would make the 6-ch'ih horse stand only 11.76 hands high, much shorter than the wild horse. Nancy Lee Swann, *Food and Money in Ancient China* (Princeton, N. J., 1950), 362, gives the length of the Han ch'ih as 9.094 inches. By this longer measure the 8-ch'ih horse would have exceeded 18 hands, which is hardly conceivable. The largest modern draft horse, the Shire, only exceeds 17. (See George Gaylord Simpson, *Horses* [New York, 1951], 44-45.) And even by this improbably large measure, the 6-ch'ih horse would have measured only a little more than 13½ hands, only slightly larger than the wild horse. Significantly, the *Chou-li* calls only the 6-ch'ih animals "horses," giving special names to the larger equines. It seems likely, then, that the ordinary horse in early China was not much larger than the wild horse. Hsieh, *Yang-ma Shih*, 29, publishes photographs of excavated skeletons of Shang horses and says: "If we calculate on the basis of the horse bones in Plates 8 and 9, the height of Yin [Shang] horses may be estimated at about 145

Secretary memorialized the throne proposing a ban on the export, from the imperial domain, of horses more than thirteen hands high whose teeth were not yet smooth.³⁵ This implies that horses larger than the wild horse were still somewhat rare and were considered so valuable that they must not be permitted to be lost to the imperial domain until they had reached an advanced age. The purpose was probably to conserve horses fit for war, of which China has usually had a shortage.

Like many other peoples the Chinese have commonly had a strong tendency toward ethnocentrism. When, in order to strengthen his army, King Wu-ling of Chao wished to adopt the "barbarian" practice of riding, one of his critics asserted that China itself was the place "where all things of value and utility are assembled."³⁶ Yet the Chinese seem never to have had this attitude with regard to horses. The horses of distant lands, usually to the west or the north, and even of their nomadic enemies near at hand have commonly been acknowledged quite frankly to be superior.

Even though mounted nomads in East Asia do not seem to be mentioned until the fourth century B. C., the nomads living on China's borders had horses long before this time.³⁷ Erkes, in his study of the horse in ancient China, finds that it is impossible to point to any particular region of China as outstanding in the breeding of horses, from which he concludes that they were raised in all parts of the country.³⁸ Undoubtedly they were, but evidently no region was producing especially fine horses. Even in antiquity, it appears, the best horses were commonly obtained from the nomads.

Early in the ninth century B. C., we are told, an attack by the Chinese on certain northern nomads resulted in the capture of a thousand horses.³⁹ In 538 B. C. the ruler of a northern Chinese state boasted that it feared no enemy because, among other assets, it had many horses. But one of his

centimeters" (p. 33). This is equal to more than 14 hands. But it seems impossible to be certain on what basis this estimate was made. If it was from inspection of photographs, it is hard to know what reliance to place on it.

35. Dubs, *History of the Former Han Dynasty*, I, 321. It appears that in ancient China, as today, the height of horses was normally calculated to the withers. (See Hsieh, *Yang-ma Shih*, 35.)

36. *Chan-kuo Ts'ue*, 19.7a; *Shih-chi*, 43.54; Se-ma Ts'ien, *Mémoires historiques*, V, 77.

37. We know that the nomads of Western Asia used wagons as early as the eighth century B. C., and those near China probably had them early although specific evidence for them seems to be lacking until about the second century B. C. (See: Ellis H. Minns, *Scythians and Greeks* [Cambridge, 1913], 50-52. McGovern, *Central Asia*, 52-53; *Chou-li*, 39.4ab. *Shih-chi*, 110.30, 44, 52. Burton Watson, *Records of the Grand Historian of China, Translated from the Shih-chi of Su-ma Ch'ien* [2 vols., New York and London, 1961], II, 168, 177, 182.)

38. Erkes, "Das Pferd," 36.

39. Wang Kuo-wei 王國維, *Ku-pen Chu-shu Chi-nien Chi-chiao* 古本竹書紀年輯校, in *Wang Chung-ch'io Kung I-shu* 王忠愍公遺書 (42 vols., n.p., 1927-1928), III, 8a.

ministers rebuked his complacency and asserted that horses, apparently meaning the best horses, came from "northern Chi 冀."⁴⁰ The exact location of this area is debated, but it was approximately in the northern tip of the modern Shansi Province, then a border area inhabited by nomads who may have been partly Sinicized.⁴¹ In connection with the fierce struggles between the contending Chinese states in the fourth century B. C., emphasis was laid upon the strategic importance of controlling the horses of this region and importing horses from the northern nomads known as Hu 胡.⁴² In the third century B. C., the philosopher Hsün-tzu named fast horses as the special product of the "north sea," that is, of the vaguely defined region north of China.⁴³

Emperor Wu of the Former Han dynasty, who reigned from 140 to 87 B. C., had an ability to focus attention upon himself that might be envied by a publicity agent of the twentieth century. His extensive and flamboyant efforts to secure "heavenly, blood-sweating horses" from Fergana, which were crowned with success around 100 B. C., have probably been studied and written about more than all the other importations of horses to China combined. The incident was important, but not, insofar as the acquisition of horses was concerned, that important. The number secured was small as compared with some later importations. And this was by no means the first acquisition of superior horses from abroad.

For some time the Chinese had been engaged in grim struggles with the nomads known as the Hsiung-nu 匈奴 (probably the people who, when they appeared in the West, were known as Huns). The superiority

of their horses had long been recognized. Some two decades before Emperor Wu ascended the throne, a Chinese official, Ch'ao Ts'ao, had pointed out that "the territory of the Hsiung-nu and the skills it demands are different from those of China. In climbing up and down mountains, and crossing ravines and mountain torrents, the horses of China cannot compare with those of the Hsiung-nu."⁴⁴ And there are clear indications that the Chinese had long been securing some superior horses from such peoples as the Hsiung-nu.

