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Warhorse and post-nomadic empire in Asia, c. 1000–1800*

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Abstract

Until the nineteenth century the warhorse played a central role in the political organization of the great empires that bordered on the pastoral heartlands of Central Eurasia. Actually, the survival of the often (semi-)nomadic rulers of these frontier-empires hinged on the continued production, trade and use of Central Eurasian warhorses. This forestalled the full sedentarization of these rulers and conditioned the emergence of a post-nomadic political culture and organization in which Central Eurasian institutions like ordo, nökör and yurt continued to provide a forceful paradigm to mobilize, organize and enumerate cavalry armies. But as the specific ecological circumstances created different conditions for the breeding and trade of warhorses, they also gave rise to different interpretations of the nomadic paradigm. This is demonstrated in the case of the Mughal rulers in India and the Manchu-Qing rulers in China, who both shared a common Central Eurasian heritage and ruled the richest sedentary economies of their time.

Earlier generations have said that China is unable to defend itself against the mounted soldiers of [the Jin]. The enemy's strength derives from its cavalry; their ability lies in riding and archery ... Their lands in Henan and the northern marches are broad in expanse, and there are numerous pastures. In our country there is not four- or five-tenths of the number of pasture. The Danchang and Hengshan horse markets are extremely far from the front, and the convoy-relay depots are spaced irregularly. Therefore our nation does not even have two- or three-tenths as many horses as our enemy, the Jin.

Hua Yue in 1206¹

For when India, from the Sutlege to the Sea shall be entirely under British protection, an event which whether desirable or not cannot be far distant, that

* The first part of this essay was presented at the conference 'The International Horse Economy in Iran, India and China', held on 19–20 October 2006 and organized by the Institute of Iranian Studies of the Austrian Academy of Sciences at Vienna. I am grateful for the generous feedback of John Masson Smith, Jr at this conference as well as for the critical comments offered by William Clarence-Smith, Ken Pomeranz and three anonymous referees. The essay builds, however, on more than a decade of thinking about nomads, which gained tremendously from ongoing discussions with Jan Heesterman.

1 P. J. Smith, *Taxing heaven's storehouse. Horses, bureaucrats, and the destruction of the Sichuan tea industry, 1074–1224*, Harvard: Council on East Asian Studies, 1991, p. 303.

immense Empire will have no protection against the predatory hordes of horse from the Panjab, from Afghanistan, or even from Persia or Tartary, except what it shall derive from cavalry, the produce of India itself.

J. Salmond in 1816²

Introduction

This essay aims to explore the relationship between the production, trade and maintenance of warhorses and processes of empire building in medieval Asia. The perspective will be that of comparative world-history. At times this includes Europe, Africa and Southeast Asia, but most of the attention will be paid to India and China. These two regions are rarely compared to each other; when they are, both are usually measured against a still-dominant European paradigm which is primarily focused on the rise of ‘modern’ industry and state-formation. In our investigation, though, Central Eurasia will play the role of Europe, while the warhorse replaces the machine in the making and unmaking of states. But the interactions of India and China are rarely compared either, since at first glance India – like Europe and Southeast Asia – appears to be too distant from the steppes to have experienced a substantial nomadic impact. As we will see, however, both China *and* India saw the emergence of extensive post-nomadic empires that were built on the exploitation of the frontier between their increasingly productive sedentary heartlands and the semi-nomadic and nomadic marches bordering Central Eurasia. The persistent role of the Central Eurasian warhorse prevented the conquering rulers of India and China from becoming entirely settled – in fact, much of the organization, the ideology and the ritual in both regions remained thoroughly nomadic in character. In my view, the two absolute highpoints of the development of such post-nomadic frontier empires were the roughly simultaneous Mughal Empire (1555–1858) in India and the Manchu Qing Empire in China (1636–1911). Despite the enormous expansion of agriculture and overseas commerce, their rulers knew all too well that to reap the fruits of this expansion required a large and steady supply of strong Central Eurasian warhorses ridden by nomadic warriors. In my view, this partly explains the often ignored persistence of Central Eurasian political institutions in the at first sight mainly settled societies of India and China.

Obviously the relationship between warhorse and the political organization of empires is an old one. Recently, Bernard Lewis reminded us of the various equine metaphors associated with the horse, the accoutrements, the stirrups, the reins and even the tail to be in use for political authority. Even that magic word of modern-day leadership, *management* derives from the Italian *maneggio*: ‘the handling or training of a horse’. The same holds true of Islamic political language in, for example, *siyasa*, meaning both ‘horse-handling’ and ‘statecraft’ or simply ‘politics’.³ The idea that the horse belongs to a specific pattern of state-formation, because of the different economic demands that it involves, goes back

2 G. J. Alder, ‘The origins of “the Pusa experiment”’. The East India Company and horse-breeding in Bengal, 1793–1808’, *Bengal Past and Present*, 98, 1979, p. 28.

3 B. Lewis, *The political language of Islam*, Chicago and London: University of Chicago Press, 1988, p. 19.

at least to Aristotle, who believed that cavalry states were likely to be oligarchies since only the rich could afford horses. By contrast, states whose power depended on heavy infantry would be moderate democracies, since service as heavy infantry involved a lesser but still considerable outlay. Naval powers would be radical democracies, since it was the poorest citizens who served as rowers in the galleys.⁴

Apart from these more general associations, thanks to the studies of Lynn White and others, we all know how to connect the highly decentralized European state system called feudalism to the introduction of the stirrup and the spread of heavy cavalry.⁵ In the case of West Africa, drawing inspiration from White, Jack Goody and, in particular, Robin Law have likewise sought to show that the savannah states that depend on the use of warhorses tend to be less centralized than the coastal states, which lack horses and instead trust primarily on gunpowder technology. Both agree that:

Both in cavalry and in firearm states, the core of specialist soldiers who formed the army's principal strength regularly comprised the bands of retainers contributed by the major chiefs. Rulers regularly had private armies, usually recruited from palace slaves, even in cavalry states; and non-royal chiefs supplied contingents of soldiers even in firearm states, such as Dahomey. But in cavalry states, although the royal contingent can be seen as 'one of the pillars of the power' of the ruler, it is clear that the king did not normally provide more than a small proportion of the total strength of the army, and remained dependent upon the chiefs both militarily and politically. In firearm states, on the other hand, it was often (though by no means always) the case that the royal slave regiments formed the principal fighting force, so that the king could to some extent dispense with the need to depend upon their chiefs for the supply of military forces.⁶

Lynn White on Europe, and Goody and Law on Africa are not too far off from Marshall Hodgson's very influential thesis that the use of new gunpowder technology – mainly artillery – actually created the far more centralized, 'early-modern' Asian empires of the Ottomans, the Safavids, the Mughals and, as many would quickly add, the Manchus.⁷ Although, generally speaking, I would agree with this impressive list of scholars that gunpowder weaponry required or facilitated a different, perhaps even more centralized political organization, it is also my contention that, until the late eighteenth century, warhorses were more, or at least equally important in exercising imperial control, at least along the empires' most dangerous, arid frontiers. Under the prevailing circumstances, to dispense with the horse in favour of gunpowder may have stimulated centralized rule in some parts of the empire but, at the same time, would have undermined that rule along the fringes. Here I will not elaborate on the ongoing role of the warhorse since it is the overall drift of the

4 R. Law, *The horse in West African history. The role of the horse in the societies of pre-colonial West Africa*, Oxford: Oxford University Press, 1980, pp. 184–5.

5 L. White, *Medieval technology and social change*, Oxford: Oxford University Press, 1962.

6 Law, *The horse*, p. 188; see also J. Goody, *Technology, tradition and the state in Africa*, London: Oxford University Press, 1971.

7 M. G. S. Hodgson, *The venture of Islam, vol. III: The gunpowder empires of modern times*, Chicago and London: University of Chicago Press, 1974.

most recent literature on the topic both for Mughal India and for Manchu China.⁸ It raises, however, various questions about the production, the trade and the maintenance of war-horses and, following this, about the way the use of warhorses continued to influence the political organization of these empires. Let us start, however, by taking a closer look at the specific temporal and spatial coordinates of our present investigation. Why focus on 1000–1800 and why compare India to China?

