Warrior

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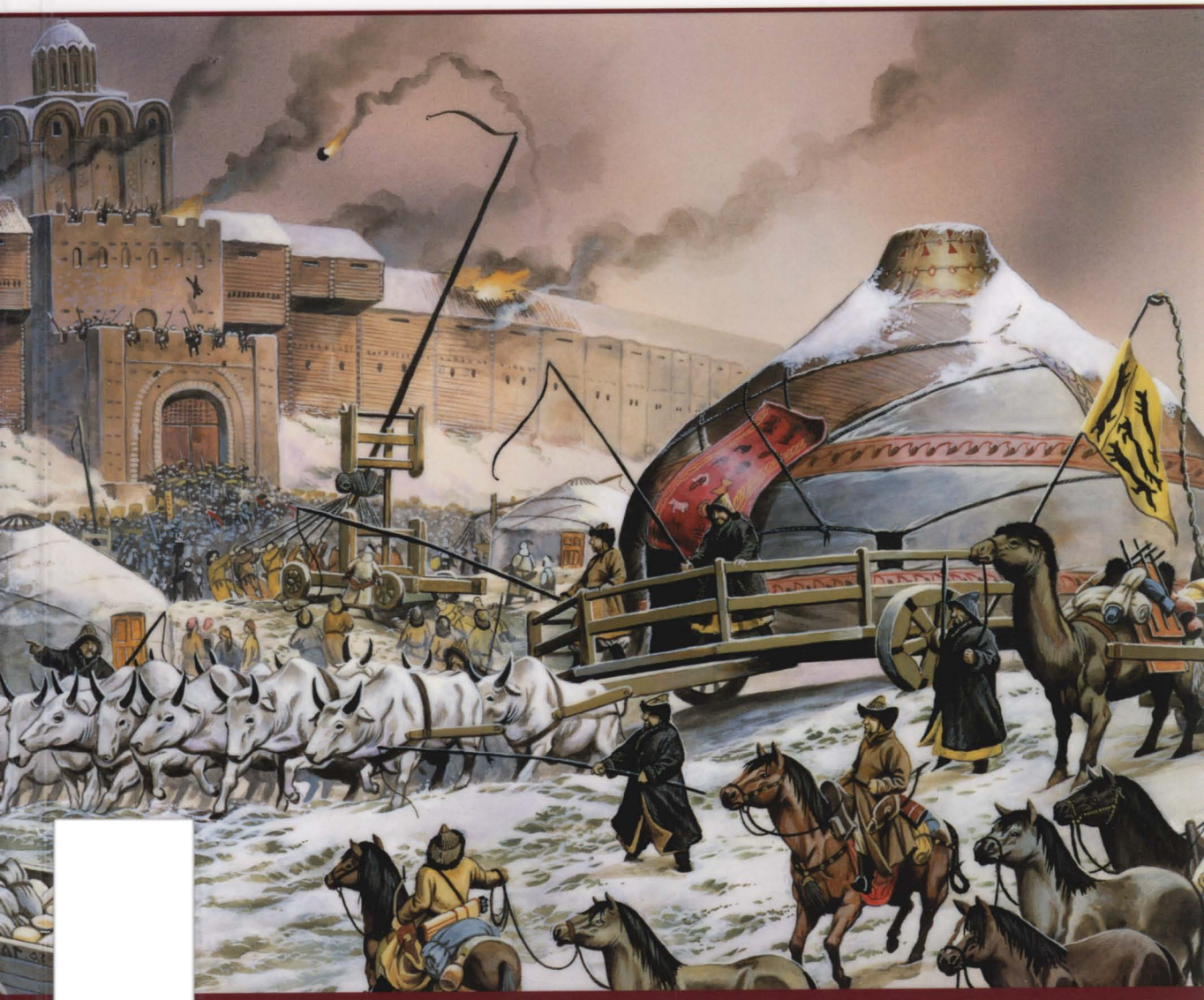
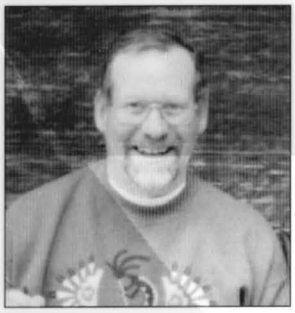
# Mongol Warrior 1200–1350



n Turnbull • Illustrated by Wayne Reynolds



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Warrior • 84

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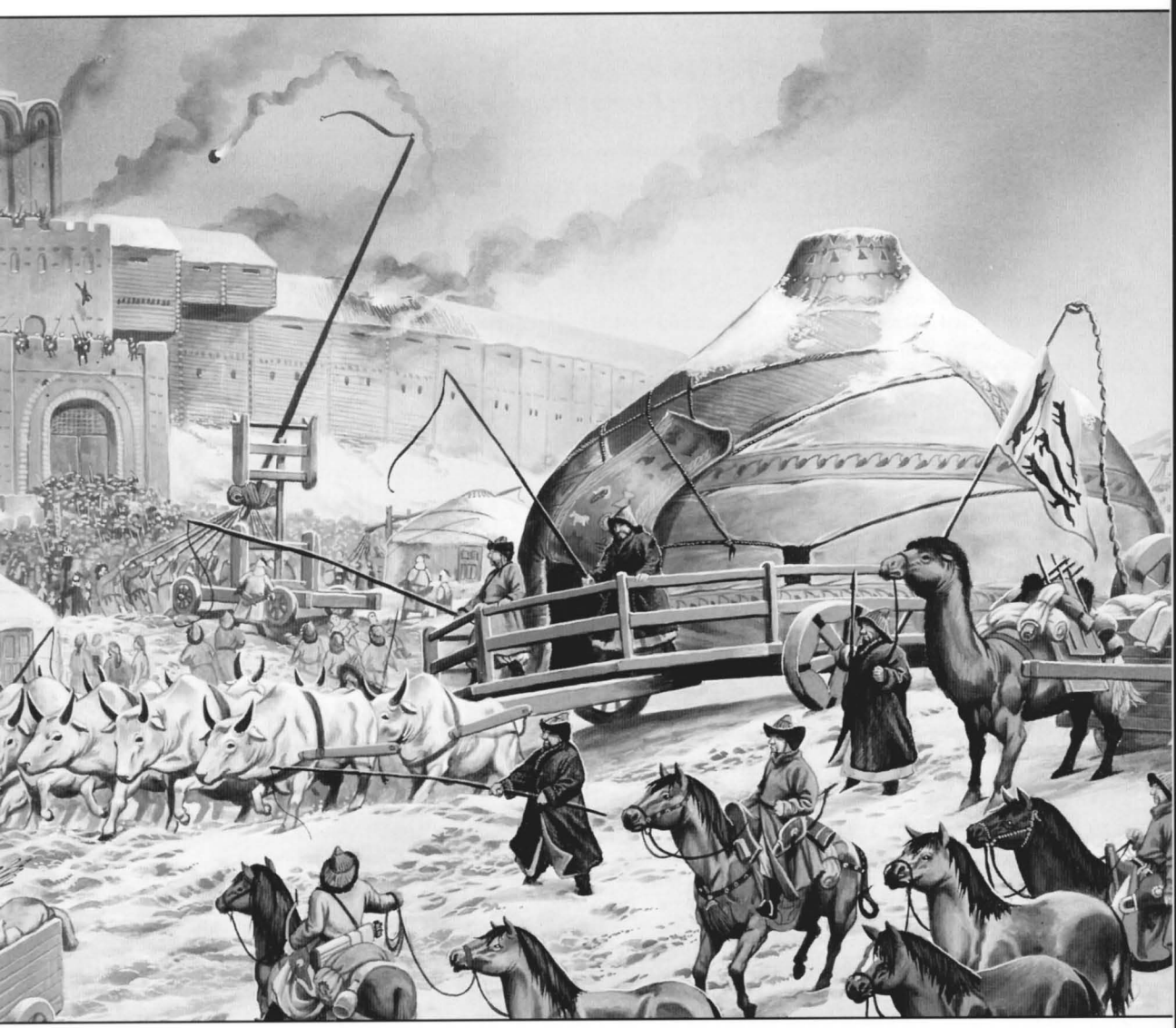

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## Dedication

To Anne-Marie Arrowsmith

## Author's Note

The illustrations used are many and varied, ranging from manuscript sources to modern ethnographical observations of Mongols today. For the latter I would particularly like to thank David Lambert, David Sneath and David Nicolle for supplying several of the fine pictures in this volume. I also acknowledge the administrative support provided by my daughter Kate in one of her first projects as my secretay.

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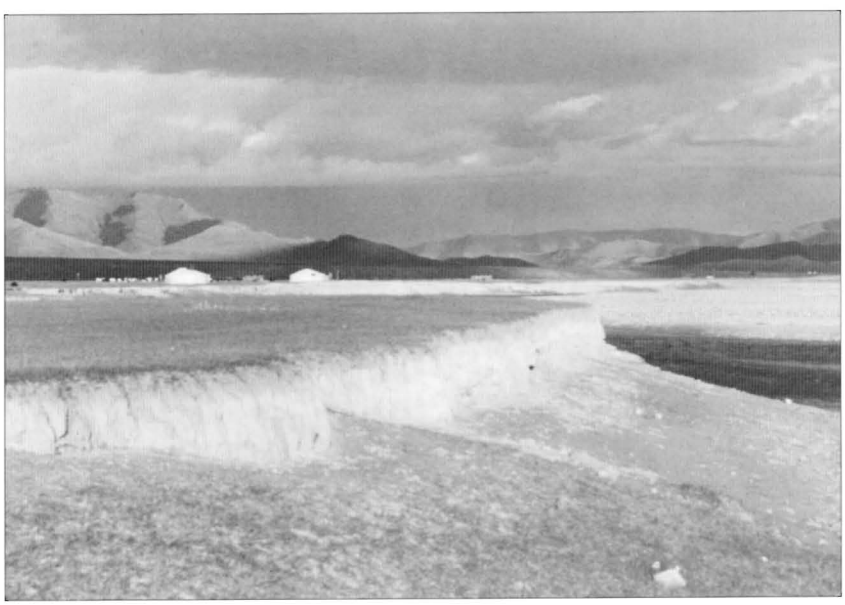
# MONGOL WARRIOR 1200–1350

## PREFACE

The Mongol warrior was one of the great success stories of world military history. Under the leadership of Genghis Khan and his successors Mongol armies conquered much of the known world. They fought on the frozen steppes of Russia, in the wilderness of Palestine, in the jungles of Java and on the great rivers of China. Throughout all this they showed a remarkable ability to adopt, adapt and improve a vast range of military techniques and technology from siege weapons to naval warfare. Yet never did they leave their cultural heritage behind, nor were they ever more feared than when they swooped down upon some unsuspecting sedentary community like a horde of mounted demons.

The popular view has taken this image further to produce a caricature of the Mongol warrior galloping everywhere, as inseparable from his horse as a centaur. He eats in the saddle, having tenderised his meat between man and horse. He then fights in the saddle, despatching clouds of arrows with great accuracy, and then, when exhausted by these endeavours, he even sleeps in the saddle while his horse carries him towards his next battle.

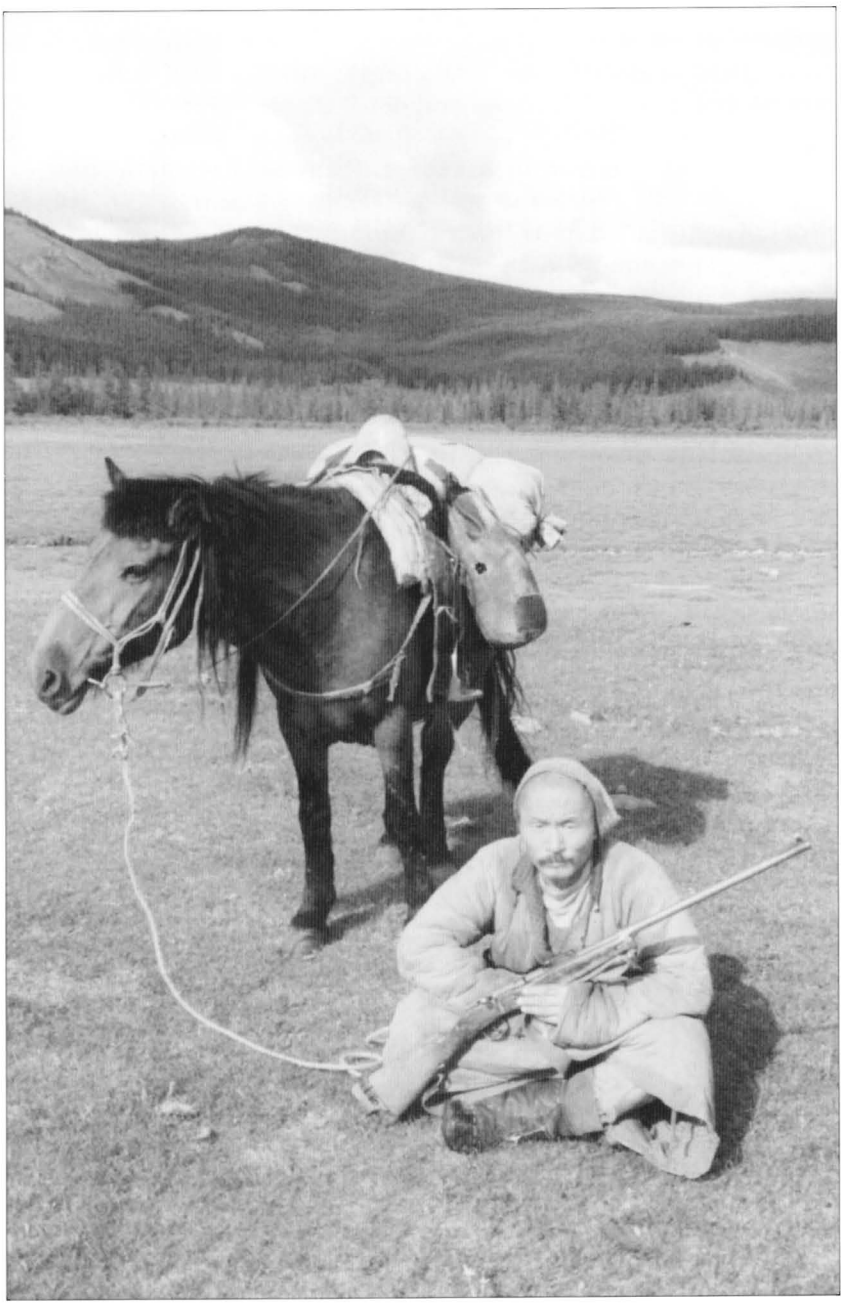
This may be an exaggeration, but on many occasions this superhuman myth was deliberately fostered by the Mongols to increase terror among their victims. Yet, needless to say, the daily life of a real Mongol warrior in peace and war was a great deal more complex and down to earth than



**A view of the steppes of Mongolia. (David Lambert)**

this, and the pages that follow will illustrate the richness of the systems and material culture that grew up to support him.

This *Warrior* volume tells the story of the remarkable military organisation of the Mongol warriors that contributed to their success. It also gives full details of their weapons and equipment, their daily lives and the beliefs that motivated them, all based on the latest research. In keeping with the format and the scope of the series I have concentrated on the small-scale experience of the Mongol warrior in peace and in war, rather than larger themes such as the laws and government system of Khubilai Khan's Yuan dynasty.