Ssu-ma Ch'ien, writing around 100 B. C., said that the Hsiung-nu, in addition to rearing numerous sheep, cattle, and horses, kept a number of rare animals, of which at least two seem to be special types of horses.⁴⁵ Both were present in considerable numbers in the stables of Emperor Wu.⁴⁶ One of them, the *k'uai-t'i*,⁴⁷ is particularly interesting. It is said to have been an excellent horse of the northern nomads, able on the third day after its birth to jump over its mother; this legend was no doubt based upon the ability to jump for which the mounts of the nomads were renowned. A poet of the Latter Han period wrote that *k'uai-t'i* were used, along with horses from Fergana, as war horses in expeditions against the nomads.⁴⁸

These facts lend particular interest to a statement made by the minister Li Ssu to the ruler of the state of Ch'in in 237 B. C. An edict had been issued calling for the expulsion of all ministers who were not natives of Ch'in, which would have meant the dismissal of Li Ssu. In order to

40. *Tso-chuan*, 592 (translation, 596). The name of this area was combined with the signfic for "horse" to make the character *chi* 驥 which was used to denote especially fine horses. Confucius (*Analects*, 14.35) and others used this term frequently. A *chi* was said to be able to run 1,000 li (about 258 miles) in a day. This is clearly fable. The messenger service of Darius I, around 500 B. C., and the American pony express in 1860 and 1861, using relays of fresh horses, covered only about 180 and 244 miles per day respectively. (See *History of Technology*, ed. Singer et al., II, 495-496; *Encyclopaedia Britannica* [11th ed., 29 vols., New York, 1910-1911], VI, 637, X, 85.)

41. Almost certainly this reference is to Chi-chou 冀州; the reference to the "nine chou" just preceding (*Tso-chuan*, 592) indicates this. This is presumably the idea of the commentator Tu Yü (*Ch'un-ch'iu Tso-chuan Chu-su*, in *Shih-san Ching Chu-su*, 42.20a) who says that these northern regions comprise Yen 燕 and Tai 代. I think that Erkes ("Das Pferd," 38) misunderstood this when he translated it as "das Tai von Yen." For the boundaries of Chi-chou, and the location of Tai and Yen, see Albert Herrmann, *Historical and Commercial Atlas of China* (Cambridge, Mass., 1935), 10-11, 15; a similar location is indicated in Hsieh, *Yang-ma Shih*, 25.

42. *Chan-kuo Ts'e*, 3.1b, 18.8a.

43. *Hsün-tzu* (*Ssu-fu Pei-yao* ed.), 5.6a; *The Works of Hsün-tze*, trans. Homer H. Dubs (London, 1928), 133.

44. Wang Hsien-ch'ien, *Ch'ien-Han-shu Pu-chu* [referred to hereafter as *Han-shu*], (1900), 49.10b.

45. I.e., the *k'uai-t'i* 馱騏 and the *t'ao-t'u* 騊駼; *Shih-chi*, 110.2-3. The translation given in Watson, *Records*, II, 155, differs at some points from my understanding of the terms. Namio Egami, "The *K'uai-t'i*, the *T'ao-yü*, and the *Tan-hsi*, the Strange Domestic Animals of the Hsiung-nu," *Memoirs of the Research Department of the Toyo Bunko*, XIII (1951), 103-111, explains the *t'ao-t'u* to be the wild Przewalski's horse. But if so, and if the Przewalski's horse was the commonest horse of the Mongolian area and of China, it is hard to understand why Ssu-ma Ch'ien should have called the *t'ao-t'u* a "rare" animal of the Hsiung-nu (*Shih-chi*, 110.2-3); still less is it clear why *t'ao-t'u* should have been numbered among the rare and valuable importations found in the palace stables of Emperor Wu. (*Yen-t'ieh Lun* [*Ssu-fu Pei-yao* ed.], 3.4b; Huan K'uan, *Discourses on Salt and Iron*, trans. Esson M. Gale [Leiden, 1931], 92.) This identification seems improbable. Egami also ("Strange Domestic Animals," 111-123) identifies the *t'an-hsi* 驢驘 as "the wild ass, probably the *kulan*"; his argument does not seem very convincing, but there appears to be little basis for a firm identification of this animal.

46. *Yen-t'ieh Lun*, 3.4b; *Discourses on Salt and Iron*, 92.

47. An exact translation of *k'uai-t'i* seems difficult, but both characters appear to denote a swift horse. (See: Wang Nien-sun 王念孫, *Kuang-ya Su-cheng* 廣雅疏証 [1796], 10B.64b. Egami, "Strange Domestic Animals," 98.)

48. *Shih-chi*, 83.22, 87.9; *Hou-Han-shu*, 110A.4b.

counteract it he pointed out that Ch'in imported a great many things that were desirable and even essential. Thus "if only those things produced in Ch'in were to be permitted, then . . . the women of Cheng and Wei would not occupy the rear palaces, and fine horses and *k'uai-t'i* would not fill the outer stables."⁴⁹ From this it is evident that *k'uai-t'i* were being imported to Ch'in in considerable numbers at least a century and a half before Emperor Wu of Han secured horses from Fergana. It is quite clear, in fact, that Ch'in was buying horses from the northern nomads at this time. We have information about one merchant who, at about this time, made a practice of acquiring unusual silks which he presented to a ruler of the northern nomads, who in return gave him cattle and horses in large numbers. This pleased the ruler of Ch'in so much that he treated the merchant with great honor.⁵⁰ This may help to explain the way in which Chinese silks found their way to the Pazyryk kurgans.

Namio Egami has argued that the *k'uai-t'i* is "the Aryan horse originally bred on the shores of the Aral and Caspian Seas," and even that it was "blood-sweating" like those obtained from Fergana by Emperor Wu.⁵¹ His conclusions do not seem convincing in all respects, but it is entirely probable that the best horses of the nomads of Eastern Asia came from stock imported from Western Asia. We have seen that in the middle of the second century B. C. Ch'ao Ts'o said that the horses of China could not compare with those of the Hsiung-nu "in climbing up and down mountains, and crossing ravines and mountain torrents." Fourteen centuries later Marco Polo used remarkably similar language in describing the horses of Bactria, which lies just southwest of Fergana.⁵² He said:

And again you may know that very good horses are bred there and they are great runners and have such hard hoofs that they need to wear no irons on their feet. And they go in the mountains always, and the men gallop with them over the mountain slopes where other animals could not gallop, nor would they dare to gallop there.⁵³

One of the most famous generals of the Han period, Ma Yüan (14 B. C.—A. D. 49), was renowned as a connoisseur of horses. His surname, Ma,

means horse, which was not accidental. The founder of his family was a general, in the third century B. C., in the service of the state of Chao (the northern state, it will be recalled, which is the first Chinese state on record as having used cavalry). After a brilliant victory his ruler conferred upon Ma Yüan's ancestor the title of *Ma-fu chün* 馬服君, "Horse-taming Lord"; his descendants thereafter took Ma as their surname.⁵⁴

Although he grew up in the capital, Ma Yüan, after some vicissitudes, became a wealthy stockman in the northern border area, raising cattle, horses, and sheep. He was involved in the fighting that attended the rise of the Latter Han dynasty and became an honored general under its first emperor; his daughter was married to the heir apparent and became a famous empress. He was fond of shooting the bow from horseback and was a connoisseur of horses.