The political ecology of frontier empires (1000–1800)

The most obvious reason for focusing on the period 1000–1800 is the so-called horse-warrior revolution of the eleventh to thirteenth centuries. So far, however, such a revolution has been demonstrated for India only since it is so closely associated with the tremendous success story of Turkish armies creating powerful new sultanates all over the subcontinent. It appears that this period saw the somewhat belated culmination of various earlier technological developments such as the use of stirrups, deeper saddles and new horse tack, which markedly improved both the stability of the rider and the manoeuvrability of the horse. Together with new, mainly ox- and dromedary-based capacities of supply, this increased the effectiveness of the warhorse, now used in a devastating new tactical combination of heavy cavalry at the centre and wheeling mounted archers on the flanks.⁹

Simultaneous with the rise of horse-based Indo-Turkish sultanates – first at India’s northwest frontier under Ghaznavids (977–1186) and Ghurids (c. 1000–1215) but then extending into northern India and the Deccan (c. 1200–1400) – we see in northern China the emergence of the great steppe empires of the Khitan Liao (907–1125), Tangut Xi Xia (990–1227) and Jurchen Jin (1115–1234), culminating in the Mongol empire of the Yuan (1260–1368). In the Chinese case, however, technology appears to have been far less important in explaining the sudden success of these steppe empires. Peter Golden stresses that the armament and tactics of the nomads did not change appreciably over time although the (earlier) spread of the stirrup may have facilitated more heavily armed men and armoured cavalry.¹⁰ Even with regard to the Mongols, Thomas Allsen claims that they did not enjoy

8 Although during the seventeenth century the Manchus used more and better quality gunpowder weaponry against the Ming and the southern Feudatories, mainly in connection with sieges, one can still fully agree with Kenneth Chase who, from a comparative perspective, states that ‘the Manchus were able to use the resources of the steppe to conquer the steppe, and they never suffered from the same shortage of cavalry that plagued the late Ming’, and ‘the solution to the problem of the steppe border had little to do with better firearms anyway’. K. Chase, *Firearms: a global history to 1700*, Cambridge: Cambridge University Press, 2003, pp. 170–1. For India, see J. J. L. Gommans, *Mughal warfare. Indian frontiers and high roads to empire, 1500–1700*, London and New York: Routledge 2002; For China, apart from Chase, see H. van de Ven, ed., *Warfare in Chinese history*, Leiden: E.J. Brill Publishers, 2000; N. di Cosmo, ed., *Warfare in Inner Asian history (500–1800)*, Leiden: E.J. Brill Publishers, 2002; N. di Cosmo, ‘Did guns matter? Firearms and the Qing formation’, in L. A. Struve, ed., *The Qing formation in world historical time*, Cambridge, MA and London: Harvard University Asia Center, 2004, pp. 121–67; P. C. Perdue, *China marches west. The Qing conquest of Central Eurasia*, Cambridge, MA and London: The Belknap Press of Harvard University Press, 2005.

9 J. J. L. Gommans, ‘The silent frontier of South Asia, c. 1100–1800 AD’, *Journal of World History*, 9, 1998, pp. 1–2. More in particular, see A. Wink, *Al-Hind: the making of the Indo-Islamic world, vol. II: the slave kings and the Islamic conquest, 11th–13th centuries*, E.J. Brill Publishers, 1997.

10 P. Golden, ‘War and warfare in the pre-Činggisid western steppes of Eurasia’, in di Cosmo, ed., *Warfare in Inner Asian history*, pp. 150, 157.

technological superiority over their sedentary enemies but rather that 'their success was due to the fighting qualities of their soldiers and to the tactical, logistical, and organizational abilities of their leaders'.¹¹

Whatever their relative importance, all these technological, tactical, logistical and organizational aspects, both in the case of India and China, do suggest that at the turn of the first millennium Central Eurasian cavalry armies had become more effective than ever before. Of course to be effective both the quantity and quality of warhorses were important. Even western and central Europe, Southeast Asia and northern Africa, areas which could raise strong warhorses but for ecological reasons could not support great numbers of them, in one way or another did experience its effects. But, generally speaking, their failure to develop units of effective mounted archers diminished the usefulness of their cavalry, which left considerable room for infantry warfare. Consequently, they were the first to experience the full impact of new gunpowder technology.¹² Somewhat surprising from the ecological point of view, however, is the sheer mass of warhorses in both India and China – in both cases from about 1 to 3 million, mostly held in the northern regions – for reasons that we still have to take account of.

The quality and the quantity of warhorses were matched in importance by logistical support, facilitated by increasing monetization and credit. Actually the crucial condition that made such a thing as a horse-warrior revolution possible was neither technology nor any other military condition but rather the rapidly changing medieval economy, i.e. the tremendous expansion of agrarian and commercial resources in the sedentary societies immediately surrounding the main Central Eurasian production centres of the warhorse. Hence, we cannot understand the horse-warrior revolution, or, connected to this, the rise of various new border states all across Eurasia, if we do not take into account the coinciding *agrarian* revolutions in Europe, the Middle East, and, indeed, most spectacularly, in India and China.¹³ Much of the fruits of this expansion were invested in larger and better-equipped cavalry armies, mostly recruited at the arid borders but with a great deal of clout in the fertile interior.

Although this expansion started from about the eighth century and achieved its maximum levels in the wetter, rice-producing areas in coastal India and southern China, it was the more effective use of more numerous warhorses that enabled an unprecedented degree of integration between the sedentary growth economies of Monsoon Asia and the nomadic and semi-nomadic areas of the so-called Eurasian Arid Zone.¹⁴ Here one could very well

11 Th.T. Allsen, *Mongol imperialism. The policies of the Grand Qan Möngke in China, Russia and the Islamic lands, 1251–1259*, Berkeley: University of California Press, 1987, p. 189.

12 B. S. Bachrach, 'Animals and warfare in early medieval Europe', *Settimane di studio del Centro Italiano di Studi sull'Alto Medioevo (L'Uomo di fronte al mondo animale nell'alto medioevo)*, 31, 1985, pp. 707–52.

13 M. Elvin, 1973. *The pattern of the Chinese past*, Stanford: Stanford University Press, 1983; B. Stein, *Peasant, state and society in medieval South India*, Delhi: Oxford University Press, 1980; A. M. Watson, *Agricultural innovation in the early Islamic world. The diffusion of crops and farming techniques 700–1100*, Cambridge: Cambridge University Press, 1983; R. A. Palat, 'Historical transformations in agrarian systems based on wet-rice cultivation: toward an alternative model of social change', in Ph. McMichael, ed., *Food and agrarian orders in the world-economy*, Westport, CT and London: Praeger, 1995, pp. 55–80.

14 Gommans, 'Silent frontier', A. Wink, 'India and the Turko-Mongol frontier', in A. M. Khazanov and A. Wink, eds., *Nomads in the sedentary world*, Richmond, Surrey: Curzon, 2001, pp. 211–34.

agree with Nicola di Cosmo who writes that while the basic tactical principles of nomadic armies may not have changed dramatically over time, the way in which resources were obtained and turned into military supplies did change considerably. Hence a nomadic army with access to greater resources (such as those that could be provided by neighbouring sedentary states or provinces) was able to sustain longer and more distant campaigns.¹⁵ This was exactly what happened all across the Middle East, India, and China in the period of c. 900–1400 when rapid nomadic conquests could feed on the economic growth of the neighbouring sedentary economies. Later, in the period 1500–1800, this was repeated at a still higher level with the establishment of larger, far more stable and extremely powerful frontier empires of the Ottomans, Mughals and Manchus. Assisted by an increasing influx of cash and bullion, they became post-nomadic, trans-frontier rulers who proved more successful than ever in bridging the old but now also shifting frontier between (semi-) nomadic horsepower and agrarian expansion.