**This is a modern Mongol with his horse. Take away the gun and substitute a bow and you have the perfect picture of a medieval Mongol warrior. (David Sneath)**

# INTRODUCTION: THE MONGOLS AND THEIR EMPIRE

At its height, the world of the Mongol warrior encompassed a large proportion of the known world of the 13th century: Japan, Java, Syria, much of Russia and Eastern Europe had experienced the Mongol warriors as real foes. By contrast, Western Europe heard of them only through travellers' tales or garbled accounts at second hand. The exception was the Papacy, because once the Mongols were revealed as a serious threat following the battle of Leignitz in Silesia in 1241, successive popes were kept well informed of Mongol conquests by a series of envoys. Their reports allowed consideration to be given to the question of whether to proclaim a crusade against the Mongols or enlist them as allies in the long struggle with Islam. It is from such reports that much of the first-hand detail that follows is taken.

### The Mongol warrior in historical context

The daily life in peace and war of the Mongol warrior can only be properly understood in its correct historical context. As the context of the Mongol conquests is an enormous one there is no space here to give anything other than a brief overview of the processes that took place. But two facts are pertinent in grasping the scale of the achievement of the Mongol warrior. First, the Mongol Empire was created within three generations, and second, for the first time in world history, Europe and Asia were both threatened by the same entity. We are therefore looking at a military phenomenon that was rapid both in its growth and its dissemination.

The rise of the Mongols from being just one among a number of rival nomadic tribes in Central Asia to becoming a force that shook the world has its origin in the unification brought about by a steppe warrior called

**Modern wooden statues of Mongol warriors in armour at Ulan Bator. (David Lambert)**

Temujin, who then accepted the title of 'universal ruler' or 'Genghis Khan'. He consolidated his position by conquering nearby foes, and the Mongol Empire grew from these operations.

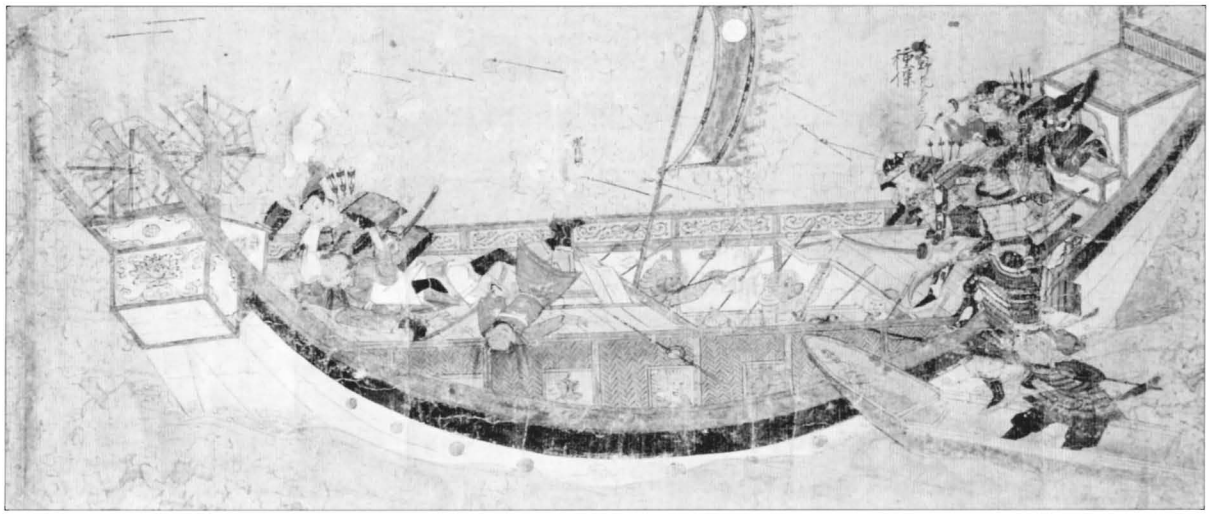
The newly emergent Mongols were faced on all sides by potential enemies, of which the greatest was the Jin Dynasty of China. They had a glorious history, but the Jin had weakened their position by their constant rivalry with the Southern Song Dynasty whom they had failed to supplant completely. The Jin would be Genghis Khan's main enemy, but realising the need to protect his flanks, he first attacked the Xixia of north-west China who became the first foreign people to feel the impact of the Mongol warriors. Genghis Khan's next major campaign was against the Muslim Khwarazm Empire of Central Asia. All the techniques of Mongol warfare – from cavalry battles to sieges, and from false retreats to the spread of terror – were tried and tested in this dramatic theatre of operations.

One remarkable feature of their early conquests is how quickly Mongol warriors developed expertise in siege warfare – hardly the first characteristic one would expect from steppe nomads! The biggest test of these skills came with the siege of the Jin capital of Zhongdu (Beijing). This victory enabled the Mongols to recruit skilled artisans as auxiliaries, and the Chinese prowess in siege warfare spread still further in Mongol service.

A mixture of siege warfare and mounted activities, chiefly raiding, are found in the Mongol invasions of Korea during the 1230s. A similar pattern may also be noted for Russia and Eastern Europe, though this was on a much larger scale. The battle of the Kalka River in 1223, for example, was a reconnaissance in force that was preceded by a false withdrawal that lasted nine days. The sieges of Russian and European fortified cities also tended to be of much shorter duration than Chinese operations. Kiev and Riazan succumbed after quite brief operations, while the major actions of the Hungarian and Polish campaigns were not sieges at all but two major battles in 1241 at the Sajo River in Hungary and Leignitz in Silesia.

The continuation of the campaign against southern China and the mighty Southern Song Dynasty required the Mongols to develop siege warfare techniques even further. One crucial introduction in 1272 was the first use in China of counterweight trebuchets that could deliver a larger payload than the traction-operated variety. The conquest of the Song also stimulated new expertise in naval techniques that were later transferred to a much wider canvas with the mounting of expeditions against Vietnam, Burma, Japan and Java, although in none of these cases was real 'naval warfare' involved. In all these operations the use of a fleet was primarily that of transporting an army on to further dry land. In both Japanese campaigns, however, their intended victims took the fight directly to the Mongol ships.

When Khubilai Khan, Genghis Khan's grandson, became the first Yuan (Mongol) Emperor of China, that part of the Mongol world became identified with Chinese society. Elsewhere, the Ilkhans of Persia and the Golden Horde of Russia developed their own military and cultural identities that arose from adaptation and sharing with the peoples they had conquered. Yet throughout all these developments there was still a core – a nucleus of the old Mongol spirit. It was not always expressed through the continuing prowess of the Mongol horse-archer, but it was constantly



reasserted as the archetypal definition of the Mongol warrior. So it was that, in referring to their own Mongol heritage, the annals of the Yuan (Mongol) Dynasty of China could make the following reasonable statement: 'By nature they are good at riding and archery. Therefore they took possession of the world through this advantage of bows and horses'.

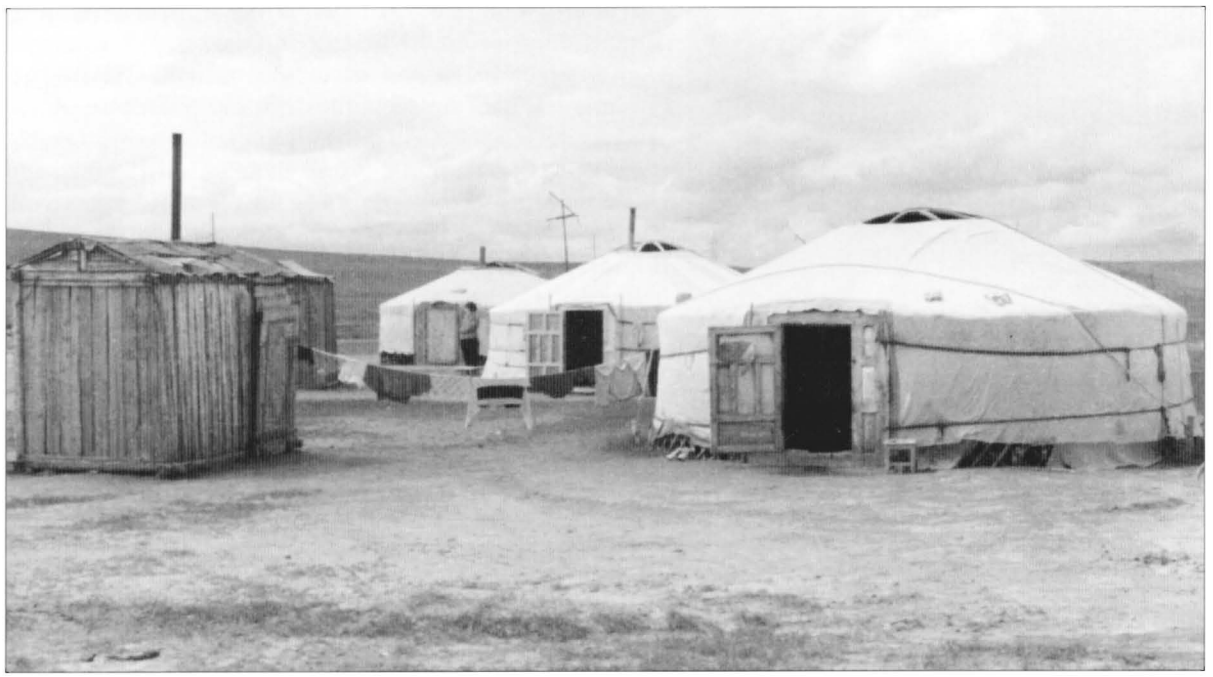
**This famous scene from the Japanese Mongol Invasion Scroll shows samurai attacking a Mongol ship during the invasion of Japan in 1274. (Imperial Household Collection, Tokyo)**

## CHRONOLOGY

**1167** Probable date of birth of Temuchin (Genghis Khan)
**1206** Temuchin is proclaimed universal Khan of all the Mongol tribes
**1206** Mongol raids are conducted against the Xixia
**1209** Xixia campaign begins
**1210** Surrender of Yinchuan
**1211** Invasion of the Jin empire by Genghis Khan
**1212** Siege of Datong
**1213** Mongol attack on the Juyong Pass
**1214** Siege of Ningjiang in Manchuria
**1215** Capture of Zhongdu (Beijing)
**1216** Mongols drive the Khitans into Korea
**1218** Fall of Kashgar. Mongols defeat the Kara-Khitay
**1219** Invasion of Khwarazm empire and the siege of Otrar
Capture of Bukhara
**1220** Capture of Samarkand
**1221** Death of Shah Muhammad of Khwarazm
Genghis Khan's Afghan campaign begins
Capture of Tirmiz, Balkh and Merv
Capture of Nishapur
**1222** Visit of the sage Changchun to Genghis Khan
**1223** Battle of the Kalka River
**1224** Siege of Shazhou
**1227** Second Xixia campaign begins
Siege of Ningxia
Death of Genghis Khan
**1231** Death of Jalal-al-Din
Siege of Hezhong
Siege of Kuju begins
**1232** Siege of Kaifeng begins
Korean court moves to Kanghwa Island
**1234** Suicide of the last Jin emperor
**1235** The Great Kuriltai is held
**1237** Invasion of northern Russian principalities begins
**1238** Siege of Vladimir
**1239** Defeat of the Polovtsians (Cumans)
**1240** Siege of Kiev (Kyiv)
**1241** Battle of Liegnitz
Battle of the Sajo River (Mohi)
Death of Ogodei Khan
**1242** Mongols leave Europe
**1243** Submission of Prince Iaroslav Vsevolodich to the Golden Horde
**1248** Death of Kuyuk Khan
**1251** Mongke Khan launches the Persian campaign
**1253** Siege of Ch'ungju
Destruction of the Nanzhao kingdom at Dali
**1254** Final Mongol invasion of Korea begins
**1255** Death of Batu, Khan of the Golden Horde
**1256** Hulegu defeats the Ismailis (Assassins)
**1257** Invasion of Annam
**1258** Hulegu captures Baghdad
**1259** Siege of Aleppo
Death of Mongke Khan
**1260** Accession of Khubilai Khan
Mongols defeated by Mamluks at Ain Jalut
**1265** Battle of Daioyu. Mongols acquire a fleet
Death of Hulegu, Ilkhan of Persia
**1268** Siege of Xiangyang begins
**1273** Peace settlement with Korea
**1274** First invasion of Japan
**1275** Bayan crosses the Yangtze

**1277** Battle of Ngasaungyyan
**1278** King of Champa pays homage to the Mongols
**1279** Fall of the Southern Song
**1281** Second invasion of Japan
Invasion of Champa
**1282** Mongol treaty of amity with Siam
**1285** Battle of Siming
**1286** Capture of Hanoi
**1287** Capture of Pagan
**1288** Battle of the Bach Dang River
**1293** Mongols land in Java
**1294** Death of Khubilai Khan
**1296** Mongol embassy to Cambodia
**1301** Mongol attack on Lan Na
Death of Kaidu

**The *ger* is a mobile home built around a framework of wood covered in felt and secured by stout pegged ropes. (David Sneath)**



# RECRUITMENT AND TRAINING OF THE MONGOL ARMY

## Numbers and recruitment of Mongol warriors

The nucleus of the army that launched the Mongol conquests, and its core throughout the century that followed, was the nomadic tribal Mongol warrior horseman, born into Mongol society and at one with its traditions. To be a Mongol man was to be a Mongol warrior. There is no word in the Mongol language for 'soldier', and it is no exaggeration to say that the whole of a Mongol warrior's daily life was a preparation for war. The same techniques that were learnt for survival, for herding or for hunting had direct application in the Mongol campaigns. This is also true when approached from a different angle, because the Mongol army may alternatively be regarded as Mongol society arranged on a war footing. As the Persian historian Juvaini put it, 'It is an army after the fashion of a peasantry, being liable to all manner of contributions and rendering it without complaint whatever is enjoined upon it... It is also a peasantry in the guise of an army, all of them, great or small, noble and base, in time of battle becoming swordsmen, archers and lancers and advancing in whatever manner the occasion requires'.

A Mongol heavy cavalryman. (Royal Armouries Museum, Leeds)

Initially, all recruitment to the Mongol armies was from within Mongol society. All males between the ages of 15 and 60 were liable for military service. Mobilisation was speedy, and fresh training was hardly necessary, while logistical support was provided by the rest of the tribe. As so many people went along on campaign, virtually no one was left out from the great enterprise.

It is partly the factor of total support from within the tribe that has given rise to the belief that the Mongol armies were exceptionally large in number. Such exaggerations could benefit both sides. For example, one can read in the earliest historical sources that Genghis Khan invaded the Khwarazm Empire at the head of 700,000 troops. This is a considerable exaggeration from a more likely figure of 150,000, and those men had to march nearly a thousand miles from their last home base before coming to grips with the enemy. But similarly inflated figures were used on more than one occasion by their victims as an excuse for a defeat at Mongol hands. For their part, on some campaigns the Mongols deliberately tried to give just such an impression of overwhelming numbers simply to intimidate their intended victims. If the enemy believed that resistance was hopeless, for whatever reason, then he would be more inclined to surrender.

The Mongol numbers were indeed large when seen from the point of view of the proportion of fighting men taken from within their society, because the Mongols were able to mobilise a greater proportion of their people than comparable sedentary societies. But the impression of invariable huge numbers was often illusory, and in some cases the size of the Mongol army was actually inferior to its enemies. In 1211 Genghis Khan began his campaign against the Jin Dynasty of China with about 110,000 men. This was less than a quarter of the manpower that could be mobilised by his opponents.