Ma Yüan melted down a bronze drum he had captured in Indochina and cast a bronze model of a horse, which was designed to make clear the points to be observed in judging horses. In the inscription cast on it he gave the derivation of his connoisseurship of horses, naming his teacher, his teacher's teacher, and so forth, going back for four generations. In this inscription he said, "Horses are the foundation of military might, the great resource of the state."⁵⁵

They were, indeed. The militant nomads, on their swift and strong horses, were China's greatest danger and would continue to be for almost two thousand years. From being a serious annoyance earlier, they had become a dire menace when, just at the beginning of the Han dynasty, their formerly scattered bands were consolidated under an able leader. The Chinese themselves were not firmly united, and only a combination of warfare, diplomacy, and costly bribery staved off disaster. Serious raids were frequent, and in 166 B. C. the Hsiung-nu pushed deep into Chinese territory, carrying off large numbers of animals and people and sending their scouts to a point within sight of the capital. Despite the most strenuous efforts against him, the Hsiung-nu leader remained within China for more than a month, and when he retired the pursuing Chinese could not kill one of the enemy.⁵⁶

The Chinese needed horses desperately. At the beginning of Han, around 200 B. C., they were extremely scarce, probably as a result of the preceding years of civil war. As Nancy Lee Swann points out, "the supply of horses for the armed forces was a great strain on Han resources." The

49. *Shih-chi*, 87.9; for the date of this memorial, see *ibid.*, 6.11.

50. *Ibid.*, 129.15–16; *Han-shu*, 91.5b–6a; Swann, *Food and Money*, 430.

51. Egami, "Strange Domestic Animals," 90–103.

52. Arthur Waley, "The Heavenly Horses of Ferghana: A New View," *History Today*, V (Feb. 1955), 96, says: "The belief of some historians that Ferghana was once part of the Greek kingdom of Bactria is based upon misunderstanding of the Chinese texts."

53. Yetts, "The Horse," 246–247. This is a translation of a composite version of the text of Marco Polo, based in part upon a recently discovered text.

54. *Shih-chi*, 81.15; *Hou-Han-shu*, 54.1a.

55. *Ibid.*, 54.

56. *Shih-chi*, 110.37–38; Watson, *Records*, II, 172–173.

government used many devices to stimulate breeding, and in time horses became more numerous.⁵⁷ By 119 B. C. Wu, the "Martial Emperor," was able to send an army of 100,000 cavalry followed by several hundred thousand infantry into the northern wilds. They surrounded the ruler of the Hsiung-nu, but he escaped; the Chinese army nevertheless is said to have killed or captured some 80,000 nomads. It was a great victory, but it cost the Chinese dearly. The treasury was so depleted that the armies got hardly any pay. The Chinese are said to have lost, in addition to "several tens of thousands" of men killed, more than 100,000 military horses; presumably this included some of those used for transport as well as cavalry horses. One can only speculate on the reasons for such a toll; probably the fact that the Chinese horses were not accustomed to the Hsiung-nu country, or adequate to the exertions it demanded, had much to do with it. The result was that the Chinese, for lack of horses, were unable to attack the Hsiung-nu effectively for some time.⁵⁸

Emperor Wu had many plans (and indeed he needed them) for withstanding and if possible crushing the Hsiung-nu. Soon after he came to the throne, at the age of fifteen, he heard that a nomadic people known as the Yüeh-chih 月氏, who had been driven west from their former homeland and settled in Bactria (approximately modern Afghanistan), were thirsting for revenge against the Hsiung-nu who had dispossessed them. Wu called for volunteers to pass through the lands of the Hsiung-nu and establish relations with the Yüeh-chih. A young "Court Gentleman," a member of the palace guard, Chang Ch'ien, was among those who responded. He was appointed envoy and set off with a party of some hundred men about 139 B. C.⁵⁹ Thus one of the great voyages of exploration of all history was rather directly caused by the rise of the mounted warrior in Asia. As was predictable, Chang Ch'ien was captured by the Hsiung-nu, but eventually managed to escape and to reach the Yüeh-chih. He found them comfortable and prosperous, not disposed to seek revenge and still less to help China. After further adventures he returned to China around 126 B. C., having lost all but one of his companions on the way.

Although Chang Ch'ien had failed to secure an alliance with the Yüeh-chih he brought back invaluable information. His geographical knowledge

57. *Han-shu*, 24A.9b, 15b, 24B.4a, 9b-10a, 17b, 18ab; Swann, *Food and Money*, 37-39, 149, 175, 231, 262, 304, 308-309.

58. *Han-shu*, 6.16ab, 24B.12b; Dubs, *History of the Former Han Dynasty*, II, 65-66; Swann, *Food and Money*, 274-275; *Shih-chi*, 110.52-54; Watson, *Records*, II, 182-183.

59. *Han-shu*, 61.1a-2b; *Shih-chi*, 123.2-3; Watson, *Records*, II, 264. The dates of Chang Ch'ien's journey are variously given. Both *Shih-chi*, 123.6 (Watson, *Records*, II, 266), and *Han-shu*, 61.2b, say that he was gone for thirteen years, and Wang Hsien-ch'ien (*Han-shu*, 61.2b, commentary) says that he returned in 126 B. C.

helped the Chinese armies fighting the Hsiung-nu, and the Emperor questioned him eagerly about the lands he had seen. Chang suggested an alliance with another nomadic people, the Wu-sun 烏孫, who were disaffected with the Hsiung-nu. This diplomatic effort was partially successful, and in return for the Emperor's gifts the Wu-sun sent him "several tens" of horses. Before this the Emperor had divined, using the *Book of Changes*, and had been told that he would obtain "spirit horses" from the northwest. When he received those from the Wu-sun he was delighted and called them "heavenly horses." But by this time China was in communication with Fergana, and Emperor Wu heard that there were still finer horses there.⁶⁰

This is not surprising since that fertile region lies within the southeastern portion of what Hančar calls Turan, which he believes to be the original home of fine riding horses. At the beginning of the twentieth century it still produced large numbers of horses, and according to W. Perceval Yetts, "Scythians, bringing horses from Ferghāna, are among the tribute-bearers represented at Persepolis."⁶¹ The Chinese of the Han period found the horses of Fergana to be "even more robust" than those they obtained from the Wu-sun.⁶² In size they must have towered above the horses then common in China. A court official writing in the first century A. D. said that the "blood-sweating" Fergana horses were "all seven ch'ih in height" (63.66 inches,⁶³ almost exactly 16 hands). This is 4½ inches taller than the tallest horses found in the Pazyryk kurgans, and almost as tall as the minimum standard for a modern Percheron draft mare.⁶⁴ In the eleventh century A. D., war horses purchased by the Chinese government ranged only up to 57.73 inches, 6 inches shorter than the Fergana horses of a thousand years earlier.⁶⁵ And a text of the tenth century said that the "official horses" of that day (perhaps those ridden or driven by officials of high prestige) were still of the stock of Fergana, which was "extremely large."⁶⁶

60. Ibid., 61.1a-6a; *Shih-chi*, 123.1-32; Watson, *Records*, II, 264-280.

61. *Encyclopaedia Britannica*, X, 270; Yetts, "The Horse," 247.