Some of the major political developments of Asian societies for our period can simply be traced to their common ecological frontier between the arid and semi-arid nomadic horse-breeding areas and the wetter grain- and rice-producing centres. What really strikes the careful observer when focusing on Central Eurasia is the contiguous belt of relatively dry deserts and steppes that extends from northern Africa to northern China. Although desert and steppe are different ecological zones, supporting different nomadic economies, this so-called Arid Zone roughly indicates the natural habitat of nomadic-pastoralism in general, and nomadic horse-breeding in particular, and, as such, also denotes the natural range of operation of nomadic armies.¹⁶ It shows, for example, that Central Eurasia and Iran are the most liable to repeated horse-based nomadic incursions. What it does not show, however, is that the Middle Eastern deserts cannot support as many horses as Central Eurasia or northern Iran, an ecological fact that determined the natural, thirteenth-century boundary between Mamluk and Mongolian power.¹⁷ For similar reasons, the Carpathians marked the far western European frontier of nomadic armies (Fig. 1).¹⁸

From the ecological point of view the sharpest frontier between the predominantly nomadic Arid Zone and surrounding sedentary economies occurs in China where the Great Wall neatly demarcates the transition from steppes to sown.¹⁹ On the Indian subcontinent the two semi-arid extensions flow into the open jungle and scrub of the far east and deep south and make the transition far more gradual, but at the same time, far more intrusive. These eastern and southern extensions of the Arid Zone never occasioned the building of

15 N. di Cosmo, 'Introduction: Inner Asian ways of warfare in historical perspective', in di Cosmo, ed., *Warfare in Inner Asian history*, p. 10.

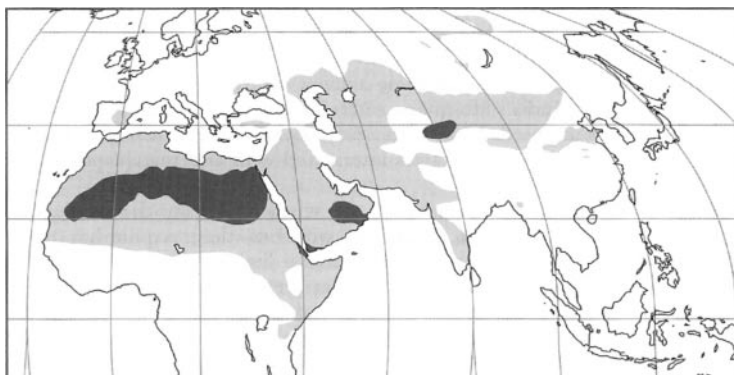
16 Gommans, 'Silent frontier'. See also Chase's excellent analysis that connects ecological zones with the spread and effectiveness of firearms. Chase, *Firearms*, pp. 197–211. For an earlier interpretation, see M. G. S. Hodgson, *The venture of Islam, vol. II: The expansion of Islam in the middle periods*, Chicago and London: University of Chicago Press, 1974, pp. 69–85.

17 J. Masson Smith, Jr, 'Nomads and ponies vs. slaves on horses', *Journal of the American Oriental Society*, 118, 1998, pp. 54–63.

18 D. Sinor, 'Horse and pasture in Inner Asian history', *Oriens Extremus*, 19, 1972, pp. 171–84, R. P. Lindner, 'Nomadism, horses and Huns', *Past and Present*, 92, 1981, pp. 3–20.

19 O. Lattimore, *Inner Asian frontiers of China*, Boston: Beacon Press, 1962.

Figure 1. Map of Saharasia



a defensive system like the Chinese one, but instead, facilitated the creation of India's *longue-durée* road axis of northern (*uttarapatha*) and southern highways (*dakshinapatha*). As a result, through these inner frontiers-cum-*limites*, the humid but very productive South and East in India are more closely linked to (semi-)nomadic Central Eurasia than is the humid and equally productive South in China.²⁰ Finally taking a look at the other end of the Arid Zone, the transition between Europe and Central Eurasia was in ecological and historical terms the least rigid, the more so since the deciduous forests of Eastern Europe did not yet support the rich economic and demographic centres so characteristic of the Indian subcontinent. Thus in India the encounter between agrarian prosperity and nomadic dynamism is comparable to China but it is also much less restricted to some external border as it is almost omnipresent (with the exception of the coastal regions of the Southwest and in Orissa).²¹

The ecological circumstances of the Arid Zone can explain much of the degree of havoc the nomads of Central Eurasia produced in its surrounding sedentary societies: at its greatest in the arid Middle East, Iran and Russia, at its least in the more distant parts of Europe and Southeast Asia.²² Perhaps, the most interesting middle position is taken up by India and China. Beyond a very dynamic nomadic frontier, both cover the world's two richest medieval sedentary economies. Even more than in the case of the Middle East, the post-nomadic Mughal and Manchu conquerors of these regions were probably the most sensitive to ongoing forces of assimilation – the same for indianization as for sinification – and in response were perhaps the most keen in maintaining as well as reinventing their nomadic outlook and organization. They knew perfectly well that only such a post-nomadic stance would enable them to get both cultural and material access to the Central Eurasian supply-lines of nomadic warriors and warhorses.

20 Gommans, *Mughal warfare*, pp. 8–23.

21 Cf. J. C. Heesterman, 'Warrior, peasant and Brahmin', *Modern Asian Studies*, 29, 1995, pp. 637–54.

22 This may very well be the crux behind Victor Lieberman's 'strange parallels' between the political integration of Southeast Asia and Europe in the period 800–1830. V. Lieberman, *Strange parallels. Southeast Asia in global context, c. 800–1830, vol. 1: Integration on the mainland*, Cambridge: Cambridge University Press, 2003.

Eurasian horse-economies

The warhorse was the one essential element of warfare that both the Indian and Chinese states could not produce in sufficient numbers for their own need. What they lacked most were extensive grazing facilities, especially in India's east, south and southwest and in China's southeast; those areas that had experienced a medieval agricultural breakthrough on the basis of more intensive paddy cultivation. In addition, like most of the hot and humid parts of Monsoon Asia, these areas possessed a hostile disease and reproduction environment for the horse. Insufficient grazing was not compensated by sufficient quantities of alternative and equally nutritious fodder crops such as oats in Europe or barley in the Middle East, both of which integrated horse-breeding more tightly with the agrarian economy and stimulated the breeding of relatively high quality warhorses such as the European destrier, a mixture of indigenous with Spanish and Arabian stock.²³ From the Mamluk experience, Masson Smith, Jr concludes that although nomads can produce more horses, sedentary people can produce better ones.²⁴ In the Indian and Chinese cases, indigenous horses of adequate quality were bred in the drier areas of northern and central India, and northern and western China – but the quality of the Indian and Chinese breeds remained critically dependent on regular crossbreeding with Central Eurasian horses.²⁵ In terms of quantities, Turkish and Mongolian warhorses tended to dominate the market but in southern India there was, especially during the Bahmani sultanate and Vijayanagara (1300–1500), also an important influx of more expensive Arabian and Iranian horses from overseas sources.²⁶ In this period, Ming China also imported horses by sea – mainly from Southeast Asia but also from Bengal and further west – but the quantities were far from sufficient to make a real impact on the total demand for good warhorses.²⁷ Moreover, longer-distance overseas transport meant higher death tolls and prices for horses; this was a problem even for India, and more so for China. Anyway, during both Mughal and Manchu times the overseas importation of horses declined significantly.²⁸

23 R. H. C. Davis, *The medieval warhorse: origin, development and redevelopment*, London: Thames and Hudson, 1989; A. Coates, *China races*, Hong Kong: Oxford University Press, 1994; J. J. L. Gommans, *The rise of the Indo-Afghan empire, c. 1710–1780*, Leiden: E.J. Brill, 1995, pp. 68–104; Gommans, *Mughal warfare*, pp. 111–22; M. Mitterauer, 'Roggen, Reis und Zuckerrohr. Drei Agrarrevolutionen des Mittelalters im Vergleich', *Saeculum*, 52, 2001, pp. 245–66; W. G. Clarence-Smith, 'Horse breeding in mainland Southeast Asia and its borderlands', in P. Boomgaard and D. Henley, eds., *Smallholders and stockbreeders. Histories of foodcrop and livestock farming in Southeast Asia*, Leiden: KITLV-Press, 2004, pp. 189–211.