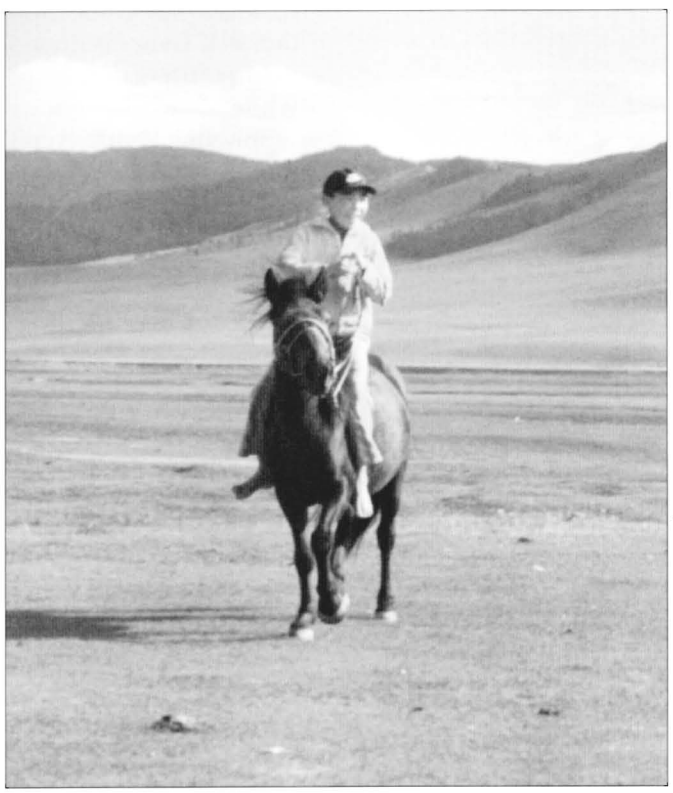
One reason for the impression of large numbers in the Mongol armies was that an individual warrior would typically have had with him five or six horses used for remounts. Here we see modern Mongols crossing a river with spare horses. (David Lambert)

One reason for the impression of large numbers was that an individual warrior would typically have had with him five or six horses used for remounts. Sometimes, the Mongols also mounted dummies on these spare horses. Yet even if we play safe and use the most conservative estimates, the numbers are still very large.

However, as many campaigns were carried out far from the Mongol heartlands then the question of reinforcements arises. Recruits from Mongolia would reach the various armies from time to time, but they cannot have been great in number, and there would have been a certain time lapse before they joined up with the forces they were sent to augment. The alternative practice was for the Mongols to make good their losses on the spot. This happened in Persia, Afghanistan and southern Russia. The previous rulers had been destroyed, and the Mongols were able to recruit auxiliaries from among those of the population who led a pastoral or nomadic life. When Subadai continued his move towards Europe with only the smallest of reinforcements from Genghis Khan in 1221, his numbers were swollen by Kurds, Turks and Turcomans willing to share in the fighting and the loot. In such ways the growing Mongol army acquired an 'imperialist' appearance from quite early on in its activities. During the northern Chinese campaign auxiliaries like these provided Genghis Khan's first foot soldiers, but even more important were the artisans and engineers recruited because of their skills in building and operating siege weapons. They were made very welcome in the Mongol ranks.

The Mongol warrior who followed Genghis Khan was unpaid. His only 'income' on active service was booty, divided up according to fixed principles. In fact, the Mongol warriors themselves paid contributions in kind called *qubchur*. It was only very late and probably under Persian influence that the Ilkhan Ghazan decided to give a modest level of pay to low-ranking soldiers, while the high-ranking Mongol officers remained unpaid. One of them was taken prisoner during Ghazan's campaign against the Mamluks in Syria in 1303. When asked what his pay was he replied, 'The Mongol is the slave of his sovereign, He is never free. His sovereign is his benefactor: he does not serve him for money. Although I was the least of Ghazan's servants I never needed anything'.

**A young Mongol horseman. The concept of the Mongol warrior is inseparable from that of the Mongol horse. A Mongol learned to ride almost as soon as he could walk. He was tied on to the saddle during infancy and spent his childhood in the company of his mount. (David Lambert)**



## Army organisation, training and discipline

The Mongol army was the backbone of the empire. It was the creation of Genghis Khan, and was subdivided hierarchically by using a strict decimal system. A bond of personal loyalty linked the captains of tens (*arban*) with the captain of hundreds

(*jaghun*), thousands (*mingghan*) and ten thousands (*tumen*), a simple system that aided both delegation and communication. Although the actual round numbers may not always have been attained, the structure of communications that it sustained was always used.

There was also an elite bodyguard for the Great Khan, formed originally from the most loyal companions of Genghis Khan and growing eventually from 150 to 10,000 men. Only nobles and freemen could enter its ranks, and the guard was magnificently equipped and armed. It was first mentioned in 1203 when 70 men were selected for the day guard (*turghaut*) and 80 men for the night guard (*kabtaut*). Besides these there were 400 archers (*khorchin*) and a personal guard of 1,000 brave men who formed the advance guard in battle. An ordinary soldier in the guard had precedence over a commander in the rest of the army. The elite guard soon assumed the role of a military academy, and the presence of so many future generals who had trained so close to the Khan made the prospect of future rebellion quite remote.

In principle the Mongol army was divided into three wings of left, right and centre, plus reserves. The three wings were also referred to in terms of cardinal points with the army facing south. At the time of the conquest of the Jin, the left wing (east) consisted of 62,000 men, while the right wing (west) held 38,000. In all, the Mongol army at about the time of the death of Genghis Khan consisted of about 129,000 men.

At the head of each unit were placed men whom Genghis Khan trusted personally, usually kinsmen of his own tribe. The sign of authority given to a commander was a great drum that was sounded only in his presence. If the Khan was personally in command, the whole army marched under his white nine-tailed standard. In 1217 the same standard was given to Mukhali, with orders that everyone was to obey him as if Genghis Khan himself were there in person.

All officers were responsible for the training of the men under them. While on active service they had to inspect their troops personally and supply them with everything they needed, right down to needle and thread. If a soldier lacked any necessary part of his equipment then the officer was punished. During battle, in attack or retreat, if anyone dropped his pack or bow or any equipment then the man advancing behind him was required to return the item to its owner immediately on pain of death. Also punishable by death were flight before the order to retire, plundering before permission was granted and desertion. Discipline was strict in the Mongol army.

For minor misdemeanours, the first act of corporal punishment was three strokes of a cane, then seven, and if a member transgressed a third time he received 37 blows. A sentry found asleep at his post was executed without question. Such rigour was accepted and helped to mould an *esprit de corps* that enabled the Mongols to overcome temporary setbacks such as a serious incident that occurred in 1303. A Mongol army was defeated in Syria, and 5,000 men who had lost their horses were obliged to make a two-month journey home on foot. At the end of it they immediately set out on another expedition without a word of protest. John of Piano Carpini, who was a friar and therefore understood what discipline meant, admired the Mongols in this regard. He wrote, 'These men are more obedient to their masters than any other men in the world, be they religious or secular'.

# APPEARANCE AND DRESS

Descriptions of the physical appearance of the Mongol warrior during the 13th century tend to be very similar from one chronicler to another. A typical account is: 'They had broad faces, flat noses, prominent cheekbones, slit eyes, thick lips, sparse beards, and straight black hair; swarthy skins, tanned by sun, wind and frost, they were short of stature and their stocky heavy bodies were supported by bow legs'.

The heavy coats, boots and hats added to the short and stocky appearance of the Mongol warrior. Whereas descriptions of the physical appearance of the Mongols have much in common, accounts of their prowess tend to differ only in the degree of exaggeration.

## Mongol armour and costume

Considering the eventual extent of the Mongol conquests, it is remarkable how little was known for certain until comparatively recently about the appearance and equipment of the Mongol forces. For centuries the main sources of information were the descriptions left by visiting ambassadors, travellers and the like, who left accounts that are often highly detailed but which were not written by military men. As a result it was often assumed that the typical Mongol warrior was very simply and lightly attired, perhaps wearing no more than a sheepskin coat and fur hat over his ordinary clothes. This may have been true for many light Mongol horse archers in the armies, but recent research (including some very valuable archaeological finds) has demonstrated that a Mongol army would have included a large number of heavy cavalrymen in addition to light cavalrymen.

**This model of an armour, probably from 17th century Tibet, shows the lamellar construction of the armour used by the Mongols, and one style of helmet. (Royal Armouries Museum, Leeds)**

The basic costume of both types of warrior was essentially the normal daily wear of the Mongol. It consisted of a simple heavy coat fastened by a leather belt at the waist. The sword hung from this belt. A dagger was also carried, and perhaps an axe. In a pocket of the coat would be carried, wrapped in a cloth, some dried meat and dried curds, together with a stone for sharpening his arrowheads. His boots were stout and comfortable, being made from felt and leather. On his head he wore the characteristic hat of felt and fur.

The armour that the heavy horsemen wore over his coat was made in the common Asiatic style of lamellar armour, whereby small scales of iron or leather were pierced with holes and sewn together with leather thongs to make a composite armour plate. A leather cuirass of this type weighed about 20lb. Alternatively, a heavy coat could be reinforced using metal plates. The coat was worn under the suit of armour, and the same heavy leather boots were worn on the feet. The helmet, which was made from a number of larger iron pieces, was roughly in the

ABOVE LEFT **Rear view of the model lamellar armour. (Royal Armouries Museum, Leeds)**

ABOVE RIGHT **The 'cowl' round the face appears on this helmet and armoured coat on display in the Mongol Invasion Museum in Hakata. (Japan Archive)**

shape of a rounded cone, and had the added protective feature of a neck guard of iron plates. The Mongol heavy cavalry rode horses that also enjoyed the protection of lamellar armour.

Beneath their armour and coat the Mongols wore a silk shirt, the fibres of which acted as a cushion for any spent arrowhead that had been slowed by the armour but had nevertheless punctured the skin. As armies had discovered centuries before, an arrow does its worst harm when it is removed from the wound and its barbed head tears the flesh. The silk shirt was not punctured. Instead, its fibres twisted around the arrowhead as it entered the skin and ensured that it could be removed with safety.

### Mongol weapons

The main Mongol offensive weapon was the bow. It was a composite reflex bow made from yak horn, sinew and bamboo glued together then bound until they set into a single piece. When the bow was strung it was stressed against the natural curve, giving a strong pull. It was loosed

from the saddle with great accuracy. Each mounted archer had two or three bows, kept within protective bow cases when on the march. Quivers contained arrows with several different types of arrowhead: poisoned arrows are known to have been used as there is a specific reference to them in accounts of the Mongol invasion of Japan in 1274. The arrowheads were tempered in brine and the fletchings were made from eagle feathers. Whistling arrows for signalling also existed. The use of the bow in combat is described in the later section about the Mongols' experience of battle.

A round wooden shield provided personal protection. The shield would be most useful during individual combat, when a Mongol archer would have replaced his bow within its case and turned to his sword, which was slightly curved like a sabre. Axes and spears were alternative hand weapons, and rounded maces also appear in the written accounts. Mongol heavy cavalrymen also carried spears. The other field equipment of a Mongol warrior included a light axe, a file, a lasso, a coil of rope, an iron cooking pot, two leather bottles and a leather bag closed by a thong to keep clothes and equipment dry when crossing rivers. There was also one tent between ten men.

**This photograph shows one way of producing an armoured coat by fastening overlapping leather plates on the inside of the coat. (Mongol Invasion Museum, Hakata, Japan Archive)**

The use of weapons made from metal poses interesting questions as to how they were produced in a nomadic society. Thousands of arrows must have been expended during a battle, and one wonders how many were collected for future re-use. William of Rubruck, during his travels to the Khan, tried in vain to contact some supposed 'German prisoners who dug for gold and manufactured arms for the benefit of the Mongols'. This may have been an idea suggested by the existence of settlements originally established by nomad artisans grouped together because of their commercial specialisation. Within the realm of the Ilkhan Ghazan, such guilds were established in towns. Scarcity of weapons led the Mongols to impose taxes in kind. For example, as part of his reorganisation of the tax system Ogodei Khan decreed that besides silk and silver, quivers, bows, armour and weapons should be stored. William of Rubruck noted that in the lands lying west of the River Don, the Mongols exacted a tribute consisting of an axe per annum per household and all the unwrought iron they could find.

**The attack on the island of Iki in 1274, from a painting in the Mongol Invasion Museum, Hakata, Japan. (Japan Archive)**

### The Mongol horse

The concept of the Mongol warrior is inseparable from that of the Mongol horse. A Mongol learned to ride almost as soon as he could walk. He was tied on to the saddle during infancy and spent his childhood in the company of his mount. The traveller John of Piano Carpini was struck by the number of horses the Mongols possessed, writing, 'They have such a number of horses and mares that I do not believe there are so many in all the rest of the world. . . . The horse the Tartars ride on one day they do not mount again for the next three or four days, consequently they do not mind if they tire them out seeing they have such a great number of animals'.

Various writers support this view, describing the number of horses per man as being between two and 18, with five or six being the usual numbers. The typical Mongol horse was 13 to 14 hands in height. It was watered once a day and for the most part fed on grass. Horses were not ridden until they were three years of age, and when they had been broken in some tens of thousands of horses could be assembled without

difficulty. If left untied they never strayed. The Mongol horse was also renowned for its stamina. One traveller noted that a Mongol on one horse could cover 600 miles in nine days, and a remount system could greatly increase the speed.

It is by no means clear whether or not Mongol horses at the time of the conquests were fitted with horseshoes. It would seem unlikely, as shoeing such vast numbers of horses would surely have been impracticable, and the sources support this view. Descriptions of the Hungarian campaigns suggest that they were not shod and Raschid al-Din mentions horseshoes as a 'special precautionary measure'. According to Thomas of Spolato, the Mongol horses 'run around on rocks and stones without horseshoes as if they were wild goats'.

Mongol saddles were very solid affairs made from wood oiled with sheep fat as a protection against the rain. It was high in the back and at the front, thus providing a secure seat for an archer to discharge his arrows in any direction.

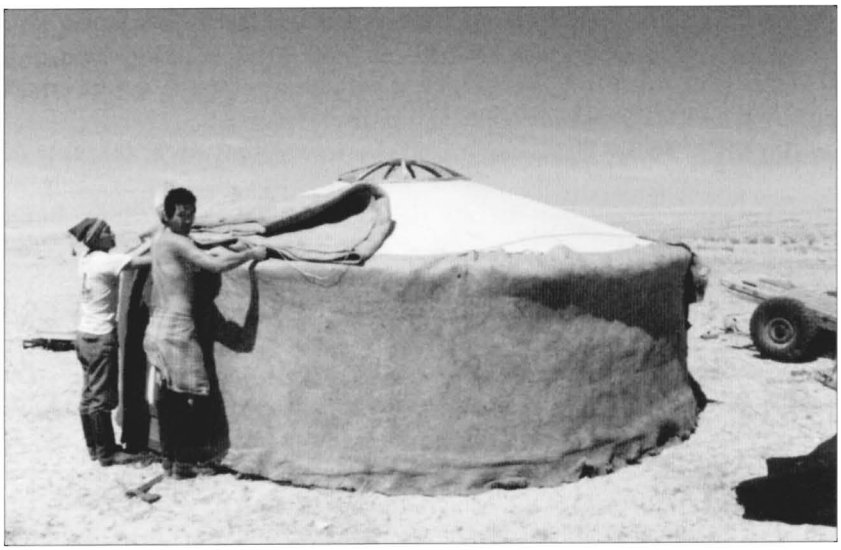
The efficient imperial courier service that kept the Khan in Karakorum in touch with his outlying territories bore testimony to the qualities of the Mongol horse and its riders. These elite riders, the eyes and ears of the Khan, wore a large *paiza*, a medallion of wood, base metal or silver to show the status and rank of the person sending the message. One example that has survived bears the inscription, 'the person using the horse must wear the medallion otherwise he will be detained'.