62. *Shih-chi*, 123.24; Watson, *Records*, II, 274; *Han-shu*, 61.6a.

63. Wei Hung 衛宏, *Han-kuan Chiu-i* 漢官舊儀, in *Jung-yüan Ts'ung-shu* 榕園叢書 (Kuang-tung, 1874), *hsia* 4b. The Han ch'ih measured .231 meter, according to Dubs, *History of the Former Han Dynasty*, I, 279. For the Latter Han ch'ih, Yang K'uan 楊寬, *Chung-kuo Li-tai Ch'ih-tu K'ao* 中國歷代尺度考 (Changsha, 1938), 75, gives .232 meter, a negligible difference.

64. Hančar, *Das Pferd*, 363; Vesey-FitzGerald, *Book of the Horse*, 628.

65. *Sung-shih* (in *Er-shih-ssu Shih*), 198.7a. For the conversion value of 4 ch'ih 7 ts'un of Sung times, see Hsieh, *Yang-ma Shih*, 34.

66. *T'ang Hui-yao* 唐會要, comp. Wang P'u 王溥, ed. Yang Chia-lo 楊家駱 (Taipei,

Some of his numerous envoys told Emperor Wu that the people of Fergana had some particularly splendid horses, but that they kept them hidden and refused to give any to the Chinese. He therefore sent a party with much gold to secure some of them. But the men of Fergana reflected that China was far away and that the road lay through uninhabited desert areas without food or water. The Chinese came in parties of only a few hundreds, but even so they ran out of food, and over half died on the way. How could a great army reach Fergana? And their finest horses were their treasure; they refused to part with any. The Chinese envoys, enraged, cursed them and left. The people of Fergana responded to these insults by murdering the Chinese.

The Emperor's rage may be imagined. Assured that three thousand Chinese soldiers could crush Fergana, he sent out "several tens of thousands" in 104 B. C. The march took a terrible toll, and only a few thousand reached their destination. They were beaten, and the survivors returned to the Chinese border after two years. The Emperor, still more furious, ordered that any of these soldiers who dared to enter China should be beheaded on the spot. The Hsiung-nu were making trouble again, and his advisers pleaded with the Emperor to give up the Fergana project. He answered by putting the protesters in prison and then pressed huge plans for a new expedition. "The whole empire was thrown into turmoil" with the preparations. Sixty thousand more soldiers were provided, in addition to whom there were many porters and personal attendants. The animals mustered included a hundred thousand cattle, more than thirty thousand horses, and tens of thousands of donkeys,

1950), 1036. Waley, "Heavenly Horses of Ferghana," 102, takes the position that the horses of Fergana were sought by the Han Emperor Wu "in order to secure Heavenly Horses which would carry him to Heaven." He says that "there is no evidence that Heavenly Horses were used in battle either in Ferghana or in China." (Ibid., 102.) But in fact, as we have seen, the use of Fergana horses in fighting is mentioned in *Hou-Han-shu*, 110A.4b. By speaking here of "Heavenly Horses" Waley is evading the real question: were horses obtained from Fergana used in battle in Han times? The answer is that they were. Waley also says: "Nowhere, I think, is it said that they [i.e., "Heavenly Horses"] were larger than Chinese horses, though this has constantly been assumed by Western writers." (Ibid.) The evidence cited above certainly indicates that the Fergana horses were extremely large and that there is every reason to feel assured that they were much larger than most of the horses in China both in Han times and later. Further evidence against Waley's view is the nature of the titles of the two men sent by the Emperor to Fergana "to select good horses." (*Shih-chi*, 123.37.) These would appear to be ordinary official titles and refer to "managing horses" and "driving horses." If the purpose had been primarily to select horses having special religious virtues, why did the Emperor not send men with religious qualifications? Certainly there was some religious aspect to this curious affair, and Waley has performed a service by emphasizing it. But in doing so he has given undue attention to a part of the evidence and neglected other parts of it entirely.

mules, and camels. Great stores of crossbows and other weapons were laid up, and so much food that even the grueling desert marches did not exhaust it. Engineers skilled in water control were provided to divert the water supplies of besieged cities. And two men versed in judging horses were sent to select the finest of the Fergana steeds.

An army of thirty thousand Chinese actually reached Fergana. After a siege of more than forty days, the people of Fergana killed their king and agreed to surrender some of their horses. The Chinese set up a new king favorable to themselves and withdrew with the horses; they selected "several tens of the best horses" and more than three thousand stallions and mares of lesser quality. Emperor Wu was delighted with them; they were called "blood-sweating heavenly horses." Presumably this name was applied only to the finest horses. The adjective "heavenly" was probably connected with Wu's religious or magical ideas about them; the most plausible theory to account for "blood-sweating" is that it refers to small lesions caused by parasites.⁶⁷

The total military effort to secure horses from Fergana had taken four years.⁶⁸ If this had been its only purpose these might well rank as the most expensive horses in history. The reign of Wu left the country bankrupt; his military ventures were among the principal reasons for this, and the expedition to Fergana was one of the most costly.⁶⁹ The economic drain is impossible to calculate. Of all the men and horses that set out for Fergana, it is recorded that only something over ten thousand men and one thousand horses returned alive to China.⁷⁰

Various motivations have been put forward for this grandiose expedition. It has been alleged that this was "to a large extent a religious quest."⁷¹ Undoubtedly this played a role; Emperor Wu also established new sacrifices, patronized magicians, and sent out expeditions to look for islands in the Eastern Sea that were supposedly inhabited by immortals.⁷² It has also been argued that the Emperor's chief incentive was to secure larger and fleetier mounts for his troops, and in the light of all the evidence

67. Waley, "Heavenly Horses of Ferghana"; Richard Edwards, "The Cave Reliefs at Ma Hao," *Artibus Asiae*, XVII (pt. 1, 1954), 13-28; Dubs, *History of the Former Han Dynasty*, II, 134-135.

68. The account of the Fergana expedition is contained in *Shih-chi*, 123.32-42; Watson, *Records*, II, 280-288; *Han-shu*, 61.