24 For this, see in particular the following contributions by J. Masson Smith, Jr: 'Ayn Jalut: Mamluk success or Mongol failure?', *Harvard Journal of Asiatic Studies*, 44, 1984, pp. 307–46; 'Mongol society and military in the Middle East: antecedents and adaptations', in Y. Lev, ed., *War and society in the eastern Mediterranean, 7th–15th centuries*, Leiden: E.J. Brill Publishers, 1997, pp. 249–67; 'Nomads and ponies'.

25 Mitsutaka Tani, 'A study on horse administration in the Ming period', *Acta Asiatica*, 21, 1971, pp. 73–98; Smith, *Taxing heaven's storehouse*, pp. 17–31; Gommans, *The rise of the Indo-Afghan empire*, pp. 68–79.

26 S. Digby, 'The Arab and Gulf horse in medieval India', unpublished ms.

27 R. Ptak, 'Pferde auf See: Ein vergessener Aspekt des maritimen Chinesischen Handels im frühen 15 Jahrhundert', *Journal of the Social and Economic History of the Orient*, 34, 1991, pp. 199–233.

28 For the Manchus this was the crux of the presentation by Angela Schottenhammer during the conference 'The International Horse Economy in Iran, India and China' held on 19–20 October 2006, organized by the Institute of Iranian Studies of the Austrian Academy of Sciences at Vienna.

The most important difficulty facing sedentary horse breeders in India and China was the competition with other agrarian activities that supported large populations. In India, for example, the busy agrarian seasons allowed little time for haymaking. In northern Song China, a region of low economic productivity and high population density, peasants tended to chip away at the fringes of the government's grasslands.²⁹ In the mid-Ming period many of the pastures earmarked for horses were converted into manors and other private estates involving a shift from pasturage to stable-breeding, which was accompanied by an increased burden of expenses for fodder – rice- or millet-straw, black- or yellow-beans and other low-quality substitute forage – which caused the quality of horses to deteriorate.³⁰

In general, the state authorities proved reluctant to stimulate private production as they, for obvious reasons of security, preferred to keep a close eye on both the production and the imports of warhorses. For this reason, the Song and Ming, for example, tended to prefer a policy of self-sufficiency by attempting to produce as many indigenous horses as possible. This policy usually failed, mainly because limited space and bad climate prevented the production of a sufficient quality and quantity of warhorses. During the Ming period, despite territorial control that encompassed the most northern parts of China, the policy of private stock-farming that at first provided the foundation of the dynasty's horse supply was transformed in about a century into a monetary tax used to buy horses from the Mongols. Thus, following the conclusions of Paul J. Smith, ultimately any dynasty that did not possess substantial tracts of steppe land was forced to buy horses from the pastoralists who did.³¹

In and along the semi-arid extensions of northern and central India, private, nomadic and semi-nomadic horse breeders often had more favourable breeding conditions; these included better grazing facilities and more contact with the breeding centres of Central Eurasia, Iran and the Middle East. These mostly Afghan or west-Indian breeders supplied the studs of the political courts, sometimes as revenue or tribute paid in kind but mostly through trade at market prices. Although the Indian governments shared the horse anxieties of their Chinese counterparts, horse-breeding remained closely associated with nomadic and semi-nomadic free grazing and, nonetheless, remained a more durable and far more integrated part of the Indian agrarian economy than in the case of China.

It should be noted, though, that compared to any other part of the world, India and China not only imported but also required far more warhorses – about 25–50,000 a year – as both regions encountered a far more immediate nomadic threat. In both cases, there is no doubt whatsoever that the most, and the best, warhorses came from abroad. Even more than breeding, however, the interregional trade in warhorses involved enormous security risks for the settled political authorities. For example, the Mughal emperor Aurangzeb warned his purchasing officers in Kabul to take care that the horse-traders imported their horses without riders. He knew perfectly well that India had a tradition of large and small Afghan horse-traders leading armed caravans eastwards and southwards across India, carving out principalities of their own, or as in the case of the Lodi Afghans, perhaps even

29 Smith, *Taxing heaven's storehouse*, pp. 20–2.

30 Tani, 'A study on horse administration', pp. 80–2.

31 Smith, *Taxing heaven's storehouse*, p. 23.

creating a true sultanate.³² In India, horse-traders could easily turn into warlords and warlords easily turn into sultans. This is also shown by the fact that many of the Delhi sultans started their careers as so-called wardens of the marches (*marzban*), i.e. as governors of the north-western border districts, which not only had easy access to the horse-markets of the northwest but also experienced a marked improvement of the horse-stock thanks to the recurrent Mongol incursions of the thirteenth and fourteenth centuries. For the same reason, the Indian capital of Delhi itself, in this case not unlike the Chinese capital of Beijing, developed as a kind of frontier town that remained strategically close to these marches.³³

For the sultans in Delhi, as for the later Mughal emperors, the outside borders of the empire were relatively porous. What they really controlled was not a well-defined external border but, at best, the main urban centres, the agrarian heartlands surrounding and the main routes connecting these centres. All this accounts for the specific Indian pattern of the horse trade: only at times of relatively tight imperial control, horses were bought at border towns by imperial officers but, in general, there always remained a vigorous private market, or actually a string of markets which, following India's two semi-arid extensions, stretched from the far northwest deep into the east and south of the subcontinent, where the seasonable supplies of mostly Afghan and, in the south also, Portuguese horse-traders could meet the combined imperial, regional and local demand.

With respect to the horse trade the Indian case appears to be somewhat similar to the Russian one. For Muscovy the Nogai – a purely nomadic confederacy extending east from the Volga to the Irtush River in Siberia – were an important source of warhorses; Muscovy being the main source of income for the Nogai. In the sixteenth and seventeenth centuries the Nogai horse trade appears to have been strictly controlled by the Russian authorities and took place at a designated site near Moscow or in several Russian towns along the Volga. At this time, the Nogai traders brought as many as 30–40,000 horses to the capital annually.³⁴ Hence, compared to the Indian situation, the Nogai trade appears to be more centrally supervised, based on a more direct, tribute-like, exchange between nomadic breeders and the government. By contrast, in India we see well-functioning market-forces dominated by specialized transfrontiersmen acting as intermediaries between nomadic supply and sedentary demand. It should be no surprise that these wealthy intermediaries turned out to be far more threatening to the political establishment than the Nogais, giving rise to that enduring Indian rivalry between Afghans and Mughals.

Returning to the Chinese situation, the contrasts are indeed striking. As indicated already with regard to breeding, Chinese governments always attempted to confine the trade in horses to the place where they were most needed, the western and northern frontiers. This trade mainly involved Chinese tea for Mongolian horses. But the Chinese transported the tea from the interior to the borders instead of having the barbarians bring their horses to

32 S. Digby, *War-horse and elephant in the Delhi Sultanate*, Oxford and Karachi, 1971; Gommans, *The rise of the Indo-Afghan empire*; Digby, 'The Arab and Gulf horse'.

33 Gommans, 'Silent frontier'; cf. P. Jackson, *The Delhi Sultanate: a political and military history*, Cambridge: Cambridge University Press, 1999.

34 M. Khodarkovsky, *Russia's steppe frontier. The making of colonial empire, 1500–1800*, Bloomington and Indianapolis: Indiana University Press, 2002, pp. 26–7; Perdue, *China marches west*, p. 79.

the interior (mainly Szechwan and Shensi). In this way, the government not only anticipated tremendous security risks but also avoided the expenses of lodging and feeding the barbarians on their trip through the interior. After purchase, the horses were sent directly to the frontier garrisons. Under the Song, horses from as far as Tibet were transported along a belt of relay posts that ran parallel to the border. At the northern frontier, imported mares were transported to the royal pastures or, in Ming times, to the non-governmental studs near Beijing and, sometimes, as far south as Nanking. For reasons of security, the Manchus, who almost entirely depended on imports, declined to procure their warhorses from the Zunghars, their main Mongol rivals, and instead preferred to purchase their horses from the smaller Mongolian tribes immediately beyond the Great Wall. The biggest security problem of the trade was only solved at the second half of the eighteenth century when, following the conquest of modern-day Sinkiang and Mongolia, these tribes were incorporated into the empire.³⁵ What is really striking in the Chinese case, however, is not only the degree of supervision and command mobilization through endless government bureaux, agencies and offices but also the rigid demarcation between nomadic supply and sedentary demand along a relatively well protected border. Most of the breeding and trade of warhorses was concentrated at the very edge of empire, girdling the perimeter of the realm.³⁶ As a consequence, in China there was much less of a chance that horse-traders would turn into mounted warlords, infiltrate the empire and take power in Beijing from inside.