The imperial couriers also escorted imperial dignitaries, and the system that supported them was highly sophisticated. There were hundreds of post stations situated every 30 miles or so from each other. A particularly urgent courier would ride with bells attached to him or would blow a horn so that when the post station staff heard the sound they would ensure that fresh horses were waiting ready saddled.

## THE DAILY LIFE OF THE MONGOL WARRIOR

To some extent the daily life of the Mongol warrior was very similar both in peace and war, but we will begin by describing the characteristics of the peacetime existence of the Mongols, and then discuss how these were modified in a campaign situation.

**Erecting a *ger*. The framework of the walls was carried on pack animals and was opened up like a trellis. It was then pulled into a circle to create the wall of the *ger*. A number of straight poles were then fitted in around the upper rim of the side wall and joined at the apex by a circle that provided the smoke hole. (David Sneath)**



**Erecting a *ger*. Felt was then draped and fastened across the ensemble and tied securely in place. The felt covering was in two parts for the wall and the roof. (David Sneath)**

It has now been generally accepted that the daily life of the Mongol warrior was far more sophisticated than previously thought. It included trades and trading, but could also be converted into the mobile and self-sustaining community that provides the classic ideal of the nomadic life. In other words, it was essentially a world that could be self-sufficient if it was necessary, but also allowed the possibility of economic contacts with others. As the great scholar Owen Lattimore reminds us, steppe life 'is based on an economy which is capable of being self sufficient. Its own resources provide the essentials of food, housing, clothing and transport, even fuel (from cattle dung). Nor does it prevent the mining and working of metals on a small scale, as is known from archaeological evidence. The steppe-nomad can withdraw into the steppe, if he needs to, and remain completely out of contact with other societies. He can, but so rarely does he do so that this pure condition of nomad life can fairly be called hypothetical. For every historical level of which we have any knowledge there is evidence that exchange of some kind, through trade or tribute, has been important in steppe-nomad life'.

**The finished *ger*. The felt covering of the *ger* provided good insulation and protection from the severe steppe weather. (David Sneath)**

Chroniclers of the 13th century conquests tended to look upon the Mongol exploits as 'nomadic warfare', an extension of the everyday nomadic life into the military sphere, and to some extent that concept has great validity. The practice of nomadism is essential to understanding the background to the Mongol conquests. As nomads the Mongols carried out seasonal migrations from summer

pastures on the plains to winter pastures in sheltered valleys. Established migration routes were recognised for these processes, but the distances were not excessive: 100 miles or so would be usual. To transfer this tradition to a military campaign lasting many months where everything that the army needed was either transported behind it or obtained locally was therefore both logical and straightforward. It was a far cry from a European feudal lord gathering his levied troops and setting out from a secure walled city. Yet even for nomads, such 'military migrations' needed very careful planning, as we will see.

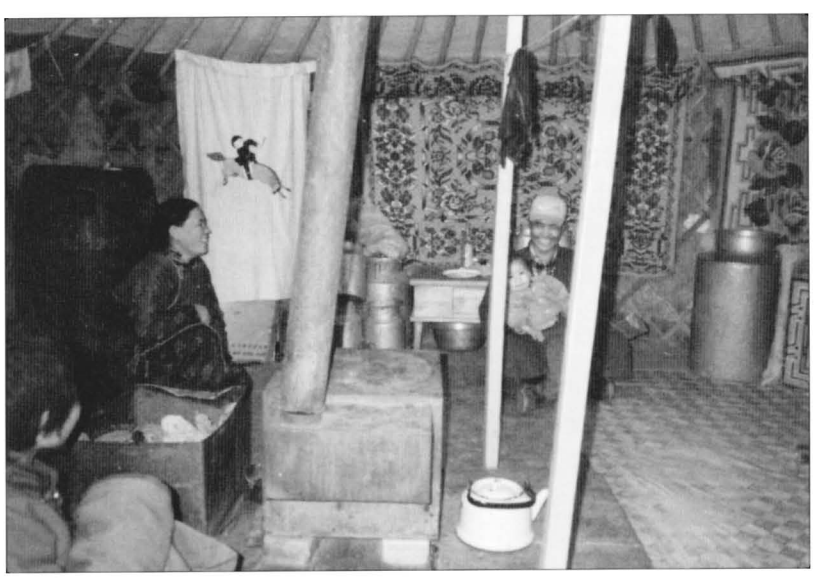
### The Mongol dwelling

The instantly recognisable portable Mongol house is usually called a yurt in European writings on the subject, but the correct term is in fact *ger*. Yurt is a Turkish word that originally meant the territory on which a nomadic group roamed, and the Russians first applied it to the Mongol dwelling.

The *ger* consists of a mobile home built around a framework of wood covered in felt and secured by stout pegged ropes. The characteristic round shape is the other feature found invariably throughout the ages. The framework of the walls was carried on pack animals and was opened up like a trellis. It was then pulled into a circle to create the wall of the *ger* and a number of straight poles were fitted in around the upper rim of the side wall and joined at the apex by a circle that provided the smoke hole. Felt was then draped and fastened across the ensemble and tied securely in place. The felt covering was in two parts for the wall and the roof. It provided good insulation and protection from the severe steppe weather.

The production of felt is an interesting process. The wool for making felt was sheared from the flocks during the spring and was laboriously opened up to let as much air in between the fibres as was possible. The old felt, referred to as the 'mother felt', acted as base layer for the fresh production and was laid flat and wetted with water. The new wool was placed on top of it and then the whole mass was rolled up tightly within a number of animal hides. The felt cylinder was compacted by being dragged for miles behind two horses.

The doorway of the *ger* always faced south, principally for symbolic reasons. Traditionally, anyone who stood on the door could be decapitated. Inside the *ger*, the west was the men's side and the east was the women's side where the cooking was done. The north side was the elders' side. The *ger* thus provided a very efficient living space, but it also reflected the religious beliefs of the Mongols in its symbolic role as a microcosm of heaven and earth. For example, the hearth was sacred, and John of Piano Carpini noted that at the



**Interior of a *ger*, showing the stove underneath the smoke-hole. Note the wooden slats of the roof. (David Lambert)**

**The battle on the island of Iki from a painting in the Mongol Invasion Museum, Hakata, Japan. (Japan Archive)**

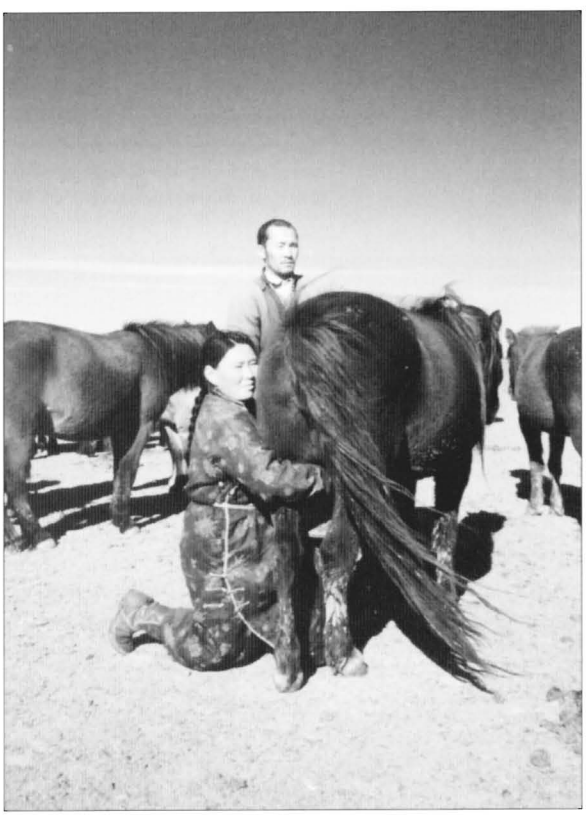
hearth 'they offered their idols the first milk of every mare'. The central hole in the roof allowed light to penetrate into the shadows as a manifestation of divine power and provided the means for spirits to visit humanity. It also acted more mundanely as a clock, because the passage of the shadows cast by the sun into the *ger* through the smoke hole allowed for an estimation of the passage of time.

### Mongol food and drink

Prior to establishing their empire and the consequent exposure to other culinary traditions, the Mongols lived off the foods produced by their animals, chiefly dairy products, to create a diet supplemented by whatever else they could take or gather from their immediate environment as the need arose. Marco Polo produced one of the earliest accounts of Mongol food: 'They live off meat, milk and game and on Pharaoh's rats (marmots or jerboah), which are plentiful everywhere in the steppes. They have no objection to eating the flesh of horses and dogs and drinking mare's milk. In fact they eat flesh of any sort'.

William of Rubruck added that the Mongols would eat any animal out of their herds that happened to die, drying its flesh by hanging it in the sun and wind. They also made great use of dairy products: 'From cow's milk they first extract the butter and this they boil until it is completely boiled down; then they store it in sheep's paunches which they keep for this purpose; they do not put salt into the butter; however, it does not go bad owing to the long boiling. They keep it against the winter. The rest of the milk that is left after the butter has been extracted they allow to turn until it is a sour as it can be, and they boil it, and in boiling it curdles; they dry the curd in the sun and it becomes as hard as iron slag, and this they keep in bags against the winter'.

He also confirmed the eating of marmots and the provision of other meat by hunting. John of



**Milking a mare. Marco Polo provided one of the earliest suggestions of how the Mongol warriors may have fed themselves on campaign when he wrote, '...if need be they will go or stay for a whole month without provisions, drinking only the milk of a mare and eating wild game of their own taking'. (David Sneath)**

Piano Carpini has similar descriptions, but cannot prevent his personal distaste to show through: 'Their food consists of everything that can be eaten, for they eat dogs, wolves, foxes and horses and when driven by necessity they feed on human flesh.... Nay, I have even seen them eating lice'.

For example, they gave bones to their dogs only when all the marrow had already been removed for human consumption.

Fish are not mentioned by Marco Polo, but the Mongols did catch fish, and fish may have been an important food in some areas. Although in theory disdaining vegetable products, these were almost certainly as important a part of Mongol diet in the 13th century as they have been in the recent past. Plant foods gathered by recent Mongols include wild seeds, grains, fruits, berries, vegetables, roots, tubers and fungi. Cultivated grains were uncommon, but some entered Mongolia as booty or trade food.

Food was consumed fresh or after some process such as fermenting, drying or cooking. Wherever possible meat was roasted on the spit, but it was rarely available in sufficient quantities to make this means of cooking universally practicable, so boiling was far more common. A broth was made by boiling bones, most often with a small amount of meat still attached. Sometimes a whole leg of lamb was used. To thicken the stew seeds, grains, tubers and gathered green vegetables were added. The resultant dish was a thick stew called *shulen*. In the *Secret History* this is the honorific word for food in general. As their conquests spread, the Mongols were exposed to a greater range of foods, and grains came into new prominence. The basic Mongol *shulen* therefore became transformed with the addition of new ingredients and spices.

**A Mongol village in winter. (David Lambert)**

John of Piano Carpini is less sensational when writing about Mongol drinks: 'They drink mare's milk in very great quantities if they have it; they also drink the milk of ewes, cows, goats and even camels. They do not have wine, ale or mead unless it is sent or given to them by other nations'.

Mare's milk is a highly nutritious product. Tea does not seem to have been drunk at the time of the Mongol conquests, but they certainly had alcoholic beverages even if they could not be distinguished by the name of 'wine'. The first was fermented mare's milk, generally known by the name *koumis*, derived from the Turkish word. It was drunk in large quantities during the summer months. There were also drinks produced by simple distillation methods. *Koumis* must have been a potent brew judging by the large numbers of high ranking Mongols who died from the effects of drinking it!

### The Mongol wagons

Although the popular view of the Mongol warrior is of one who always travelled light, Mongol horsemen were backed up by a large and sophisticated system of logistical support, even though the pace of the 'baggage train' was far slower than the highly mobile scouts. The Mongol warrior was followed by extraordinary 'mobile homes' and baggage carts of enormous size. As their use seems to have died out with the passing of the Mongol Empire, we are dependent upon western observations of them from the 13th and 14th centuries, all of which agree on the general appearance of the carts.

**A Mongol horse and cart outside a Buddhist monastery in Karakorum. The Mongol warriors were supported by a logistical system that embraced the whole of Mongol society. (David Lambert)**

The first type were very large yurts, similar in shape to the *gers* described above, carried on four-wheeled wagons. William of Rubruck described them being pulled by 22 oxen at the front on one yoke, and 11 behind on another. The axle of the wagon 'was the size of a ship's mast'. Marco Polo's description is similar. He also mentions the other type of large wagons that were baggage carts covered in black felt, 'so that even if it rains nothing gets wet'. Under the covers were the women and children, provisions and baggage. William of Rubruck observed convoys of such wagons, tied together and pulled by oxen 'led by one solitary woman'. When camped, they were arranged for protection with the doors orientated towards the south, because it was often the case that the menfolk were a long way off on campaign. The passage over the steppes of these enormous wagon trains must have created a wide area of trampled grass and deep ruts, but such environmental damage would have been compensated for by the ease of support provided to an army by their presence.

### The Mongol camel

The other main means of transporting supplies and equipment was by using camels. The Mongol camel has been little studied in comparison to the Mongol horse, but they showed the same resilience and great usefulness. The beasts were Bactrian camels with two humps, whose presence in the Gobi desert made that inhospitable land suitable for human habitation. A camel would provide its owners with wool, milk, meat, leather and fuel, as well as being a beast of burden. Its meat kept well when dried to preserve it. The wool was particularly prized and dried camel dung was an invaluable source of fuel in a land where wood was scarce.

