

Zentralasien, die Seidenstraße und die Mongolen
Central Asia, the Silk Route, and the Mongols

From Pasture to Manger: The Evolution of Mongol Cavalry Logistics in Yuan China and its Consequences

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Qubilai, grandson of Chinggis Qan and himself Qan of the Mongols (1260–94) in (disputed) succession to his brother, Möngke Qan (1251–59), was determined to renew the conquest of South China that Möngke had begun, but that had failed following Möngke’s death during the campaign. Möngke’s strategy had been a traditional Mongol encirclement aimed at gaining control of the Yangzi River valley. Möngke himself led an army toward the river near (modern) Chongqing in the west. Another, initially under Tagachar, aimed at (modern) Wuchang 武昌 in the east, and at Xiangyang 象陽 further upriver to prevent Song forces from moving upriver from the capital at Hangzhou 杭州 (Polo’s Quinsay). Möngke would move downriver to join him and march together on Hangzhou. Taghachar, with “100,000 horsemen” attacked Xiangyang for a week, and then, probably because of the strength of the fortress city and the unsuitability of the cavalry for siege operations, pulled back and camped. Taghachar, accused drinking and eating instead of fighting, was replaced by Qubilai, who managed to get across the Yangzi further downriver; Möngke had not even reached it when he died.² Qubilai then retreated to Mongolia to claim the Qanate. But in the aborted campaign, and an earlier one into Yunnan 雲南, gave him understanding of the exigencies and hazards of war and especially siege warfare. During his siege of Yaozhou 姚州, he had lost eight tümens (probably to disease, which also felled Möngke) out of the ten in his command, and had to borrow from another force to maintain the siege.³ In planning his own Song war, he would not divide his troops in an encircling strategy, but concentrate them on a single target, the riverine fortress-city, Xiangyang, using a very, perhaps redundantly, large force in case of unpredictable, but certainly, for him, unimaginable disaster. He would also prepare for the possibility of a long-term operation; he would have known that his brother, Hülegü, had been besieging, since 1256, the Assassins’ mountain-top castle of Girdkuh in Northeastern Iran (it finally fell only in 1271, after fifteen years).⁴ Xiangyang in fact was to hold out from 1268 until 1273.

Qubilai decided also that he needed a different kind of army. The quintessential Mongol army was all cavalry: very light cavalry, with light mounts, light weaponry, and logistically light weight. Its great virtues were tactical and strategic mobility, enabled by numerous ponies and easy supply. The army, like most others of Inner Asia, originated in a pastoral nomadic society, which grazed a variety of animals, primarily sheep and goats, cattle, camels and ponies (not horses, as the inarable steppe did not provide the fodder essential to the raising of horses).⁵ These animals and their keepers could travel wherever grass and water was available, very widely indeed on steppe extending from Korea to Hungary. Entire nomad communities – men, women, children and the full complement of animals – could, and sometimes did so, slowly: sheep can move for only 3–4 miles a day. Nomad soldiers with families and sheep, etc., left at home could move far and fast, relying on ponies for transport, combat, and rations: the ponies eating grass, the men eating ponies. Chinggis’ armies, and his successors’, exploited this capability fully. Samuqa’s campaign in North China in

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² Rashiduddin Fazlullah (author), W. M. Thackston (tr.), *Jāmi’ al-Tawārīkh: Compendium of Chronicles*, 3 vols. [hereinafter RaD] (Cambridge MA: Harvard, 1998–99), II, pp. 414–15.

³ RaD, II, p. 415.

⁴ RaD, III, pp. 535–36

⁵ The dividing line between ponies and horses is at 56 inches/14 “hands” (or 58/14 1/2 hands) from hoof to withers, the high point of the back. The “hand” is 4 inches.

1216–1217 moved at an average of 14 miles per day (mpd).⁶ Likewise, Ghazan's attack on Mamluk Syria in 1299–1300 proceeded from Iran at 15 mpd.⁷ And Batu's expedition from Mongolia across Inner Asia to the Volga in 1236 averaged some 16 mpd.⁸ But while ponies could take their riders almost anywhere, they could not carry much weight. Ponies weighing on (modern Mongolian) average 600 lbs are overloaded just by their riders – a horse's load should not exceed 17% of its body-weight⁹ – so the Mongol soldiers needed a string of them (five in Ghazan's 1299 army) to ride in rotation. Any additional burden, such as armor, impaired the ponies' stamina. Most Mongol soldiers therefore were protected only by leather jackets and carried only bows, arrows and, for close combat, a club or axe, weapons they could make for themselves (with the exception of axe-heads). Other armaments were weighty – 45 lbs for a man's coat of mail, twice as much for a horse's – and, since not likely to be home-made (unlike bows and arrows), expensive and therefore available mostly to the rich, until the conquest of settled societies with arms industries. Worn on, or by, overloaded ponies, mail limited its users to a mostly static role backing up the skirmishing, hit-and-run archers.¹⁰ This style of warfare served the Mongols very well for the most part, as the extent of their empire shows.

It was not so useful off the steppe, as in southern China. North China had steppe, arable grasslands and farmlands under grain crops like barley and wheat on which passing Mongol cavalry could graze their ponies. But southern China grew rice, and rice paddies made poor grazing and limited movement of ponies, as did forests, the natural vegetation of much of the region. Moreover, it was densely populated by villagers and townsmen potentially dangerous to mounted Mongols passing through narrow streets where they could not evade attack and their ponies gave no advantage and could even impede defense: the ponies stood only about five feet high or less, so that even an unarmed man on foot might seize its rider and wrest him from the saddle. Finally, as the Song armies had no cavalry, they largely refused battle in the open field, where they could be subjected to hit-and-run “pony-tactics.”¹¹ The preferred positions for Song defense were behind rivers and fortifications. The ponies could not climb walls, and for the unarmored Mongols to do so was suicidal. Taking fortresses required men, preferably armored and expendable for the wall-climbing, and a large labor force, often working under missile attack, to dig trenches and tunnels, build palisades, set up artillery – to perform all the hazardous grunt-work of siege. River crossings needed ships and sailors. Given the tiny population of (Outer) Mongolia (perhaps around 700,000 at the end of the twelfth century) and the huge numbers in China, the Mongols meant to avoid heavy losses at all costs, and made their Chinese conscripts bear most of them. They had plenty of these conscripts: Qubilai's army in his Song war counted 30 tūmens of Mongols and 80 tūmens of Chinese.¹² The Mongol cavalymen were of most help not on horseback, but dismounted as archers supporting the assault troops by shooting Song soldiers off the walls, or sailors on Song ships, or at their own (Chinese) assault troops trying to leave the front lines.

The Mongols' ponies were not only of little utility in sieges, but constituted a logistical liability. A soldier requires about three pounds of food each day; a pony seven to nine lbs.¹³ A cavalryman accompanied by five

⁶ H. Desmond Martin, *The Rise of Chingis Khan and his Conquest of North China* (Baltimore: Johns Hopkins, 1950), p. 191 and map of “Chingis Khan's Campaigns in China, 1209–1227.”

⁷ J.M. Smith, Jr., “‘Ayn Jālūt: Mamlūk Success or Mongol Failure?’, *Harvard Journal of Asiatic Studies*, 44 (1984), pp. 335-36.

⁸ The direct (airline) mileage Ulaanbaatar-Moscow is 2,889 miles: Aeroflot, personal communication. Batu reached Bulghar on the Volga in autumn, after presumably starting out from Mongolia in the spring.

⁹ Weight: H. Epstein, *Domestic Animals of China* (Farnham Royal, 1969), pp. 100-101. Load: D.W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley: University of California Press, 1978), p. 128 n. 26.

¹⁰ The effectiveness of hit-and-run mounted archery is acknowledged in the *Yuanshi*, 100/2553, cited by Paul J. Smith in *Taxing Heaven's Storehouse* (Cambridge MA: Harvard UP, 1961): “[T]he Yuan ... conquered all under Heaven with the power of the bow and the horse.”

¹¹ The efficacy of these tactics is suggested by an episode cited by P.J. Smith, op. cit., pp. 14-15: seven Jurchen cavalymen routed two thousand Chinese infantry.

¹² Rashiduddin Fazlullah, *Jāmi' u't-Tawārīkh: Compendium of Chronicles*, J.A. Boyle (tr.), p. 271; Thackston's translation (RaD) lacks this passage. Cf. Möngke's forces for his Song war a decade earlier: 90 tūmens, 23 of them Mongols (cavalry) – those of the two named commanders, Möngke and Qubilai, plus 21 more under named Mongol generals; and 69 tūmens of “Jauquts” (Chinese, Manchurians, Koreans and Tangquts).

¹³ A mixed ration of about half-and-half grain and straw.

ponies had a logistical weight about twelve times that of an infantryman (7 lbs of fodder per pony x 5 ponies = 35 lbs + 3 lbs per rider = 38 lbs per day). The Mongol cavalry and the Chinese infantry, engineers and “arrow-fodder” all required a large supply system to supported persistent positional combat. Mongol cavalry maneuvering in the (grassy) field could move from pasture to pasture as part of their campaign; siege required bringing food and all other supplies to the besiegers in their trenches. Insofar as cavalry participated in the siege, such supply demands threatened to be overwhelming, as may be seen from the difficulties of Hülegü’s army in Iran as it besieged the “Assassins” castle at Maymun Diz in 1256. Even as the attack began, some Mongol commanders were arguing for postponement: fodder could not be found, grazing was apparently inadequate, as the animals were losing weight, and preparations were having to be made to requisition flour for the troops and fodder for the animals, and to seize all animals for transportation or to eat, from all over northern Iran.¹⁴

In order to cope with new terrain, rural and urban, with a new combat role as archers on foot, and with new logistical challenges, the Mongol cavalry had to be made over. First, cavalry deployments had to be scaled down. Second, the troopers needed armor, for protection in those narrow alleyways, and when fighting dismounted against the archers and crossbowmen on Song walls and battleships. To meet the first requirement, Qubilai limited cavalry mobilizations. A Yuan record from early 1267, the year preceding his main campaign against the Song, sets the mobilization of Mongol troops for the Menggu army (the main Mongolian force in China) at one man from households with two or three adult males, 2 from 4–5, and 3 from 6–7.¹⁵ The result is shown, I believe, in a passage dated 1284 from the *Yuanshi* (Yuan annals):¹⁶

At the time of [Qubilai Qan], the official system was considerably changed ... Each [commander of 10,000, commander of 1000, and commander of 100] was categorized as either ‘upper,’ ‘middle,’ or ‘lower’.

These three grades are conventionally explained¹⁷ as meaning that the unit, nominally of 10,000 men, had to have at least 7,000 at the ‘upper’ grade, the ‘middle’ grade *tümen* required at least 5000, and the ‘lower’ *tümen*, 3000, and that these low strengths reflected actual availability of soldiers better than the theoretical number incorporated in the unit names: *tümen* (10,000); *hazāra* (1000), etc., and the further reality of smaller Mongol armies. Note, however, the many passages in Rashiduddin describing overstrength *hazāras* of several thousands, and growing populations in the Mongol empire.¹⁸ An alternative explanation¹⁹ suggests that the ‘upper’ grade, of only 7000 instead of 10,000 means that 3000 families out of 10,000, as commonly happens in nomadic communities, might lack the animal capital for decent subsistence (100 sheep and goats or equivalent) and effective military activity (five ponies); the 5000 grade would be the limit attainable by a marginal nomad group, with half its families undercapitalized (like the Basseri tribe studied by Fredrik Barth)²⁰ and the 3000 grade would be the contribution possible for sedentary pastoralists like the Liao/Manchus.

A better explanation in context of the year 1267 is adaptation of the Mongol cavalry army to siege warfare. Beginning in 1268, Qubilai’s armies besieged the Song fortress-city, Xiangyang, a siege that continued until 1273. To ameliorate his logistics, and enhance his cavalry as a tactical asset, Qubilai not only reduced his mobilization of cavalymen, as his 1267 edict shows, but resized his cavalry units, probably at

¹⁴ ‘Ala-ad-Din ‘Ata-Malik Juvaini (author), J.A. Boyle, (tr.), David O. Morgan (ed.), *Genghis Khan: The History of the World Conqueror* [hereinafter Juvaini] (Manchester: Manchester University Press, 1997), pp. 621-2; RaD, II, 484. I use this Persian example from Iranian Mongol history because it is more circumstantial than anything I have seen from the Chinese record.

¹⁵ Ch’i-ch’ing Hsiao, *The Military Establishment of the Yuan Dynasty* (Cambridge MA: Harvard UP, 1978), p. 78. Such records, dealing with the Mongols’ own forces, seem to be rare, perhaps because such information was kept secret from the Chinese bureaucrats who compiled the records.

¹⁶ Hsiao, p. 72; see also n. 27 (on pp. 170-171); from the *Yuanshi* 98, The Military Establishment.

¹⁷ *Ibid.* n. 27 (on pp. 170-171).

¹⁸ E.g. RaD, II, pp. 282; also 279-80: the *hazāra* (nominally a Thousand) of Müge Noyan had 4000 even in Chinggis’ time, and had further “multiplied and increased” by Rashid’s day.

¹⁹ See J.M. Smith, Jr, “Mongol Nomadism and Middle Eastern geography: Qīshlāqs and Tümens,” in R. Amitai-Preiss and D.O. Morgan (eds.), *The Mongol Empire and Its Legacy*, (Leiden: Brill, 1999), p. 1 n. 2.

²⁰ F. Barth, *Nomads of South Persia: The Basseri Tribe of the Khamseh Confederacy* (Oslo UP, 1964), pp. 13, 16-17.

the same time, although the documentation is available only post-war, in the 1284 passage above. An upper-grade *tümen* was still “10,000,” or at least 7000 – and was probably not called up for the Song war. The middle-grade “*tümen*” of 5000 resulted from the mobilization of only one man out of two from a real, nominally 10,000-men, *tümen*, and the lower “*tümen*” of 3000 likewise from one out of three from a real unit. Such half-sized *tümen*s of the “middle” sort were used in Ghazan Qan’s 1299 Syrian campaign which drew 5 of every 10 men from eleven *tümen*s.²¹ The half-*tümen* will be discussed further below. The “lower” *tümen* of 3000 (= three *hazāras*) was for siege-cavalry; its smaller numbers required less supply, and were easier to outfit with armor.²²

The Mongols made armor out of leather and bits of metal.²³ Besides this home-made gear, they also collected armor from defeated enemies, ordered it from captured artisans, or purchased it. William of Rubruck, traveling in Mongol-controlled Transcaucasia in 1254 through brigand-infested country, was given a guard of:²⁴

[...] twenty men to escort us to beyond the Iron Gate. I was delighted, for I was hoping I should see their armed men, for I had never managed to have a look at their weapons although I had been most anxious to do so [...] of the twenty, there were two who had habergeons [a long coat of mail]. I asked how they had come by these; they said they had procured them from the [...] local] Alans, who are fine artificers of such things and excellent smiths. This makes me think that [the Mongols] have few arms apart from their bows and arrows and leather garments. I saw them being presented with iron plates and helmets from Persia, and I also saw two men who appeared before [Möngke Qan] armed with tunics made of curved pieces of stiff leather, which were very clumsy and cumbersome.

Most important, the Yuan manufactured arms in China: bows, arrows and armor.²⁵ Michal Biran, citing both Central Asian and Chinese sources, concludes that “extensive use of armor was one of the main qualitative advantages of the Yuan army over Qaidu’s” in western Mongolia. It gave the same advantage on other fronts.

The third requirement of the Mongol cavalry make-over was horses to carry these armored cavalymen. The Mongols had always desired horses, not just for the sake of armor, although in a warriorist society this was an important consideration. A very important reason, for a people who really lived in the saddle, was comfort. Chinggis wished to “sit [his followers] on fluid paced mounts.”²⁶ The ordinary ponies of Mongolia, the ponies that brought Mongol armies to Hungary and Korea, etc., do not meet Chinggis’ standard: they have rough gaits, the “death trot,” for instance, that subject the rider to constant jolting, or require standing in the stirrups for prolonged periods, as Mongols learned to do from childhood – as many do still.²⁷

²¹ Vassāf, *Kitāb-i Vassāf* (Tehran: Ibn Sina, 1338/1959), p. 373.

²² One such unit is mentioned in the biography of the Mongol general, Bayan, who became the commander-in-chief of the later phase of the Song war; see Francis W. Cleaves, “The Biography of Bayan of the Barīn in the *Yuanshi*”, *Harvard Journal of Asiatic Studies*, 19 (1956), pp. 185-301, see p. 219, “3,000 iron[-clad] cavalymen.”

²³ John of Plano Carpini, *History of the Mongols*, in C. Dawson (ed.), *The Mongol Mission* (rpt. New York: Harper & Row, 1966), pp. 33-34. Kitan/Liao-period (tenth-eleventh century) armor for men and horses as depicted in the *Eighteen Songs of a Nomad Flute: the Story of Lady Wen-chi* (New York: Metropolitan Museum of Art, 1974), [no pagination] episode 1, The Abduction of Wen-chi, illustrates horse-armor similar to that described by Plano Carpini.

²⁴ William of Rubruck. *The Journey of William of Rubruck*, in *The Mongol Mission, op cit.*, pp. 210-211. The “clumsy tunics” were the Mongols’ home-made armor; they also, less commonly, augmented the leather strips with iron plates; both are described in detail by Plano Carpini, loc. cit.

²⁵ Michal Biran, *Qaidu and the Rise of the Independent Mongol State in Central Asia* (Richmond, Surrey UK: Curzon, 1997), p. 87.

²⁶ As translated by Thomas Allsen in *Commodity and Exchange in the Mongol Empire* (Cambridge UP, 1997), p. 12 from the Persian of Rashiduddin, B. Karīmī (ed.), *Jāmi’ al-tawārīkh*, 2 vols. (Tehran: Iqbal, 1959–60), I, 439: *akhtaghan rahvar*. Steingass’ dictionary gives for *rahvar* “a quick, easy, ambling-paced horse; a good roadster”, which Allsen conveys well. (Cf. RaD, II, p. 298 in which Thackston follows a later Chaghatai Turkic translation of Rashid’s work.) Given the attention by Chinggis’ staff to the recording of his remarks, the quote is probably accurate.

²⁷ See, for example, Tim Severin, *In Search of Genghis Khan* (NY: Atheneum, 1992), pp. 44-45: “[The Mongols’] system of cross-country travel was extremely straightforward....they urged their horses into a fast, pattering run and then kept up the same blistering pace with no variation whatsoever for the next two hours. Then they halted for a five-minute break.... [then] would swing back onto their horses and repeat the fast run all over again....The runty little horses gave a thoroughly uncomfortable ride. If you sat down firmly in the saddle, you were jolted and rattled....The solution was to do what the Mongol herdsman did, but that required a lifetime of training. The horse-herders either rose in the stirrups and just stood there, for 20 or 30 or 50 miles

But horses cannot easily be raised on the steppe, as they cannot subsist, as ponies can, on grazing alone. They must be fed, and fodder is hard to obtain on the generally-inarable steppe. Thus, although the Mongols, like other dynasties in China, established “horse-raising areas,” fourteen of them, “particularly in the northern steppe,”²⁸ where grazing must have produced only ponies. Larger animals – horses – required other sources.

As with armor, so also with horses the Mongols acquired some from conquered peoples and some from trade or as gifts.