In sum, comparing the various horse-economies, we first encountered the Central Eurasian, Iranian and Middle Eastern situation where states were faced with a practice of internal, mostly nomadic horse-breeding. Although it made the states of this so-called Saharasia extremely dynamic and powerful, it also made them extremely unstable as it remained very difficult to keep the military power of the horse-breeding tribes at bay. This situation contrasts sharply with that of western and central Europe, where horse-breeding is equally internal but also much more integrated into the sedentary world that allows neither much agency nor political clout to breeders and traders. Again different, we came across Russia, India and China, all of which imported huge numbers of warhorses from Central Eurasia and, in the case of India, to a lesser extent, from Iran and the Middle East. Despite this resemblance, the differences stand out more clearly. China confined its horse-economy entirely to the frontier, Russia closely supervised supplies into the interior, and India, finally, allowed a great deal of leeway to commercial intermediaries.

Eurasian horse-institutions: Mughal India and Manchu China

Up until the eighteenth century, the Mughals in India and the Qing Manchus in China stand out as the two most important superpowers of their day. Much of this was based

35 The Chinese situation is mainly based on: S. Jagchid and C. R. Bawden, 'Some notes on the horse-policy of the Yüan dynasty', *Central Asiatic Journal*, 10, pp. 246–69; M. Rossabi, 'The tea and horse trade with Inner Asia during the Ming', *Journal of Asian History*, 4, 1970, pp. 136–69; Tani, 'A study on horse administration'; Smith, *Taxing heaven's storehouse*; Perdue, *China marches west*.

36 Smith, *Taxing heaven's storehouse*, p. 291.

on their successful exploitation of both nomadic and sedentary resources, both of which had considerably increased during the previous centuries. From this perspective, both empires improved on their predecessors and, as such, they mark the highpoint of a long-lasting medieval tradition of frontier exploitation. Although both used gunpowder from their inception, these empires remained strongly dedicated to and dependent on horses. Hence, in my view, both should not be considered as early-modern gunpowder empires but rather as very successful late-medieval frontier empires. In fact, both empires were founded by conquerors, who, although no nomads themselves, boasted a strong nomadic background and legacy that went back as far as Chinggis Khan. As so-called bicultural transfrontiersmen, i.e. settled warriors who remained committed to camp and horse, both the Mughals and the Manchus turned out to be extremely well qualified to rule predominantly sedentary societies without having to leave their cherished saddles. Horses were the crucial linchpin in a not too complicated tripartite relationship, well summarized by the early Manchu chief Hong Taiji: 'With booty from China and goods bought from Korea we buy horses from the Mongols and set out against China.'³⁷ Of course, to really administer their empires both dynasties had to become deeply entangled in all sorts of regional and local affairs. This not only tended to compromise their imperial authority but also tended to undermine their military superiority as based on extra-regional mobility and ongoing access to foreign horsepower. Consequently, there always was this Ibn Khaldunian fear of acculturation, softening and decline, most urgently felt in the most settled of societies in India and China. It made Mughals and Manchus alike repeatedly yearn for those early days of simple life and wandering adventure back 'home' in that unspoiled Central Eurasia, be it Turkistan in the case of the Mughals or Manchuria in the case of the Manchus.³⁸

Apart from such post-nomadic nostalgia, in order to survive, both dynasties invented a whole range of pseudo-nomadic institutions, traditions and ritual that derived from their rich nomadic past in Central Eurasia. As suggested by the late Joseph Fletcher, the Turks and Mongols – and here one could equally well read Mughals and Manchus – transplanted their (imagined) nomadic traditions at various times in each of the agrarian societies, and in one form or another this legacy from the steppe persisted in each of them for an extended duration.³⁹ This was primarily done in recognition of the sheer power of nomadism, i.e. first and foremost its power to produce and employ large quantities of the most excellent war-horses. However, during the process of transplantation the nomadic traditions were

37 G. Roth Li, 'State building before 1644', in W. J. Peterson, ed., *The Cambridge history of China. vol. 9, part 1: the Ch'ing empire to 1800*, Cambridge: Cambridge University Press, 2002, p. 70.

38 M. C. Elliott, *The Manchu way. The eight banners and ethnic identity in late imperial China*, Stanford: Stanford University Press, 2001; Gommans, *Mughal warfare*, 2002. It goes without saying that the lifestyle of the early Mughals in Turkistan was not at all unspoiled or nomadic but already rather urban and post-nomadic.

39 J. Fletcher, 'Turco-Mongolian monarchic tradition in the Ottoman empire', *Harvard Ukrainian Studies*, 3/4, 1979–80, p. 242. See also J. A. Millward, 'The Qing formation, the Mongol legacy, and the "end of history" in early modern Central Eurasia', in L. A. Struve, ed., *The Qing formation in world historical time*, Cambridge, MA and London: Harvard University Asia Center, 2004, pp. 101, 110.

thoroughly adjusted to the specific sedentary circumstances in India and China in order to make these more pliable and less disturbing instruments of state policy.⁴⁰

Here I would like to discuss three such post-nomadic institutions that were highly significant as they were specifically geared to mobilize, organize and remunerate an army that remained based on the employment of massive numbers of Central Eurasian horse-warriors. It is my basic contention that it is really hard to imagine these institutions without the ongoing need to use Central Eurasian warhorses. The three institutions I have in mind are: (1) the moving camp or *ordo*, (2) the personal following or *nökör* of the leader separated from the bureaucracy, (3) the principle of sharing-out (*yurt*) as based on the equal distribution of spoils. The terms *ordo*, *nökör* and *yurt* are used since they refer to the original Eurasian background of these institutions and, as such, were recognizable to the Mughals, to the Manchus or to any other post-nomadic dynasty that claimed a nomadic tradition, be it true or invented. As much as present-day constitutions, parliaments or elections are part of the paraphernalia of the modern nation-state based on the European model, in our period, *ordo*, *nökör* and *yurt* were part of the basic accoutrement of medieval frontier empires based on the Central Eurasian paradigm. This does not mean, of course, that we cannot find elements of these three institutions in other parts of the world. For example, most of the following may remind one of such, much older, notions of feudalism, patrimonialism or sultanism but we tend to forget that such more general, often Weberian categories, have a concrete historic background which is different from modern ideal-types of sovereign states based on the western experience. In our period, it was neither Europe, nor China, nor India but Central Eurasia that provided the most powerful model of successful state-formation. As such, the three institutions *ordo*, *nökör* and *yurt* were part of a post-nomadic repertoire that every ambitious new ruler had to adopt both to gain status and in order to survive. The following discussion will focus on these three institutions and discuss the ways in which this common Central Eurasian legacy necessitated different adaptations in accordance with the specific (mainly ecological) conditions in Mughal India and Manchu China, all three in the context of the persistent military significance of the warhorse.