69. Dubs, *History of the Former Han Dynasty*, II, 12-13, 17.

70. *Shih-chi*, 123.41; Watson, *Records*, II, 287.

71. Waley, "Heavenly Horses of Ferghana"; see note 66, above.

72. Dubs, *History of the Former Han Dynasty*, II, 19-20; *Shih-chi*, 28.24-86; Se-ma Ts'ien, *Mémoires historiques*, III, 436-516; Watson, *Records*, II, 26-67.

it seems clear that this did play a role.⁷³ But Emperor Wu was a complex character. In addition to these motives, he also acted from the desire to extend the influence of his empire and the fame of his name.

After the return of Chang Ch'ien from his trail-blazing journey, the Emperor questioned him eagerly about the lands he had visited.

Thus the emperor learned of such countries as Fergana, Bactria, and Parthia, all large states having many unusual products, cultivating the soil in a manner similar to that of the Chinese, militarily weak, and prizing China's valuable goods. To their north there were such peoples as the Yüeh-chih and the K'ang-chü; these were militarily strong, but by means of gifts and the lure of profit they could be induced to accept Chinese sovereignty. If their allegiance could only be achieved by fair dealing, the empire could be extended for ten thousand *li* to embrace men of strange customs whose languages would have to be repeatedly retranslated through nine interpreters—thus the awe-inspiring virtue of the emperor would be extended to all lands within the four seas. The emperor, overjoyed, agreed with Chang Ch'ien's words.⁷⁴

Emperor Wu was not noted for "fair dealing" within China, but the remoteness of Central Asia initially constrained him. As we have seen, he sent envoys with much gold to buy some of the fine horses of Fergana. But when his offer was not only refused but his envoys killed, more than his pride was at stake. After his first army had returned from Fergana, beaten, the situation was even graver. "The emperor had undertaken to punish Fergana. Fergana was a small state; if he could not even subdue it, then such states as Bactria would despise China, and he would certainly never get the fine horses of Fergana . . . China would be a laughingstock among the nations."⁷⁵

This first great Chinese military thrust deep into Central Asia, of such historic moment, was only in part occasioned by the need for horses. But it was a factor. Once the Chinese had set up regular communications with Central Asia, and established a protectorate over a portion of it, the importation of superior equine stock must have been relatively easy. A number of scholars have pointed out that the representations of the horse in Han dynasty art show two types. One of these is believed to be the smaller horse common in China before the advent of Central Asian

73. Yetts, "The Horse."

74. *Shih-chi*, 123.16-17; Watson, *Records*, II, 269-270; *Han-shu*, 61.3ab.

75. *Shih-chi*, 123.35-36; Watson, *Records*, II, 283; *Han-shu*, 61.10a.

horses in quantity; the other is plausibly held to depict the larger and more highly bred horses from Central Asia. And certainly the typical larger horses shown in Han dynasty reliefs show striking resemblance to horses depicted on Bactrian coins of the second century B. C.⁷⁶

The cavalry horse, which seems to have been unknown in China early in the fourth century B. C., had become firmly established in the role it was to play in subsequent Chinese history even before the beginning of the Christian era. By virtue of it the nomads had become a deadly threat and were able at times to invade Chinese territory almost at will. The Chinese had to develop cavalry to counter the nomads, and even though they made great economic sacrifices to breed cavalry horses they still had to secure additional mounts from outside their borders. Both to secure horses and to outflank the Hsiung-nu they pushed far into Central Asia, opening a new chapter in China's political and military history and in its foreign relations.

Although the menace of the mounted nomad was seldom wholly absent, it subsided greatly during most of the latter portion of the Han period. But at the beginning of the fourth century A. D. the long-pending threat of nomadic conquest became a reality. For nearly two centuries north China was ruled chiefly by invaders of nomadic origin, who at times divided the area into a number of small states. After China was again unified, and shortly after the T'ang dynasty (618-906) was established, the nomadic danger was emphasized by a Turkish raid that reached the walls of the capital. The T'ang built up a strong force of cavalry, but for this they needed horses.

At the beginning of T'ang its army is said to have had only 5,000 horses, but a vigorous breeding program increased these to 700,000 in a few decades. But there was nevertheless a constant demand for foreign horses. Those they received from Samarkand were believed by the men of T'ang to be of the same blood as the "heavenly horses" of Fergana, and it is said that six true "blood-sweating horses" were sent from Fergana to the Chinese emperor in the middle of the eighth century. Even some Arab horses were brought by Moslem envoys. But most of the T'ang horses came from the Turkish tribes to the north. We read of one gift from a Turkish tribe of 50,000 "grizzled black-maned horses," but for the most part they had to be bought, and at high prices. "In 773," Edward H.

76. Salomon Reinach, "La Représentation du galop dans l'art ancien et moderne," *Revue archéologique*, 3d ser., XXXVIII (1901), 225-227; Berthold Laufer, *Chinese Pottery of the Han Dynasty* (Leiden, 1909), 161-162; C. W. Bishop, "The Horses of T'ang T'ai-tsung," *Museum Journal*, IX (pts. 3, 4; 1918), 250-251, 260-261; Yetts, "The Horse," 240-245; Dubs, *History of the Former Han Dynasty*, II, 135.

Schafer writes, "the Uighurs [a Turkish people] sent a special agent with ten thousand horses for sale. Their cost was more than the annual income of the government from taxes."⁷⁷

Horses played a very important role in the silk trade. We have seen that as early as the third century B. C. a merchant in the state of Ch'in made a practice of seeking out unusual silks to present to a ruler of the northern nomads, who gave him large numbers of horses and cattle in return. The animals he received, the Chinese text tells us, were of ten times the value of the goods he gave.⁷⁸ And in the first century B. C. we find a high Chinese official gloating over the buying power of Chinese silks, which could be exchanged with the Hsiung-nu for fine horses and other commodities necessary to China, thus "using the non-essential to trade for the fundamental." Thus, he said, "a single length of plain silk secures from the Hsiung-nu goods worth many pieces of gold, thus draining away the resources of our enemy."⁷⁹ In fact, of course, this situation reflected supply and demand. Among the Hsiung-nu fine riding horses were plentiful and silk was a rarity, while in China the reverse was true. But horses were essential to the Chinese, as silk was not to the nomads, and in time this came, inevitably, to be reflected in the terms of exchange.