[The Mongols] are now [following their conquests in Russia and Hungary,] equipped more elegantly with the plundered arms of vanquished Christians [...] They have been especially refurbished with better horses [...] Their [own small ponies], lacking fodder, are said to be content with the bark and leaves of trees and the roots of plants.²⁹

Gift horses (or ponies), are reported. Marco Polo says Qubilai received 100,000 white horses every year as New Year’s gifts.³⁰ The *Yuanshi* mentions, from what was probably a much more extensive record lost by the time of compilation, four presentations over about a one-year period, 2/10/1326 to 4/5/1327, by the Ilkhan Abu Sa’id to the Yuan emperor, consisting of, or including, “horses,” or “western horses.”³¹ The “western horses” must really have been horses, not ponies (bringing ponies to Mongolia would have been the equine equivalent of Newcastle coal-imports); probably the sort of “better horses” mentioned by King Frederick, imported from Europe to China;³² or an export version of the “fat horses” that Ghazan Khan enabled his soldiers to keep.³³

Imports, however, would not have met the Yuan need for large horses to mount the eight to ten tümens that Qubilai based within China after the war. By pony standards each tümen, nominally of ten thousand men, would have needed 50,000 ponies. Even allowing instead only three horses per soldier, each tümen would need 30,000 horses, unlikely to have been imported across Inner Asia, where sufficient fodder could not have been found en route. But imports on a smaller scale could have provided breeding stock for stud farms in China, and the Yuan had at least one selective breeding program, according to Marco Polo, with white stallions and 10,000 white mares to produce *qumis* for the imperial families at Shang-tu, Qubilai’s summer capital in Inner Mongolia.³⁴ Selective breeding was thus known and practiced, but whether for large horses is not demonstrated. The animals of the milk-farm would not have needed to be large, however, and their steppe location suggests pastoral maintenance – and fresh grass, available in late spring and early summer when Qubilai was there.³⁵

a day, apparently on legs of pure sinew and swaying with the motion of the horse. Or they sat down in their wooden saddles and relaxed, letting themselves go limp and be shaken up and down like peas on a drum.” Travelling on campaign, however, the Mongol armies proceeded at the walk, in order not to tire their mounts, covering about 16 miles a day at 4 miles per hour; Chinggis had them remove their bridles and cruppers (which help secure the saddle) to discourage speeding: see *The Secret History of the Mongols*, section 199. The modern Mongols’ practice of standing in the stirrups to dampen the rough pony-ride (for the pony as well as the rider) probably descends lineally from the time of the stirrup’s introduction, as it facilitated mounted archery; see Taybugha, J.D. Latham and W.F. Paterson (ed. and tr.), *Saracen Archery*, (London: Holland, 1970), p. 73.

²⁸ Hsiao, p. 60.

²⁹ Letter of 1241 from the Holy Roman Emperor Frederick II to King Henry III of England, quoted by Douglas S. Benson, *The Mongol Campaigns in Asia [and Europe]* (Chicago: Bookmasters, 1991), pp. 372-373, from Matthew Paris, *Cronica Maiora*, IV, pp. 112-15.

³⁰ Marco Polo, R. Latham (tr.), *The Travels of Marco Polo* (Harmondsworth: Penguin, 1958; reprint of 1980 [n.b. pagination varies among reprints]), p. 139.

³¹ Thomas T. Allsen, *Culture and Conquest in Mongol Eurasia* (Cambridge UK: Cambridge UP, 2001), p. 44, table 2.

³² Via Iran, or even the Golden Horde: hostilities between India and adjacent Mongols did not inhibit large-scale Indian imports of horses (doubtless ponies because of the large numbers) from the Golden Horde. See Ibn Battūta, H.A.R. Gibb (tr.), *The Travels of Ibn Battūta* (Cambridge UK: Cambridge UP, 1962), II, p. 478.

³³ RaD, III, p. 731: “When they have straw and barley ... every one will be able to tether two or three horses and keep them fatted”

³⁴ Polo, p. 109.

³⁵ Polo’s information is complemented by the vague mention in Hsiao, 60, and See S. Jagchid and C.R. Bawden, “Some Notes on the Horse-Policy of the Yüan Dynasty,” in *Central Asiatic Journal*, 10 (1965), pp. 246-68, of large pasture districts, probably the Yuan version of governmental steppe pastures for pony-raising by earlier and later dynasties in China.

The Yuan pictorial record is suggestive, but problematic. Military scenes of the sort plentifully available in art from the Ilkhanid realm, are not found, perhaps prohibited for military secrecy. Numerous paintings present very well-fed equines, which, if horses, would seem suitable heavy cavalry mounts, but whether these are ponies or horses is usually not clear, for lack of any accompanying object to give scale. Moreover, Yuan artists seem often to be inspired by, or copying, earlier, pre-Yuan works that reflect the animals of earlier dynasties.

Three examples, however, show sturdy, large-bodied horses whose size can be estimated in relation to their riders or equipment. One is the “Mounted Official” by Zhao Mengfu 趙孟頫, a handscroll of 1296 in the Beijing Palace Museum.³⁶ The red-robed official sits his mount, riding “long” – with his leg only slightly flexed at the knee (not “short,” Mongol-style, with knee sharply bent to facilitate standing in the saddle, as necessary to cope with the “death trot,” or to shoot); his foot, hanging down alongside the girth, falls several inches above the low point of the belly of what must be a horse. But he is not a cavalryman.

“Khubilai Khan Hunting,” by the Yuan court painter Liu Guandao 劉貫道, a hanging scroll of 1280, show the emperor, accompanied by a consort and attendants, pausing to watch one rider shoot at birds overhead. This is a cavalryman, armed, with sword as well as bow, and, given his important function, presumably well-mounted, and riding “short,” on a plump steed. Both the plump animal and the bird-shooting nomad were Chinese artistic clichés – but, as usual with clichés, reflective of reality: note that Ghazan’s troopers wanted “fat horses,” and that shooting at overhead targets was a regular exercise in mounted archery – “qabaq.”³⁷ Note also that this court painting must be accurate in detail, as it would have to have convinced Mongol courtiers and officers who practiced mounted bird-shooting. I have attempted to measure the height of the mount, using the guardsman’s arrow to provide scale, and come up with 57 inches/14.1 “hands” from hoof to withers. This puts the animal on the borderline between pony and horse.³⁸

The third example is a Yuan-period pottery “Horse with Rider.”³⁹ Of build similar to the guardsman’s mount, it appears larger, as its rider’s feet fall higher above the belly-line, and probably depicts a small horse.

The mounts of Qubilai’s guard and the “Horse with Rider” could have been products of cross-breeding Mongolian ponies with larger stock, such as, perhaps, the “western horses” sent from Iran.⁴⁰ Such borderline pony/horses might have weighed between 900 and 1100 lbs.⁴¹ This would have enabled them to carry actively some 153–187 lbs, compared to the pony’s 600 lbs and 102-lb load.⁴² The load could have included armor for the rider – but not for the mount, if much activity were anticipated – and shock weapons as well. Note that Ghazan’s program for fat horses enabled cavalrymen, but not their horses, to wear armor, judging by the illustrations in Rashiduddin’s history,⁴³ although the horses were of a different sort, verging on scrawny rather than pudgy.

The most suggestive evidence for a shift in the Menggu Army from ponies to horses appears in Qubilai’s radical transformation of the Army’s ecology, from pastoral to agricultural. This was unprecedented. The Mongols occupied other conquered territories with nomadic military units, assigning them suitable summer

³⁶ *Three Thousand Years of Chinese Painting* (New Haven: Yale UP, 1997), section on Yuan painting by J. Cahill, p. 148, fig. 136.

³⁷ *Saracen Archery*, pp. 73-77 Taybugha’s instructions; pp. 77-78 (editors’ comments).

³⁸ *Horse*, p. 75.

³⁹ *Imperial China: The Art of the Horse in Chinese History* (Lexington KY: Kentucky Horse Park and Prospect KY: Harmony House, 2000), p. 164, pl. 156. Modeled in the round, the appearance of this horse cannot be attributed to foreshortening, which is an explanation offered by James Cahill, op. cit., p. 147, for the “balloonlike” appearance of Zhao Mengfu’s horses (which also seems to apply to Liu’s).

⁴⁰ As done in modern times, for instance, by crossing the original small (11.2 hands/46 inch) Shetland pony with Appaloosas to produce the “Pony of the Americas” of up to 13.2 hands/54 inches: *Horse*, pp. 75-6 and 78. Owen Lattimore has said that Mongol ponies grow larger when provided with fodder: “Chingis Khan and the Mongol Conquests,” *Scientific American*, 209 (1963).

⁴¹ As do the small modern Hackney Horses that stand 14.2-15.2 hands: *Horse*, p. 83.

⁴² H. Epstein, loc. cit. Load: Engels, loc. cit.

⁴³ D. Talbot Rice and B. Gray, *The Illustrations to the ‘World History’ of Rashid al-Din* (Edinburgh UP, 1976), passim.

and winter pastures, in the Middle East, in the Golden Horde, and in south-eastern Afghanistan-Punjab. The system obtained also in North China-Inner Mongolia, and was described, I believe, by Marco Polo:

[Armies] are stationed in the open country four or five miles from the cities [...] These armies the Great Khan changes every two years, and so likewise the captains who command them [...] these armies live on the immense herds of cattle that are assigned to them and the milk which they send into the towns to sell in return for necessary provisions.⁴⁴

These units migrating biennially between garrisons with pastures in North China and home bases (*a'urugh*) in the steppe, probably account for the 'middle' "tümens" of 5000: two half-sized tümens drawn from a full-sized one. Basing these half-tümens in North China was likely a compromise, in Ögödei's time, of conflicting military and revenue interests. A certain Begder⁴⁵ proposed that North China be (may we say) "pasturized," emptied of farmers and replaced by Mongol armies with their families and pastoral animals.⁴⁶ A large Mongol force, Begder could argue, was needed to conquer the rest of China. Indeed, Möngke was to use 23 Mongol tümens in his Song war, and Qubilai 30 in his.

The "hoofprint" of a Mongol pastoral army was sizeable. One tümen, with its soldiers, their families, and their subsistence animals and cavalry mounts supported by pastoralism, would need 4,340,000 acres (6781 square miles) of grazing.⁴⁷ The carrying capacities of the Chinese provinces in which Qubilai later based units of the Menggu Army were:

Shandong 山東: with 16.5 million cultivated acres (in late pre-modern times: 1930s), could have supported 3.8 pastoral tümens (3 tümens, 8 hazāras)
 Hebei 河北: 18 million; 4.1
 Henan 河南: 16.2 million; 3.7
 Shaanxi 陝西: 7.5 million; 1.7
 Sichuan 四川: 25.6 million; 5.9
 Total 19.2 pastoral tümens⁴⁸

Begder's plan would have created pastures that could have supported much of the force eventually needed.

The proposal was countered by the argument of Yelü Chucai 耶律楚材, Ögödei's Chinese counselor, that agriculture produced greater revenues. He could also have pointed to the importance of protecting the Chinese population not only for the sake of revenues, but for the infantry, artilleryists and engineers that the Mongols had learned were essential for success, and for reduction of Mongol casualties, in high-attrition siege warfare. Yelü Chucai won the argument, and became Ögödei's tax-collector for North China.

When the Begder-Yelü Chucai debate took place, the needs of Mongol garrisons did not require such drastic measures. North China had been devastated by the conquest, and the *Tammachi* Army, the Mongol units led by Muqali, that had been largely responsible for the conquest, probably seemed an adequate

⁴⁴ Marco Polo, *The Travels*, p. 115.

⁴⁵ Not Chinggis' half-brother, whom Chinggis murdered. Not mentioned by Juvaini or RaD.

⁴⁶ Igor de Rachewiltz, "Yeh-lü Ch'u-ts'ai", in A.F. Wright and D. Twitchett (eds.), *Confucian Personalities* (Stanford UP, 1962), p. 201: "complete annihilation of the native population, and [...turning] the entire occupied territory [of North China] into pasture land."

⁴⁷ I.V. Larin, *Pasture Economy and Meadow Cultivation* (Jerusalem, 1962), pp. 470, 539, used an average figure of 534 lbs/acre of hay in evaluating pasture productivity in the Soviet Union. Brome hay, a typical steppe product, has 0.85 Mcal (Mcal = one thousand kilocalories per pound; hay from one acre of brome grass yields 454 Mcal annually. Cf. I.Kh. Ovdienko, *Economic-Geographical Sketch of the Mongolian People's Republic* (Bloomington IN: Mongolian Society Occasional Papers, no. 3, 1965), p. 59. Sheep need 4.16 Mcal/day; 100 sheep (the basic flock for a family's subsistence) need 151,840 Mcal/year, requiring 334 acres of pasture. 100 more acres are needed to graze 8 ponies (5 geldings, a soldier's proper complement, and 3 mares for breeding and *qumis*). Ponies of 600 lbs/ 273 kg at "medium work" need 15.52 Mcal/day; 8 ponies each need 5665 Mcal/yr, an annual total of 45,336 Mcal: see Smith, Jr, "'Ayn Jälüt," p. 336 and n. 90.

⁴⁸ Kang Chao, *Agricultural Production in Communist China, 1949-1965* (Madison WI: Wisconsin UP, 1970), p. 194, table 8.2 (Buck's data from 1929-33); one acre equals 6.07 *mou* (p. 2).

garrison. The *Tammachi* Army may only have consisted of five *tümens*, the “Five Touxia 投下/Aymaqs,”⁴⁹ with only half of these five in garrisons, if the garrison forces rotated every other year. The matter of Song China could be deferred to the future, since Ögödei had other plans.

The problem must have reemerged in Qubilai’s time, following his Song conquest. His large Mongol army had to be positioned to keep, and reinforce, his even larger Chinese armies in garrison in South China. Accordingly, the Mongols were based especially in the provinces of Shaanxi, Henan, and Shandong below the Yellow River,⁵⁰ but above (north of) the Chinese garrisons in the former Song territories further south. Four Mongol *tümens* (rising to six) were based in Shandong and Hebei; four more in Henan and Huaibei 淮北; plus at least one more each in Shaanxi, Chengdu 成都, and Manchuria; another smaller unit was based in Manchuria.⁵¹ Since, as we have seen above, these Mongol units with their ponies or horses, if also joined by their families, sheep, goats, cows, etc., would have so filled up the land as to require Begder’s “pasturization” after all, and on a much larger scale, given some three generations of Chinese population growth, and at consequently much greater cost in revenue, Qubilai decided to “depasturize” the Mongols instead. The best evidence is a government order of 1295 (post-Qubilai) that gives the dimensions of land-grants in Shandong to Mongols returning from the war: five *ch’ing* (75 acres) for a regular soldier and two *ch’ing* for each additional adult male in his family.⁵² Seventy-five acres of pasture would not support a Mongol family with 100 sheep, or equivalents, and eight ponies, which would need over 400 acres for adequate grazing. Other suggestive passages have Mongol soldiers assigned land for farming in Henan and Hebei in 1265, and a 1289 document mentioning cultivation in Shandong by Mongols before they were sent to the Song war;⁵³ both of these show Mongol military farming before, and apparently in preparation for, the war.

Seventy-five acres would not support the Mongol family, their mounts, and their subsistence animals. The 100 sheep or equivalents needed some 334 acres of pasture, and had to be given up – along with nomadism.⁵⁴

Without subsistence animals, the Mongol family had to farm some acres for food, and the rest for fodder: grazing on those acres would not support enough mounts. In the regions south of the Yellow River (Shandong, Henan, Shaanxi and Sichuan) where Mongol units were based, the (late pre-modern) yields of wheat averaged ca. 868 lbs/acre/year each of grain and straw.⁵⁵ Wheat grain has 1.76 Mcal/lb (Mcal = one thousand kilocalories, the kind we count when dieting); wheat straw, 0.66 Mcal/lb. The Mongol soldier and his family (considering them a “reference family” of the composition and requirements used by Dahl and Hjärt)⁵⁶ needed altogether about 5000 Mcal/year, such as could be derived from 2841 lbs of wheat grain, grown on 3.35 acres. After subtracting these 3.35 agricultural acres, the other 71.65 acres, as pasture would have provided only 38,261 lbs of brome hay and 32,522 Mcal a year, grazing for only the barest complement even of ponies. Ponies of 600 lbs/ 273 kg at “medium work” need 15.52 Mcal/day; 5665 Mcal/year. At 534 lbs of brome hay per acre and 0.85 Mcal per pound; hay from one acre of brome grass yields 454 Mcal annually; 75 acres produces 34,050 Mcal. 5 ponies, a soldier’s proper campaigning string, require 28,325 Mcal, and just one more pony would have consumed the allotment’s output, and would not have constituted a viable pony-raising operation. Moreover, in one recorded district, an average of 12 families of Chinese

⁴⁹ RaD, I, pp. 227-28; Hsiao, p. 16.

⁵⁰ The region in which Qubilai’s agrarian *tümens* were based have been described as “semi-steppe” in Hsiao, 54. Arable steppe might be a term more suggestive of its dual-use potential. However, the vegetation map in H. Fullard (ed.), *China in Maps* (London: George Philip, 1968), p. 12, shows the natural vegetation as broad-leaved forest in Shandong and along the Yellow River, and sub-tropical forest in lower Henan and Huaibei.

⁵¹ Hsiao, p. 55.

⁵² Hsiao, p. 21.

⁵³ Hsiao, loc. cit., and note 173 to p. 21 on p. 140.

⁵⁴ *Tammachi* units, however, managed to keep the nomadic system, as observed by Marco Polo, who was there from ca. 1275 until 1292.

⁵⁵ This figure is an averaged derived from data on wheat production in the 1920s and ‘30s in five Chinese locations in Kang Chao, op. cit., p. 125, table 5.3 and p. 214, table 8.9; one catty equals 1.1 lbs (p. 2).

⁵⁶ Gudrun Dahl, *Having Herds: Pastoral Herd Growth and Household Economy* (Stockholm, 1976), pp. 140-141.

slaves worked on Mongol soldiers' grants. Assuming that each of these families also needed some 5000 Mcal a year, another 40-odd acres would have been diverted from pasture to food-production, leaving only about 35 acres of grazing, producing 15,890 Mcal or annual support for only two or three ponies. Pastoralism, on these terms, could not maintain the Army.

But reducing the Menggu Army hoofprint was not the main purpose of "depasturization." Requiring the Army to cultivate its grants made it possible for it to raise horses – at the cost of the traditional subsistence animals and, for the families, loss of experience in the management and movement of animals, the fundamental skills of nomadism. On the 75 acres of a primary grant, the annual yield at 868 lbs/acre, would be about 65,000 lbs each of grain and straw, with the caloric value of the grain 114,400 Mcal; and of the straw 42,900 Mcal. About 65,000 Mcal of the grain-calories would have fed the Mongol and Chinese families; the remaining 49,400 Mcal from grain and the 42,900 straw-calories, total 92,300 Mcal were available to feed animals: the soldiers could raise horses. They could support 16 ponies, or 8 (900–1100-lb⁵⁷) horses – horses that could actively carry armored troopers, *and* that were comfortable (certainly by comparison with ponies) to ride. Qubilai had fulfilled Chinggis' promise to his followers, while completing the development of heavy cavalry.

A similar, smaller effort was made on the limited arable lands of Mongolia, where military-agricultural colonies were established, augmented by grain-supply routes, to provision fortified garrisons on Mongolia's frontiers.⁵⁸ Fodder grown in the colonies, and imported grain fed horses for armored cavalry. Although fortifications and heavy cavalry could play only a defensive role in border warfare, since the cavalry could only operate away from base with a large, slow supply train, they provided a backup line from which light cavalry could sally forth, or behind which it could take shelter, replicating on a strategic scale traditional Mongol tactics: "[W]hen [the Mongols] come in sight of the enemy they attack at once, each one shooting three or four arrows at their adversaries; if they see that they are not going to be able to defeat them, they retire, going back to their own line."⁵⁹ And: "Whoever wishes to fight against the Tartars ought to have the following arms [...] cuirasses of a double thickness [...] a helmet and armour and other things to protect [...] from their weapons and arrows. If there are any men not as well armed as we have described, they ought to do as the Tartars and go behind the others and shoot at the enemy with their bows."⁶⁰ Yuan offensive successes in these border wars were achieved by ordinary Mongol light cavalry employing what Michal Biran calls "nomadic tactics."⁶¹ Walls, armor and horses were a help, but ponies were indispensable in Inner Asia.

The downside of exchanging nomadism for agriculture and horses was the loss by the Menggu Army of its logistical virtue. Agriculture meant that the army could feed horses – but horses meant that it had to keep feeding them. This could be done routinely on the soldiers' 75 acres, but on the road it was another matter. A 'lower' "tümen" with 3000 soldiers and 6000 horses required 90 tons of provisions a day (3 lbs per man; 56 lbs for two 1100-lb horses). Transporting 90 tons required 180 carts each carrying 1000 lbs, 180 oxen to draw the carts, and (at least) 180 carters to manage them; additional provisions for this supply train would add another 2.5 tons, carried by 5 more carts...etc, etc. If only 1/3 of the horse-rations (28.5 tons) were grain, combined with the 4.5 tons for the troops, the total of 33 tons of grain would be equivalent to a day's consumption of a city of 22,000 people; this amount had to be provided, and procured, every day of a journey or campaign. The pace of draft oxen is 2 mph for 5 hours a day, slower than the pace attainable by foot-soldiers.⁶² There could be no more running of circles about enemy armies such as Samuqa had so nimbly performed in 1216–17 over a 50-day campaign with 40,000 men.⁶³ An equivalent fourteenth century

⁵⁷ Horses (1100 lbs/ 500 kg) at "medium work" need 28.69 Mcal/day, 10,472, Mcal/year: see *Horse*, p. 286.