Ordo

The pastoral economy of the nomad required the permanent movement of his camp (*ordo*) that included his extended household and his cattle. In military terms, his very mobility was the nomad's most vital strategic and tactical asset in his confrontations with sedentary armies. To maintain this advantage, nomadic conquerors of sedentary worlds, also after the conquest, tended to continue their itinerant ways of life often provoking grumbling

40 Wink, 'India and the Turko-Mongol frontier'; J. Waley-Cohen, 'Ritual and the Qing empire', in di Cosmo, ed., *Warfare in Inner Asian history*, pp. 405–45; J. Waley-Cohen, 'Changing spaces of empire in eighteenth-century Qing China', in N. di Cosmo and D. J. Wyatt, eds., *Political frontiers, ethnic boundaries, and human geographies in Chinese history*, London: Routledge Curzon, 2003, pp. 324–50. To a lesser extent, this is even relevant for seventeenth- and eighteenth-century Europe (think about the Hussars and other pseudo-tribal contingents) and Southeast Asia, regions that were far less conducive to the breeding and employment of strong warhorses in great numbers but also seem to have experienced a marked revival of pseudo-nomadic, equine rituals and apparel both in the armies and at the courts. For Southeast Asia, see J. J. L. Gommans, 'Trade and civilization around the Bay of Bengal, c. 1650–1800', *Itinerario* 19, 1995, pp. 82–108, and W. G. Clarence-Smith, 'Elephants, horses, and the coming of Islam to northern Sumatra', *Indonesia and the Malay world*, 32, 2004, pp. 271–85.

from their new, sedentary advisors. Of course, they knew that a landscape of grain or paddy fields was not conducive to cavalry marches. Actually, it made the early Mongols consider radical plans to depopulate north China and convert its agricultural lands into pasture.⁴¹ For the same reasons, their Khitan predecessors had already banned irrigating the land surrounding the capital. Permission was finally given, but not along the routes used by the army.⁴² But whereas in the steppes and deserts of Central Asia and Iran, the degree and the direction of movement were indeed determined by the availability of grazing, in the sedentary surroundings of India and China, movement hinged on a sophisticated logistical network consisting of numerous itinerant transporters, bankers and merchants providing cash and fodder to the ever-moving camp. Not surprisingly also, the Mughal and Manchu rulers had a very strong awareness that travelling across their realm with the entire court and army was somehow crucial to their survival.⁴³

Interestingly, the emperors who appreciated the need of the camp-cum-court in *perpetuum mobile* most were two contemporaries: Aurangzeb (r. 1658–1707) and the Kangxi emperor (r. 1662–1722). Both of them envisaged the danger of an empire rusting away by the increasing lethargy of their *mansabdari* and banner nobility; both of them personally commanded long-distance campaigns, chasing their political rivals (Shivaji and Galdan respectively); both of them clearly enjoyed the austere life in tents far away from the capital. Aurangzeb's restless behaviour was in line with at least some of the rhetoric in Indo-Islamic chronicles in which the king is recurrently warned that he 'ought not to keep his tent pitched at one place for two days even with a view to enjoying ease and comfort'. It was also clearly propagated in one of Aurangzeb's own counsels for kings:

Next this, an emperor should never allow himself to be fond of ease and inclined to retirement, because the most fatal cause of the decline of kingdoms and the destruction of royal power is this undesirable habit. Always be moving about, as much as possible (*verse*): 'It is bad for both emperors and water to remain at the same place; the water grows putrid and the king's power slips out of his control. In touring lie the honour, ease, and splendour of kings; the desire of comfort and happiness makes them untrustworthy.'

Aurangzeb's perception that political fitness required movement was based on the experience of his great-grandfather Akbar who had been able 'to capture the country by means of travelling through it'. The official chronicle depicts an ever-marching Akbar who was known to be fond of 'travelling and hunting', and who never did 'fix his heart to one place', gathering 'new affluence from every quarter'.⁴⁴ But Aurangzeb's advice that kings should never rest was also used to charge his father with political negligence as he chose to stay at Delhi and Agra, instead of being constantly on the march – a verdict that a later Manchu

41 Th.T. Allsen, 'The rise of the Mongolian empire and Mongolian rule in North China', in H. Franke and D. Twitchett, eds., *The Cambridge history of China*, vol. 6: *Alien regimes and border states*, 907–1368, Cambridge: Cambridge University Press, 1994, p. 376.

42 D. Twitchett and K. P. Tietze, 'The Liao', in Franke and Twitchett, eds., *The Cambridge history of China*, vol. 6, p. 95.

43 Gommans, *Mughal warfare*, pp. 100–11; Perdue, *China marches west*, pp. 409–29.

44 Gommans, *Mughal warfare*, pp. 100–11.

ruler, the Qianlong emperor (r. 1736–1795), would certainly have recognized as he also was inspired by the politics of his grandfather, the Kangxi emperor (r. 1662–1722), in reversing the too stationary policy of his father, the Yongzheng emperor (r. 1723–1735). In general, one may say that despite the advice of various Indian and Chinese ministers that kings should not leave the capital for too long, both Mughals and Manchus held a strong belief, based on long experience, that ongoing movement was not only vital for their own survival but also healthy for the body politic in general.

From my own calculations it appears that the four Mughal emperors Akbar (r. 1556–1605), Jahangir (r. 1605–1627), Shah Jahan (r. 1628–1657) and Aurangzeb (r. 1658–1707) were for about 65% of their reign sedentary, i.e. staying for more than six months in one place, short trips not being counted. For about 35% of their rule, they were migratory, be it on tour, on military campaigns or long hunting expeditions. Although based on different criteria and being extremely approximate, it strikes one that these calculations come very close to the Iranian figures for Shah Abbas I (r. 1587–1629). The Safavid king was travelling about one-third of his reign, resident in a capital for one-third, and static in other locations for the rest. The Safavid and Mughal figures are certainly much higher than in the case of the Ottoman rulers who stayed for much longer periods in the capital.⁴⁵

What about Manchu movement? Apart from the two founding fathers Nurhaci (1559–1626) and Hong Taiji (1592–1643), the later emperors also spent a considerable time moving from place to place. As indicated already, this was particularly true for the Kangxi and Qianlong emperors. The latter, for example, went on about 150 trips, and was on the road an average of three to four months a year, which comes close to the Mughal and Safavid figures. As in the Mughal case, the Manchu tours were a constant re-enactment of a narrative of nomadic conquest and military superiority. As such, it was very much part of the Central Eurasian heritage: to rule by personal presence of the man who marked his domains on horseback.⁴⁶ Apart from this, though, marching also implied surveillance, required road-building and enabled the emperor to keep in physical touch with his many regional and local co-sharers of the realm and to forge bonds of loyalty with them. With all the dust, smell and clamour surrounding it, the moving imperial camp was a permanent reminder of Mughal and Manchu sovereignty and, as such, a constant threat to any obstreperous governor or landlord considering disobedience or revolt. Since the camp showed the imperial grandeur on permanent display all over the empire, actual fighting could often be avoided. The pending arrival of the court was usually more than enough to bring people into submission.

Apart from these administrative advantages, another fairly obvious reason for keeping the court moving was to keep the cavalry army in permanent mobilization and readiness. In all the imperial tours, both Mughals and Manchus constantly evoked the theme of military discipline. Both insisted that their people ride on horseback, not on sedan chairs or palanquins, and both conducted riding and shooting exercises to test their skills. Both knew perfectly well that as much as political survival hinged on permanent movement, permanent movement hinged on good horsemanship. But although Mughals and Manchus shared the ideal of the *ordo*, it is also true that – despite the Southern Tours of the Kangxi

45 C. Melville, 'From Qars to Qandahar: the itineraries of Shah Abbas I (995–1038/1587–1629)', in J. Calmard, ed., *Études Safavides*, Paris and Teheran, 1993, pp. 195–225; Gommans, *Mughal warfare*, pp. 101–3.

46 Waley-Cohen, 'Changing spaces of empire'; Perdue, *China marches west*, pp. 409–29.

and Qianlong emperors – the Manchus tended to move mainly along and across their northern borders whereas the Mughals moved throughout the entire realm.

The military and the administrative objectives of imperial mobility converged most visibly in the practice of hunting.⁴⁷ Hunts could be organized when the court was temporarily settled in the capital but also when the army was on the move. Often we find, the Mughal emperor hunting or hawking ‘as he went’, ‘on the way’ or ‘along the road’. In all these cases, the bulk of the imperial troops was left behind and continued its own route at its own pace. The hunting party accompanying the emperor usually involved a few personal retainers and never exceeded the number of 1,000 horse and foot. At every stage of the hunt, special friends could be selected to join the emperor. Away from the tight ritual of the court, the excitement of hunting created a more convivial atmosphere, reminiscent of the erstwhile war-band of the Central Eurasian founding fathers, in which new relations of friendship and loyalty could be forged.