At the beginning of the ninth century, Arthur Waley writes,

Fifty pieces of silk, in theory fifty Chinese feet long, were paid for each horse, and as the horses arrived sometimes ten thousand at a time, the production of so much silk was a severe strain on the silk industries of the Yangtze and Huai valleys, and even by using a coarse weave and cutting down the length of the strip to "thirty-odd feet" (supposed still to be charitably counted as forty) the women workers could not meet the demand. The Uighurs were dissatisfied with the silk they were getting, and complained . . . ⁸⁰

The financial impact on China was grave. "In the early part of the ninth century," Schafer says, "it was not unusual for the shattered nation to pay out a million bolts of taffeta in a year in exchange for a hundred thousand decrepit nags, the dregs of the northern marches."⁸¹ Although our information about the actual operations of the silk trade across Central Asia is regrettably slight, it seems probable that much of the silk that was

traded to nomads, from an early day, for horses, was in turn traded by them still farther to the west, where its rarity, increasing with the distance from China, would give it greater and greater value.

Control of military horses played a role in the rebellion of An Lu-shan, which, although it was put down, decisively weakened the T'ang dynasty. An Lu-shan, an able general of Turkish and Sogdian ancestry, became a favorite of Emperor Hsüan-tsung, who reigned from 712 to 756, and his famous consort Yang Kuei-fei.⁸² Among the responsibilities given to him was extensive jurisdiction over the cavalry horses of the empire. An quietly selected the best war horses and sent them to the territory under his personal control in the northeast, thus giving him a considerable advantage when he was ready to revolt and proclaim himself emperor in 755.⁸³ An captured the T'ang capital, and his rebellion was only quelled with the help of numerous foreign troops, including even some Moslems from far to the west.⁸⁴

Sung Ch'i (998-1061) was a famous scholar and an eminent official who had extensive practical experience with the effort to bolster the defenses of China's borders. He wrote:

The reason why our enemies to the north and west are able to withstand China is precisely because they have many horses and their men are adept at riding; this is their strength. China has few horses, and its men are not accustomed to riding; this is China's weakness. . . . The court constantly tries, with our weakness, to oppose our enemies' strength, so that we lose every battle. . . . Those who propose remedies for this situation merely wish to increase our armed forces in order to overwhelm the enemy. They do not realize that, without horses, we can never create an effective military force.

In another memorial Sung pointed out that, while China had a large number of cavalymen, only one or two out of ten had a horse to ride.⁸⁵

Many of China's most able men devoted their attention to the perennial problem of securing enough good horses. These included Po Chü-i (whom we tend to think of as a poet, forgetting his very active political career), Ssu-Ma Kuang, Wang An-shih, Ou-Yang Hsiu, and a great many others

82. Edwin G. Pulleyblank, *The Background of the Rebellion of An Lu-shan* (Cambridge, 1955), 7-23.

83. *T'ang-shu*, 50.17b.

84. F. S. Drake, "Mohammedanism in the T'ang Dynasty," *Monumenta Serica*, VIII (1943), 7-11; H.A.R. Gibb, "Chinese Records of the Arabs in Central Asia," *Bulletin of the School of Oriental Studies, London Institution*, II (1921-1923), 618-619.

85. Sung, *Ching-wen Chi*, 366, 369.

77. *T'ang-shu* (in *Er-shih-ssu Shih*), 50; Schafer, *Golden Peaches*, 58-64.

78. *Shih-chi*, 129.15-16; *Han-shu*, 91.5b-6a; Swann, *Food and Money*, 430.

79. *Yen-t'ieh Lun*, 1.5ab; *Discourses on Salt and Iron*, 14.

80. Arthur Waley, *The Life and Times of Po Chü-i, 772-846 A. D.* (London, 1949), 55.

81. Schafer, *Golden Peaches*, 64.

less famous but scarcely less important.⁸⁶ But the difficulty was never permanently eliminated. The *History of the Ch'ing Dynasty* comments that "when we read over the various discussions of the problem of the procurement and management of the government's horses, advanced during the Sung and Ming periods, not one proposes a workable solution." The concern of the Sung dynasty (960-1279) was fully justified, in view of the fact that it was terminated by the Mongol conquest. "The Yüan [Mongol] house took the empire," the *History of the Yüan Dynasty* tells us, "by virtue of the bow and the horse."⁸⁷

Whereas silk seems to have been the principal commodity exchanged for horses in early times, it appears to have been replaced in first position by tea. This does not mean, of course, that money also was not paid out; it was, and in 1077 the Finance Commissioner, in a communication to the emperor, named war horses as one of the chief commodities for which funds were needed.⁸⁸ But since tea came to be in great demand by the nomads, the Chinese made use of this fact to procure horses. Official "Tea and Horse Offices" were established by the Sung government in border areas, to control the sale of tea to the nomads and the purchase of horses from them. Similar "Tea and Horse Offices" were set up under the Ming and Ch'ing dynasties. The Chinese government tried to maintain the price of tea, beyond China's borders, at an artificially high price in order to enhance its buying power in terms of horses. This naturally led to smuggling, and the death penalty was at times imposed for the unauthorized sale of tea to the nomads.⁸⁹

Under the Yüan dynasty (1280-1367) large numbers of Mongols came to live in China, and one might suppose that the technique of breeding cavalry mounts would have become well established in China. But there seems to be no evidence that it did. From the beginning of the Ming dynasty (1368-1643) the need for horses was critical, and great efforts were made to import them. When the Ming had been established for more than a century they were still importing ten thousand head a year, and importation at almost this rate was still going on near the end of the

86. Waley, *Po Chü-i*, 55-56; Ssu-ma Kuang 司馬光, *Wen-kuo Wen-cheng Ssu-ma Kung Wen-chi* 溫國文正司馬公文集 (*Ssu-pu Ts'ung-k'an* ed.), 50.2b-8a; Ou-yang Hsiu 歐陽修, *Wen-chung Kung Wen-chi* 文忠公文集 (*Ssu-pu Ts'ung-k'an* ed.), 112.7b-10b, 113.3a-4a; Sung, *Ching-wen Chi*, 366-70, 372-73.

87. *Ch'ing-shih* (8 vols., Taipei, 1961), III, 1730; *Yüan-shih* (in *Er-shih-ssu Shih*), 100.1a.