⁵⁸ Biran, p. 90.

⁵⁹ Plano Carpini, p. 36.

⁶⁰ *Ibid.*, p. 46.

⁶¹ Biran, pp. 90-91.

⁶² D.W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley: University of California Press, 1978), p. 15.

⁶³ Martin, pp. 185-91.

Menggu force would have needed a supply train about 14 times the size of the one hypothesized above: 1260 tons of provisions every day – for 50 days – , the daily load on 2520 carts moving 10 miles a day, instead of 16 – and so on.

This problem did not arise for many years. The reconfigured and ecologically-revolutionized Yuan armies held China, defended Mongolia, and even gained control of the lands of the former Ulus Ögödei⁶⁴ But as the fourteenth century wore on, mostly peacefully, both the rulers and their soldiers came to lack military experience, and bureaucratic checks on possible military adventures proliferated. The Mongol cavalry retained its original, simple command system, with Mongol officers at every level. But commanders of Menggu tümens had not only to take care of their unit's needs in its home base, but deal with several administrative bureaucracies in case field operations were necessary: with civilian authorities for provision of supplies and transport, and with Chinese garrison commanders for supporting infantry from the surrounding region. The Chinese units, mostly infantry, had a much more complex system, with Mongol or other Inner Asian (*semu* 色目) officers at the top, and Chinese at lower ranks, complicating the exercise of authority: “the military and civil authorities were separated; they did not help one another.”⁶⁵ Like the Menggu Army (until the Yuan abolished them, probably because the Army was already at home on its 75-acre grants had no need of a “home base”/a *urugh* administration), the Chinese units had *a'urughs*, but with a difference: *a'urugh* administration fell under civilian authority, not military as in the case of Mongol units.⁶⁶ The reason was probably to inhibit rebellion, since the *a'urughs*, among other things managed supplies for the units, which, in the agriculture-based military system, meant that tactically-essential rations and fodder could only be obtained by the commanders with the cooperation of the civilians. These cumbersome arrangements would make trouble because of the dependence of most of the Yuan army, its Menggu cavalry and its the Chinese infantry, on agriculture.

Trouble arose when local rebellions began to plague South China. These could be overcome when the various essential elements of the Yuan administration and military worked together, but such working was problematic. The inauspicious start of the Yuan campaigns of 1351–56 against the “Red Turbans” and other rebel groups was mostly attributable to military inexperience, from the emperor on down, because of the long years of peace in China. A force of Chinese infantry, and cavalry, not of the Menggu Army, but of the Imperial Guard, Asod (Sarmatians/Alans/Ossetes from the Caucasus) who were surely as well armed and mounted as any in Yuan China, was sent against the rebels and failed, allegedly from indiscipline, sickness and inexperience operating in irrigated farmland. A “fanatical mob” of Red Turbans overwhelmed them. Another, larger army (“10,000 nomad tribesmen and Chinese”⁶⁷) lost its commander to a night raid by Red Turbans, and a still-larger force, supposedly 100,000 mostly elite guards, likewise panicked during a night raid and fled headlong, losing their arms and supplies.⁶⁸

Eventually, by dint of extraordinary logistical efforts, complex administrative manipulations, and, finally, competent leadership, most of the rebellions were suppressed. But as the last important rebel band was besieged and on the verge of destruction, the competent leader was fired, and large army he had pulled together broke up in disillusion. It proved impossible thereafter for Yuan generals to repeat his impressive and effective performance, and so military arrangements and capacities became smaller in scale and more local than imperial. As the ineptitude of the Yuan became apparent to the Chinese units of the Yuan army in the South China, they, and private militias formed to protect local communities there from the rebels, began to make deals with the rebels and often to join them. The rebel armies, growing larger, began to move north; the Yuan government panicked and began to withdraw from China, taking with them some Guards and a few tümens of the *Tammachi* Army. The thirteen-odd tümens of the sedentary Menggu Army remained behind – because they could not leave. They were (one might say) saddled with their fodder-dependent horses.

⁶⁴ Liu Yingsheng, “War and Peace between the Yuan Dynasty and the Chaghadaid Khanate (1312–1323),” in Reuven Amitai and Michal Biran (eds.), *Mongols, Turks and Others: Eurasian Nomads and the Sedentary World* (Leiden: Brill, 2005), p. 341.

⁶⁵ Hsiao, p. 61.

⁶⁶ Hsiao, p. 14.

⁶⁷ John W. Dardess, *Conquerors and Confucians* (New York: Columbia UP, 1973), p. 106.

⁶⁸ *Ibid.*

Feeding the horses, never mind the men, when journeying required those prodigious quantities of fodder and large supply trains, which they had neither the time nor the ability to raise, and which, even had they been able to organize them, would not have been able to outmarch the pursuing rebels.⁶⁹ They needed ponies, but no longer had them.

Only the Five Aymaqs that had provided *tammachi* garrisons in China since Chinggis' time, managed to retreat. They had maintained, even under Qubilai and his successors, their "Marco Polo Plan" pastoral acreage and economy, their ponies and other domestic animals it required, and their migratory capability. They retained, despite efforts of the government to abolish them, their *a'urughs* (home bases and administration) which managed their *tammachi* garrisons in China, their camps and pastures in Inner Mongolia, and their travels between them as they traded places – half a *tümen* moving into China, the other half moving out, every other year. These are the 5,000-man 'middle' "tümens," of the 1284 Yuan document on *tümen* strengths.⁷⁰ The Yuan had decreed abolition of the *a'urughs* successfully with the Menggu forces, but mistakenly, since it outsourced logistics to the civilian Chinese bureaucracy; the *Tammachis*, however, by ignoring and evading these orders (their disobedience probably overlooked because they had been founded by Chinggis), had preserved their capacity eventually to retreat to their Mongolian home-bases. The Mongols in the Menggu Army had a long, smooth ride, but in the end it went nowhere.

⁶⁹ Withdrawal of the Menggu Army from south of the Yellow River into Inner Mongolia would have meant a long journey. The relatively direct route from Hebei via Kaifeng 開封, Khanbaligh (the Yuan capital) to Shangdu 上都 ("Xanadu"), Qubilai's favorite summer residence on the edge of Inner Mongolia) is some 570 miles by measurement from the maps in Albert Herrmann, *An Historical Atlas of China* (Chicago: Aldine, 1966) and in *China in Maps* (London: George Philip, 1968). Marco Polo says the journey from Khanbaligh to Shangdu took ten days; Herrmann's map seems to show 275 miles; *China in Maps*, 130 miles. *China's* figure fits better with Marco's ten days, as it would approximate the 15 mpd traveling pace of a pony-mounted force. At 15 mpd, a 570 mile journey would take 38 days. But the Menggu Army was not pony-mounted. Their journey would take about two months at 10 mpd (ox-pace). Supplies for a "tümen" of 3000 (as above) on such a journey would amount to 5130 tons. If carried for the whole distance, this would take around 10,000 carts, etc. If supplies were pre-positioned for collection along the route, as Möngke arranged for Hülegü's army on its way to the Middle East, the supply train could be smaller. In either case, arrangements for the supplies would have to have been made well in advance of the movement: Möngke had ordered Hülegü's supplies in 1253; they were ready for him in 1255, when he arrived in Central Asia.

⁷⁰ Hsiao, p. 171.

Some Remarks on Horses on the Ancient Silk Roads Depicted on Monuments of Art between Gandhara and the Tarim Basin (3rd–8th century)

Ulf JÄGER¹

Within the last few years it has become obvious to the author through his own studies, that the question of a certain “reality” in the depictions of horses in the arts between Gandhara and the Tarim Basin (Xinjiang), c. 3rd century and 8th century AD, has never really been explored.² The author would like to air the subject: Did the horses depicted really exist and of what breed were they? Have there ever been such horses? Or are they all pure fictional horses? In this very special case the author’s intention is not to look at the equipment used in horse riding etc., but only for the zoological, i.e. biological, data and its depiction. Furthermore, is there a relationship between the depiction of horses and the actual horse breeding in life in ancient times along the Silk Roads between Gandhara and the Tarim Basin? Do the pictures of horses really reflect the various qualities of such ancient horses?

Such questions are not easy to answer and should be made a matter of discussion. In fact they occurred to the author many years ago when he read two important articles; one by A. von Gabain,³ the other by W. Eberhard.⁴ In her study A. von Gabain saw a certain conformity in style between images of horses in the art of the Buddhist cave-temples of Bamiyan (Afghanistan) and those on the Buddhist murals of the Tocharian state of Kucha on the northern route of the Silk Roads in the Tarim Basin. In both places horses were drawn with excessively fine legs, narrow bodies and heavily curved necks between the late 5th and early 7th centuries AD. A. von Gabain saw similarities with depictions of horses in early Tang paintings at Dunhuang (Gansu, PR China); and what she tried to introduce to the scholarly mind was whether or not the Kushans of Bamiyan were ethnic relatives of the Tocharians of Kucha. Not only did she try to prove this by horse-depictions but also by highlighting other cultural and linguistic similarities.

In contrast W. Eberhard proved the Chinese historical sources for many aspects of the cultural life of peoples along the Silk Roads. Among the information gathered from the Chinese sources is some which also included the role of the horse in these societies. Some other questions, but from a different aspect, i.e. arms and armour, which come to mind I have tried to work on in my archaeological dissertation.⁵

But other examples of horse depictions should be added when considering the economic quality of horses in the area and the span quoted above. Among the questions asked here are:

Was there a certain reality behind these depictions and which kind of importance did it have for the people? Can we be sure that certain ‘types’ of horses depicted in one location and in one time, but which are also depicted in the same time span but in another location show connections between peoples who bred them along the Silk Roads?

¹ Gronau-Epe / Westfalen.

² Ulf Jäger, *Reiter, Reiterkrieger und Reiternomaden zwischen Rheinland und Korea: Zur spätantiken Reitkultur zwischen Ost und West, 4.-8. Jh. n. Chr. Ein Beitrag zur Synthese von Alter Geschichte und Archäologie*, Beiträge zur Ur- und Frühgeschichte Mitteleuropas 45, (Langenweissbach, 2006).

³ Annemarie von Gabain, “Von Kuca (Kusan) nach Bamiyan, eine kulturhistorische Studie”, *Eucharisterion: Essays presented to Omeljan Pritsak on his 60th birthday by colleagues and students, Harvard Ukrainian Studies* 3-4 (1979–1980), pp. 258-270.

⁴ Wolfram Eberhard, “Die Kultur der alten zentral- und westasiatischen Völker nach chinesischen Quellen”; *Zeitschrift für Ethnologie* 73 (1941), pp. 215-275.

⁵ Jäger, *Reiter, Reiterkrieger und Reiternomaden zwischen Rheinland und Korea*.

Before some examples of art monuments can be discussed, it is important to state that such observations can only be made from material where horses are depicted in a most realistic way. Examples of art where the horses are too stylized cannot and will not concern us here. The period under discussion is Hellenism after Alexander the Great, which introduced great naturalism into the arts in Central Asia.

First of all we must ask the following question: Which kind of horses could perhaps be found in that part of Central Asia between the 2nd/3rd century AD and the 8th century AD? Before doing so, we have to look back a little deeper into prehistory: Until now we have accepted that in ancient times, and right up to the Middle Ages, large numbers of the ‘Ur-Pferd’,⁶ the ancestor of all known kinds of horses, the Przewalski horse, existed throughout the steppes of Eurasia (pl. 15).⁷ This wild horse of Asia, first discovered by the Russian explorer Mikhail Przevalskij in 1879 in Mongolia, has a large, long and ram-nosed head. Its short neck sits on steep shoulders; the mane stands upright. The body is compact and the withers are flat like the back. The back moves to the cruppers in a certain kind of cut-off. The short but robust legs end in relatively small but extremely hard hooves. The height of the Przewalski horse is ca. 1.30m. One can find a horse of these special qualities depicted very early in the 4th c. BC on a golden Scythian vase from Chertomlyk on the river Dnepr; the vase found its way to the Hermitage Collection in St. Petersburg. (pl. 16). The horses shown on the Chertomlyk vase are depicted in the very realistic Greek-Hellenistic style of the 4th c. BC. It should be mentioned that we can be sure that the Chertomlyk vase horses are of the Przewalski type because the Hellenistic artist styled them after their natural prototype. So there can be no doubt that the depiction on the Chertomlyk vase is the Przewalski horse.

Looking at the horses of Mongolia today, which are still ridden by Mongolian herdsmen, one realizes that these horses are not the same as the wild Przewalski horse. Other breeds of horses, maybe those of older Turkish origin, have changed the Mongolian horse.⁸ Very early in prehistory man had started to interbreed different kinds of horses for his own use – the biological bases was brought forward and first studied intensively by Charles Robert Darwin.⁹ Mankind had already been breeding horses for at least four millennia by the 2nd/3rd c. AD.¹⁰

The question to be answered in our context is what were the real needs for special horses along the Silk Roads and what were their special purposes? Without going into detail, one can detect two larger groups among horse-riders on the ancient Silk Roads between the 2nd/3rd c. and the 8th c. AD:

- a) Nomadic people
- b) Sedentary people

Nomads need their horses for mobility while herding their large flocks of sheep, goats, camels and horses. They have to go with them and change their flocks’ pastures sometimes more than twice a year. Their transportable felt tents, yurts, were carried by Bactrian camels (*camelus bactrianus*). Nomads also need horses for hunting and for war. Being on horseback while in war they also try to enlarge their own herds of horses by conquering those of other tribes; large herds are a symbol of their wealth.

Among the group of people living in sedentary cultures there are more reasons for horse-riding. Among them are traders who need their horses for shorter or longer trade-travelling; there are wandering craftsmen and artists; hunters; diplomats on tour through the area they control or have to control and warriors on horseback. Besides that we find religious pilgrims on pious travels to sanctuaries and holy places. In our

⁶ Franz Hancar, “Das Pferd in prähistorischer und früher historischer Zeit”, *Wiener Beiträge zur Kulturgeschichte und Linguistik* 11 (1956).

⁷ Sandor Bökönyi, *The Przevalsky Horse* (London, 1974).

⁸ Veronika Veit, “Das Pferd – Freund und Gefährte der Mongolen”, in Walter Heissig und Claudius C. Müller (Eds.), *Die Mongolen: Ausstellungskatalog München und Hildesheim 1989* (Innsbruck, 1989).

⁹ Charles Robert Darwin, *The origin of species by means of natural selection or the preservation of favoured races in the struggle for life* (London, 1859).

¹⁰ David W. Anthony, *The social and economic implication of the horse*, 2 parts (London, 1985, 1986); David W. Anthony, “The ‘Kurgan-Culture’: Indo-European origins and the domestication of the horse, a reconsideration”, *Current Anthropology* 27 (1986), pp. 291-313; David W. Anthony, D.Y. Telegin and D.R. Brown, “Die Anfänge des Reitens”, *Spektrum der Wissenschaft* 2 (1992), pp. 88-94; Marsha Levine, Colin Renfrew and Katie Boyle (eds.), *Prehistoric steppe adaptation and the horse* (Oxford, 2003).

context we will consider both groups of horse-riders. Both groups need different horses, but have one compulsory factor in common: they need horses of great endurance which are able to cope with thirst, hunger and the harsh climatic changes, yet also carry their owner and his heavy baggage. The question now is: Are there depictions of such horses in the arts between Bactria/Gandhara and the Tarim Basin which give us some indication of their use and qualities? But there is one more problem: bones of horses discovered from the area and the period of time in view of this article are not regularly examined by zoologists. Regarding material found during archaeological excavations, examinations like that have started only a few years ago in Germany and Western Europe; they are of great importance for our geographical sphere.¹¹

To start with the narrative Buddhist art of Gandhara, where we only find a limited number of horses depicted because of the stories told to the pious believer of antiquity, one finds a marvellous relief of 'Buddha riding out from his palace to visit the city' on his horse Kanthaka,¹² now stored in the Fitzwilliam Museum, Cambridge (No.O.4-1917) England. The relief is attributed to the 2nd/3rd century AD.¹³ D. Ahrens, working on Gandhara art, dates it AD 435.¹⁴ Whatever might be the right date for this Gandhara relief, we see the later Buddha, Prince Siddhartha, on Kanthaka in a frontal pose. With his strong legs, wide breast and the relatively small head, he gives us the impression of being of the robust type of horses ridden in Gandhara by the Kushans. It is obvious the horse could be of that small and robust sort which came to the area of Gandhara between modern Pakistan and Afghanistan, from where maybe the ancient relatives of the Kushans originally came, i.e. north-western China. Maybe these horses were still very close to the Przewalski-type.

Back to the early time of the 1st/2nd century AD, the late pre-Kushan time,¹⁵ we see the wonderful golden clasp from Saksanokhur in Tajikistan with its nomadic rider, out boar-hunting with a lance (pl. 17).¹⁶ Only looking for the horse type, we find the upstanding mane, the strong legs and hooves, as well as the ram- or turnip-headed form of its head. This again brings us close to a breed still physically very near to the Przewalski horse of Central Asia. The observation that the Przewalski horse must have played a major role until the 1st to the 3rd/4th c. AD can also be seen at the so-called Yotkan ceramics, i.e. the little terracotta horse of this manufacture. Yotkan are the fine ceramics of Khotan on the south-western corner of the Silk Road in the Tarim Basin.¹⁷ All small terracotta from Khotan, i.e. the Yotkan horses, show the upstanding

¹¹ Manfred Rech (ed.), "Pferdeopfer, Reiterkrieger: Fahren und Reiten durch die Jahrtausende, Begleitpublikation zur gleichnamigen Ausstellung im Focke-Museum/Bremer Landesmuseum vom 5. 12. 2006 bis 25. 3. 2007)", *Bremer Archäologische Blätter, Beiheft 4* (Bremen, 2006).

¹² Hans-Joachim Klimkeit, "Das Pferd Kanthaka: Symbol buddhistischer Erzähl- und Kunstelemente im zentralasiatischen Manichäismus"; Jürgen Ozols and Volker Thewalt (eds.), *Aus dem Osten des Alexanderreiches: Völker und Kulturen zwischen Orient und Okzident Iran, Afghanistan, Pakistan, Indien, Festschrift zum 65. Geburtstag von Klaus Fischer* (Köln, 1984), pp. 91-97; Klaus Fischer, "Zu erzählenden Gandhara-Reliefs: Mit einem Exkurs über den Hengst Kanthaka"; *Beiträge für Allgemeine und Vergleichende Archäologie des Deutschen Archäologischen Instituts* 2 (1980), Exkurs = pp. 277-294.

¹³ H. Ingholt and I. Lyons, *Gandhara Art from Pakistan* (New York, 1957), figs. 71, 196 and 200; A comparable Gandhara relief: Katsumi Tanabe, "Neither Mara nor Indra but Vaishravana on Scenes of the Great Departure of Prince Siddhartha: The Origins of the Tobatsubishamonten Image", *Silk Road Art and Archaeology* 3 (1993-1994), pp. 157-185, see p. 183, figs. 8 and 9.

¹⁴ Dieter Ahrens, "Die Chronologie der Gandharakunst", *Pantheon* 19 (1961), pp. 114-118, see p. 118, fig. 7; Generally: Dieter Ahrens, "Die römischen Grundlagen der Gandharakunst", *Orbis Antiquus* 20 (1961).

¹⁵ Robert Göbl, "Münzprägung des Kusanreiches". Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Veröffentlichung der Numismatischen Kommission, Sonderband, (Wien, 1984); Robert Göbl, "Donum Burns. Die Kusanmünzen im Münzkabinett Bern und die Chronologie", (Wien, 1993); Robert Göbl, "The Rabatak Inscription and the date of Kanishka", in Michael Alram and Deborah E. Klimburg-Salter (eds.), *Coins, Art, and Chronology: Essays on the pre-Islamic History of the Indo-Iranian Borderlands*, Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Denkschriften 280, Beiträge zur Kultur- und Geistesgeschichte Asiens Nr. 31, Veröffentlichungen der Numismatischen Kommission Band 33, (Wien, 1999), pp. 151-175.