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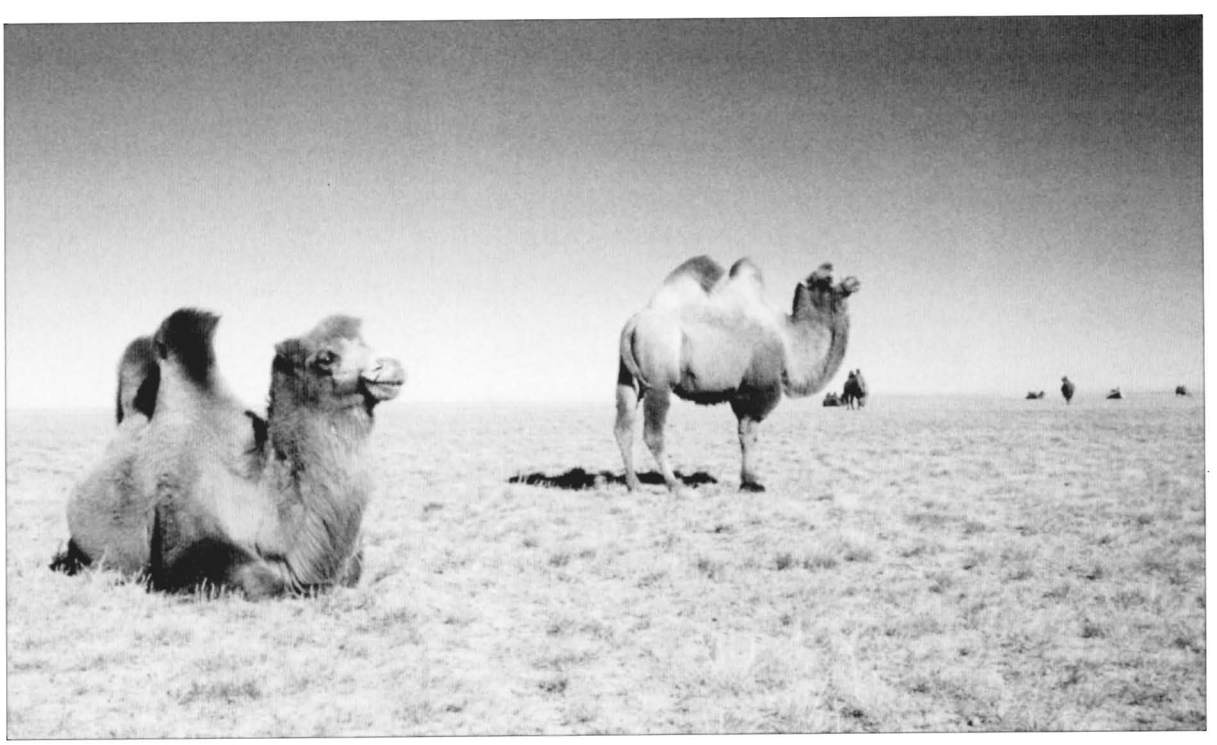
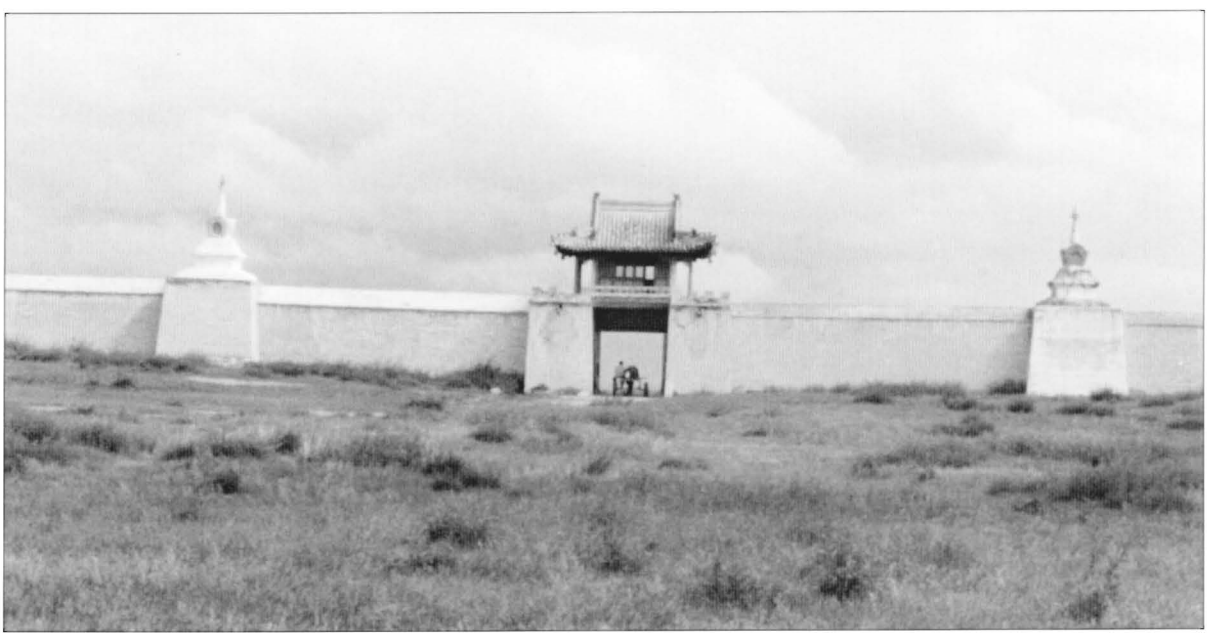


As a means of transport the camel could carry a heavier load for a longer period of time than a horse. During the Mongol conquests camels carried equipment and also pulled smaller versions of the wagons described above. It was also easier to feed. The Bactrian camels of the Gobi desert will eat the plants that other animals refuse, and can manage for between ten and 20 days without taking water. This is due to the fat stored in the humps, which the camel metabolises into energy. It has been estimated that a Mongol camel could carry 300lb of equipment for 100 miles with no 'refuelling'.

There is an interesting Mongol legend concerning the camel's supposed sensitivity to its master. When Genghis Khan died, the site of his burial was obliterated so that no enemy might later deface it. But a young camel was buried with him, and 30 years later the mother of the baby camel arrived at the tomb site and started weeping. The Mongols were therefore able to rediscover the tomb of their great leader.

### Belief and belonging

The sense of belonging to the Mongol Empire was in no way predicated upon an agreed set of orthodox religious beliefs. By contrast, nomad society in the steppes was accustomed to the presence and practice of many different religions. Muslim merchants passed through Mongolia, Buddhism was well known, and several of the Mongol tribes professed Nestorian Christianity. It is therefore not surprising that the overall attitude towards religion expressed by Genghis Khan and his successors was one of inclusive religious toleration. As no one religion could be identified as superior, it was best to let every subject of the Mongols pray for the Khan in his own way. Karakorum contained many different places of worship, even a Nestorian church. As the Mongol Empire spread, however, the Mongols who settled in the new territories tended to adopt the religion of their conquered subjects, so Islam was embraced in Persia, for example.



**The Buddhist monastery that now occupies the site of the palace of the Mongol Khans at Karakorum. (David Lambert)**

Yet there was one religion that may be regarded as indigenous to the Mongols of the conquest period – shamanism, an animist belief with strong elements of ancestor worship. Shamanism was exclusively concerned with the everyday needs of the present life, so it tended not to come into conflict with other religious beliefs. In some ways it was not unlike Japan's Shinto, because it included beliefs in a supernatural hierarchy that included a fertility deity and ruled heaven through a lower order of spirits. Central to shamanism, however, was the crucial role played by the visionary known as the shaman, who passed into a trance and communicated between the spirits and mankind. His other functions were exorcisms, blessings and divination, the latter being carried out by interpreting the pattern of cracks in the shoulder blade of a sheep after it had been burned.

The shaman was a very influential member of Mongol society. Even Genghis Khan came into conflict with a shaman on at least on occasion in his career, and the great Khan's performance of an important shamanistic ritual is well recorded. This was for the devotee to climb up to a high place and kneel nine times with his head uncovered and his belt around his neck.

**A Mongol fighting a samurai. The Mongol helmet and the close-fitting cowl round the face, which appear in several illustrations, are shown on the Mongol figure. (Japan Archive)**

### The hunt

Marco Polo's list of Mongolian game animals, which is by no means exhaustive, includes wild boar, gazelles and various species of deer. Siberian tigers, bears, wild cattle, wild asses, wolves, foxes, hares, cranes and swans were also hunted. To a Mongol, hunting meant much more than simply acquiring meat for the pot. To a very large extent, Mongol warriors learned the skills of mounted warfare through their passion for hunting. William of Rubruck noted: 'When they want to hunt wild animals they gather together in a great crowd and surround the district in which they know the animals to be, and gradually they close in until between them they shut in the animals in a circle and then they shoot them with their arrows'.

The Mongol 'call-up' for the annual winter hunt was every bit as stringent as a call to arms for war. In fact, in many particulars these hunts resembled a military campaign. During one entire month the steppes and mountains were beaten and game was driven into a vast retreat selected beforehand. Once

all the animals were gathered in, the beaters closed the area by a cordon, broken by neither rivers, ravines nor marshes. Sentinels were posted, signal fires were lit and every precaution was taken to prevent the trapped animals from escaping. At the same time it was forbidden on pain of death to use weapons against them. Finally, the Khan opened the hunt, the princes and nobles followed, and after they had killed their choice of game the chase was thrown open to the surrounding troops. The military benefits from such an exercise are obvious, and it is interesting to note that the Khan and his senior officers would afterwards analyse the progress of a hunt as they would a military operation.

## MONGOL CAMPAIGN LIFE

### A nation on campaign

Because of their nomadic existence, Mongol campaign life was an extension of ordinary daily life converted on to a war footing, and everyone was involved. As Smith (1984) puts it so well: 'The Mongol armies were the Mongol people in arms: all adult males were soldiers, and all women, children of age to do herding, and animals served as the logistical 'tail' of an army.'

This 'citizen's army' model of the Mongols requires us to look at the Mongol horde in a different light, because the mass of people travelling on campaign included far more than just fighting men. A *tumen* was not merely confined to 10,000 men but perhaps 40,000 people with 600,000 animals. Logistics were therefore a key part of Mongol warfare. Food for man and beast was always a major consideration, particularly

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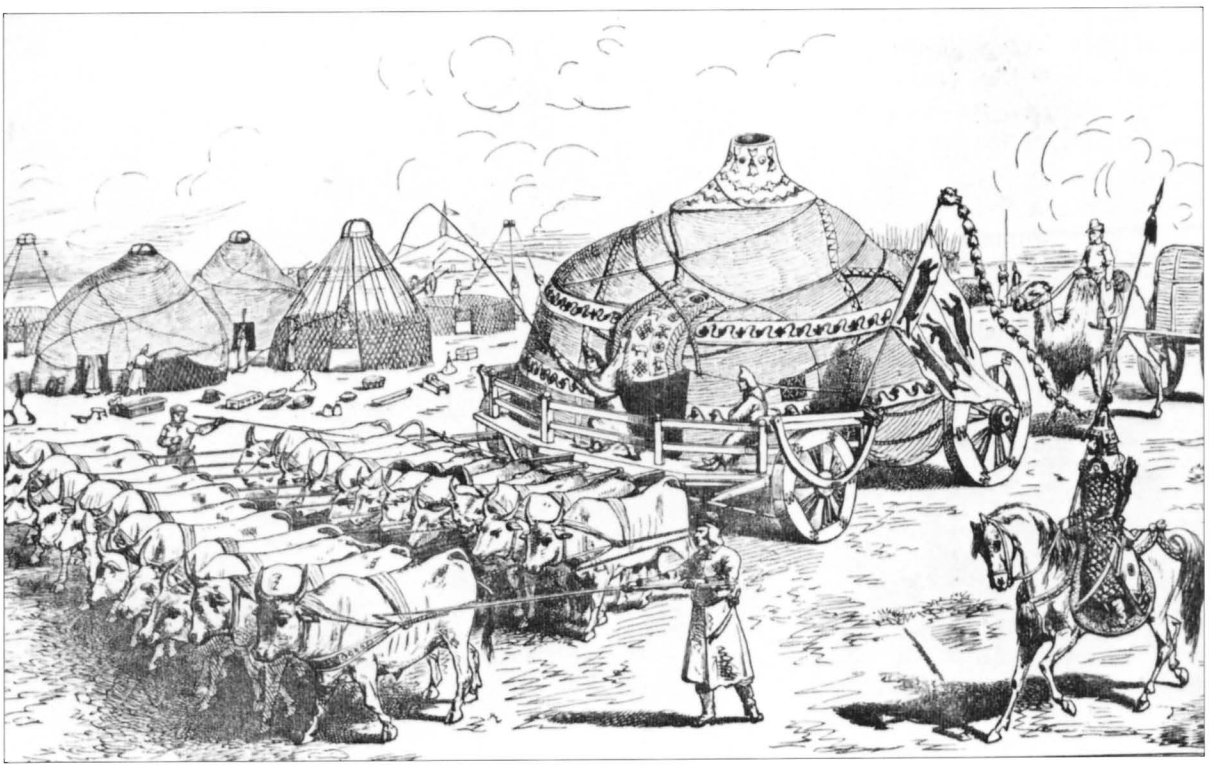


when their campaigns in Inner Asia and much of the Middle East took them through territories that were sparsely inhabited and largely uncultivated.

### Grazing practices on campaign

It was the Mongols' own experience and traditions of nomadism that ensured that they coped successfully with the immense distances they travelled and the lack of food from cultivated fields. Their preferred practice was to let their horses graze instead of feeding them fodder that would have had to be transported. In many cases the fresh grass the horses ate also provided much of the water intake they needed. As Marco Polo noted, 'Their horses... support themselves by grazing, so there is no need to carry barley or hay'. A Mamluk source also confirmed the practice: 'It was the custom of the Mongols not to bother with fodder for their horses, but they would trust to what the earth produced. If the earth was fertile, they would go that way, and if it was barren, they would keep away from it'.

This ideal could often be realised on the Asian steppes, and in such areas of abundant grass a Mongol army could be completely self-sufficient in logistical terms. It was part of the Mongol genius for organisation that the likelihood of this occurring would be built into the forward plans of a campaign. Campaign planning would take into account the provision of pastureland in territories to be conquered, so that the grassland was strategically 'pre-positioned'. For example, when Mongke Khan prepared in 1252 for his campaigns, officials who were the equivalent of quartermasters were sent on ahead 'to reserve all pasturage and meadow wherever the World-King's troops might be expected to pass. . . and all animals were forbidden to graze there lest the pastures might be harmed or the meadows injured'.

Threatened countries could of course respond to these plans by taking measures to hamper the Mongol progress. For example, the Mamluks sent men to burn crops and grasslands, which 'brought complete relief and protection from surprise attacks and raids on the frontier towns'. If enemy grasslands remained intact the Mongols' campaigning was made that much easier, a benefit that even applied in deep snow, because severe winter conditions could be overcome by the hardy Mongol ponies. They were used to digging in the snow to get at the rich stores of food provided by the long grass that had fallen over and been compacted. This was not a characteristic of European horses, and when John of Piano Carpini left Kiev the inhabitants warned him of the dangers that lay ahead for his horses: ' . . . they would all die, for the snow was deep and they would not know how to dig up grass from under the snow like the Tartar horses, nor would he be able to find anything else for them to eat since the Tartars have neither straw nor hay nor fodder'.

**A Bactrian camel with its young. A camel would provide its owners with wool, milk, meat, leather and fuel as well as being a beast of burden. Its meat kept well when dried to preserve it. The wool was particularly prized and dried camel dung was an invaluable source of fuel in a land where wood was scarce. (David Sneath)**


**A Mongol helmet in the Mongol Invasion Museum, Hakata, Japan. (Japan Archive)**

However, when the Mongols were campaigning in non-steppe areas, the nature of the terrain made planned grazing a risky business. The reality of such a contrasting situation is neatly summed up in the account by the chronicler Wassaf concerning Ghazan's campaign of 1300, where it was clear that grazing was unlikely to be an easy option in the bleak terrain that lay ahead. He writes that an order put out for the mustering of a Mongol army required that out of every ten soldiers five should be mounted ready to leave. Each of the five was required to prepare five horses with full equipment and provisions for six months. In addition 50,000 camels were to be loaded with baggage and carry fodder for the horses. This was a very different plan of campaign from those pertaining to the grassy steppes, but in spite of the Mongols' logistical preparations the campaign of 1300 was a failure. The feeding arrangements for the animals collapsed and so many horses died that the soldiers were ordered to return home on foot.