88. Li Tao 李燾, *Hsü Tzu-chih T'ung-chien Ch'ang Pien* 續資治通鑑長編 (Chekiang Shu-chü, 1881), 283.8a.

89. *Sung-shih*, 167.17b-18b, 198.24b-25a; *Ming-shih* (in *Er-shih-ssu Shih*), 80.19b-22b, 92.24a; *Ch'ing-shih*, III, 1731.

dynasty.⁹⁰ Even the Manchus, who themselves had been horsemen, when they controlled China during the Ch'ing dynasty (1644-1911), continued to import horses to China Proper (as distinct from such areas as Mongolia, Manchuria, Chinese Turkestan, and Tibet, which the Ch'ing rulers also controlled). They did not try to supply all of their need for horses by breeding them within China Proper.⁹¹ Sowerby writes:

The Chinese do not seem to have gone in much for horse-breeding since the Mongol conquest, depending for their supplies of these animals upon Mongolia. . . . China is the chief market for gelded Mongol ponies of from four to eight years. The Mongols seem disinclined to part with their mares, requiring them for breeding purposes. Such mares as do happen to reach China are usually crossed with donkeys to produce mules, which are considered superior to horses, both as draft and pack animals.⁹²

The reasons behind China's failure to solve the horse problem are complex. The economic situation was undoubtedly important. Intensive agriculture in China has not left much room for pasture. Although pasture lands were set aside within China Proper, on the basis of military necessity, this practice was attacked on the ground that it removed land from farming and interfered with the livelihood of the people.⁹³ The Mongol conquest, in which a large proportion of the inhabitants of north China were slaughtered, had been a terrible lesson, and the succeeding Ming dynasty at first established extensive pastures for raising military horses in the center of China. But the demand for agricultural land gradually reduced them, until the principal pastures were again in the border areas where they had usually been.⁹⁴ The border areas were suited for the purpose, but they were also vulnerable to raids by nomads, who sometimes made off with the horses.

The Chinese failure to solve the problem of breeding horses was not caused by the lack of a serious and systematic approach to it. We have seen that selective breeding was being practiced in China even before the first millennium B. C. and that a methodical discipline for judging the qualities

90. *Ming-shih*, 80.25b-26a, 92.25a; *Ming Hui-yao* 明會要, comp. Lung Wen-pin 龍文彬 (Taipei, 1950), 1205. The last reference indicates that the number of horses sometimes fell below this figure, but apparently only because the Chinese were unable to obtain as many horses as they wanted.

91. *Ch'ing-shih*, III, 1730-1731.

92. Sowerby, "Beasts of Burden in China," 284.

93. Sung, *Ching-wen Chi*, 368-369, 372-373.

94. *Ming-shih*, 92.22b-23b.

of horses was developed well before the Christian era. Veterinary medicine, for the treatment of horses, was being practiced as early as the fifth century B. C.⁹⁵ From early in the first millennium B. C. we have evidence that there were government officials in charge of the procurement and rearing of horses, both at the royal court and in various states; in some cases their rank was high.⁹⁶ The Ch'in (221–207 B. C.) and Han dynasties had special bureaucratic structures to supervise governmental activities concerned with horses; under the Han it was quite elaborate, and the official in charge of it ranked eighth among the highest ministers of the empire. Subsequent dynasties had comparable governmental organs, revised and at times greatly elaborated.⁹⁷ At least as early as the T'ang dynasty careful records were kept in which each horse belonging to the government was individually registered and graded as to quality. The horses themselves were branded to show their origin and qualitative ranking.⁹⁸

Yet with all this care to distinguish the best horses, it is not clear that there was equal attention to breeding from them. In 1061 Sung Ch'i, in his capacity as superintendent of government pastures, complained that it had long been the practice to permit the various equine strains to mix indiscriminately. "Sometimes the sire is large and the dam small, sometimes the sire is small and the dam large. At the time of breeding there is no selection or discrimination; thus there is no means of obtaining large and excellent horses." The resulting horses could not measure up, he said, to the demands of warfare.⁹⁹

The riding horse was forced upon the Chinese. It was first thrust upon their attention as a new and deadly weapon that their nomadic enemies had acquired, and it seems always to have been regarded primarily as an instrument for fighting the nomads. King Wu-ling of Chao, around

95. *Mo-tzu* (*Ssu-pu Pei-yao* ed.), 2.10a; *The Ethical and Political Works of Motse*, trans. Yi-pao Mei (London, 1929), 49. A state establishment for veterinary medicine is described in the *Chou-li*; while this work cannot be definitely dated, or entirely credited, it dates from before the Christian era, and there may well have existed (though not, as tradition holds, at the beginning of the Chou dynasty) something corresponding to the institutions it describes. (See *Chou-li*, 1.11a, 5.8b–9a, 33.6b; *Tcheou-li*, I, 9, 98–99, II, 259–260.)

96. *The She King*, 322; *Tso-chuan*, 407, 801. Seven Broman, "Studies on the Chou Li," *Bulletin of the Museum of Far Eastern Antiquities, Stockholm*, XXXIII (1961), 44–45, lists references concerning officials in charge of horses in a number of works; a few of these references are of doubtful date, but most of them are valid for the Chou period.

97. Sun K'ai 孫楷, *Ch'in Hui-yao* 秦會要, supplemented by Shih Chih-mien 施之勉 and Hsü Fu 徐復, in *Chung-hua Ts'ung-shu* (Taipei, 1956), 214; *Han-shu*, 19A.12a–13a, 19B.1a; Hsieh, *Yang-ma Shih*, 68–71.

98. *Ibid.*, 126–129.

99. Sung, *Ching-wen Chi*, 368.

300 B. C., encountered strong prejudice when he compelled his subjects to take up riding as a matter of military necessity. A century and a half later, when cavalry had long been important in the Chinese armies, Ch'ao Ts'o stated as a matter of course that the Chinese could not compare with the nomads as riders—and he appears to have assumed that they never could.¹⁰⁰ As late as the eleventh century A. D., after northern China had gone through the experience of being conquered and ruled by wave after wave of nomadic horsemen, Sung Ch'i could still write that the Chinese were "unaccustomed to riding."¹⁰¹

Some Chinese, certainly, became outstanding horsemen. But it is hard to avoid the impression that to Chinese in general the riding horse remained something strange, almost foreign in nature. Horses, and horsemen, were in general associated with the border areas of the north and west.¹⁰² It is a striking fact that the grooms and handlers of horses appearing in Chinese art seem almost always to be depicted as non-Chinese.¹⁰³ The Chinese knew that they had to have horses, and they addressed themselves with great seriousness to the problem. They built up a huge bureaucratic apparatus for dealing with it, but there is little to indicate that they brought real zest and zeal to the task. The very impersonality of their approach may have helped to defeat their end. Anyone with even a modicum of experience with horses knows that a spirited mount will not perform at its best unless there is a great deal of rapport between horse and rider. And it is doubtful that the great mass of Chinese cavalymen could compare, in establishing such rapport, with the nomads who rode from infancy and lived with and on their horses.¹⁰⁴ The Mongols, it appears, had no bureaucratic structure for the management of their horses until after they conquered China; after they established the Yüan dynasty they copied and elaborated the Chinese system.¹⁰⁵ But it is significant that, before doing so, they conquered China.