¹⁶ Judith Rickenbach, *Oxus. 2000 Jahre Kunst am Oxus-Fluss in Mittelasien: Neue Funde aus der Sowjetrepublik Tadschikistan, Eine Ausstellung in Zusammenarbeit mit der Akademie der Wissenschaften von Tadschikistan/UdSSR und der Ermitage in Leningrad* (Zürich, 1989), pp. 52-53, no. 25, fig. 25.

¹⁷ Gerd Gropp, *Archäologische Funde aus Khotan, Chinesisch-Ostturkestan: Die Trinkler-Sammlung im Übersee-Museum Bremen, Wissenschaftliche Ergebnisse der Deutschen Zentralasien-Expedition 1927/28, Teil 3*, Monographien der Wittheit zu Bremen 11 (Bremen, 1974), pp. 304 and 328-330: f. 2. 80.-83.

mane and the rams-head of the Przewalski horses, here shown in six examples from the Pietrovsky collection in the Hermitage, St. Petersburg, Russia (pl. 18).¹⁸ Slightly different, but still with the upstanding mane, we find two depictions of horses (and their riders) on two wooden panels from Dandan-Oilik oasis in Khotan (panel D. X. 5 and panel D. VII. 5),¹⁹ both are now at the British Museum, London. They belong to a time between the 5th/6th century AD (pl. 19). The very difference we can recognize for the first time is that both depicted horses are piebalds. Such a skin colour the Przewalski horses never have – they are always of a yellowish skin colour! This may be an influence of early Turkish breeding,²⁰ which might have changed the Khotan horses at the latest in the 4th to 6th centuries AD by horse imports. Such changes in colour only happen when horse breeders again and again select animals out for breeding new skin colours. At Khotan we have to reckon with the fact that the Hephtalites were responsible for these new horse breeds.²¹ Here we will not go into whether or not the Hephtalites were of Turkish or Iranian origin.²² Before we continue to see if and when horse breeds in pre-Islamic Central Asia changed, one should add that there was also another wild horse living on the steppes from Eastern Europe to Central Asia called Tarpan (*equus ferus gmelini*). This wild horse had died out by the beginning of the 19th century.

It has been a question among zoologists until today, if the Tarpan was a completely separate wild horse or if it was only a variant type of the Przewalski horse. The skin colour of its body was mouse-dun or darkish grey; the legs as well as the face were darker grey. Whereas the Przewalski horse was unwilling to be mounted, the Tarpan was more accommodating. This could be an indication that the Tarpan, looking so close to the Przewalski horse, is an early breed of the Przewalski horse! All Tarpans living in modern zoos today are descendants of those Tarpans which were completely re-bred in the early 1930s in the zoo Hellabrunn (Munich). It is difficult to decide whether we should speak of two wild horses on the Eurasian steppes or of one original stock; i.e. the Przewalski horse. It was M. Hermanns who tried to distinguish certain types of wild horses to explain the types of horses bred in Tibet, but from the point of view held today in modern scholarship one at least has to be careful about his results.²³ When looking for the horses of the Huns who had arrived in Eastern Europe by 375 AD, we see that their horses must have been very close to the Przewalski horse again, as O. Maenchen-Helfen analysed from late Roman sources.²⁴ In fact the German sculptor Erich Hösel (1869–1953) made his ‘Hun bending down from his horse’ in bronze of 1900 (pl. 20) following these late Roman sources.

The osteological material of the Hunic horses has been so badly examined that it did not even play any role in the great and admirable study on the Hunic material by Bodo Anke a few years ago.²⁵

While continuing the history of horse-breeding in Central Asia during the period in question, we have to remember also the so-called ‘blood-sweating horses’ of Ferghana in eastern Sogdiana, which brought the

¹⁸ Natalya W. Dyakonova and S. S. Sorokin, *Chotanskije Drevnosti: Katalog Terakota I Shtuk* (Leningrad, 1960), pl. 34, nos. 1466, 1467, 1469, 1489, 1488 and 1468.

¹⁹ Marc Aurel Stein, *Ancient Khotan*, 2 vols. (Oxford 1907), vol. 2, pl. LXII and pl. LIX. Markus Mode, “Sogdian Gods in Exile—Some iconographic evidence from Khotan in the light of recently excavated material from Sogdiana”, *Silk Road Art and Archaeology* 2 (1991–1992), pp. 179–214, p. 211, a and c.

²⁰ Emel Esin, “The Horse in Turkic Art”, *Central Asiatic Journal* 10.3–4 (1965), pp. 167–227, see pp. 201–218: “The Horse Species in Turkic Art”.

²¹ Gerd Gropp, *Archäologische Funde aus Khotan, Chinesisch-Ostturkestan*, pp. 34–35.

²² Albert Hermann, “Die Hephtaliten und ihre Beziehungen zu China”, *Asia Major* 2 (1925), pp. 564–580; Roman Ghirshman, *Les Chionites-Hephtalites*, *Memoires de la Delegation Archeologique Francaise en Afghanistan* 13 (Cairo, 1948); Robert Göbl, *Dokumente zur Geschichte der iranischen Hunnen in Baktrien und Indien*, 4 vols. (Wiesbaden, 1969); D. W. Mac Dowall and Maurizio Taddei, “The Hephtalites”, in F.R. Allchin, N. Hammond, *The Archaeology of Afghanistan from earliest times to the Timurids* (London, New York, San Francisco, 1978), p. 234; Jangar Ya. Il’yasov, “The Hephtalite Terracotta”, *Silk Road Art and Archaeology* 7 (2001), pp. 187–200, see p. 187.

²³ Matthias Hermanns, *Die Nomaden von Tibet. Die sozial-wirtschaftlichen Grundlagen der Hirtenkulturen in A Mdo und von Innerasien, Ursprung und Entwicklung der Viehzucht* (Wien, 1949), pp. 161–169.

²⁴ Otto J. Maenchen-Helfen, *Die Welt der Hunnen: Eine Analyse ihrer historischen Dimension* (Wien, Köln, Graz, 1978), pp. 156–159.

²⁵ Bodo Anke, *Studien zur reiternomadischen Kultur des 4. bis 5. Jahrhunderts*, *Beiträge zur Ur- und Frühgeschichtliche Mitteleuropas* 8, 2 vols. (Langenweissbach 1998).

Han-emperor Wu Di 武帝 (140–87 BC) to the very point of sending out his envoy Zhang Qian 張騫 in 138 BC to forge an alliance against the Xiongnu 匈奴 with the Yuezhi 月氏, a tour which took him 12 years and a journey of more than 3000 kilometres up to modern Afghanistan.²⁶ These horses were called ‘blood-sweating’ because, as we know today, a parasite (*parafilaria multipupillosa*) infests the horse during its lifetime. A small amount of the horse’s blood mixes with the sweat to form a foam of pinkish colour. In all likelihood the well known bronze-horse of Wuwei 武威 in the province of Gansu, PR China²⁷ (pl. 21) of the eastern Han Dynasty; 2nd c. AD, meant exactly such a ‘blood sweating’ horse of the Yuezhi nomads who had conquered Bactria. If one looks for the race of this horse of Wuwei, which found such an extraordinary interest in China and abroad, one has to establish that horse-breeding always was of paramount importance for the Chinese so that they were able to defend themselves against nomadic invaders from the north. But, as a matter of fact, the Chinese never really became familiar with horses. They always used foreign, mainly nomadic grooms to breed horses, as we can see when taking a closer look at for example the famous Tang horses, which are often shown together with their non-Chinese grooms.²⁸ Regarding their own horse-breeding, the Chinese horses were again not too far away from the Przewalski type.

In contrast to all horses mentioned up to now and for the question of how horses were later on bred in Central Asia before Islam, we have to look to the western part of this vast geographical area. After Alexander the Great had conquered the Persian Achaemenian Empire (334 BC), he also used large numbers of horses in his army. But the Greeks’ horses weren’t much larger than the Przewalski horses.²⁹ Even Alexander’s Thessaly horse Bucephalus (the ‘bull-headed’) cannot have been much larger. We see him riding on Bucephalus on the well known mosaic from Pompeii during the battle of Issos in 333 BC against Darius III (pl. 22),³⁰ now in the National Museum of Naples, Italy.

We can be sure that Alexander’s horse specialists were always looking for fresh horses on their march to the East. Again and in all likelihood the Greeks and Macedonians could not rely on a supply of fresh horses from their homeland, so in addition they must have used breeds of horses they found all over Iran. At the present time we have no clear picture of the Achaemenian horses which were used not only for war-chariots but also for riding. We know that Darius III allowed himself to be depicted as a keen rider (Herodotus III, 8, 3) and came to power with the help of his groom, Oibares. The problem has been discussed widely by Dieter Metzler.³¹ With the Parthians and later during the time of the Sasanians, the Iranian kings are depicted on their marvellous horses on their rock reliefs. In contrast to all images of horses shown up until then, these horses are obviously thoroughbreds; they all have long and strong legs, and expressively formed cruppers. It is an open question if the Sasanians bred these magnificent horses themselves or with the help of neighbouring nomads from the North and from the East of their territories. To breed such larger war-horses must have required quite a long period of experience (pl. 23).³² As could be seen on the rock-relief of Naqsh-e Rostam in Iran,³³ which illustrates the investiture of Ardashir I in 224 AD by Ohrmazd, these horses were of a compact and heavy structure. So at the latest during the beginning of the 3rd century AD, such horses

²⁶ Bill Cooke, “The Horse in Chinese History”, in Bill Cooke (ed.), *Imperial China: The Art of the Horse in Chinese History, Catalogue of the Exhibition at the Kentucky Horse Park Museum* (Lexington (Kentucky), 2000), p. 27-62, see pp. 41-44.

²⁷ William Watson (ed.), *The Genius of China: An Exhibition of archaeological finds of the People’s Republic of China held at the Royal Academy* (London 1973), p. 119-120, no. 222.

²⁸ Jane Gaston Mahler, *The Westerners among the figurines of the T’ang-Dynasty in China*, Istituto per il Medio ed Estremo Oriente, Serie Orientale 20 (Rome 1959); P. Eichenbaum-Karetzky, “Foreigners in T’ang and pre T’ang Painting”, *Oriental Art*, New Series 30.2 (1984), pp. 160-166; J. Hildebrandt, *Das Ausländerbild in der Kunst Chinas als Spiegel kultureller Beziehungen (Han bis Tang)*, Münchner Ostasiatische Studien 46 (Wiesbaden, Stuttgart, 1987); Ezekiel Schloss, *Foreigners in Ancient Chinese Art* (New York 1969); Ezekiel Schloss, *Ancient Chinese Ceramic Sculpture from Han to Tang*, 2 vols. (Stanford, 1977).

²⁹ Victor Davies Hanson, *Der Krieg in der griechischen Antike* (Leipzig 2001), pp. 158-160.

³⁰ Klaus Stähler, *Das Alexandermosaik: Über Machterreichung und Machtverlust* (Frankfurt/Main 1999).

³¹ Dieter Metzler, *Ziele und Formen königlicher Innenpolitik im vorislamischen Iran*, (Unpublished ‘Habilitationsschrift’, Münster, 1977), pp. 148-154.

³² Roman Ghirshman, *Iran: Parther und Sasaniden* (Munich, 1962), pp. 127-132, 152, fig. 195, p. 161, fig. 205, pp. 167-168, p. 179, fig. 220, p. 192, fig. 235, p. 207, fig. 247, p. 208, fig. 250, p. 212, fig. 254, p. 220, fig. 262, p. 242, fig. 295, p. 249, fig. 314, p. 263, fig. 339.

³³ Ghirshman, *Iran: Parther und Sasaniden*, p. 132, fig. 168 (here fig. 12).

must have been the standard for the Sasanians' war-horse. It is difficult to come to any conclusion about what the Parthian horses looked like in the four centuries before the Sasanians came to power. Maybe a relief, now in the Cleveland Museum of Art, Ohio, originally from Dura Europos in Syria, of ca. 100–150 AD gives us a little help at hand (pl. 24). But once again we see that this horse too is of a heavier structure.³⁴ Searching for realistic depictions of horses in the Iranian world before the Sasanians is, as we have tried to show, extremely difficult. We can only assume that horse-breeding in the Iranian world between Alexander the Great and the end of the Parthian era increased widely, so that such heavy horses like the 'Sasanian ones' could be raised. To raise horses different from the Przewalski type became necessary because of a change in the tactical use of horses for war in general. The Parthians, who constantly maintained contacts in the world of the Central Asian steppes throughout their reign,³⁵ were responsible for this new breed. Since the late Hellenistic times of the Parthians, horses were needed for the heavy Cataphractarian riders; such a use would have been impossible with small horses of the Tarpan or Przewalski types.³⁶ Besides these heavy types of horses another much lighter one was bred, i.e. that for the warrior on horseback who only used the reflex-bow,³⁷ but which was also used for hunting.

On the other hand we learn from the fantastic depiction of riding warriors from the bone-clasp or 'Battle plaque' from Orlat, Kurgan Tepe near Samarkand in Uzbekistan of the 3rd to the first quarter of the 4th century AD (pl. 25), that another type of war-horse was also in use during the earliest phase of the Middle Ages in pre Islamic Central Asia.³⁸ As far as we know, the date of the plates from Orlat is most likely the 3rd/4th c. AD, even if others have dated them slightly earlier.³⁹ As stated above, M. Mode argues for a date in the 3rd/4th century AD for the Orlat plates, i.e. for a date within the phase of the 'Hunnic wave', as did his scholarly teacher B. Brentjes in 1990⁴⁰ with good arguments because of the history of arms and armour depicted from the battle-plaque of Orlat. If one more or less accepts that the Orlat plates should be dated to the 3rd/4th century, it is once more interesting to wonder in which "older Scythian" style the horses are pictured.

On the one hand the cruppers of the Orlat horses are depicted like those on the well known carpet from Kurgan no. 5 of Pazyryk of the 4th century BC, showing a rider on horseback in front of a seated female person or deity.⁴¹ But if one looks at the neck and head of the Orlat horses one is reminded of the fine horses on a Buddhist painting in the "Malerhöhle" at Kyzil, Northern Silk Road in the Tarim Basin, once dated by the excavator A. von LeCoq to the 6th/7th century AD.⁴² (pl. 26) One might be confused by such comparisons which are hundreds of years apart from each other. But one could answer that we find here insightful traces for the development of horse-breeding among nomads and their sedentary neighbours of Central Asia in a time-span between the 4th century BC and the 6th/7th centuries AD! Maybe this also throws some light on the trade with horses and the individual breeding of horses at different places along the Silk Roads. We will come back to this elementary question later on.

³⁴ Malcolm A.R. Colledge, *Parthian Art* (London 1977), plate 22.

³⁵ Marek Jan Olbrycht, *Parthia et ulteriores gentes. Die politischen Beziehungen zwischen dem arsakidischen Iran und den Nomaden der eurasischen Steppen* (Munich, 1998).

³⁶ Jäger, *Reiter, Reiterkrieger und Reiternomaden zwischen Rheinland und Korea*, pp. 89-101.

³⁷ Jäger, *Reiter, Reiterkrieger und Reiternomaden zwischen Rheinland und Korea*, pp. 15-21.

³⁸ Markus Mode, "Heroic fights and dying horses: The Orlat battle plaque and the roots of Sogdian art", in M. Compareti, P. Raffetta and G. Scarcia (eds.) *Eran ud Aneran. Studies Presented to Boris I. Marshak in Occasion of His 70th Birthday* (Venice, 2006), pp. 419-454.

³⁹ Boris I. Marshak, "Iskusstvo Sogda", B. B. Piotrovskiy, G. M. Bongard-Levin (eds.), *Central'naya Aziya: Novye pamyatniki pis'mennosti i iskusstva. Sbornik statey* (Moscow, 1987), pp. 233-248; Mikhail V. Gorelik, "Zashchitnoe vooruzhenie stepnoy zoni Evrazii i primikayushchikh k ney territoriy v I tis". In V. E. Medvedev, Yu. S. Khudyakov (eds.), *Voennoe delo naseleniya yuga Sibiri I Dal'nego Vostoka* (Novosibirsk, 1993), pp. 149-179; Jangar Ya. Ilyasov, Dimitry V. Rusanov, "A study on the bone plates from Orlat", *Silk Road Art and Archaeology* 5 (1997-1998), pp. 107-159; Boris A. Litvinsky, "The Bactrian ivory plate with a hunting scene from the Temple of the Oxus", *Silk Road Art and Archaeology* 7 (2001), pp. 137-166.

⁴⁰ Burchard Brentjes, "Zu den Reiterbildern von Kurgan-Tepe", *Iranica Antiqua* 25 (1990), pp. 173-182.

⁴¹ Karl Jettmar, *Die frühen Steppenvölker, Der eurasiatische Tierstil, Entstehung und sozialer Hintergrund* (Baden-Baden, 1965), pp. 115, 117.

⁴² Albert von LeCoq, *Bilderatlas zur Kunst und Kulturgeschichte Mittel-Asiens* (rpt. Graz 1977), p. 54, fig. 50.

That a more or less radical change in breeding horses had taken place at latest during the early middle ages of Central Asia, between the 5th-7th century AD, can also be detected when having a closer look at the fine rock carvings of two horses at Thalpan Bridge on the upper Indus of Northern Pakistan⁴³ (pl. 27). These horses can very well be compared with images of horses from the wall paintings of Sogdiana of the 6th/7th century AD, for example from Panjikent.⁴⁴ At Panjikent we find horses which for sure can be called thoroughbreds. The Thalpan Bridge horses obviously show the same thoroughbreds, but looking at their heads we can detect that they are still a little ram-nosed like on earlier depictions which showed us horses nearer to the Przewalski type. When examining the horses of the Buddhist wall painting at Kyzil from the “Malerhöhle” (pl. 26) and comparing these horses with two terracotta horse statuettes from Shurtshuk (pl. 28) on the northern Silk Road, found by M. A. Stein⁴⁵ (dated at the latest to the 8th century AD), we see that well established thoroughbreds are meant. But again a slight influence of the Przewalski horse remains, i.e. the upright mane. However, on the well known wall painting from the Uighur city of Qocho, now in the Turfan-Collection of the Museum of Asiatic Art of Berlin (the 8th/9th century AD), depicting the departure of Siddhartha on his horse Kanthaka (pl. 29), we note that the horse has lost the upright mane.⁴⁶

Horse-breeding in China reached its peak during the Tang dynasty (618–906 AD). As mentioned above it was always in the hands of foreigners from the western part of Central Asia. One of the finest ceramic horses in the *sancai* 三彩 technique of the Tang dynasty (dating 723 AD, pl. 30)⁴⁷ shows the full development to thoroughbreds in China under Central Asian influence. It must be stated again that this kind of fine horse-breeding was only possible with the help of Central Asian foreigners; either of nomadic or of sedentary heritage and stock. Riding on such marvellous horses for hunting, playing Polo, going to war was a privilege only for the early medieval aristocracy of China. As far as we know, the development or breeding of the Tang horse was accomplished without any input from horses of Arabian descent.⁴⁸

SUMMARY

Horse-breeding started with the Przewalski horse, the wild horse of Eurasia. According to all technical literature on horse-breeding, the Przewalski horse was never tamed and consequently never ridden. Maybe the Tarpan, still existent in Eastern Europe until the very early 19th century, with physical outlook very close to the Przewalski horse, was the earliest breed of horse and the one from which all further horse-breeding started. Some Tarpans did not have an upright mane, but one which hung down to its neck. Incidentally, this was also the case with the horses belonging to the Huns which arrived in Eastern Europe in the late 4th century AD according to Flavius Vegetius Renatus.⁴⁹ The nomads of Central Asia bred horses for their very special purposes – fit for riding while herding their flocks, for hunting and of course for warfare. Very often forgotten, nomads also played an important role in the trade along the Silk Roads in pre-Islamic and Islamic times.⁵⁰ The horses had to be persistent runners and must have had the ability to cope with all climatic changes and hardships of heat and extreme cold, as well as being able to endure long rides.

Our 17 illustrations and those quoted in the footnotes could only illustrate the likely development of horse-breeding between Bactria/Gandhara and the Tarim Basin between the 2nd/3rd century and the 8th/9th century AD. No complete picture has been shown here! There is a certain tendency in the history of horse-breeding to go for larger horses, not only for aesthetic reasons, but also because heavier animals could, for

⁴³ Volker Thewalt, “Pferdedarstellungen in Felszeichnungen am oberen Indus”, in J. Ozols and V. Thewalt (eds.), *Aus dem Osten des Alexanderreiches*, pp. 204-218, see p. 210, fig.7 and p. 211, fig. 8.