But apart from being an enjoyable pastime, hunting was an essential instrument of government. Under the veil of hunting, the Mughals both rallied and suppressed the enormous military potential of the country surrounding the imperial hunting grounds. Hunting expeditions were often organized to inconspicuously mobilize troops or inspect the contingents of the nobility. For example, Akbar’s campaign against Chitor in 1567 started with a hunt in the Bari district, ‘in order that the loyal and devoted leaders might come without the notoriety of being sent for’, while others, either their servants or not, would, seeing that there was no prohibition, readily assemble in order to pay their respects. Similar to what we have seen for marching in general, hunts were also useful for making surveys, for gathering local intelligence as well as for subjecting unruly areas, which, at least in the Mughal case, could be very near to the imperial centre; be it capital or hunting ground. Even more important, though, hunting expeditions were crucial for practising cavalry manoeuvres. Most prominent in this respect was the so-called *qamarghah*. From an area that could be as large as about 100 km in circumference all the wild game was driven together into a small, enclosed circle where the king started the actual hunt. Since the rounding up of wild animals involved similar manoeuvres as on the battlefield, i.e. skirmishers in front of the centre with two flanks wheeling around the enemy, hunting served as a most useful training camp.

Similar reasons made the Manchus relish the hunt. In 1684 the Kangxi emperor ordered the garrison generals to organize local hunts since ‘if the officers and soldiers at the provincial garrisons are not made every year to go hunting to practice their martial skills, they will eventually become lazy’. Later, under the Qianlong emperor, hunting became an important ingredient of the ‘Manchu way’ as only the hunt could guarantee the maintenance of the art of shooting from horseback, so essential to the Manchu military repertoire. But in contrast to the Mughal hunting expeditions, which were conducted in the various hunting reserves throughout the empire, most Manchu hunts were organized in the laid-out hunting grounds beyond the Great Wall.⁴⁸

47 Gommans, *Mughal warfare*, pp. 110–11; Th.T. Allsen, *The royal hunt in Eurasian history*, Philadelphia: University of Pennsylvania Press, 2006.

48 Elliott, *The Manchu way*, pp. 182–91.

Nökör

Nökör is the second nomadic concept that was thoroughly transformed but remained in full operation after the nomadic conquest of sedentary lands. *Nökör* was the Mongolian term for the personal following or *comitatus* of the ruler. As such it was a means to create an institutional framework to move beyond the ephemeral tribal politics so characteristic of the political history of Central Eurasia. Hence this personal elite was supposed to overrule the tribal structure by creating a more selective, more meritocratic, artificial 'tribe' that was fully attached to and often named after the new ruler who became the focus of obedience and allegiance.⁴⁹

This supra-tribal principle of military service and loyalty remained the basic building block of the military organization after conquest but in order to rule an extensive sedentary realm also had to be tremendously expanded. In my view, in all their variety, both the *mamluk* system of the Islamic world, the *tümen* of the Timurids, the *mansabdari* system under the Mughals, even the *angaraksha* system of southern India,⁵⁰ and the banner-system of China, may all be considered as manifold adaptations of the nomadic concept of *nökör*. Like *nökör*, these sedentary inventions aimed at the incorporation of the existing tribal and ethnic leadership, in command of most of the existing horsepower, into non-tribal, or more appropriately, *new* tribal and ethnic organizations based on loyal service to the emperor and as linked, in various degrees, to his personal bodyguard. But apart from being an instrument of incorporation through imperial service, *nökör* was also a means of exclusion since it tended to articulate a new imperial hierarchy based on personal loyalties and imperial service, often underscored by new ethnic and social categories that were to prevent the subversion of the imperial *esprit de corps* by random assimilation. This created a new elite of post-nomads, or surrogate nomads, as Joseph Fletcher has labelled them:⁵¹ they were primarily recruited from the agrarian population but as cosmopolitan, often highly mobile men in service to the emperor also emphatically detached from it.

One proven way to keep the military from striking local and regional roots was by keeping its organization apart from the sedentary bureaucracy. Hence, both Mughals and Manchus attempted to maintain a dual civil-military structure, which (whether or not it originated in ancient China), became a tremendous success-story all across those parts of Eurasia conquered by horse-based nomads.⁵² In my view, this policy of military apartheid was not instigated by some 'modern' urgency to distinguish between ever more professional armies and ever more rational bureaucracies but by the need of post-nomadic rulers to keep

49 J. Nemeth, 'Wanderungen des mongolischen Wortes *Nökür* "Genosse"', *Acta Orientalia*, 3, 1953, pp. 1–24; P. B. Golden, "I will give the people unto thee": the Cinggisid conquests and their aftermath in the Turkic world', *Journal of the Royal Asiatic Society*, 3rd Series, 10, 2000, pp. 21–41; N. Berend, *At the gate of Christendom: Jews, Muslims and 'Pagans' in medieval Hungary, c. 1000–c. 1300*, Cambridge: Cambridge University Press, pp. 145–6. Cf. D. H. A. Kolff, *Naukar, Rajput and sepoy. The ethnohistory of the military labour market in Hindustan, 1450–1850*, Cambridge: Cambridge University Press, 1990.

50 C. Talbot, *Precolonial India in practice. Society, region, and identity in medieval Andhra*, Delhi: Oxford University Press, 2001, p. 165.

51 Fletcher, 'Turco-Mongolian monarchic tradition', p. 243.

52 H. Franke and D. Twitchett, 'Introduction', in Franke and Twitchett, eds., *The Cambridge history of China*, vol. 6, pp. 21–3; D. Ostrowski, *Muscovy and the Mongols: cross-cultural influences on the steppe frontier, 1304–1589*, Cambridge: Cambridge University Press, 1998, pp. 36–44.

the cavalry core of the army as loyal, fit and ready as possible. In this sense, *nökör* and the dual civil-military administration are two sides of the same coin.

To further prevent the sinification of their *nökör* the Manchus organized them into artificially constructed tribal groups or banners, still based on the ethnic distinction of Manchu, Mongol, and Chinese, but within these three categories, in new, mixed compositions. Consequently, the banner leaders were turned into the new, pseudo-tribal companions of the emperor. They also opted for a policy of rigid segregation in which the banners were quartered in a relatively isolated, strategically well-situated network of garrison towns. Although the Mughals would certainly have recognized the danger of the assimilation of their armed retainers, the more open and fluid frontier circumstances of the Indian subcontinent made segregation nonviable. Instead, to avoid the indianization of their rank-holding elites or *mansabdars*, the Mughals attempted to keep them in permanent circulation – alternating both offices and revenue-lands (*jagirs*).⁵³ But in the longer term, neither segregation nor circulation could prevent military elites in China and India from sinking roots into the indigenous society, or a regionally rooted gentry from making their way into the imperial ranks. Hence, after about three or four generations of Mughal and Manchu rule, we come across emperors – Aurangzeb and Qianlong – who attempted in a kind of rescue mission to counter the bloating of their *mansabdari* and banner systems.⁵⁴ In both cases they stressed moral rearmament and a return to the fundamental principles – the Islamic and Manchu ways respectively – that had always propped up their rule.

At first sight, *nökör* has nothing to do with the warhorse. Indeed, it is like the European *Gefolgschaft* or Ibn Khaldun's inner circle (*bitana*) of *mawali*.⁵⁵ In my view, though, the idea served best in the Central Eurasian context and under the Mongols gained a new lease of life.⁵⁶ Here the function of the chief's bodyguard (*kesig*) was to look after the horses of the Great Khan.⁵⁷ Hence, the selection of the Great Khan's companions was primarily based on good horsemanship. Not surprisingly, the Jürchen banners originated from war and hunting contingents (*niru*), which only later were turned into the more rigid ethnic garrison armies of the Manchus.⁵⁸ Mughal *mansabdari* rank was based on the quantity and quality of horses to be kept in service. Apart from these considerations, in both Manchu and Mughal cases, Central Eurasian horse warriors – Turks, Mongols or Manchus – received the highest salaries. This may have been based on ethnic proclivities but it was also well informed by actual performance on the battlefield. Finally and most importantly, the need for permanent grazing and exercise not only made the nomadic warrior but more in particular his warhorse extremely vulnerable to the debilitating effects of sedentarization. In this light the dual civil-military structure was essential to maintain at (literally) its grassroots the readiness of the cavalry and to keep it as much as possible detached from the highly sedentary Indian and Chinese bureaucracies.