100. His proposed remedy was not for the Chinese to become better cavalymen, but rather to enlist barbarians to fight barbarians. (*Han-shu*, 49.10b–12a.)

101. Sung, *Ching-wen Chi*, 366.

102. *Yüan-shih*, 100.1a; Hsieh, *Yang-ma Shih*, 25; Eberhard, *Lokalkulturen*, I, 15.

103. See Jane Gaston Mahler, *The Westerners among the Figurines of the T'ang Dynasty of China* (Rome, 1959), plates XIIc, XVIIIa–b, XXa, XXIIIa–d, XXIVa–b. My colleague, Father Harrie A. Vanderstappen of the department of art of the University of Chicago, tells me that he has paid particular attention to the attendants of horses depicted in Chinese paintings and that it is his impression that they are without exception shown as being non-Chinese. (Verbal communication of Mar. 9, 1964.)

104. *Shih-chi*, 110.3; Watson, *Records*, II, 155.

105. Wang Yün 王暉, *Ch'iu-hsien Hsien-sheng Ta-ch'üan Chi* 秋澗先生大全集 (*Ssu-pu Pei-yao* ed.), 91.3b; Hsieh, *Yang-ma Shih*, 184.

Judiciously to evaluate the role of the horse in Chinese history is not easy. From an early time it was prized for pulling the vehicles in which men of rank were transported and the chariots from which noble warriors fought. An entirely new phase was introduced, at some time not long before 300 B. C., when the technique of cavalry warfare, which had been diffused across Central Asia, reached the borders of China. The "barbarians" of the north and west suddenly became a much greater menace than before. The Chinese were compelled to bribe them, court them, and fight them. To fight them effectively the Chinese had to convert some of their soldiers into cavalry, and to have large numbers of horses with the qualities needed in a cavalry mount. Chinese attempts to breed such horses were seldom more than partially successful; thus it was commonly necessary to import large numbers of horses. In order both to obtain superior horses and to outflank their nomadic enemies, the Chinese expended great efforts, including some huge military campaigns, to establish and maintain political and commercial relations with a number of the peoples of Central Asia. At some periods this carried Chinese suzerainty far to the west and provided the conditions for China's early overland contacts with the Near East and with the Mediterranean world.

Not only foreign relations but China's internal history as well was affected by the problem of the cavalry horse. It gave an importance to the northern and western borders that produced phenomena having some intriguing parallels with those associated with "the frontier" in American history. The continuing need for buying horses, often from their enemies, had a deleterious effect upon China's economy. Yet in spite of great expenditures and strenuous efforts, the Chinese never became the equals of the nomads in the employment of the cavalry horse in war, and this is an important part of the reason why China was repeatedly conquered by nomadic horsemen. It seems entirely probable that the course of history would have run differently, in some significant respects, if the Chinese had never had to deal with the cavalry horse, or if they had been able to deal with it more effectively.

INDEX

- Abel-Rémusat, 29-30
 Achaemeneans, 166
 Administration, 92, 104, 105
 Administrative technique, 37-38, 44, 51, 54-56, 58-60, 63-74, 76-78, 79-91, 92-120, 121-159. See also *Shu* 術 and *Shu* 數
 Afghanistan, 174
 Alchemy, 8, 17
 Altai Mountains, 163, 166
 An Lu-shan, 181
Analects, 2, 6
 Aral Sea, 172
 Archer, mounted, 163-165
 Archery, 163
 Assyria, 129
 Astronomy, 35
- Babylonia, 129
 Bactria, 172, 174, 178
 Bagdad, 131
 Barnard, Chester I., 130, 159
 Benevolence, 3, 8
 Blau, Peter M., 130, 159
 Bodde, Derk, 79-80
Book of Changes, 175. See also *I-ching*
Book of Lord Shang, 101. See also *Shang-chün Shu*
 Breath control, 8, 15, 19, 23
 Bryant, William Cullen, 31-32
 Buddhism, 3, 11, 19, 21, 23, 24
 Budget, 124
 Bureaucracy, 82, 93, 95, 100-105, 114-115, 119-120, 121-135, 153, 158, 184
 Byzantium, 123, 129
- Caspian Sea, 172
 Categorization, 129, 142
 Cavalry, 160-165, 173, 181, 184-186
 Cavalry warfare, technique of, 163-164, 165, 185
 Central Asia, 160, 161, 178-179, 180, 186
 Chan-Kuo period, 43-44, 55-56, 64-65, 80, 82, 85, 87-89, 91, 96, 117
Chan-Kuo Ts'e, 13
 Ch'an Buddhism, 23
- Chang Ch'ien, 174-175, 178
 Chang Ch'ü, 109, 110
 Chang Liang, 17
 Chao, state of, 63, 163-165, 169, 173, 184-185
 Ch'ao Ts'o, 87, 108-110, 115, 117-119, 171, 172, 185
 Charger of war, 161
 Chariots, 162, 186
 Chavannes, Édouard, 79
 Ch'en Ch'i-t'ien, 61 n.74, 84, 86
 Ch'en Tu-hsiu, 37
Cheng-ming 正名, 86 n.45
 Chi, northern, 170
 Ch'i, state of, 10, 12-13
Ch'i Wu-lun, 53
 Chia I, 106-108, 115, 117-119
Ch'ien-Han-shu, 80
 Chin Chien-te, 50
 Chin Shao, 91
 Chin, state of, 97, 145, 155-158
 Ch'in, state of, 142-144, 152, 171-172, 180
 Ch'in dynasty, 86, 91, 105-106, 109, 111, 113-115, 119, 127, 142, 184
 Ch'in Shih-huang, 10, 16, 86, 103, 105, 113, 143
 Chinese Communist Party, 37
 Ching, Han Emperor, 108-110, 115, 118
 Ch'ing dynasty, 183
Ch'ing t'an 清談, 22
 Chivalry, 160
 Chou, 135, 136-138, 140-141, 147
 Chu-Kê Liang, 112
 Ch'u, state of, 12, 146-158
Ch'u-tz'u, 13
 Chuang-tzu, 10, 12, 31, 41, 43, 44, 46, 75
Chuang-tzu, 1-6, 9, 10-11, 14-16, 18, 20-23, 25-28, 31, 32-34, 37-47, 48-49, 51-56, 62, 67, 69-78
Ch'un-ch'ü, 57
 Ch'ü Yüan, 13
Chün-tzu 君子, 55, 56
 Communism, 37
 Confucianism, 2, 13-14, 21-22, 24, 50, 59-61, 64, 81-82, 88, 90-91, 93, 106-107, 110-111, 117