⁴⁴ Alexandr Belenitzkij, *Mittelasien: Kunst der Sogden* (Leipzig, 1980), pp. 64, 67.

⁴⁵ Marc Aurel Stein, *Serindia*, 5 vols, (Oxford 1921), IV, plate CXXXVI.

⁴⁶ Benjamin Rowland jr, *Zentralasien* (Baden-Baden, 1970), p. 194 (Tang-sculptural ceramic comparison on p. 195, fig. 74).

⁴⁷ Helmut Brinker and Roger Goepfer (eds.), *Kunstschatze aus China. 5000 v.Chr bis 900 n.Chr. Neuere Funde aus der Volksrepublik China* (Zürich, 1980), p. 311, no. 80, p. 312, fig. 80.

⁴⁸ Alexis von Wrangel, *Der Araber in Arabien: Die edelste Pferderasse der Welt* (Heidenheim, 1966).

⁴⁹ Flavius Vegetius Renatus, *Digestorum artis mulomedicinae libri quatuor*, H. P. Lommatsch (ed.) (Leipzig 1903).

⁵⁰ Hans-Wilhelm Haussig, *Die Geschichte Zentralasiens und der Seidenstrasse in vorislamischer Zeit*, (Darmstadt, 1992, 2nd ed.); Marek Jan Olbrycht, “Der Fernhandel in Ostarmatien und in den benachbarten Gebieten”, *Laverna* 12 (2001), pp. 86-122.

example, carry warriors with heavy armour. Also in time different colours, like completely white or black ones etc. came to be bred. This is reflected by the names of horses in Central Asia too.⁵¹

Besides the transport-animal of the Silk Road ‘par excellence’, the two-humped Bactrian camel⁵² (*camelus bactrianus*), in German unfriendly enough to be called ‘Trampeltier’, the horse played the most important role for the whole development of cultural interrelations in nearly all aspects of life.

Without horses men and ideas, as well as technologies and political changes, be it in peace or through war, would never have been possible on the Silk Roads between Gandhara and China. Horses have played a major role throughout history and were always the important vehicle, not only for the transportation of men, but also for his ideas and his ideals, as well as for religions, like Buddhism. With good reason we call the Silk Roads by this very name, but we could equally well call them the ‘Horse Roads’. It is a pity that we do not have much more precise information about prices for horses in the different trading-places along the Silk Roads; the sources are silent about it. The Chinese sources between the Han and Tang dynasties again and again speak of fine horses bred by nomadic and sedentary peoples in Central Asia⁵³ and obviously some of these people tried to keep to themselves their knowledge about horse-breeding. Thus we hear that the Hephtalites bred a god-like horse in a cave which fertilized their mares.⁵⁴ With this background it is no wonder that the Chinese were always looking for grooms from such peoples who managed to furnish them with the finest horses. Much more archaeological research and many more investigations on an international scale are needed to be able to map out the full picture of horse-breeding all over Eurasia, but especially in the vast regions of Central Asia. These few lines are meant as a careful attempt for future discussions and cooperation.

⁵¹ Nikolaus Poppe, “Pferdenamen in der Geschichte und Sage der Nomaden Zentralasiens”, *Oriens Extremus* 9 (1962), pp. 97-104.

⁵² Elfriede Regina Knauer, “The camel’s load in life and death: Iconography and Ideology of Chinese Pottery Figurines from Han to Tang and their relevance to trade along the Silk Routes”, *Acanthus Crescens* 4 (Zürich, 1998).

⁵³ Wolfram Eberhard, “Die Kultur der alten zentral- und westasiatischen Völker nach chinesischen Quellen”, *Zeitschrift für Ethnologie* 73 (1941), pp. 215-275, see: Teil 4 “Spezialfragen §1: Tabellarische vergleichende Übersicht der behandelten Kulturen”, pp. 264-266.

⁵⁴ Wolfram Eberhard, “Die Kultur der alten zentral- und westasiatischen Völker”; p. 257.

Policies of Acquiring Horses in Early Yuan China: A Short Note on the Case of Dongping (1238)

LIU Yingsheng and GONG Haifeng¹

The Mongolian (or Yuan) period in China lasted for around one hundred and fifty years, from the first half of the thirteenth to the second half of the fourteenth century. It took more than sixty years for the Mongols to conquer the whole of China – from Chingiz Khan's (Qa'an) first campaign against Jin (1211) to the year when Qubilai Khan destroyed the Southern Song (1279). Mongolian rule ended in 1368 when Ming troops entered Dadu 大都, i.e., modern Beijing.

Following earlier traditions, the Mongols referred to the administration of all matters related to horses as *mazheng* 馬政.² *Mazheng*, or “horse affairs”, played an important role in the Yuan court. The Mongolian government set up special institutions named *Taipu si* 太僕寺 and *Shangcheng si* 尚乘寺 to look after these matters. The *Taipu si* was responsible for providing horses to the royal family, the court, government institutions and high-ranking officials; it also had to deal with horse raising at the government-owned horse farms. The *Shangcheng si* took care of horse equipment such as saddles, bridles, etc.³ The scope of *mazheng* also included the administration of horses used by the government postal stations, and feeding the mares that belonged to the royal family and the Mongolian court.⁴

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² Song Lian 宋濂, *Yuan shi*, 15 vols. (Beijing: Zhonghua shuju, 1976), j. 100, pp. 2553-2558; *Da Yuan mazheng ji* 大元馬政記, Guangchang xuejun congshu ed. 廣倉學窘叢書 (no date), 3b.

³ *Yuan Shi*, j. 90, pp. 2288-2289, describes the *Taipu si* and *Shangcheng si* as follows: “(1) *Taipu si* (Institution of the Grand Servants), lower 2nd rank, responsible for the *atasi* (阿塔思, i.e. Mongolian akhtas or castrated horses) and the supply and production of saddles and bridles. In 1263, the *Qunmu suo* (群牧所, Office in Charge of the Official Horse Herds) was set up. In 1279 this name was changed to *Shangmu jian* (尚牧監, Institution in Charge of Observing the Royal Horse Herds), in 1282 to *Taipu yuan* (太僕院, Institution of the Grand Servants) and in 1283 to *Weiwei yuan* (衛尉院, Institute of the Guards). In 1287 the *Weiwei yuan* was abolished and [the old name] *Taipu si* restored, while another institution called *Shangcheng si* was established. [The latter] was responsible for saddles and bridles, the [*Taipu*] *si* took care of the *atasi*. In 1288, [this institution] was subordinated to the *Zhongshu* (中書, the Central Secretariat), and [the positions of] two *tidiao* (提調, administrative officials) were created. In 1307, [the name] *Taipu yuan* was restored. In 1311, [the final character] *si* was used again. [Now this institution] had two *qing* (卿, directors) of the lower 2nd rank, two *shaoqing* (少卿, deputy directors) of the lower 4th rank, two *cheng* (丞, assistant officials) of the lower 5th rank, and one each of [the categories] *jingli* 經歷, *zhishi* 知事, *zhaomo* 照磨, *guangou* 管勾 (all lower ranks), [furthermore] seven *lingshis* (令史, secretaries), two *yishi* (譯史, translators), two *zhiying* (知印, seal officers) and two *tongshi* (通事, interpreters), four *zouchai* (奏差, reporting envoys), one *huihui lingli* (回回令史, Persian translator) and two *dianli* (典吏, office workers). (2) *Shangcheng si*, higher 3rd rank, responsible for saddles, bridles and imperial coaches; for the [imperial] herds of *akhtas*, donkeys and mules; for local institutions involved in the production of saddles and bridles; for the supervision of the annual production of saddles and bridles by the provinces; for deciding on disputes caused by the *akhtači* (阿塔赤, horsemen) of the four *keshigs* (怯薛, the Mongolian body guards, existing since the time of Chingiz Khan); and for acquiring horses from the northern and southern areas. [The *Shangcheng si*] had four *qing* (directors) of the higher 3rd rank, two *shaoqing* (deputy directors) of the lower 4th rank, two *cheng* (assistant officials) of the lower 5th rank, one *jingli*, one *zhishi*, one *zhaomo* and one *guangou*, [furthermore] six *lingshi*, two *yishi*, two *zhiying*, two *tongshi*, five *zouchai* and two *dianli*. In 1287, the *Weiwei yuan* was abolished and the *Shangcheng si* first established. [The latter] was responsible for the *Zicheng ku* (資乘庫, Storages of Saddles and Bridles). In 1307, its level was elevated [from *si*] to *yuan*, [i.e.] to the lower 2nd rank. In 1311, it was downgraded to the [former] *si* [status], and in 1320 to the lower 3rd rank.” – One additional office may also be of interest: “*Zicheng ku* (Storage of Saddles and Bridles), lower 5th rank, [equipped with] four *tidiao* (提點, directors) of the lower fifth rank, three *dashi* (大使, envoys) of the higher 6th rank, four *fushi* (副使, deputy envoys) of the higher 7th rank and four *kuzhi* (庫子, storage masters), and responsible for receiving and providing saddles and bridles. [This office] was established in 1276. In 1283, it was subordinated to *Weiwei [yuan]*; in 1287 it was put under the *Shangcheng si*.”

⁴ *Yuan shi*, j. 100, p. 2553.

One may perhaps expect that under Yuan rule many Mongolian horses were brought to and distributed in the interior of China. But not infrequently the opposite was the case: the Mongol-Yuan government collected horses from the sedentary population inside China proper. One method of obtaining horses in this way was referred to as *hemai* 和買, which means buying something at a fixed price set up by the government. Usually that price was rather low. When the number of horses within China was insufficient for their needs, the Mongol government would use local funds to buy additional horses from the northern steppes.

The *hemai* policy began under Ögedei 窩闊台, the second son of Chingiz Khan, also called Yuan Taizong 元太宗. With Ögedei's conquest of Jin, large segments of northern China fell under Mongol control, and the Mongol government began to extract local treasures from these new areas. The postal stations near the Great Wall in particular became involved in that transfer. As transportation depended on horses, in 1238 Ögedei ordered that horses be collected from the interior of China to assist the border stations in their new role. This was recorded in the *Da Yuan mazheng ji* 大元馬政記, a text which merits a careful analysis.

The present paper will focus on that text, and try to explain the background of the situation when the *hemai* policy was first put into operation. The text is as follows:

Buying Horses at a Fair Price [Set by the Government]⁵

On the second day of the sixth month of the tenth year (1238), Ögedei Khan issued an imperial edict to Jarquči Huduhu 胡都虎 (Qutuqu)⁶, Taluhu[dai] 塔魯虎□ (Tarqutai)⁷ and Elubu 訛魯不 (Erubu?)⁸, the essence of which is as follows: All the goods [collected] from different regions to be transported to the government and [the envoys bringing] silks [and other treasures to the fiefdoms of the nobles] pass through Yanjing 燕京,⁹ Xuande 宣德¹⁰ and Xijing 西京.¹¹ Therefore the horses and oxen of these

⁵ For the Chinese text, see *Da Yuan mazheng ji*, 3b. – On the *hemai* policy, see, for example, Chen Gaohua 陳高華, “Lun Yuandai de hegu hemai” 論元代的和雇和買, in *Yuanshi yanjiu lungao* 元史研究論稿 (Beijing: Zhonghua Shuju, 1991), pp. 47-66; Chen Gaohua and Shi Weiming 史衛民, “Guanma, shima yu kuama” 官馬, 市馬與括馬, and “Hegu, hemai yu hedi” 和雇, 和買與和糴, in *Zhongguo jingji tongshi, Yuandai jingji juan* 中國經濟史, 元代經濟卷 (Beijing: Economic Daily Publishing House / Jingji ribao chubanshe, 2000), p. 356 (wrongly p. 355) to p. 362, pp. 719-750; and Gao Shulin 高樹林, “Shidi yu hemai” 市糴與和買, in *Yuandai fuyi zhidu yanjiu* 元代賦役制度研究 (Shijiazhuang: Hebei daxue chubanshe, 1997), pp. 52-55.

⁶ Zhaluhuachi 劄魯花赤, in Mongolian *jarqači*, i.e., “great lawgiver”, or, more simply, one who decrees. – Hutuhu was a famous Mongolian officer in the time of Chingiz Khan and Ögedei Khan. His full name – Shigi-qutuqu, variously transcribed as 忽禿忽, 胡土虎 (both read Hutuhu), or 忽睹虎 (Huduhu) in Chinese sources – was often abbreviated to Prime Minister Hu 胡丞相. He is also mentioned in Mongolian works such as the *Secret History of the Mongols* and in Persian texts like the *Tārīkh-i Jahāngushā*. Hutuhu hailed from a Tatar tribe. Still a baby, he was captured by Chingiz Khan and brought up by the latter's mother who adopted him. When the Yeke Mongolian Ulus was founded in 1206, Chingiz Khan appointed him to be the Yeke Jarquči, i.e., the highest lawgiver or chief judge. Later Hutuhu joined Chingiz Khan's campaign in Central Asia and also served in the war against Jin. In the mid 1230s, Ögedei made him the chief civil official of the Zhongdu (中都, Beijing) area. He kept this position until the 1240s.

⁷ No other source mentions this Tarqutai. In the *Secret History of the Mongols*, there is another Tarqutai, but this is not the same person.

⁸ Elubu was one of the colleagues of Yalavači, i.e., Hutuhu's (Qutuqu's) successor. In 1251, when Mönke became Great Khan, the Mongolian government in Yanjing (Beijing) became known under the name “Mobile Secretariat of Yanjing and Other Places” (燕京等處行尚書省). Among the high-ranking officials in this institution one finds a certain Wolubu 斡魯不. This Wolubu must be the same as Elubu. See Zhang Fan 張帆, *Yuandai zaixiang zhidu yanjiu* 元代宰相制度研究 (Beijing: Beijing daxue chubanshe, 1997), p. 9. Also see Zhao Qi 趙琦, “Ren zhi Yanjing xingsheng jiqi xiashu jigou de rushi” 任職燕京行尚書省及其下屬機構的儒士, in *Jin-Yuan zhiji de rushi yu Han wenhua* 金元之際的儒士與漢文化 (Beijing: Renmin chubanshe, 2004), pp. 97-98.

⁹ In the second year of Ögedei's rule, taxes were collected in ten different areas of northern China. These were then called Shi lu keshuisuo 十路課稅所 and Yanjing lu was one of them. – Yanjing was the name of Beijing from Liao to early Mongol times. When Qubilai moved his capital to this site, it became known as Dadu 大都, “Great Capital”. – According to the geographical chapters of the Yuan annals, j. 58, pp. 1347-1349, the region of Yanjing comprised six counties and ten prefectures (plus some dependencies). The counties are: (1) Daxing 大興, (2) Wanping 宛平, (3) Liangxiang 良鄉, (4) Yongqing 永清, (5) Baodi 寶坻 and (6) Changping 昌平. The prefectures: (1) Zuo Zhou 涿州 (with two subordinated counties: Fanyang 范陽 and Fangshan 房山), (2) Bazhou 霸州 (with four counties: Yijin 益津, Wenan 文安, Dacheng 大城 and Baoding 保定), (3) Tongzhou 通州 (with two counties: Lu Xian 潞縣 and Sanhe 三河), (4) Jizhou 薊州 (with five counties: Yuyang 漁陽, Fengrun 豐潤, Yutian 玉田, Zunhua 遵化 and Pinggu 平谷), (5) Guozhou 灤州 (with two counties: Wuqing 武清 and Xianghe 香河), (6) Shunzhou 順州, (7) Tanzhou 檀州, (8) Donganzhou 東安州, (9) Gu'an Zhou 固安州, (10) Longqingzhou 龍慶州 (with one county: Huailai 懷來).

three *lu* 路 are difficult to acquire for exchange. Presently, controlling their numbers in the postal stations is urgently needed, [counting] the [entire] population of the empire, and installing a unified tax system so as to help the above-mentioned three *lu*.¹² The burden of contributing horses and oxen [should be calculated in the following manner]: one horse is to be levied from every 217.4 “formerly registered households” (*jiuhu* 舊戶)¹³, and one from every 434.8 “newly registered” ones (*xinhu* 新戶)¹⁴; one cow / ox from every 169.2 *jiuhu*, and one from every 338.4 *xinhu*.¹⁵ On the day when the imperial edict is received, [special] envoys – together with the envoys of the local governments – should be sent out to the different *lu*, urging each unit to check on the numbers, and asking them to collect [their share accordingly].

It was found out that in the southern *lu*, horses and cattle are difficult to collect. Now the price for one horse is set at 30 *liang* (silver), and that for one cow / ox at 20 *liang*. All regional administrations should follow these figures. Yanjing will advance silk in bundles, yarn, gauze, thin taffeta, etc., according to the average cost of the incoming animals. The three *lu* are ordered to erect store houses, and to spend [all] products according to the official documents, and thus to circulate things among the people of Yibei 迤北,¹⁶ so as to acquire [more] horses and cattle through exchange. If [people] of different places would like to purchase horses and cattle, that should be permitted; [but] causing trouble and asking for additional silks should not be allowed. Besides the [instructions in the] official documents [stamped] with the royal seal to be dispatched locally, the following [should be observed] in regard to [the additional animals] which Yanjing is to receive through the *lu*: In the prefectures and counties belonging to Dongping 東平 *lu*,¹⁷ [a total of] 234,585 households was counted.¹⁸ Of these some were repeatedly censored, their number amounting to 5,850 [in all], because it was not certain whether they should be placed into the “formerly” or “newly” registered category. [These cases] were temporarily treated as “formerly registered” ones – to relieve them from the duty [of paying animals]. So the number of families obliged to present [horses and cattle] amounts to [only] 228,735.¹⁹ Within this figure are “newly” and “formerly registered families” checked by the tax office of our *lu*; [they] will be taxed according to the prescribed rates, and [the animals in question] will be delivered separately. The total number of horses to be collected [thus] amounts to 788.55, and that of the cattle to 1017.24.²⁰ The 115,247 “formerly registered families” should contribute 529.15 horses and 681.8 cows / oxen²¹; the 113,488 “newly registered families” should contribute 259.4 horses and 335.44 cows / oxen.²²

¹⁰ The name Xuande is first recorded in Jin times. Under Qubilai Xuande included three counties – (1) Xuande, (2) Xuanping 宣平, (3) Shensheng 順聖 – and two prefectures, namely (1) Bao’an 保安 (with one county: Yongxing 永興), and (2) Weizhou 蔚州 (with five counties: Linxian 靈仙, Linqiu 靈丘, Feihu 飛狐, Dingan 定安, Guang Lin 廣靈). *Ibid.*, j. 58, pp. 1350-1351.

¹¹ Xijing is modern Datong 大同. The name Xijing was used under the Liao and Jin. *Ibid.*, j. 58, p. 1375. – In 1230, according to the same source (see j. 2, p. 30, there), the Yeke Mongol Ulus divided its northern Chinese territory into ten *lu* 路: Yanjing, Xuande, Xijing, Taiyuan 太原, Pingyang 平陽, Zhending 真定, Dongping 東平, Beijing 北京, Pingzhou 平州, and Ji’nan 濟南. The three *lu* mentioned above, in *Da Yuan mazheng ji*, are among the ten. In the sixth year under Ögedei (1234), Jin was destroyed and the Henan-Shaanxi region fell into Mongol hands. See Zhao Qi, *Jin-Yuan zhiji*, pp. 76-77, 82-83. – For the postal routes from to Mongolia, please see Chen Dezhi 陳得芝, “Yuan Lingbei xingsheng zhu yilu kao” 元嶺北行省諸驛路考, in *Meng-Yuanshi yanjiu congkao* 蒙元史研究叢稿 (Beijing: Renmin chubanshe, 2005), pp. 3-18.

¹² Chen Gaohua and Shi Weiming, “Yuandai de renkou shuzi” 元代的人口數字, in *Zhongguo jingji shi, Yuandai jingji juan*, pp. 21-26.

¹³ Families under Mongol rule since the campaign of Chingiz Khan.

¹⁴ Jin families in the area controlled by the Mongols since the Mongol-Jin war. See Chen Gaohua and Shi Weiming, *Zhongguo jingji tongshi, Yuandai jingji juan*, p. 507 (in the table of contents wrongly 355) to p. 517.