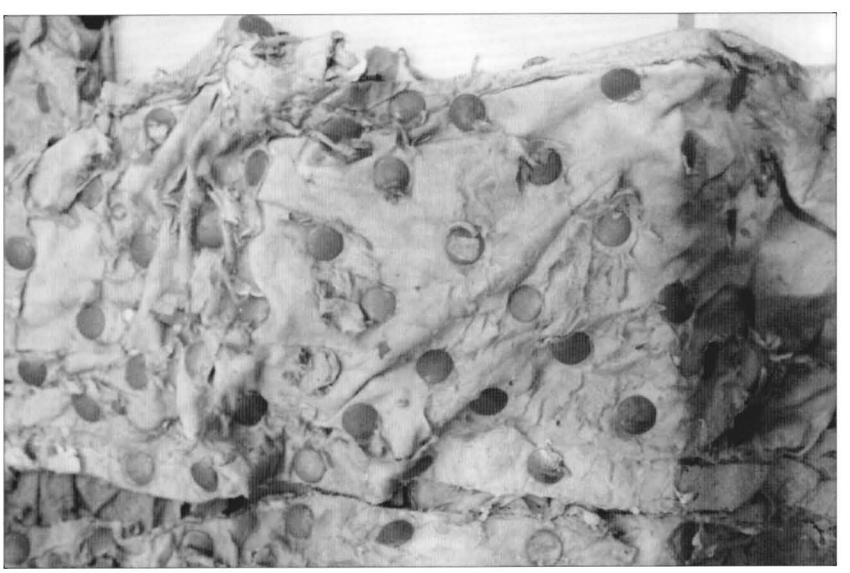
Yet in most cases the situation was not a simple 'either/or' between rich grasslands and a barren wilderness. The first point is that there were nearly always areas other than pasturelands to be found where Mongol horses could graze. These fields were usually agricultural areas, which were traditionally off-limits to nomads, but such considerations could be put to one side when invading an enemy's territory. The Mamluk practice noted above of burning grasslands would not have been applied to their own agricultural areas, so if the grasslands were destroyed the Mongols could probably occupy other enemy agricultural lands. Second, the Mongols had no reservations against grazing their horses

on the pasturelands of an enemy country's indigenous nomads. Third, there was always the possibility that grazing might not be necessary if a rapid Mongol advance into a country allowed its stores of grain to fall intact into their hands. This happened during the Syrian campaign of 1281 when we read that the inhabitants of Aleppo 'abandoned crops, granaries and foodstuffs'. This would have been a very welcome present for the Mongol invaders.

Further challenges arose when the Mongol military plans envisaged the army staying in one place for a considerable time. An example would be the need for wintering prior to continuing an advance in the spring. Long-term occupation of enemy lands by a nomadic people provided acute logistical problems, of which the Hungarian campaign is a prime example. Having crushed the Hungarians at the battle of the Sajo River in 1241 the Mongols crossed the Danube and headed as far as the Adriatic coast, but in 1242 they pulled back and eventually settled in the southern Russian steppes. The immediate trigger for the withdrawal was the death of Ogodei Khan, but this does not provide sufficient explanation for the evacuation. In fact the Hungarian plain, much of which was then forest and swamp rather than grassland, was unable to supply the vast grazing needs of the Mongol army.

### The Mongol warrior's campaign rations

The foodstuffs normally consumed by Mongol warriors were noted above, but how did their diet differ on campaign? In ideal conditions their horses may have grazed where they stood, but a man could not live off grass no matter how plentiful. Grain obtained by trade or plunder from sedentary societies would have to be carried on horses or camels, making the Mongol remount system into an encumbering pack horse train. Flocks of sheep and herds of goats would have followed the armies along with the wagon train, but as their pace was slow something else would have been needed for the Mongol warrior heading off to battle. This has long been a topic that has fascinated outside observers, and Marco Polo provided one of the earliest suggestions of how the Mongol warriors may have fed



**Armour detail in the Mongol Invasion Museum, Hakata, Japan. Iron studs are used to reinforce the cloth and leather. (Japan Archive)**

themselves on campaign: '. . . if need be they will go or stay for a whole month without provisions, drinking only the milk of a mare and eating wild game of their own taking. . . . In case of need they will ride a good ten days journey without provisions. . . living only on the blood of their horses; for every rider pierces a vein of his horse and drinks the blood. They also have their dried milk, which is solid like paste. When they are going on an expedition they take about ten pounds. . .'

The dried milk was noted earlier and provided the Mongol warrior's breakfast when it was reconstituted with water, but at half a pound a day, this would only provide about a quarter of the day's necessary food intake. The other points made by Marco Polo also need to be examined with care. Mare's milk was indeed very nutritious, and a lactating mare could have produced quantities beyond that required by her foal which could then be used for a rider's consumption. As each rider had between five and eight horses such a supply looks perfectly feasible. However, the warrior would have needed to stagger the breeding of his mares so that regular milking was possible. So if mare's milk was going to be a major food source for a campaign the action would have to be planned very far ahead to allow time for the foals to find their legs. It is more likely, therefore, that the provision of mare's milk on campaign was a casual source of rations rather than the staple diet.

The same conclusion must be reached concerning horse blood. This would indeed provide nutrition in an emergency, but blood-letting would weaken a horse, and when moving along on campaign it may not have been possible to allow sufficient time for a horse to recover. Marco Polo's reference to game indicates a source of food that would often have appeared en route, but properly organised hunting parties would have diverted and delayed a campaign, and the Mongols were nothing if not punctual. Hunting was therefore conducted on an individual ad hoc basis, and would have included digging for marmots while the horses grazed nearby. Yet even these could only have provided a dietary supplement.

The clue to the major food source for a Mongol warrior on campaign is provided by a certain Kirakos of Ganja, an Armenian who was once a prisoner of the Mongols and wrote from first-hand experience. He wrote that 'they eat the meat from all sorts of clean and unclean animals, but they preferred horse meat'. It has been calculated that one pony contained enough meat to supply about 100 men's daily rations, so when Marco Polo describes Mongol warriors with up to eight mounts each, he is talking not only about remounts but of their main source of food on campaign. The Mongols not only rode their horses. They ate them too, and the chronicler Jean, Sire de Joinville, is the source for the famous mention of 'steak tartare', the Mongol culinary technique of placing meat between their saddle and saddle blanket, and eaten raw once all the blood had been beaten out.

### Mongol strategic planning

It is quite clear that considerable strategic planning went into the Mongol campaigns. This was so wellknown to their contemporaries that one writer could even be scornful of it, writing, 'The fact that the Tartars are unable to conceal their intentions has done them much harm. For they are in the habit of holding council during the first moon of January when they discuss their plans for the coming year. Thus, if they were to

**In this reworking of the famous scene from the Mongol Invasion Scroll, we see a Mongol bomb exploding among a group of samurai at Hakata in 1274. The Mongol Invasion Museum, Hakata, Japan. (Japan Archive)**

decide to move against the Sultan of Egypt, the decision would be known by all. The Muslims would so inform the Sultan of Egypt who could then prepare for the encounter.

The last sentence is of course a highly optimistic view by the Mongols' victims. In many cases such preparations proved to be woefully inadequate, because the Mongol intentions at this stage of a campaign can only have been expressed in terms of broad brushstrokes. The enemy may have known he was going to be attacked, but he never knew precisely when or where it would happen. This was partly due to the Mongol practice of delegating the strategic decision making. Considerable freedom was granted to the field commanders who would produce the operational strategies. At this level the plans were still expressed on a large scale.

Commanders such as the famous Subadai and Batu led into enemy territory armies that were physically separated by hundreds of miles yet could apparently recombine with outstanding ease. The European campaign, for example, involved two armies operating 600 miles apart. The glue that held the separate plans together was rigid adherence to a previously agreed timetable for joining forces. The *Secret History* notes this practice for one of Genghis Khan's early campaigns in conjunction with his ally Jamuqa: 'There they found Jamuqa, who had been waiting for three days, and did not hesitate to show his displeasure. "Have we not agreed that we will not be late for our meeting though snowstorms may blow, that we will not be late for the gathering though pelting rain may fall? When a Mongol says, 'Yes' is this not worth an oath?" '

The Mongols also expected punctuality from their allies, which must have caused some heart-searching at times. There exists a letter sent to King Philip the Fair of France by the Ilkhan Arghun in 1289. Arghun refers to their proposed alliance and informs the king that he will take the field during the final month of 1290 and will arrive in Damascus on the 15th day of the first month of spring 1291, 18 months ahead of the time of writing! He adds, 'If you send your army so that it arrives after the date agreed upon, how would that be proper?'

The Mongol planning process was facilitated by good intelligence. Before setting out against the Khwarazm Empire in 1219 Genghis Khan knew nearly everything of importance about it. Muslim merchants, whose safe trade routes had benefited from the security Genghis Khan's activities had provided, repaid their benefactor by informing him of the political difficulties faced by the Khwarazm Shah. The Mongols also seem to have had the knack of turning the knowledge of such difficulties to their own advantage. After the fall of Samarkand in March 1220 Genghis Khan worked upon his knowledge of the distrust that the Khwarazm Shah had for some of his generals. Letters were forged that incriminated these generals in a plot to betray their leader. The letters were delivered to the Shah, who became convinced that his army was riddled with treachery. So instead of continuing to fight the Mongols in the east he fled west to organise new forces who would be loyal to him. The Mongols' subterfuge therefore gave them free passage across the eastern part of enemy territory.

**This bas-relief on the plinth of the statue of Nichiren in Hakata, Japan, shows Mongol atrocities against civilians. (Japan Archive)**

Once a war had been decided upon a great assembly known as a *kuriltai* was called, usually in springtime. At this gathering the minutiae of logistical details were identified and the crucial question of the timetable was settled. The points of concentration were agreed upon and mobilisation orders issued. A review of troops would complete this initial phase of a Mongol campaign.

### Reconnaissance in force

The need to possess accurate and up-to-date intelligence meant that the first Mongol moves against a target took the form of a reconnaissance in force. This frequently led to a bloody battle, but once the initial victory had been won and the enemy's strength had been assessed the Mongol army would customarily retire to return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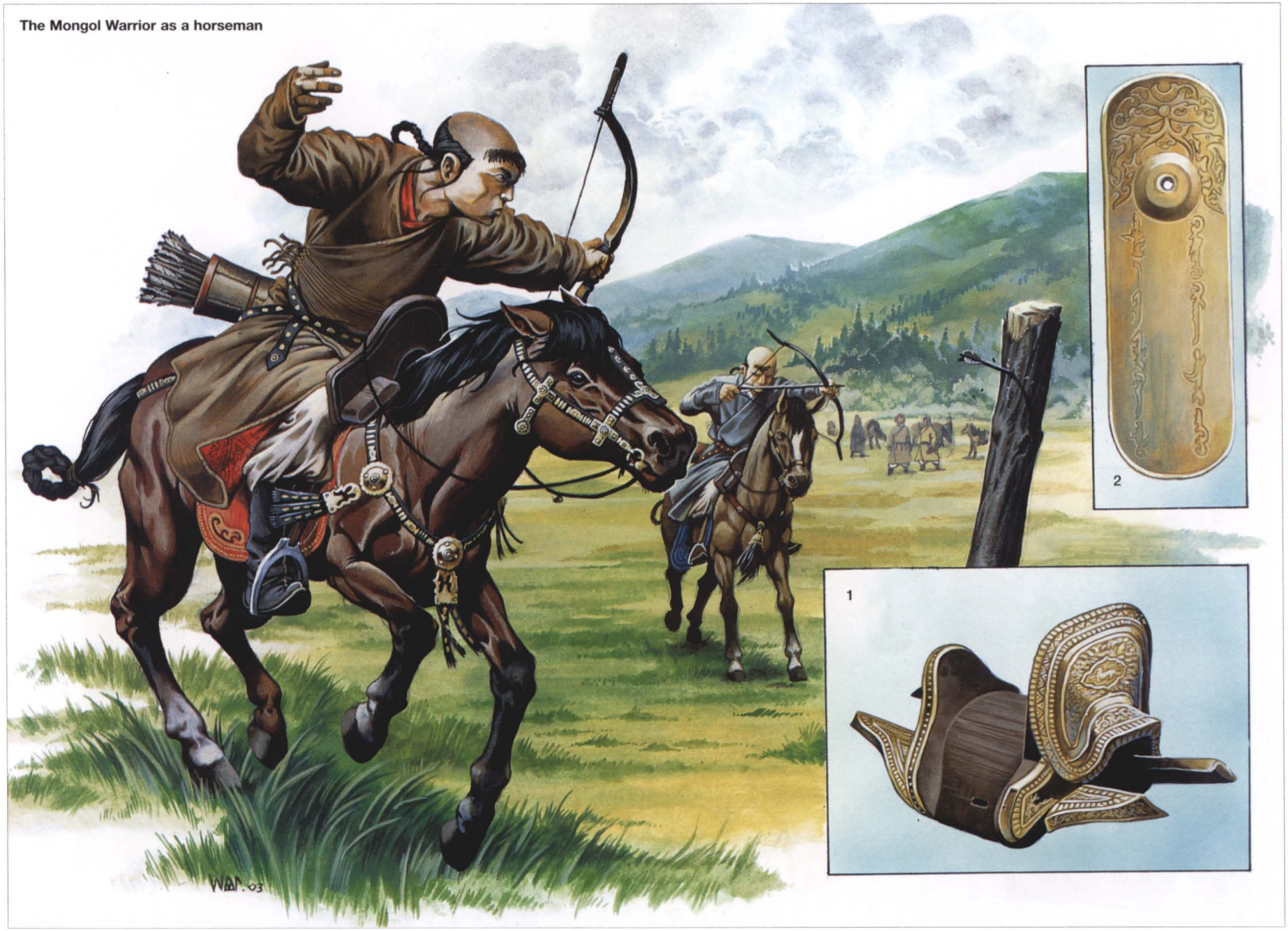
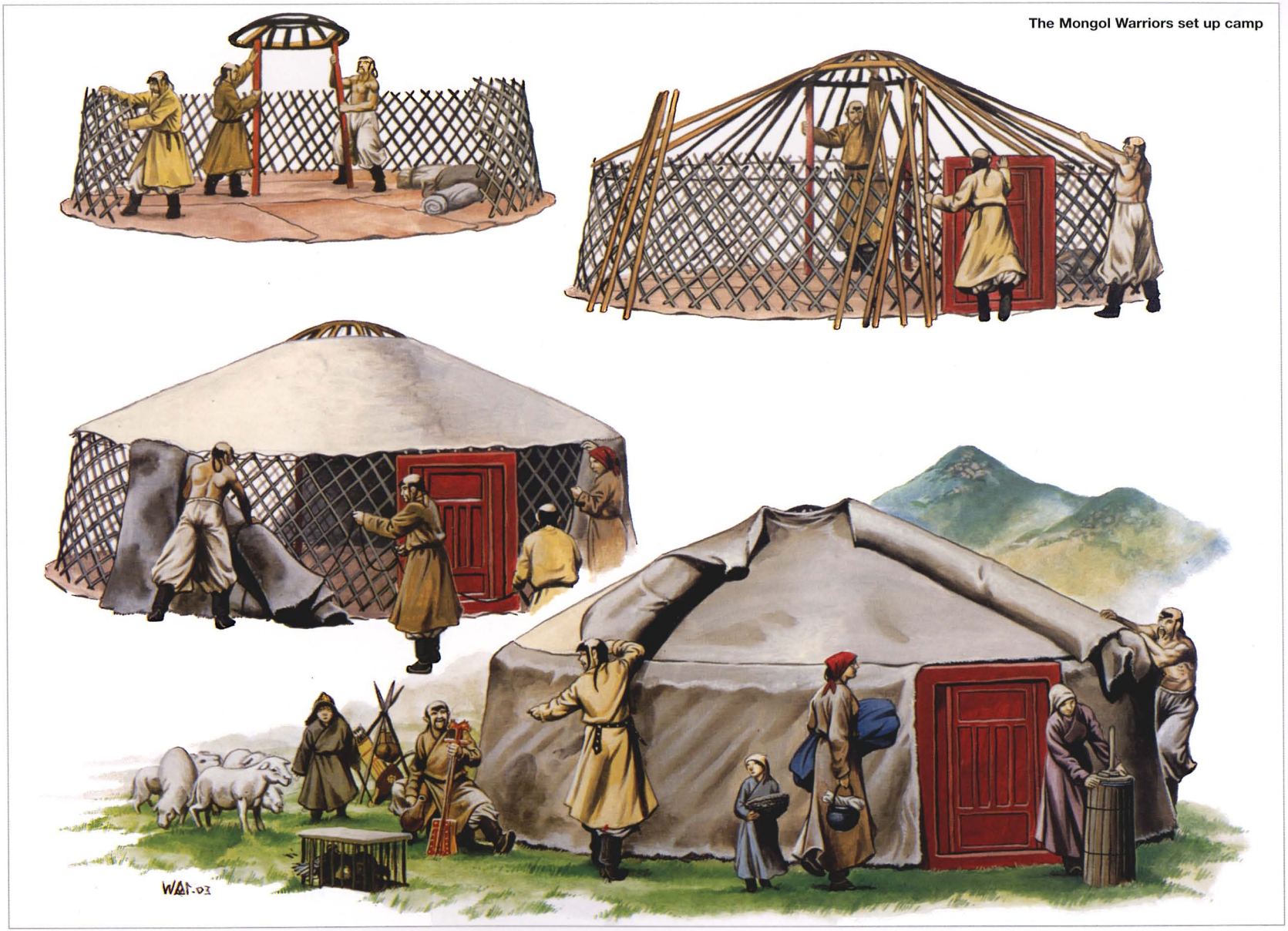
The Mongol Warrior as a horseman




The Mongol Warrior's logistical support system


The Mongol Army on the move

The Mongol Warriors set up camp



Mongol Warriors in hand-to-hand combat at the battle of the Kalka River, 1223

Wounded Mongol Warriors at the Siege of Kaifeng, 1232

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The Mongol Warrior as a heavy cavalryman

again later. These operations provided the strategic reality behind the puzzling Mongol habit of disappearing after their victories, a fact noted by more than one commentator. There are two outstanding examples of this practice. The first was the withdrawal of the Mongols after the battle of the Kalka River in 1223, which led their victims to be more convinced than ever that they had been assaulted by demons out of hell. The second was the curiously brief duration of the first Mongol invasion of Japan in 1274. This expedition lasted little more than two days from the moment the Mongols made landfall in Kyushu, but provided valuable intelligence for the major invasion attempt carried out seven years later in 1281.