53 For Manchu apartheid and Mughal circulation, see respectively Elliott, *The Manchu way* and Gommans, *Mughal warfare*.

54 Elliott, *The Manchu way*, p. 306.

55 D. Ayalon, 'Mamlukiyyat', *Jerusalem Studies in Arabic and Islam*, 2, 1980, pp. 340–50.

56 Golden, "'I will give'", p. 32.

57 Jagchid and Bawden 'Some notes', p. 247.

58 Elliott, *The Manchu way*, pp. 56–63.

Yurt

To establish military superiority with the help of nomadic cavalry was one thing; paying for it after the conquest was another. The classical nomadic way – living off the country by raiding and distributing the spoils of war – was no longer a viable option. Besides, compared with the relatively cheap methods of the nomads, to maintain horses in the sedentary world was extremely expensive. Apart from the problems of climate and lack of grazing opportunities, it is also very labour intensive. Given the limited availability of both pasturage and fodder, sustaining large numbers of horses required that horses be distributed equally, not only among the conquerors, but across all the available pastures. Especially in the absence of a developed central economic-bureaucratic infrastructure the best option was to plug the horsemen directly into revenue sources in the countryside.⁵⁹ Hence the obvious solution had been to share out the available pastures as so-called *yurts* among the tribal companions. Similar to pastures and booty, territories and conquered peoples were also distributed among their retainers and followers, also often giving rise to extensive census operations after the initial conquest. Under the Mongols, the system could involve huge territories that were made personal appanages of the Great Khan's relatives. In the first half of the thirteenth century, under Ogödei and Möngke, the system was implemented in both China and Iran.⁶⁰ Since the grantees' own dependants played a prominent part in the administration of these shares, the sharing-out principle gradually trickled down toward the regional and local level.

In the Middle East the Mongol conquerors and their dependants were soon faced with the more or less well-established revenue system based on the so-called *iqta* which had emerged under the Buyids in the eleventh century. It implied that every holder of an *iqta* had the right to collect the revenue of an assigned piece of land in exchange for certain military or administrative services. As such, it involved, at least in theory, conditional and temporary rights to accurately assessed revenue proceeds.⁶¹ Although having two entirely different antecedents, what we see from the thirteenth century onward is the gradual application of the idea of *yurt* as based not on the equal distribution of spoils but on *iqta*. In due course, *iqta* immensely facilitated the accommodation of the huge nomadic cavalry armies into the sedentary worlds of Iran and India. In all its later guises – as *pomest'e* under the Russians,⁶² as *timar* under the Ottomans, as *tiyul* under the Safavids, as *jagir* under the Mughals, and even as *nayamkara* in Vijayanagara⁶³ – it was meant to support a certain number of warhorses with the centrally calculated revenue of a particular district. Hence *iqta* was the logistical and financial solution of the frontier empires to the problem of maintaining a strong cavalry army in a sedentary world. It also proved a most convenient instrument to peacefully accommodate the necessary influx of new nomadic horsepower.

59 A. Gat, *War in human civilization*, Oxford: Oxford University Press, pp. 323–401.

60 Th.T. Allsen, 'Sharing out the empire: apportioned lands under the Mongols', in Khazanov and Wink, *Nomads*, pp. 172–91.

61 C. Cahen, 'L'évolution de l'iqta du IXe au XIIIe siècle: contribution à une histoire comparée des sociétés médiévales', *Annales: Économies, Sociétés, Civilisations*, 8, 1953, pp. 25–52.

62 Ostrowski, *Muscovy and the Mongols*, pp. 48–9.

63 Ph.B. Wagoner, 'Harihara, Bukka and the sultan. The Delhi Sultanate in the political imagination of Vijayanagara', in D. Gilmartin and B. B. Lawrence, eds., *Beyond Turk and Hindu: rethinking religious identities in Islamate South Asia*, Gainesville, FL: University Press of Florida, 2000, pp. 300–26.

Considering the breathtaking spread of *iqta*, one may wonder why such a successful institution did not take root in China, a sedentary realm that was several times conquered by Central Eurasians. One obvious reason for this is China's sharp ecological frontier. As we discussed already with regard to the different horse-economies, immediately south of the Great Wall wild steppes gave way to fields of intensive agriculture that left no room whatsoever for supporting large numbers of warhorses. As a consequence, the Central Eurasian conquerors of China experimented with sharing-out, but it was never combined with a revenue system that was geared to maintain cavalry units inside the realm. On the contrary, China under the Ming strongly disapproved of a militarized society based on the sharing-out principle and, instead favoured a centrally paid army under civilian control.

It is only in the most northern, more arid parts that we come across fiscal practices that seem somewhat similar to *iqta* but, on closer inspection, were rather different. In this case, each soldier of the banner companies was to be assigned a tract of land to be farmed by his household or his serfs. As such, it was not much different from the old policy to establish self-supporting military colonies along the border. But these soldiers did not own revenue rights. The relative success of the system in northern China under the Jin and Yuan explains why the Manchus initially wanted to implement a similar system of banner landholding around the capital of Beijing. In the first years of the dynasty, each male on the banner rolls arriving in Beijing received a tract of land depending on rank. Banner land was tax-exempt and was supposed to provide a permanent, inalienable source of income. The farming was left to Chinese tenants or serfs, the management to Chinese overseers.⁶⁴ Simultaneously, the Manchus started to experiment with stationing their troops among the Han-Chinese, to share houses, land and food.⁶⁵ After only twenty years this policy of integration and decentralized payments broke down, however, and, as mentioned already, bannermen were entirely segregated from Han society to become increasingly dependent on the court's steady supply of grain and cash. Maybe the nomadic idea of sharing-out continued under the Manchus when territories were granted to the Han generals who had supported them but Kangxi's repression of the Three Feudatories marked the final rejection of the military service state and the re-establishment of centralized power.⁶⁶

Despite the common Central Eurasian mindset of the *yurt*, the differences in its adaptation and implementation between Mughal India and Manchu China stand out more clearly than in the case of the *ordo* and the *nökör*. The Mughal case appears to be much closer to the Safavid and Ottoman methods of military remuneration and stands somewhere midway between European feudalism – according to Azar Gat the most 'primitive' option with the least administrative supervision⁶⁷ – and the bureaucratic management under the Manchus. In this regard, both Mughals and Manchus created not something out of the blue but merely improved on the already proven ways of their predecessors to cooperate closely with a highly professional bureaucratic organization.

64 Elliott, *The Manchu way*, p. 193.

65 Elliott, *The Manchu way*, p. 99; Roth Li, 'State building', pp. 46–8.

66 Perdue, *China marches west*, p. 560.

67 Gat, *War*, p. 343.

Conclusion

This unabashedly sweeping essay aims to remind historians that as late as the eighteenth century the warhorse played a central role in the organization of frontier empires bordering on the Central Eurasian heartlands of nomadic power. The survival of the (semi-) nomadic conquerors after the conquest of sedentary societies continued to hinge on the production, trade and use of Central Eurasian warhorses. This helped to forestall the full sedentarization of these conquerors and conditioned the emergence of a post-nomadic political culture and organization in which Central Eurasian institutions like *ordo*, *nökör* and *yurt* continued to provide a forceful paradigm to mobilize, organize and enumerate cavalry armies. But as the specific ecological conditions supported different horse-economies, they also gave rise to different adaptations of the nomadic paradigm. This is demonstrated in the case of the Mughals in India and the Manchus in China. Both shared a common Central Eurasian heritage and both ruled the richest sedentary economies of their time. Nonetheless, considering the varying ecological circumstances – basically penetrating *inner* frontiers in India, circumventing *outer* frontiers in China – Mughals and Manchus had to seek different solutions to the post-nomadic predicament they had in common.⁶⁸ As a prelude to what should be a much more detailed comparative investigation, this essay merely aims to stress the basic ecological context of the warhorse as the *sine qua non* of Mughal and Manchu empire building.

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⁶⁸ The same ecological circumstances may have contributed to the more monolithic stature of China against the far more fragmented image of India which apparently finds its one and only unity in its diversity. Although revisionist historiography tends to play down the centralizing capacities of both empires the differences between the two remain striking.