¹⁵ Chen Gaohua noticed that the burden of the “newly registered families” was half of that of the “formerly registered” ones. See “Yuandai shuiliang zhidu chutan” 元代稅糧制度初探, in *Yuanshi yanjiu lungao*, pp. 1-20. – Possibly the reasons is that, after the Jin collapse, the former were poorer than the latter.

¹⁶ Yibei: Inner Mongolia and Mongolia in the Yuan and early Ming period.

¹⁷ In 1220, Yan Shi 嚴實, a military lord, surrendered the region comprising Zhangde 彰德, Daming 大名, Ci 磁, Ming 洺, En 恩, Buo 博, Rui 濬 and Hua 滑 – with 300,000 families altogether – to the Mongols. He himself was stationed in Dongping. See *Yuan shi*, j. 58, p. 1365.

¹⁸ In 1220 Dongping counted 300,000 families (see above). In 1272, the number was down to circa 50,000. The reason for this decline would make an interesting topic for further research.

¹⁹ Note: 234,585 – 5,850 = 228,735, and 115,247 + 113,488 = 228,735.

²⁰ The number of horses to be collected from the “formally registered families” was 529.15, the number of the horses for the “newly registered families” was 259.4. Thus the total of 788.55. – The number of oxen / cows to be collected from the “formally registered families” was 681.8, the number of the oxen / coves for the “newly registered families” was 335.44. Thus the total of 1017.24.

²¹ According to the fixed rate for shared taxes, the 115,247 “formerly registered households” divided by the rate of a horse per 217.4 families gives 530.1149954, which is very near to the number 529.15. – Again: 115,247 divided by the rate of a cow or ox per 169.2 families gives 681.128841607, which is again very near to 681.8.

²² 113,488 divided by the number 259.4 gives 437.501927525, which is very near to the fixed rate of a horse per 434.8 families. – 113,488 divided by 335.44 gives 338.325781063, which is very near to the fixed rate of a cow per 338.4 families.

Around twenty-two years later, in the first year under Qubilai (1260), it was again ordered to collect horses in the north. According to the *Da Yuan mazheng ji*, the number of animals that Dongping was to contribute, was now set at 800, which is very close to the figure of 788.55 defined in 1238. This suggests that quantities had not changed very much during the entire lifetime of the Yeke Mongol Ulus. Possibly, the same also applies to other regions of northern China. If so, then we are looking at a fairly stable situation that lasted for more than two decades.

Here it may be of some interest to list the total number of horses that had to be gathered in northern China. According to the *Da Yuan mazheng ji* this number was set at 10,000 in 1260. The regional distribution was as follows: 2,400 animals from Yanjing, 800 from Zhending, 2,000 from Beijing, 800 from Pingyang, 800 Dongping (as mentioned above), 400 from Ji'nan and Bin-0-lu (濱口路; second character lost), 400 from Daming, and 2,400 from Xijing.

If we compare these names – nine in all – with the list of ten *lu* encountered under Ögedei, we find that eight of them are identical. Two – Xuande and Pingzhou – are absent. Moreover, the missing character in the seventh name can be restored through a reference in the Yuan annals: Bingdi 濱棣.²³

Although Ögedei's edict quoted above does not specify the number of horses that were to be collected in the whole of northern China during 1238, I am inclined to think that it was also around 10,000, just as in the days of Qubilai.

²³ *Yuanshi*, j. 58, p. 1373. In the second year of the Zhiyuan period, Bing Di was placed under Ji'nan.

Horses in the East-West Trade between China and Iran under Mongol Rule

YOKKAICHI Yasuhiro¹

INTRODUCTION

During the thirteenth and fourteenth centuries, when the Mongol empire expanded its territory, the flourishing east-west interchange effected a change in the economic structure of East Asia, and this had an impact on Central Asia, India and the Islamic world. For instance, the Chinese dynasties used to buy many horses from the northern nomads, for which they paid in silk, tea and silver. In other words, the Chinese economy and the nomadic economies in Northern Asia and Central Asia were connected with each other by the horse trade. During the period of Mongol domination over Central Eurasia, some economic areas worked closely with each other across this broad region.

Yajima Hikoichi points out there was a link between overland trade in the Eurasian continent and maritime trade in the Indian Ocean. According to him, ocean sailings that harnessed the seasonal monsoon climate and overland shipments of caravans were closely related and were used alternatively, depending on the season.² Therefore, we should consider not only overland routes but also the link between overland and sea routes from the viewpoint of both the individual economic structures of China, India, and Iran and a broad-based structure.

The purpose of this paper is to show the economic structure of commodity flow around Central Eurasia and the Indian Ocean from the perspective of the horse trade and related policies. In particular, we wish to show how the horse trade was related to the east-west trade between the Yuan and Il-khanid dynasties.

HORSES AND THE ECONOMIC STRUCTURE DURING THE MONGOL EMPIRE AND YUAN PERIOD

In ancient times, the North Asian nomads used to pay for their transactions with sedentary people with their livestock such as cattle and horses. The *Heida shilüe* 黑韃事略 (*Brief Report on the Black Tatars*) contains records showing that the Mongols were no exception to this practice; they too used to pay the Chinese in horses and sheep in trade transactions.³ However, since horses were vital for military activities, the Mongols needed to buy them in large numbers in the course of the expansion of their domain. The *Secret History of the Mongols*, for example, reveals that Asan (Ḥasan), who traded in domestic animals, provided aid to Genghis Khan after defeat in the war against Wang Qan of the Kereit clan.⁴ Then Genghis Khan established his supremacy over the western part of the Mongolian steppes. It can be imagined that immediately after this, vast numbers of livestock and arms provided by merchants like Ḥasan enabled the Mongols' rapid recovery of military power. Many scholars, including V.V. Bartold, consider Ḥasan as the *Khwārazm* merchant Ḥasan Ḥad̲j̲d̲j̲i who attended Genghis Khan.⁵

Following the reunification of the Mongolian steppes and the expansion of Mongol control over some sedentary communities, the Mongols implemented a tax system to control the nomadic and sedentary territories; a livestock tax called *qobčiri* (Persian: *qopčur*) was imposed on nomadic people. This tax, imposed on nomads who herded domestic animals, was collected at the rate of one head per hundred heads.

¹ Kyushu University, Kyushu.

² Yajima 1993, pp. 10-20; Yajima 2006(b), pp. 17-30, pp. 136-138.

³ Heida shilüe/Wang, vol. 12, p. 5052.

⁴ Ni'uča/Sibu congkan, cap. 182; Ni'uča/Irinčin, p. 160; Ni'uča/Murakami, vol. 2, pp. 193-194, pp. 206-207; Ni'uča/Rachewiltz, p. 104, pp. 657-658.

⁵ Barthold 1968, p. 414.

It was established during the reign of Ügedei Qayan as an important means to procure a large number of horses for the Mongol government. This system became permanent under the subsequent Mongol regimes and was still in existence at the time of Yuan China and Il-khanid Iran.

The management of horse affairs within the financial structure of the Yuan dynasty was not very different than that of the Mongol empire. The difference lay in the fact that the Chinese dynasties, especially those after the Tang dynasty, used to trade tea, silk and other goods for horses with the northern nomads; this trade is called “silk-horse trade” or “tea-horse trade”.⁶ However, under the Yuan dynasty, in which the Mongols were the ruling class, the circumstance was a little different. These people had no need to trade tea or silk for horses because their own country was able to meet their requirements. A large number of horses were bred on certain government ranches. According to the *Yuan shi* 元史 (*History of the Yuan*) and the *Dayuan mazhengji* 大元馬政記 (*Record of the management of horse affairs in the Yuan dynasty*), which were compiled from the *Jingshi dadian* 經世大典 (*Collected statutes of the Yuan dynasty*), there were fourteen government ranches for the great *ordu* (the *Qan*'s court) from Danluo 耽羅 in the east to Gansu 甘肅 in the west, and from Qorin 火里, Tömed 禿麻 in the north to Yunnan 雲南 in the south.⁷ At the same time, people who owned horses were asked to pay the aforementioned tax. This *qobčiri* tax existed throughout the Yuan period;⁸ Chinese sources that document the events in this period term this tax as *chou* 抽 or *choufen* 抽分.

However, the huge demand for horses for military campaigns or transportation could not be matched solely by such a tax. In times of need, ordinary people and government officials were compelled to deliver their horses to the Yuan government, which imposed a heavy burden on the former. Chinese sources refer to this requisition as *kuoma* 括馬. *kuo* 括 means to register something in the tax books and to bring it into requisition.⁹ In addition, the Yuan government used to buy a large number of horses from the market. For this purpose, a buying process known as *hemai* 和買 was adopted. Under this process, the government bought necessary goods at prices that were fixed officially; however, such transactions were partially forced on the sellers. The emperors of the Yuan dynasty occasionally gave out *majiayin* 馬價銀, *majiachao* 馬價鈔, *shimachao* 市馬鈔, and so on, as rewards or charitable gifts. These silver and paper currencies were intended to fund the purchase of horses. This implies that the Yuan government had indirect market dealings.¹⁰

For the abovementioned reasons, it can be stated that most of the horses for military and public use were supplied domestically under the Yuan dynasty. It is said that the Yuan government did not establish any *chamasi* 茶馬司 (bureaus for tea-horse trade), unlike the governments during the Song and Ming periods. Further, neither silk-horse trade nor tea-horse trade were conducted during the Yuan period. Although the Yuan government strictly prohibited the export of horses,¹¹ this does not imply that horses were not a part of

⁶ As for “tea-horse trade”, there are many studies, including Wang Xiaoyin 2004, which I will not explain fully. About “silk-horse trade,” see Matsuda Hisao's studies.

⁷ Yuanshi/Bainaben, vol. 100, *bingzhi* 3, *mazheng* 馬政; Mazhengji/Shiliaosipian.

⁸ Yuanshi/Bainaben, vol. 19, Chengzongji 成宗紀 (Chronicle of Chengzong Temür), the *jiaxu* 甲戌 day of the 5th month of 2nd year of Yuanzhen 元貞 era; vol. 24, Renzongji 仁宗紀 (Chronicle of Renzong Ayurbarvada), the *dingmao* 丁卯 day of the 8th month of the 1st year of Huangqing 皇慶 era.

⁹ As regards *kuo* 括, for an example, see Yuanshi/Bainaben, vol. 162, Biography of Li Ting 李庭. “When prince Qaidu 海都 was setting out to invade a border, Bayan 伯顏 informed the court about it, and the Emperor ordered Yürlük 月兒魯 and Ting to consult together and make preparations to defend the border. Following this, Ting requested the Emperor to order a *kuo* for horses, and all 180,000 horses were subsequently obtained. The Yuan military depended on this *kuo*”; See also Yuanshi/Bainaben, vol. 121, Bibliography of Boryan. “It was prohibited to apply the decree of *kuo* to the horses of high officials. Boryan, however, said: I have a herd of horses and manage them in a field of 3000 *li* 里. If I do not offer my own horses as the foremost tribute, how can I lead officials and people? Following this, Boryan proceeded to give 18 of his good horses to the government.”

¹⁰ For example, see Yuanshi/Bainaben, vol. 5, Shizuji 世祖紀 (Chronicle of Shizu Qubilai), the *gengzu* 庚子 day of the 7th month of 4th year of Zhongtong 中統 era, “By decree, the prince Zhaodou (Jauyutu) 爪都 was vouchsafed *niumajiayin* 牛馬價銀 (silver used for purchase of oxen and horses) 63,100 *liang* 兩”; vol. 14, Shizuji, the *bingchen* 丙辰 day of the 2nd month of 23rd year of Zhiyuan 至元 era, “Chen Yiji 陳益稷, the king of Annan 安南, was vouchsafed *yangmachao* 羊馬鈔 (paper money used for purchase of sheeps and horses) 100 *ding* 錠”; vol. 18, Chengzongji, the *wuqu* 戊戌 day of the 4th month of the 1st year of Yuanzhen era, “The members of the *tammači* 探馬赤 army belonging to the emperor were supplied *shimachao* 市馬鈔 (paper money used for purchase of horses) 120,000 *ding*.”

¹¹ Yuandianzhang/Yuan. Bingbu 兵部 2, Junqi 軍器, Jin maimai ren junqi 禁買賣人軍器 (ban on buying and selling arms).

the flourishing east-west interaction during the Yuan period. The practice of bringing horses from the Islamic world to the Mongol court had existed since the reign of Genghis Khan. The situation under the Yuan dynasty was almost similar, and Arabian or Central Asian horses, called *xiyuma* 西域馬 or *xima* 西馬, were brought to the Mongol court by sea or land routes. For example, a leading merchant of Quanzhou, Muḥammad ‘Andī, supplied *xiyuma* to Wuzong 武宗 Qaišan,¹² and after Taidingdi 泰定帝 Yesūn Temür. Chinese sources contain many references to *xima* from the Il-khanid, Chaghatayid, and Jöchid dynasties.¹³ However, such horses brought from the west were the most luxurious articles sought after for the imperial family. We can presume that the scale of consumption of imported horses was smaller than that of domestic horses.

HORSES AND THE ECONOMIC STRUCTURE DURING THE IL-KHANID PERIOD

With regard to the management of horse affairs, it appears that the Il-khanid dynasty was also similar to the Yuan dynasty. Although the livestock tax, called *qobčiri* in Mongolian, existed under the Il-khanid dynasty, it came to be called *marā’ī*¹⁴ – derived from Arabic – corresponding to *choufen* 抽分 under the Yuan dynasty. Chinese sources refer to this requisition as *kuoma* 括馬. *kuo* 括 means to register something in the tax books and to bring it into requisition. On the other hand, capitation tax and livestock tax, which were collected as many times as was needed, came to be called *qopčur* (Mongolian: *qobčiri*) and were more oppressive than *marā’ī*. In other words, *qopčur* in Persian corresponded to *kuo* in Chinese. In addition, the Il-khanid government used to purchase many horses from merchants. According to *Djāmi’ al-Tawārīkh*, privileged merchants called *ortuy* used to sell large numbers of horses to the Il-khanid government.¹⁵

As stated earlier, the government procured many horses through requisition, stock raising, or purchase. This circumstance is largely similar to that during the Yuan period, the only difference being that the export of horses was permitted and flourished under the Il-khanid dynasty. For example, the lords of Kīsh and Hormuz were assigned government posts in the local administration by the Il-khans and paid tax collected under them to the government. By this means, they were incorporated into the system of Mongol rule in Iran. In addition, each of these lords was also a Indian Ocean trader and an *ortuy* merchant dealing with the Il-khanid dynasty. As is well known, Arabian horses were included among their trade goods, and they used to export a large number of horses to India every year. The *Tārīkh-i Waṣṣāf* contains a detailed description on the manner in which these merchants sold a considerable number of horses to the Pāndiya Dynasty every year. Since this has already been discussed by some scholars, we would only like to point out the following facts: Takī al-Dīn ‘Abd al-Raḥmān – a brother of Djāmāl al-Dīn Ibrahīm al-Ṭībī, the lord of Kīsh – was appointed as a local governor (*nā’ib*), magistrate (*ḥākim*), and warlord (*marzbān*) by the emperor of the Pāndiya dynasty. He also occupied the post of international port manager, in which capacity he was responsible for importing a considerable number of horses from the Persian Gulf region. Following the death of the Pāndiyan emperor in A.H.692 (A.D.1292–93), the Pāndiya dynasty also awarded Djāmāl al-Dīn government posts and rights to import foreign goods including horses. The *Tārīkh-i Waṣṣāf* states that with

¹² Yuanshi/Bainaben, vol. 22, Wuzongji 武宗紀 (Chronicle of Wuzong Qaišan), the *wuyin* 戊寅 day of the 9th month of the 1st year of Zhida 至大 era, “Muḥammad ‘Andī 馬合馬丹的, a weighty merchant in Quanzhou 泉州 presented rare article, jeweled belt, and *xiyuma* 西域馬 (a western horse) to the Yuan court.”

¹³ Yuanshi/Bainaben, vol. 29, Taidingdiji 泰定帝紀 (Chronicle of Taidingdi Yesūn Temür), the *jimao* 己卯 day of the 6th month of the 1st year of Taiding 泰定 era; vol. 29, Taidingdiji, the *renxu* 壬戌 day of the 9th month of the 2nd year of Taiding era; vol. 30, Taidingdiji, the 1st month of the 3rd year of Taiding era; vol. 30, Taidingdiji, the *wuwu* 戊午 day of the 7th month of the 3rd year of Taiding era.

¹⁴ Honda 1961, pp. 286-287

¹⁵ According to *Djāmi’/Raushan*, “Although they (the imitators of *ortuy*) borrowed money, some of them did not sell armaments and horses with the seed money and wasted it on clothes and household equipments for themselves, while someone bribed the aforementioned *amīrs* with the money in return for a receipt. In other words, they pretended to sell 1000 sets of complete armaments and an equal number of horses and then produced a receipt indicating payment to the *bitikčiyān* (secretaries) of the government. This episode is mentioned in the biography of Ghazan Khan as a failing of the imitators of the *ortuy* merchants. In this way, thousands of horses were not sold in reality. However, behind their misdeeds was the fact that *ortuy* merchants used to sell many horses to the Il-khanid government in reality.

Djamāl al-Dīn's acquisition of government posts, the Kīsh merchants gained an advantage in trade with India and China. In that sense, we can comprehend the extent to which India was important as a stopping point for the trade between Islam and China. After the death of Taqī al-Dīn 'Abd al-Raḥmān in A.H.702 (A.D.1302–03), his position and privileges under the Pāndiya dynasty were continued by his nephew and Djamāl al-Dīn's son, Malik Mu'azzam Sirādī al-Dīn.¹⁶ It is highly probable that Kīsh merchants continued to sell horses to the Il-khanid government along with the *ortuy* merchants because the lord of Kīsh, according to the *Djāmi' al-Tawārīkh*, was also a leader of the *ortuy* merchants who directly traded with the Il-khanid dynasty.¹⁷

THE POSITION OF HORSES IN THE YUAN AND IL-KHANID TRADE

The Yuan and Il-khanid dynasties which were located at the eastern and western borders of Eurasia were connected by overland and sea routes. Both these dynasties were members of the Toluyid family yet had no territory adjoining each other but they had trade relations and exchanged envoys frequently. The flourishing exchanges between the two empires provided synergy to private trade, which also flourished. For instance, Ghazan Khan dispatched Fakhr al-Dīn Aḥmad, who was the successor to Djamāl al-Dīn Ibrahīm – the lord of Kīsh and a leader of merchants – as an emissary to Yuan China. At the time of Aḥmad's departure, Ghazan entrusted to him capital from the treasury for the purposes of trading, and Kīsh merchants, including Djamāl al-Dīn, co-financed him.¹⁸ This envoy was the representative of both private trade with the participation of Kīsh merchants and international public trade because of the involvement of the Il-khanid government. Ghazan Khan's envoy carried with him such articles as gems, pearls, cloth made of gold and animals (like leopards, etc.). It is not known whether horses were included in these items of trade. Temür Qayan of the Yuan reciprocated Ghazan Khan's gesture by dispatching Yang Shu,¹⁹ who came from a family of influential merchants, as an emissary to the Il-khanid court. Yang Shu carried out trade at Hormuz and returned to China with various local goods, which included “white horses, black dogs, amber, wine, and foreign salt.”²⁰ It is worth noting that horses were I on this list. However, the horses that Yang Shu purchased were not the usual variety of horses – they were white ones. Thus, it can be said that these horses were very significant as articles for presentation to the Yuan court. Chinese merchants seldom sailed beyond the western reaches of the Indian Ocean in those times, and Chinese junks were rarely seen in the ports of Western India such as Qūlam, Fandaraina, and Kanbāyat.²¹ Unlike Chinese merchants, however, Kīsh merchants regularly conducted their trade with China via India; therefore, we can regard the goods that were brought by Fakhr al-Dīn to be similar to the exports that were popular in China.