### Mongols on the march

The Mongols worked on the principle of 'advance separately, attack united', and nearly always entered a country in widely separated columns. When faced by an enemy force or by a fortified town these columns could reunite at remarkable speed. The superior mobility of the Mongol army provided a similar security to that given by concentration to less mobile armies. But Mongol movements were never conducted at a gallop, and one of the greatest misconceptions about the Mongol conquests is that of invariably rapid movement. We noted above that logistical needs made campaigns into more complex events than popular images would have us believe. However, continuous rapid motion is certainly implied by some accounts of their campaigns. For example, we read of the Mongols fighting in the Carpathian mountains on 12 March 1241 and arriving near Pest, 180 miles away, on 15 March. This implies a very rapid movement, but it could be explained by there being two separate armies in action.

The reality was that logistical requirements of armies made slower travel far more likely, and even on the grassy steppes the Mongol warrior had to travel slowly if he was to attain the ideal of logistical self-sufficiency outlined above. It was not merely the presence of grasslands that was required. The horses had to have sufficient time to graze from

**In this section of the bas-relief on the plinth of the statue of Nichiren in Hakata, Japan, captives' hands are being pierced so that they can be tied to the outside of the Mongol ships. (Japan Archive)**

them. As fodder is more compact than growing grass, grazing is a much longer process if the animal is to receive the same nutritional value. There was also the question of the numbers of horses. The large number of ponies taken on campaign may have allowed fast remounts in the battle situation, but when travelling on campaign all the horses had to be fed, and the horses not being ridden would require only marginally less energy than the current mount. The enormous amount of grass that a Mongol army would consume meant that the army had to keep moving to yield fresh supplies. Smith (1984) calculates that the Mongol armies on their way to Syria would have eaten their way through eight square miles of grassland per day.

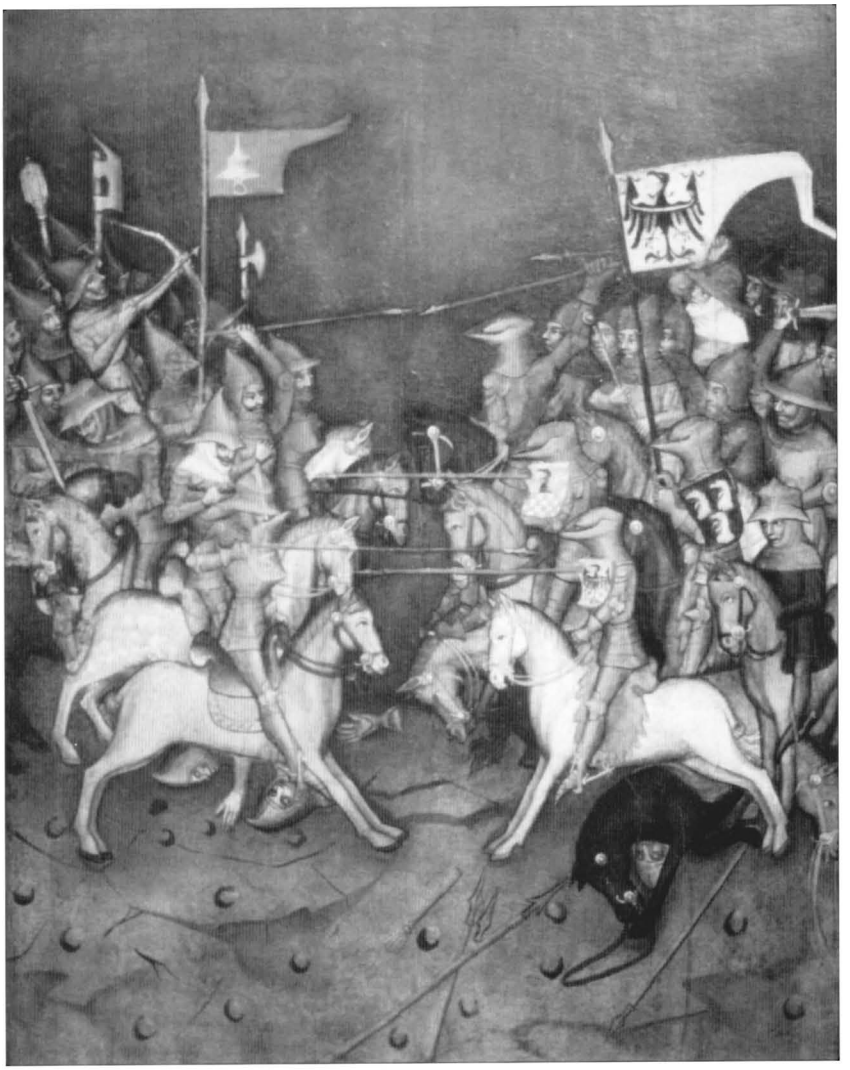
When on campaign in areas that allowed grazing the Mongol pattern was to move their animals in the morning, graze them during the afternoon and rest them by night. The Mongols' military movements were therefore not merely lightning-fast sweeps out of the sunset. That tactic was instead just the culmination of a longer and slower process. The final charge against an army or a settlement was merely the death blow. It would have been acutely remembered by its victims who were not in fact aware of the long slow advance that had preceded it. During the Chinese campaign of 1216–17 the average daily march was only 14 miles a day, but to its victims the successive blows must have appeared like a series of lightning bolts.

The order to strike camp and move on was given by the beating of the *naccara*, the great drum that was also a symbol of the commander's authority. This is described in a little-known account by the Dominican friar David of Ashby: 'It is like a very tall whistle of bronze or copper and across the top of it there is stretched a large piece of leather... and this is supported by four stakes as high as a man's waist. . . And if the chieftain wishes to move camp, when midnight is passed he orders the drum to be struck and the man who is allotted this task grasps two wooden maces in his two hands... and strikes as hard as his strength and breath allow him to do'.

The first beating of the drum was the order to prepare the horses and put one's equipment on them. The second drum call, sounded after a suitable interval, was the order to strike the tents and load up possessions. Positions in the advance were then taken up. At a third command from the drum, the army moved off. David of Ashby adds that after the army had proceeded on its way selected individuals searched through the former camp site for anything that may have been accidentally abandoned. He also remarks on the silence of the entire operation, broken only by the noise of the horses' hooves. The Mongol warriors themselves made no sound, nor did they attempt to advance in front of those marching before them.

### The weapon of terror

The Mongols were masters of psychological warfare. We noted above how the remount system frequently gave the impression that an enemy was hopelessly outnumbered, but the most devastating application of the manipulation of an enemy concerned the Mongols' reputation for wholesale slaughter. This could cause such fear in a population that the news of the Mongol advance meant that surrender was almost inevitable. Unlike the misleading information about the numbers of the Mongol



**The battle of Leignitz 1241, from a painting of about 1430 in the Museum of the Polish Army, Warsaw. (Japan Archive)**

armies, however, the terror that the Mongol warriors inspired was based on reported experience that was solidly grounded in fact. Many examples can be quoted, all of which went towards producing an image of the Mongols that did not need further exaggeration. As Juvaini tells us: 'When Genghis Khan returned from Peshawar and arrived at Balkh, he found a number of fugitives who had remained hidden in nooks and crannies and had come out again. He commanded them all to be killed, and fulfilled upon them the verse, "Twice we will chastise them". And wherever a wall was left standing, the Mongols pulled it down and for a second time wiped out all traces of culture from that region'.

When the Mongols entered Nishapur a thirst for vengeance arising out of the death of Genghis Khan's son-in-law Toghachar made the sack all the more terrible. 'They then drove all the survivors, men and women, out on to the plain; and in order to avenge Toghachar it was commanded that the town should be laid waste in such a manner that the site could be ploughed upon; and that in the exaction of vengeance not even cats and dogs should be left alive'.

A similar excess through revenge happened at Bamiyan, where a grandson of Genghis Khan had been killed by an arrow, so orders were given that, . . .every living thing from mankind down to brute beasts should be killed; that no prisoner should be taken; that not even the child in its mother's womb should be spared; and that henceforth no living creature should dwell therein'.

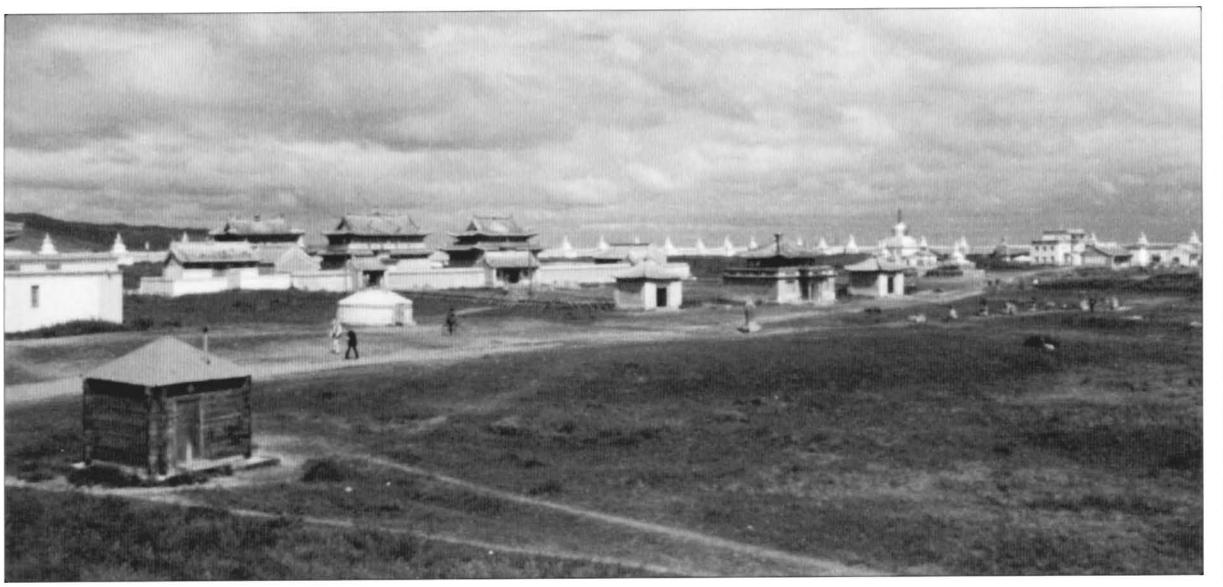
The Mongol tactic of a false withdrawal, which will be discussed later in connection with battles against enemy cavalry, could be no less effective when used against the civilian populations of besieged cities. Using the vivid image of a group of Mongols appearing like a 'puff of smoke', Juvaini describes one such incident during the Khwarazm campaign, when the Mongols apparently '. . . busied themselves with driving off cattle. At this, some short-sighted persons became exultant, thinking that they had ventured on such insolence by way of sport. They did not realise this would be followed by calamities, that after the mountain top of these calamities would come other mountain tops and thereafter torments. A whole world of people both horse and foot, rushed thoughtlessly out of the gates upon that small troop'.

Needless to say, when they had pursued the small band of Mongols for a distance '. . . they caused Tartar horsemen and men of might and dread and prowess and war to spring forth from the ambush of the wall. They cut off the road before and behind and fell briskly upon them like wolves upon a flock without a shepherd'.

The consistency with which the chroniclers paint similar pictures of Mongol destruction is quite remarkable, and cannot be ignored. The numbers quoted may at times be almost impossibly large (2,400,000 killed at Heart, for example) but the overall impression must be that the execution of civilians was part of Mongol strategy that was exploited to make the conquests easier. It is important to note, however, that the extent of the devastation varied from place to place, and the Khwarazm Empire seems to have suffered the most.

Sometimes this terror factor could be taken a stage further than the mere spreading of rumour. In a siege situation the terrified captives from a previous victory could be used to help capture the next targeted city. The Mongols would round up the male population of the surrounding districts and drive them at the point of a sword against ditch and wall. Sometimes these unwilling 'forlorn hope' troops were even disguised as Mongols, with a Mongol flag to every ten men, so that a garrison would believe itself to be threatened by an overwhelming Mongol army. Thus it was that prisoners from Bukhara were used to besiege Samarkand, and the Samarkand captives in turn were driven against Urgench.

**This figure of a Mongol lies beneath the feet of Henry the Pious on his tomb. This is a cast of the original in the Museum of the battle of Leignitz in Legnica Pole, Poland. (Japan Archive)**



The site of Karakorum, the capital of the Mongol Empire. (David Lambert)

### The strategic false retreat

The well-known Mongol practice of a false retreat operated at a strategic as well as at a battlefield level. John of Piano Carpini warns of the strategic variety: 'Even if the Tartars retreat, our men ought not to separate from each other or be split up, for the Tartars pretend to withdraw in order to divide the army, so that afterwards they can come without any let or hindrance and destroy the whole land'.

A good example of a strategic false retreat is provided by the movements leading up to the battle of the Kalka River in 1223. The Mongols realised that they were outnumbered and began a retreat that lasted nine days. The strategic false retreat was one of the main means by which the Mongols tried to put into operation their preferred way of dealing with an enemy. This was to destroy with the enemy's main field forces before penetrating any distance into hostile territory. To draw the enemy out of his heartland and away from fortified towns was the best way of ensuring that this could happen. We also know that on coming upon numerically superior enemy troops, the Mongols would send out troopers to stir up a dust cloud behind their own lines by means of branches tied to the tails of their horses. On seeing this the enemy sometimes thought that large reinforcements were approaching from behind.

## THE MONGOL EXPERIENCE OF BATTLE: MONGOL STEPPE TACTICS

So far-ranging were the Mongol conquests that different armies of Mongol warriors experienced totally different types of battle. I shall therefore approach this section from the point of view of the terrain and environment over which the campaigns were fought, but we will begin with a discussion of classic Mongol cavalry tactics. As Robert of Spolato, a contemporary of the Mongol conquests, put it so well, 'There is no people in the world who know so well how to overcome an adversary in the open by skill in warfare'.