Kīsh merchants had presumably stationed their agents in both China and India because – according to Ibn Ḥaḍjar al-Asḳalānī – Djamāl al-Dīn, the lord of Kīsh, once resided in China and acquired a fortune from trade there.²² When Ghazan Khan selected Djamāl al-Dīn's son Fakhr al-Dīn to be sent as an envoy to the Yuan government it was partly because the Il-khanid government aimed to use the trade network of Kīsh merchants in India and China.²³

The *wazīr* (prime minister) of the Il-khanid, Rashīd al-Dīn Faḍlallāh Hamadānī, similarly employed a network of merchants. His *Maktūbāt* (*Collection of letters*) states that he stationed these trade agents in India and Baṣrah and compelled merchants to send Indian goods to himself and his family.²⁴ According to the

¹⁶ Waṣṣāf/Bombay, pp. 505-506; Waṣṣāf/Malik 3900, fol. 386r-v.

¹⁷ *Djāmi'*/Raushan; *Djāmi'*/ Topkapı 1518.

¹⁸ Waṣṣāf/Bombay, pp. 505-506; Waṣṣāf/Malik 3900, fols. 386v-387v; see also Kauz 2006, pp. 64-66.

¹⁹ *Jinhuahuang*/Sibu congkan, vol. 35, Songjiang Jiading-dengchu haiyun *qianhu Yangjun muzhimong* 松江嘉定等處海運千戶楊君墓誌銘 (Epitaph of Mr. Yang, a chiliarch of the maritime transport at Songjiang and Jiading provinces).

²⁰ *Jinhuahuang*/Sibu congkan, vol. 35.

²¹ See Yajima 1993, pp. 71-81, pp. 162-165.

²² *Durar*/Bairut, vol. 1, p. 40.

²³ See Yokkaichi 2006(a).

²⁴ *Maktūbāt/dānīshpazūh*, p. 151; pp. 167-168; p. 172; *Maktūbāt/Shafī'*, pp. 166-167; pp. 184-185; p. 197.

Maktūbāt, he also ordered a dispatch of goods from China.²⁵ This indicates that he also stationed merchants as his agents in China. The *Āthār wa Ahyā* – in which he noted down details regarding agricultural produce from all over the world – contains a considerable amount of information on Indian and Chinese plants and accounts of the trade that merchants conducted with these commodities.²⁶ In addition, it describes the process of administrative control that was imposed on monopoly products like tea.²⁷ Thus, we find that these merchants, who stayed in China and mainly dealt with the Yuan government, brought information and Chinese products to Rashīd al-Dīn. He is renowned as the editor of the *Djāmi' al-Tawārīkh*, which is a compilation of historical events from around the world, and the *Tansūkh Nāma*, which is a collection of Chinese works translated into Persian. Hence, it can be said that he was able to acquire information and knowledge from across the world – including China and India – merely by making use of the trade network he had set up. As mentioned above, India was a crucial trans-shipment station for Chinese exports to Iran, which was a great distance from China. India was thus of paramount importance for Rashīd al-Dīn's trade network; a fact clearly demonstrated by his visiting India in person.²⁸

What position did horses occupy in the trade relations between the Yuan and Il-khanid dynasties? As already mentioned, India was the major market for horses from the Persian Gulf and Red Sea regions, not China. However, for the Islamic world, the export of horses to India was linked to trade with China; India held a very important position as a hub for trade between China and the Islamic world. It is quite likely that Chinese goods brought to India were further exported to western countries in exchange for horses exported from Islamic countries to India. In fact, some recently discovered material – the *Daftar al-Muẓaffarīya (Nūr al-Ma'arīf fī Nuzum wa Qawānin wa a'rāf al-Yaman)*, which was dedicated to the Rasulid Sultān Malik al-Muẓaffar al-Yūsuf – indicates that Chinese goods were undoubtedly traded in exchange for horses. There is a mention of silver from China. Yajima Hikoichi, who focused on the horse trade in 'Aden as described in the *Daftar al-Muẓaffarīya*, suggested that the horses imported by India were purchased with the payment of silver from China. Therefore, in order to ascertain whether Yajima's theory is correct, it is necessary to review the circulation of silver within Eurasia and the Indian Ocean region.

HORSES AND THE CIRCULATION OF SILVER IN EURASIA AND THE INDIAN OCEAN REGION

Robert P. Blake once propounded a theory regarding the circulation of silver in the Islamic world.²⁹ His theory was based on the phenomenon of a silver shortage in the Islamic world, which began in the tenth century and ended after the thirteenth century. Blake makes the point that the outflow of silver from the east, down to the Mongol-Yuan period, solved the silver shortage in the Islamic world.³⁰ Otagi Matsuo further endorsed Blake's theory by pointing out that from the Song and Liao periods to the Yuan period, silver flowed westward through the hands of Uighur merchants.³¹ In particular, the Uighur and *ortuy* merchants during the Yuan period sustained a silver standard economy in North China,³² and they used to manage silver entrusted by Mongolian royal families as trading capital to be returned at a profit. Although Blake and Otagi only studied the flow of silver by land routes, it is reasonable to consider that silver was conveyed by sea after the Yuan period. Considering that the *ortuy* merchants expanded their business to Nanhai (from the South China Sea to the Indian Ocean) when the Yuan dynasty conquered the Southern Song, it is not surprising that silver was carried to the Islamic world by sea. The Yuan government repeatedly imposed prohibitions on the export of gold and silver, which implies there was in fact an outward flow of gold and

²⁵ *Maktūbāt/dānīshpazhūh*, p. 172; *Maktūbāt/Shafī'*, p. 191.

²⁶ Regarding to *Āthār wa Ahyā*, see Afshār 1368/1989, p. 13-45; Allsen 2001, pp. 117-122; Lambton 1999.

²⁷ *Āthār/Afshār*, pp. 86-88.

²⁸ In the *Maktūbāt-i Rashīdī*, there is a letter titled "a detailed letter on my position and my visit to India, written to Maulānā Kutb al-Dīn Mas'ūd Shīrāzī from Mūltān city" (*Maktūbāt/dānīshpazhūh*, pp. 146-151; *Maktūbāt/Shafī'*, pp. 159-68). According to Īradj Afshār, there is another description in the *Tārīkh-i Yazd Dja'arī*. See Afshār 1368/1989, p. 45.

²⁹ Blake 1937.

³⁰ Blake 1937, p. 314.

³¹ Otagi 1973, pp. 163-201.

³² Abe 1972.

silver. In reality, ingots of silver were found in the wreckage of *Nanhai-1* 南海一號's cargo off the coast of Guangdong 廣東.³³

The above mention is with regard to the situation prevalent in the eastern Indian Ocean, while the *Daftar al-Muẓaffarīya* deals with the situation in the western Indian Ocean. According to the *Daftar al-Muẓaffarīya*, Chinese silver was one of the articles imported from India to 'Aden, as described below:

In 'Aden, the silver of *laymas* (silver bullion?)³⁴ is usually brought by *sūliyān* (south Indian merchants) during the sailing season. The arrival of *sūliyān* at the port of 'Aden implies the arrival of silver from China, which is then transported to Ẓufār, al-Shih̄r, and many other places in 'Aden by *sūliyān*.³⁵

However, the *Daftar al-Muẓaffarīya* does not provide clear details regarding these *sūliyān* merchants from South India. According to Ibn Baṭṭūṭa, the merchants of Qūlam (Quilon), who were known as *sūliyān*, possessed immense wealth and property, and they conveyed goods in their own ships.³⁶ The *Daftar al-Muẓaffarīya* states that most of the merchants who purchased horses at the port of Aden were Indian shipmasters (*nākhudā*) and made payments in silver dirhams or in equal quantities of dirhams and silk.³⁷ Al-Shamrookh, who was the first to study the *Daftar al-Muẓaffarīya*, also examined these facts; however, he did not consider the export of horses to be associated with the import of silver.³⁸ One possible reason for this could be the absence of any clue in the *Daftar al-Muẓaffarīya* that directly connects the Indian shipmasters (*nākhudā*) who purchased horses with *sūliyān* who brought silver to the port of 'Aden. However, according to the agricultural almanac in the *Kitāb al-Tabshīra fī 'Ilm al-Nudjūm* that was compiled under the Sultan of the Rasulid al-Malik al-Afshār 'Umar Ibn Yūsuf, horse traders (*marākib al-khayl*) sailed in the following three sailing seasons: (1) *Sayalān (Sīlān)*, (2) *Sūliyān*, and (3) *Tīrmāh*.³⁹ *Sūliyān (Sīlān)* refers to the season in which the ships of the Sri Lankan merchants sailed. D. M. Varisco, a scholar of Yemeni history, confirmed that on the basis of Ibn Mādjīd's description, the merchandise that was exchanged for horses consisted of goods such as pearls, gems, ivory, silk and cinnamon.⁴⁰ *Sūliyān*, as its name indicates, implies the sailing season of *sūliyān*. Varisco's reference to the Yemeni almanacs reveals that *sūliyān activities* extended from Cape Camorin to the deltas of the Krishna and Godavari rivers in East India; moreover, the trade articles that were exchanged for horses comprised elephants, sapphires, moonstones, pearls, rubies, diamonds, onyx, emeralds, coral, cardamom, cloves, sandalwood, camphor oil and musk. *Tīrmāh* refers to *tīr māh*, which is the name of the fourth solar month in Persian. The use of this word indicates that Persian merchants wielded a great influence on the trade between 'Aden and India. A point that should be noted is that the sailing season *sūliyān* accorded with the sailing season called the "monsoon of the horse," which began from the twentieth day of the eighth month. Although Varisco does not mention silver being exchanged for horses, from the *Daftar al-Muẓaffarīya* and other sources, it can be safely inferred that silver was used for this purpose in the trade between the Islamic world and India. For example, Marco Polo reported that in India, horses were imported and purchased with silver.⁴¹ He also explained that India imported foreign commodities including copper, cloth made of gold and taffeta, cloves, spikenard oil, gold, and silver; furthermore, he highlighted the fact that the great Manzi (China) was the major exporter of these items.⁴² However, S.D. Goitein, who has made a study of the trade in the western Indian Ocean between Cairo, 'Aden and India, pointed out that the Geniza documents revealed that silver could be conveyed from

³³ Ceramic Road 1993, p. 38, pl. 20.

³⁴ Yajima Hikoichi interpreted the meaning of *al-fidda al-laymās* as *al-fidda al-lamīsa* in Arabic; that is, he interpreted silver as metal. See Yajima 2006(a), p. 161, note 69.

³⁵ *Muẓaffarīya/Djāzim*, vol. 1, p. 496.

³⁶ Baṭṭūṭa/Sanguinetti, t. 4, pp. 99-100; Baṭṭūṭa/Yajima, vol. 6, p. 135, p. 188, n.188; Yajima 2006(a), p. 578.

³⁷ *Muẓaffarīya/Djāzim*, vol. 1, pp. 504-505; al-Shamrookh 1996, pp. 301-302; Yajima 2006(a), pp. 581-584.

³⁸ Al-Shamrookh 1996, p. 196.

³⁹ Varisco 1994, pp. 224-231; Yajima 2006(a), pp. 575-576.

⁴⁰ Varisco 1994, p. 229.

⁴¹ Marco Polo/Benedetto, p. 25, p. 213; Marco Polo/Ramusio, p. 101, p. 291.

⁴² Marco Polo/Benedetto, p. 199, p. 201; Marco Polo/Ramusio, p. 281.

India to ‘Aden, but not vice versa.⁴³ Due to the above, there is a strong possibility that the silver brought to ‘Aden from India and used to purchase horses was Chinese silver.

As shown by the import list of ‘Aden in the *Daftar al-Muẓaffariya*, Kīsh, Mecca and India accounted for two-thirds of the embarkation points, with Kīsh and India in particular accounting for a third. There is considerable lack of clarity regarding the competitive and interdependent relationship between the two main commercial routes, namely, the Persian Gulf route centered on Kīsh and Hormuz and the Red Sea route centered on ‘Aden, D̲jidda (Mecca) and ‘Aidāb (Egypt). This lack of clarity also extends to the relationship between the *ortuy* merchants in the Persian Gulf region and the *kārimī* merchants in the Red Sea region. However, the import list for ‘Aden reveals that ‘Aden had a trilateral trade relationship with Kīsh and India, and Kīsh exerted a strong influence on goods exported by India. The *Tārīkh-i Waṣṣāf* also mentions that Kīsh merchants, including D̲jamāl al-Dīn Ibrāhīm, were able to trade on a priority basis commodities that were brought from China to India.⁴⁴

The *Daftar al-Muẓaffariya* names Takī al-Dīn ‘Abd al-Raḥmān al-Ṭībī as one of the leading importers in India.⁴⁵ He was a brother of D̲jamāl al-Dīn Ibrāhīm, the lord of Kīsh. Ibn Baṭṭūta described Qūlam (Quilon) in India, which was a base for *sūliyān*, thus: the leader of the Muslims in this city is Muḥammad, the chief of the port (*shāh bandar*), who has a honorable brother named Takī al-Dīn.⁴⁶ As mentioned above, Takī al-Dīn had been appointed to government posts by the emperor of the kingdom of Pāndiya in South India, and was in a position to govern the import of a large number of horses to India every year.⁴⁷ This implies that the Kīsh merchants had enormous influence over trade with China via India as well as over the trilateral trade between India, the Persian Gulf and the Red Sea region.⁴⁸

CONCLUSION

Consequently, the structure of the horse-silver trade between China and the Islamic world is summarized as follows:

1. Chinese silver flowed out to the Persian Gulf and Red Sea regions via India. Silver or silk was exchanged for horses exported from Islamic countries; thus, the horse trade between India and Islam played an important role in the accumulation of silver in the Islamic economy.
2. The number of Arabian horses exported to China via India was considerably smaller than the number of horses exported to India. Therefore, it appears that commodities of Indian origin, including gemstones, perfume materials and spices, were traded for Chinese silver.
3. Merchants in the Persian Gulf region, including Kīsh, had tremendous influence over the export of horses from Islamic countries, and *sūliyān* played the principal role in the export of silver from India to Islamic countries. It is possible that these merchants and *sūliyān* were closely connected and shared a common background – their commercial base of Qūlam (Quilon), an emporium on the western Indian Ocean.
4. In trade via the Indian Ocean, the Persian Gulf route and the Red Sea route were rather interconnected. The Persian Gulf, the Red Sea region and India formed a trilateral trade relationship with horses and silver as the major commodities.

⁴³ Goitein 1954, p. 188.

⁴⁴ Waṣṣāf/Bombay, pp. 302-303; Waṣṣāf/Malik 3900, fol. 220r.

⁴⁵ Muẓaffariya/D̲jāzim, vol. 1, p. 515, p. 519.

⁴⁶ Baṭṭūta/Sanguinetti, pp. 99-100.

⁴⁷ Takī al-Dīn’s brother was D̲jamāl al-Dīn Ibrāhīm, not Muḥammad; however, their father’s name was Muḥammad, so they were also referred to as “Ibn Muḥammad.” Therefore, it is very likely that Muḥammad, who was mentioned by Ibn Baṭṭūta, was a reference to his brother, Ibrāhīm al-Ṭībī. For the genealogy of the al-Ṭībī family (al-Sawāmīlī family), see Aubin 1953.

⁴⁸ Only Kīsh were able to perpetually dominate over the trade that was conducted along the Indian Ocean. The name of Kīsh frequently appears in the *Daftar al-Muẓaffariya* because they dominated over most of the areas in the Persian Gulf, including those controlled by Hormuz. However, after the mid-fourteenth century, Hormuz recovered his power and overwhelmed Kīsh. Following this, Hormuz operated in the same way as Kīsh in the trilateral trade that was conducted between India, the Persian Gulf region, and the Red Sea region.

Arabian horses did not become the principal commodity for China; however, the export of horses to India was indispensable for the Islamic world in procuring silver from China via India. Thus, similar to the silk-horse trade or tea-horse trade under the Chinese dynasties,⁴⁹ it can be claimed that there existed an indirect “silver-horse trade”.

As regards the circulation of silver, it is very likely that the Uighur and *ortuy* merchants who managed silver as trade capital played an important role in China’s export of silver. However, what information do we have on the circulation of silver in Iran? Both gold *dīnār* that were minted under the Mongol rule and silver *dīnār* were found in Iran; it is apparent from this that the Il-khanid government adopted the gold-silver *dīnār* system for their coinage.⁵⁰ This suggests that *ortuy* merchants in Iran were also entrusted with silver by the blood royals of the Mongols under the Il-khanid dynasty. As we have seen, horses were sold not only to India but also to the Il-khanid government. Therefore, it is highly probable that silver was circulated in exchange for horses within Iran, particularly in Azarbaijan and the Persian Gulf and Red Sea regions. In this paper, I have focused on the horse trade that was conducted between regions in the western Indian Ocean. However, *ortuy* merchants were also associated with trade that occurred in the inland regions. Therefore, it is necessary to compare *ortuy* merchants’ activities under the Il-khanid government with those under the Yuan. The *Daftar al-Muẓaffarīya* describes silk, porcelain and other articles as imports from China. A further discussion should be conducted on the relation between these articles and silver. Silk, especially, was exchanged along with silver as payment for horses. An analysis of the use of these items could lead to a good understanding of the structure of trade around Eurasia and the regions surrounding the Indian Ocean. The *Daftar al-Muẓaffarīya* offers good scope for such study. Analyzing each article, export port, relay port, and the correlation between them will serve to clarify the structure of multilateral trade between Mecca, Egypt, Syria, Iran, East Africa, Southeast Asia and China around a trilateral trade area, as well as the structure of trilateral trade between India, the Persian Gulf and the Red Sea region. Such an analysis has yet to be conducted.

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⁴⁹ There are numerous studies regarding “tea–horse trade,” including Wang Xiaoyin 2004, which do not require a full explanation in this paper. For “silk–horse trade,” see studies by Matsuda Hisao.

⁵⁰ With regard to the silver *dīnār* system, J. M. Smith Jr. referred to its adoption under the Il-khanid dynasty. See Smith Jr. 1969.

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ABBREVIATIONS

BEFEO: *Bulletin dell'Ecole française d'Extreme-Orient*

HJAS: *Harvard Journal of Asiatic Studies*

JA: *Journal Asiatique*

JAOS: *Journal of the American Oriental Society*

JRAS: *Journal of the Royal Asiatic Society*

JESHO: *Journal of the Economic and Social History of the Orient*

The Mongols and Their Magic Horses: Some Remarks on the Role of the Horse in Mongol Epic Tales

Veronika VEIT¹

I

The theft of horses may well be said to have initiated Činggis Khan's victorious advance as a conqueror!

According to the "Secret History" of the Mongols, the widow Hoelun and her sons, outcast by their clan, led a life of poverty and privation. One day, their only valuable possession, eight horses, were stolen – except one, a short-tailed, short-haired chestnut, that had been taken out by Belgütei marmot-hunting.² Upon his return, the oldest of the brothers, Temüjin, got on the chestnut and went off in pursuit of the robbers, "following the tracks in the grass", as our text continues. On his way, he met Boyurči who joined him, saying: "Friend, you came to me in great trouble, but men's troubles are the same for all. I will be your companion."³ Together, at the risk of their lives, the two brave youths then won the horses back. In this way, Boyurči became Činggis Khan's first and most faithful companion;⁴ what follows is history.

To a Mongol, horses are neither just valued possessions nor mere status-symbols, they can quite literally tip the balance between life or death in the steppe. "The very basis of Mongol society is mobility, and all aspects of nomadic livelihood – diet, dress, dwelling, and so on – are conditioned by or subordinated to this mobility,"⁵ as Jagchid states. Hence, horses are not only the most important means of transportation in the steppe, they are, moreover, indispensable, in war and peace, when fighting or escaping, when travelling, hunting or herding. Mares provide milk, on rare occasions horse-meat is eaten, and Mongol horses, not least, constitute a much desired object of trade, particularly to China.⁶

Mongol tradition considers horses the first of the five categories of domestic animals, the 'tabun qosiyun mal' – the others being camels, horned cattle, sheep and goats. The importance of the horse in Mongol society finds a further confirmation in proverbs and a specialized vocabulary, with its many terms for a horse's colour, size, age and generation. To illustrate it with just a few examples: "The greatest misfortune is for one to lose his father while he is young or his horse during a journey."⁷ "When travelling, always consider your horse's provisions first."⁸ As to colours, we find: čooqor (horse with small spots); qaliun (yellowish-white with black tail and mane); saartai (crescent on forehead); qar-a köke (greyish-white, white-tailed).⁹ Age, for instance, is defined as: daaga (two-year-old); šüdleng (three-year-old); külüg (charger).¹⁰

Viewed from the outside, by their neighbours and other non-Mongol peoples, the Mongols and their horses, in the past, were synonymous with a terrifying, devastating "storm", e. g. the "Mongolensturm" of 13th century Europe, or the description in the Yüan-shih, the history of the Mongol dynasty in China: "Yüan arose in the northern area. By nature they are good at riding and archery. Therefore they took possession of the world through this advantage of bow and horse."¹¹ Indeed, an even older Chinese dictum, "Ruling from

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² The Secret History of the Mongols I (2004), § 90, pp. 26-27.

³ Secret History, p. 27.

⁴ Cf. Boyurči's reward in 1206: Secret History, § 205, pp. 137-138.

⁵ Jagchid/Hyer (1979), p. 56.

⁶ Jagchid/Hyer, p. 22.

⁷ Jagchid/Hyer, p. 22.

⁸ Heissig, Wort aus tausend Jahren, p. 49.

⁹ Klér (1947), p. 18; cf. also note 30) of this paper.

¹⁰ Schubert (1971), p. 62.

¹¹ Jagchid/Bawden (1965), p. 246.

Horseback”, dating from the period of the Han dynasty,¹² has since been coined as a political term to delineate the fleeting character of steppe-nomadic/Mongol rule altogether.

Hence for centuries, the relationship between the sedentary civilizations and the horse-riding peoples of Central Asia was dominated by the fundamental difference in their cultural outlook, especially in view of the latter’s clan-structured society, an economy based on mobile nomadic pastoralism and the ideal of a leader who is a heroic warrior, blessed by “Heaven” with charisma and military fortune.

II

It is therefore not really surprising that horses - apart from their necessity in daily life - should also play a central role in other spheres of Mongolian culture, to witness: in the old religion of the Mongols, commonly called Shamanism, it was an imaginary horse which took the Shaman in a trance on his journey to the other world ; horses , moreover, were the sacrificial animals to the ancestral and shamanic spirits.¹³

According to the Secret History (§141), when the Mongol tribes raised Jamuqa as Khan, they killed a stallion and a mare by breaking their backs, in order to confirm the oath of friendship; similarly, the sacrifice of a white horse was made to Heaven (and that of a black ox to Earth) in conclusion of the formal alliances between the Mongols and the Manchus in the early 17th century.¹⁴

Horse sacrifices, moreover, also formed a part in funerary practices, customary of old in Central Asia in general as well as among the Mongols in particular.¹⁵ Horses, finally, figure in many Mongol songs,¹⁶ legends¹⁷ and fairy-tales¹⁸ – but most significant, perhaps, is the part they play in the Mongols’ epic poetry which may well be termed as the characteristic literary genre of a people who glorify military adventure and heroic personal achievement. The horse is here the hero’s friend and companion, equal to himself; it is his faithful comrade and wise counsellor, to whom he turns for advice and support. The horse is able to use the human language, to foresee events, to forewarn of dangers, to perform magic; it is, in fact, the second heroic figure, the indispensable part of the “winning team”! Without his horse, the hero would never reach his destination, never defeat the evil mangus (an ogre-like creature), and never win the bride. Such a close, if not complementary, relationship is expressed in Mongol epics through a number of common features in order to emphasize the bond between the two protagonists. One is the time and circumstance of the hero’s and his horse’s birth, described in the following passage taken from the Khalkha-epic “Xögsin Luu Mergen”: (The old horsemaster addressing the hero) “Nachdem jene Stute angekommen war, hütete ich sie, [jedoch wurde von ihr] in zehn Jahren kein einziges Fohlen geboren, und sie blieb fruchtlos. Als es hieß, dass du von deiner Mutter geboren warst, gebar [die Stute] in jenem Jahr ein Fohlen. In demselben Augenblick, als du in der Dunkelheit der Morgendämmerung auf der Südseite des Berges [...] im meeresweissen Palast von deiner Mutter geboren wurdest, fohte auch die gelbe Stute. [...] Es wurde ein schönes, männliches, schwarzes Fohlen geboren. Ohne sich auf den Boden zu legen, fiel es stehend heraus, machte drei Sprünge um seine Mutter herum, saugte dreimal an jeder der beiden Zitzen, und seit der Zeit habe ich nie mehr gesehen, dass es hinter seiner Mutter hergegangen wäre.”¹⁹

Another common feature is the hero’s and the horse’s predestination for one another, which the following verses taken from the western Mongol epic “Bum Erdeni” give evidence of:

¹² Cf. de Rachewiltz (1993), pp. 248-49: “Even though an empire may be conquered on horseback, it could not be administered on horseback.”

¹³ Veit (1985), pp. 82-83.

¹⁴ Veit (1985), pp. 84-85.

¹⁵ Veit (1985), pp. 83-84.

¹⁶ Although we dispose of a number of Mongolian anthologies, few of the songs are accessible in translation; cf., for instance, Klér (1947), pp. 19-21.

¹⁷ The most touching of these relates the origin of the Mongolian horse-headed fiddle; cf. Heissig (1963), pp. 31-34. See also the concluding paragraph of this paper.

¹⁸ Horses as ‘heroes’ of Mongolian fairy-tales are mostly found in the categories of “Tiermärchen” and “Zaubermärchen”; cf. Taube (2004).

¹⁹ Mongolische Epen II (1975), pp. 73-74.

Geboren, einem Helden Streitross zu sein,
 Geboren, in weiter Ferne ein Fohlen zu sein,
 Geboren, mir in sanfter Jugend ein jüngerer Bruder zu sein,
 Geboren, in fremder Ferne ein Freund zu sein,
 Geboren, gekommen, mir vor hartem Feind ein jüngerer Bruder zu sein!²⁰

A third point is the hero's exclusive ability to call and catch his steed – as will be explained and illustrated by a quotation later on.

Most touchingly, however, do the following passages express the special bond between the two faithful friends:

[...] und er sah [den Jungen] die acht Markknochen [des Pferdes] zusammenbinden und sich auf den Rücken legen mit den Worten, dass man die Knochen seines Pferdes nicht in einem fremden Land fortwirft.²¹

Even when on the point of death, the defeated evil Khan pleads with the hero:

Töte nicht mein braunscheckiges Pferd!
 Es ist mir teurer als mein eigenes Leben.
 Es ist ein starkes und gutes Pferd,
 [gerade] zum Reiten für einen tapferen Mann [geeignet].²²

The hero kills the horse nonetheless, but makes it a sacrifice to Khormusta Tngri. In the epic tradition of the Altai-Turks the common fate of the hero and his horse culminates in the following statement: “Après la mort, nos os seront ensemble, tant que nous sommes vivants, notre vie est commune.”²³

The fascinating and in all its aspects rather complex question of Mongol epic tales was the subject of an international as well as interdisciplinary research project within the former “Sonderforschungsbereich 12” [Special Research Unit], in operation from 1969 until 1988 at Bonn University, under the responsibility of the late Mongolist scholar Walther Heissig. The results were published in a series of monographs and collected papers, among them thirteen volumes of Mongol epics in translation.²⁴ Some of my own contributions to the project were centred on the role of the horse and are therefore made use of in the present paper.

Generally speaking, Mongolian epic tales are a treasure house preserving a variety of cultural phenomena – be they of material, folkloristic, customary or literary origin – not least because of the exclusively oral transmission, long before the introduction of a writing system for the Mongolian language.²⁵ When we therefore attempt an analysis of the role of the horse in Mongol epic poetry, it is not really remarkable to note that even its magic qualities have their roots in the natural conditions of the steppe-nomads' steeds. It is, in fact, both, the natural and the supernatural features, which combine in making up the magic power of the hero's horse. To what extent a classification of these features could eventually contribute to a more detailed literary analysis, for instance concerning questions such as what is to be defined as ‘topos’, ‘motive’, ‘narrative element’, or what is of autochthonous / foreign origin, still remains an open task – although some encouraging results of research in this respect are already on hand.²⁶

In the present context, or, to remain in the appropriate poetic picture, on our journey into the magic world of the “baatarlag morin” – the hero-horse - we will therefore travel along two roads: one is the natural (realistic) road, the other is the supernatural (magic) one.

Accordingly, the following features are classified ‘natural’: catching, body and colour, saddle and bridle, race-training. I will begin with a brief introduction, respectively, to conditions of daily life, and then

²⁰ Heissig, *Literaturgeschichte I*, p. 395.

²¹ *Mongolische Epen V* (1977), taken from the west Mongolian Jangar epic, p. 31.

²² *Mongolische Epen III* (1975), taken from the Khalkha epic Argil Tsagaan Öwgön, p. 90.

²³ Veit (1985), p. 81.

²⁴ In the series “Asiatische Forschungen” (W. Heissig, editor-in-chief), Otto Harrassowitz, Wiesbaden, 1979–1992) the subject of the hero-horse bond in Turkish and Mongolian epics has also been dealt with in exemplary fashion by R. S. Lipec (1984).

²⁵ Cf. for instance the following articles by Heissig (1980) and (1992); Veit (1987).

²⁶ Cf. for instance Heissig's heuristic articles (1979a); (1979b); (1983a).

illustrate these by selected corresponding poetic passages from the epics. Throughout these we note a certain, intended, alienation effect by the use of the literary styles of hyperbole and parallelism, both typical features of Mongol epic poetry.²⁷

1) Catching

Mongol horses live in groups of their own choosing, twenty to thirty mares to one stallion; the geldings usually join in a separate herd. Horses needed for riding are selected at the age of three, caught with an ‘urga’, or pole-lasso. When a stallion, he is castrated, usually at the age of two, and then trained.²⁸

In the words of the Khalkha-epic “Khürel Khan”:

[The hero’s horse] “is not to be caught with a horse-pole, but is to be caught with skilled cunning. It is not to be caught with a strap, but is to be caught with learned cunning. [...] Three men went to the edge of the herd, fluttered their narrow sleeves, spread out their short skirts, bent their round knees, waved and called to it, saying: ‘If you are a fine steed for riding, to be a mount for Gūn-galuu Baatar, come to the rimmed silver bridle!’²⁹

2) Body and Colour

The criteria according to which a horse is selected for breeding or riding follow certain norms. These norms are mostly traditional, but are also found in specialized handbooks, as early as the 18th century, the well-known ‘Morin-u sinji’, or characteristics of a good horse.³⁰ The Mongolian language has many terms for size, age, and specially colours of a horse. White is reserved for ritual purposes, as we have seen, whereas in daily life Mongols prefer bays, greys, dapple-greys, chestnuts and blacks.³¹

In epic tales, horse-colours are differentiated, according to whom the animal belongs: the hero or his enemy – be he a rival khan or a mangus; for instance: grey, dark-brown, chestnut or bay with black mane and tail, white piebald on dark background – positive (hero); tiger-piebald, whitish bay, white spot on cornea – negative (enemy).³²

Body- and colour-descriptions follow the rules of Mongolian ceremonial poetry, in this instance the category of ‘,morin-u mayṭayal’ or horse-praises.³³ In the southern Mongolian epic “Siregetü-yin Mergen Khan” we read:

Sein Pferd aber, in der Mitte der Herde,
An der Spitze der Wallache,
Mit einem Hundert-Klafter-Leib,
Mit einer Gestalt gleich einem Elephanten,
Mit Fesseln gleich der Steppenantilope,
Mit einem Sechs-Klafter-Nacken,
Mit Neun-Spannen-Ohren,
Mit klaren Sternenaugen,
Mit lockig-dichter Mähne,
Mit dichtem, spielendem Schweif ...³⁴

3) Saddle and Bridle³⁵

The traditional Mongolian saddle is made of wood, high-rimmed in front, flat at the back, leather-covered and skilfully decorated, likewise the bridle, even the stirrups are generally skilfully forged – in epic tales often referred to as “sun and moon”.³⁶ In the western Mongolian epic “Bum Erdeni” we read:

Den baumwollweissen Sattelfilz,

²⁷ Poppe (1958) and (1962).

²⁸ Veit (1985), p. 64.

²⁹ Mongolische Epen X (1982), p. 87-89.

³⁰ Veit (1985), pp. 74-75.

³¹ Cf. Veit (1985), p. 65; also notes 8) and 9) of this paper.

³² Veit (1985), p. 65.

³³ Heissig, Mongolische Literatur II, pp. 456-460; Veit (1985), pp. 72-74.

³⁴ Mongolische Epen VII (1977), p. 13.

³⁵ A detailed description is found in: Chinesische Gesandtenberichte/Olbricht/Pinks (1980), p. 171, referring to the 13th century.

³⁶ For instance in: Epen VII (1977), p. 19.

Aus der Wolle von Schafen und Lämmern,
 In Schichten, ohne Fehl gemacht,
 Aus der Wolle von Junglamm und Schaf
 In sehr schönen Lagen gewalkt, -
 Ihn nahm er, legte ihn auf der hohen Kruppe entlang.
 Den amboss-schwarzen Sattel,
 Gemacht, indem Elephantenbein gespalten,
 Gefertigt, indem eine Astgabel aus Sandelholz gebogen,
 Ihn, den vierzig Mann darauf reitend nicht durchdrücken,
 Ihn legte er schiebend und dagegenstimmend auf.³⁷

4) Race-training

Conditioning a horse for a long journey or a race requires a strict programme of feeding, tying up, sweating and resting, practised to this very day.³⁸ Striking similarities as to such a conditioning can, incidentally, also be found in the “Hippologia Hethitica” – the Hittites being another well-known people famous for their horse-lore!³⁹ In the epic of “Siregetü-yin Mergen Khan”, the process is put into the following verses:

Zur weiten Reise sich aufzumachen,
 Hielt er, die Finger zählend umbiegend, kurz,
 Sein schilfbraunes Pferd;
 Er begann, die Tage zählend, es anzubinden:
 Einen Tag band er es an,
 Da wurde sein dünnes Fleisch schlank.
 Zwei Tage band er es an,
 Da wurde sein Innenschenkel schlank.
 Drei Tage band er es an,
 Da wurden seine Schenkel schlank.
 Vier Tage band er es an,
 Da wurden seine Oberschenkel schlank.
 Fünf Tage band er es an,
 Da wurde sein fettes Fleisch mager.
 Sechs Tage band er es an,
 Da wurde sein Biss fest.
 Sieben Tage band er es an,
 Da wurde sein Fleisch unterm Sattelfilz fest.
 Acht Tage band er es an,
 Da wurde sein schmales Fleisch schlank.
 Neun Tage band er es an,
 Da wurde sein junges Fleisch schlank.
 Zehn Tage band er es an,
 Da wurde sein buntes Fleisch schlank.
 Es urinierte soviel wie eine Dattelpflaume,
 Es apfelte so groß wie Schafsköttel.⁴⁰

Having conditioned our horse in this way for the heroic exploits, metaphorically speaking, we now take the second road of our journey, leading us to the supernatural, or magic, qualities of the hero's steed. The characteristic features in this context include the use of the human language, exceptional wisdom, magic abilities, and the power to overcome the limits of time and space.

5) Human language

The fact that horses in epic tales are generally able to speak, is a classic topos, according to Hatto.⁴¹

³⁷ Heissig, Literaturgeschichte I, p. 396.

³⁸ Veit (1985), p. 71.

³⁹ Kammenhuber (1961), pp. 233-313.

⁴⁰ Epen VII (1977), p. 17.

⁴¹ Hatto (1982), p. 186.

The Mongol hero's horse not only talks, it is, moreover, considerably wiser than its human counterpart, besides being gifted with foresight. A number of passages illustrate this point in quite a touching, if not amusing, fashion. To quote a passage from "Siregetü-yin Mergen Khan":

An einem Tag in der Zukunft, der noch kommen wird,
An einem Morgen in späterer Zeit, der noch werden wird,
Zu einer Zeit, da meine Kraft erschöpft ist,
Zu einer Stunde, da meine Knochen schwer werden,
Wo wird sie sein, meine Freundin, meine Gefährtin,
Zusammenzugeben, was zerrissen und brüchig?
Von meinem Pferd will ich's erfahren!⁴²

The hero's frequently limited outlook, not to say occasional dim wit, is commented upon by his horse as follows: "You are the seed of man, with no hair on your face, but are you less than a beast with hair on its face?"⁴³ Or: "Wie bist du doch gedankenlos, wenn du auch ein tapferer Mann bist! Wie bist du doch unbesonnen, wenn du auch ein schöner Mensch bist!" – as we read in the Khalkha-epic "Xögsin Luu Mergen."⁴⁴

6) Magic Abilities

More than once the hero is rescued by his horse's magic abilities, as Mongols in real life, too, often were – episodes they never tire of relating!

In epic tales we find, among many such instances, the following: The hero's horse turns itself into a lame, scabby, bleary-eyed foal in order to deceive its competitors in the race, so that the hero will win.⁴⁵

During the fight with the evil mangus, the horse blows black fog from its nostrils so as to confuse the opponent's aim; the hero, therefore, remains victorious.⁴⁶ When the fifteen-headed black mangus' horse turns into a speckled milvine in the course of the single combat, the hero's horse turns into a brown eagle, catches the milvine and gives it to the hero to eat, whereupon he wins.⁴⁷ When the hero is poisoned by two giant yellow bees during a fight, his horse turns into a five-coloured rainbow, ascends to Heaven in this guise, and from Khormusta Tngri brings rescue to the hero.⁴⁸

7) Time and Space

Last but not least, we come to perhaps the most remarkable of the supernatural qualities of the heroic horse, the ability to overcome the limits of time and space. Of the many instances of such a characteristic magic journey in Mongol epic tales I have chosen one from the Khalkha epic "Khürel Khan":

[Riding his horse, the hero] "took the edge of the blue sky,
He took the border of the crusted golden earth,
He made the dusty road twinkle,
He made the hills and passes flash by.
He reduced a year's journey into a month.
He reduced a month's journey to twenty-four hours.
He reduced a twenty-four hours' journey into a day.
He reduced a day's journey to the shadow of a grass-stalk."⁴⁹

In this context one is tempted to see parallels to the old legends of 'winged-horses', apart from the classic shamanist concept of breaking through the level of the human world during the ecstatic journey to the world

⁴² Epen VII (1977), p. 11.

⁴³ Epen X (1982), p. 15.

⁴⁴ Mongolischen Epen II (1975), p. 58.

⁴⁵ Epen VII (1977), pp. 28-29.

⁴⁶ Epen II (1975), p. 84.

⁴⁷ Epen II (1975), pp. 86-87.

⁴⁸ Epen II (1975), pp. 89-91. Cf. also Heissig (1981), pp. 79-100.

⁴⁹ Epen X (1982), p. 95.

of the spirits. It is undertaken, as we have mentioned before, with the help of an imaginary horse, symbolized in the shaman's stick, which often has a small horse's head and diminutive stirrups.⁵⁰

III

To conclude our brief excursion to the world of the "Magic Horses of the Mongols", I would like to quote a passage from a legend recorded by Haslund-Christensen during Hedin's last great journey, the Sino-Swedish expedition of 1927–35. In this legend from Čakhar, the magic quality of the Mongol horse – be the level realistic or supernatural, heroic or poetic – is transformed into a touching tribute to the horse's place in the life and culture of the Mongolian people. I give a summary of the last paragraph of Haslund-Christensen's text:⁵¹

The Star-prince's steed, whose small folded wings behind each of his legs had been cut off to prevent the prince from returning to the sky, so that they both fell down in a great desolate desert, where the horse sank to the ground and expired. In despair over the loss of his marvellous steed, and persuaded he would now never again be able to return either to his star or to his beloved girl, both so far away that they could not be reached by an ordinary horse. Tears then fell from the prince's eyes, and a miracle took place: the dead horse was transformed into the first "khil-khuur", an instrument ornamented on top with his horse's head; its mane- and tail-hair was changed into sounding strings. The prince, from then on, became a wandering bard; his moving songs entranced the people so much that they made copies of the khil-khuur, playing songs inspired by what they had heard.

This, the legend concludes, is why the most dearly loved instrument of the Mongols is still decorated with "Jönung Khara Morin's" – the Star-prince's steed's – head; and this is also why their songs, or the best and oldest of them, are melancholy strains that sing of horses, of love, and of distant, unattainable stars. Indeed, the Mongols say, when the last khil-khuur, or horse-headed violin, disappears, the old Mongol music will become mute.

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⁵⁰ Heissig (1970), 329; Heissig (1983b), concerning the question of 'winged horses' see pp. 463-64; Veit (1985), pp. 79-80.

⁵¹ Haslund-Christensen (1943), pp. 36-37.

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