### Scouting the enemy

The transition between a Mongol army's strategic advance to a tactical move and actual contact with the enemy was a very smooth one facilitated by the activities of the Mongol scouts. These highly mobile units operated between 35 and 70 miles ahead of the Mongol main body. Similar mobile screens operated on the flanks and to the rear, so it was almost impossible to surprise a Mongol army.

The first contact that an advancing Mongol army would have had with its enemies would therefore have been provided by the forward scouts. At this point the Mongol main body extended its flanks over as great a distance as possible so as to overlap the flanks of the hostile force. This they did by extending and advancing their wings under the cover of valleys or hills or behind clouds of dust. As closer contact developed, skirmishers were sent forward and the scouts brought back whatever information they could gain about the enemy's strength and dispositions.

This Mongol warrior appears on the bas-relief on the plinth of the statue of Nichiren in Hakata, Japan. (Japan Archive)

### The tactical false retreat

The process of envelopment could be greatly assisted by the use of a false retreat. Reference was made above to the false or extended retreat carried out at a strategic level. At a more tactical level it was done by throwing an advance guard forward. When hostile contact was made the false retreat began, pulling the enemy further and further into the embrace of the wings that were already being extended forward to catch them. At the right moment the retreating force would turn about and join in the attack. John of Piano Carpini wrote, 'They do this as a blind to make the enemy follow them as far as the places where they have prepared ambushes'.

One of the earliest examples of a feigned retreat occurred during the Xixia campaign after capturing the Xixia fortress of Wolohai. The road to the Xixia capital of Yinchuan lay over a high mountain range, and here the Xixia hit back. The result was a stalemate, but when further Tangut reinforcements arrived, the Mongols deployed the tactic of a false withdrawal and succeeded in luring their opponents out of their fortified camp. A fierce battle ensued, during which the Xixia commander Weiming was captured.

The battle of Leignitz on 9 April 1241 provides another classic instance of a false retreat. The accounts suggest that Henry the Pious of Silesia sent part of his army on in advance of the main body to pursue what they thought was a retreating Mongol force. Suddenly they found themselves surrounded and subjected to a hail of arrows. A devastating charge followed, and when the main body advanced to help them they were themselves overwhelmed.

It is interesting to note that the Mongol tactic of a feigned retreat continued to work successfully even after the trick had become well known. As late as 1299 Zafar Khan, the general of Sultan Ala ad-Din Khilji was fighting the Mongols outside Delhi. He had long experience of Mongol warfare, but this did not stop him rushing forward when the Mongol left wing apparently collapsed. However, the reality of the situation was that the Mongols had not been defeated, but had launched a false retreat which they kept up for 36 miles. They then attacked the now isolated general, who was killed.

The Mongols were not only skilled in using false retreats. They were also constantly vigilant in case an enemy should try to use one himself. At the battle of Salamiyet in 1299 Ghazan delegated a special force to deal with such an attempt, which firmly repulsed but did not follow the enemy decoy force.

### Mongol archery in battle

With the enemy fooled and the Mongols ready for the attack, consideration must now be given to the crucial question of what happened when the two armies made contact. Many chronicles suggest that Mongol archery was often a decisive factor in a battle. For example, a chronicler of the battle of the Sajo River (Mohi) on 11 April 1241 tells us how the Hungarian army 'fell to right and left like the leaves of winter'. An Armenian source refers to the Mongols as 'the nation of the archers', and Matthew Paris describes them as 'incomparable archers'.

As the Mongols were trained as horse-archers it is not surprising to read that most arrows were delivered from the saddle. Exceptions to this were very rare, and concern unusual situations such as the one described below when Burmese war elephants frightened the Mongol horses. Evidence also exists that the Mongols would dismount if the battle seemed to be going against them. This might occur if the horses were exhausted, but it would also be a good defensive manoeuvre because a dismounted archer in a defensive position can loose more arrows than a mounted man. As for the arrows themselves, Marco Polo tells us, 'Every [Mongol] is ordered to carry into battle sixty arrows, thirty smaller ones for piercing and thirty larger with broad heads for discharging at close quarters. With these latter they wound one another in the face or arms and cut through bowstrings and inflict heavy losses'.

It may well be the case that the lighter arrows with their longer range were the first to be deployed on the battlefield. Accounts of the Japanese invasions mention arrows fired in dense volleys, and this would have considerable effect against the massed ranks of an enemy. It would also allow the Mongols time to organise the next phase using the heavy arrows, which tend to be the ones shown in contemporary artistic depictions of Mongol warfare. They have the broad

**The death of a Mongol at the hands of a samurai archer, from the bas-relief on the plinth of the statue of Nichiren in Hakata, Japan. (Japan Archive)**

heads Marco Polo mentions and long, high-standing feathers. They would have been effective up to about 150 yards and deadly at thirty yards. Such a concentration on close-range archery should not come as a surprise when we consider the Mongols' predilection for hunting, the activity that provided so much of their basic training for warfare. John of Piano Carpini suggests how these short-range arrows may have been delivered: 'When they 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'.

The worthy friar's observations may need to be modified in just one way, because if each Mongol warrior loosed four arrows during one charge against the enemy line then at least two would have to be loosed from a distance too great to be worthwhile. Instead a more reasonable model is that of each Mongol warrior loosing four arrows over four separate charges, each unit galloping after the one before it and with each man loosing one heavy arrow from as close as possible. The enemy would then be pounded by a seemingly endless wave of deadly shafts, each attacking group concealing those behind it until the last moment.

The effects on the enemy would go far beyond administering huge casualties. Perhaps the enemy would be provoked into advancing? If not, he could certainly be encouraged in that direction by the loosing of a 'Parthian shot' from a withdrawing Mongol warrior – the archers' own contribution to the tactical false retreat. When the enemy were judged to have been sufficiently demoralised by the arrows to allow hand-to-hand combat, or had placed themselves in that position, then the bows would be slipped safely into their cases and the Mongol horse archer became a sword- or mace-wielding cavalryman, defending himself with his helmet, armour and shield, and cutting into his opponents with his blade.

### Counter-attack

The Mongols frequently kept a crack unit of heavy troops held in reserve who could be used to strike a decisive blow if victory was hanging in the balance. An example is the battle of the Indus River in 1221. Forced marches brought the Mongol army within sight of Jalal ad-Din's army on the bank of the Indus River just as he was about to cross it. Jalal ad-Din's right flank nearly broke the Mongol centre, but a counter-attack followed and Jalal ad-Din was encircled by Mongol horsemen. His army was destroyed, so he swam his horse to the far bank. In admiration for his conduct Genghis Khan let him go.

The Mongol heavy cavalry would probably dominate such counter-attack situations. This phase of a Mongol battle has often been dismissed in the past as being less important than the effects of archery, but no Mongol battle was ever won by archery alone. In these melee actions we must discard the traditional image of the Mongol light archer and see instead the well-protected heavy horsemen attacking with spears, swords and maces and defending themselves with their shields. There are few descriptions of how the spear was actually used, but various miniature paintings suggest that it could either be couched like a lance or wielded as a stabbing weapon. It does not appear to have been thrown like a javelin. John of Piano Carpini describes a spear with a hook fitted just below the head. This could be used for hauling an opponent from the saddle.

## Pursuit

Few armies in history understood so well the importance of pursuing a defeated enemy and the best ways of carrying it out. The key to a successful Mongol pursuit was to plan for it by controlling the enemy's means of escape. Realising that a cornered foe would fight to the death, the Mongols always left a gap in their otherwise total encirclement. Needless to say, this was always at a place of their own choosing. John of Piano Carpini is our earliest source: 'If it happens that the enemy fight well, the Tartars make a way of escape for them, then as soon as they begin to take flight and are separated from each other they fall upon them and more are slaughtered in flight than could be killed in battle'.

The battle of the Sajo River in 1241 again provides a good illustration. A gap that led to a swampy area was left in the surrounding hordes. The disorganised and demoralised Hungarians rushed into it and were then pursued for two days. An eyewitness wrote, 'During a march of two days thou couldst see nothing along the roads but fallen warriors, their dead bodies lying about like stones in a quarry'. In a similar situation after the battle of Salamiyet in 1299 Mongol warriors were seen 300 miles from the field of battle.

**The head of Henry the Pious is paraded in front of Leignitz (Legnica) castle, from a painting of about 1430 in the Museum of the Polish Army, Warsaw. (Japan Archive)**

## Retreat

On occasion, of course, the Mongol armies had to make a genuine retreat, but these actions seem to have been as well-organised and disciplined as the feigned variety. Indeed, there were tough sanctions against any other form of retreat. As John of Piano Carpini notes, 'Unless they retreat in a body, all who take flight are put to death'.

If at all possible an organised retreat was carried out under cover of darkness, leaving the campfires burning while the Mongol warriors withdrew at speed. On some occasions the Mongol retreat was a simple

**In this picture we see the traditional method of tethering horses to a long rope in the middle of the steppes. (David Lambert)**

withdrawal to wait for a better occasion to attack. If an enemy stood on the defensive in a field position with spears planted to impale charging horses, the Mongols would withdraw the main body of their troops and leave smaller detachments to harass the enemy lines. At length, the lack of food and water would compel the enemy to move, whereupon the Mongol scouts would communicate this intelligence back to the main body. The Mongols could then catch the enemy just as they liked best.

### Treatment of the wounded

No matter how successful the Mongol warriors were they would inevitably have suffered their share of casualties in battle and elsewhere. The *Secret History*, for example, makes no attempt to conceal their existence, and contains four references to horses being wounded by arrows and four mentions of men being hurt by arrow wounds and then recovering. In addition, there is one reference to a sword wound, and one to an injury sustained from a fall from a horse. There are also two broken spines resulting from wrestling matches!

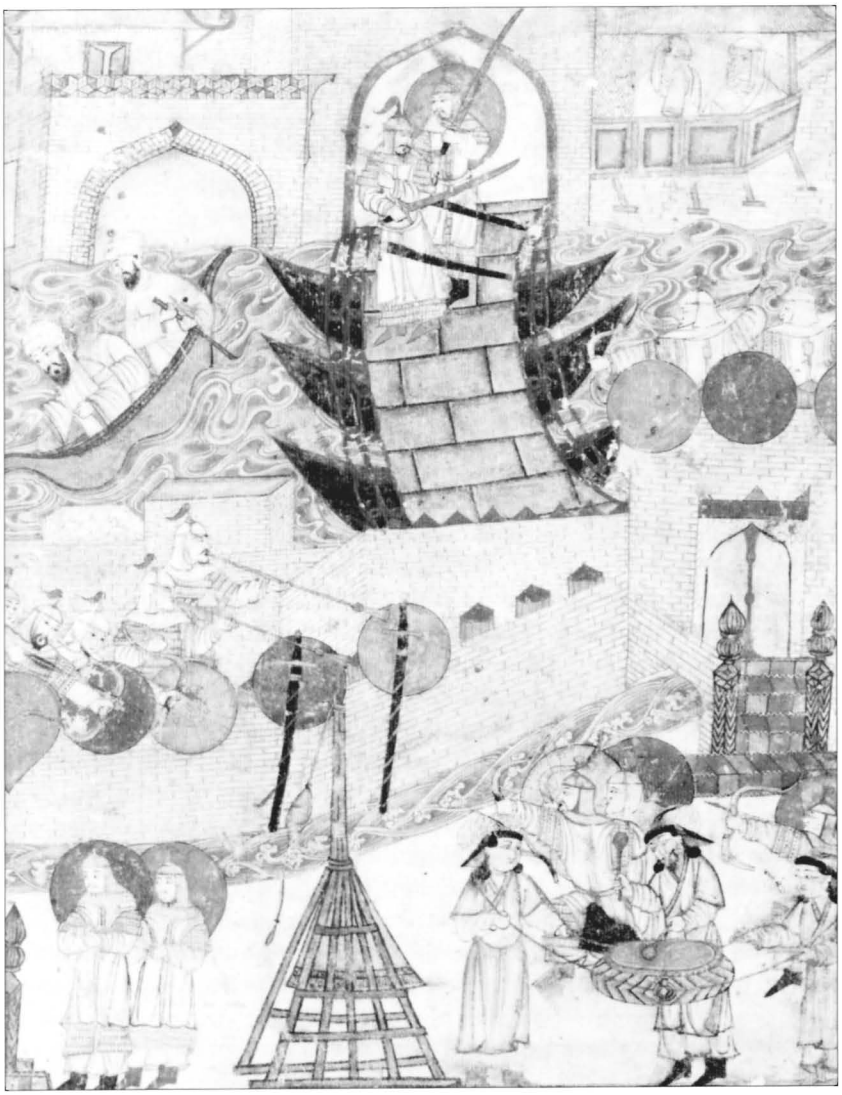
Mongol warriors were a hardy lot, and their superb physical condition must have helped their recovery from wounds and falls. The mobile nature of Mongol warfare also meant that the *gers* that provided their support were not far behind the 'front line'. So after a battle the wounded would be collected and returned to the camp for treatment and rest, where they would be cared for by the women of their families.

Arrow wounds would have caused great concern. When Genghis Khan was wounded in the neck by an arrow, Jelme sucked the blood from the wound from sunset to midnight, swallowing what blood he could and spitting out the rest. A similar treatment was applied to an arrow wound suffered by Ogodei. Although the Mongols would have been unable to explain the process in medical terms this would have prevented an air embolism, whereby air bubbles can produce obstruction in the blood vessels. Sucking the wound would also clean it. When Ogodei was taken back to camp Genghis Khan ordered his wound to be cauterised. Apart from this the only other reference to healing practices concerns the shamans, who would attempt to enlist supernatural intervention for the treatment programme.

## THE MONGOL EXPERIENCE OF BATTLE: MONGOL ADAPTATIONS TO TERRAIN AND SITUATION

### Weather conditions and Mongol campaigns

Whereas winter campaigning held terrors for comparatively recent armies from Napoleon's to Hitler's, the Mongols appear to have been one of the few forces in history who were able to face the challenges posed by winter conditions and turn them to their advantage. We noted earlier the ability possessed by the Mongol horses to forage through snow cover. To this must be added the advantages provided by frozen rivers, which could in many cases improve communications. Yet it would be a mistake to regard this as purely a Mongol discovery. The German crusaders on the Baltic are recorded as drawing the same conclusion



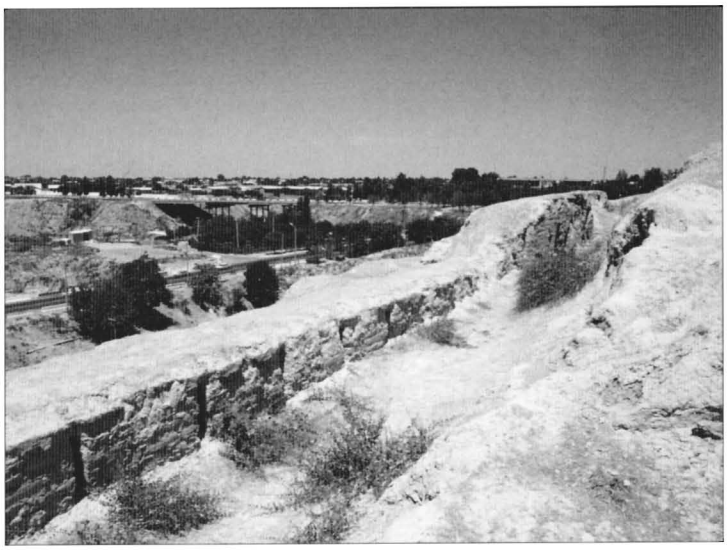
**This siege scene from the Saray Album shows the Mongol use of a counterweight trebuchet, a device they introduced to China in 1271. (Bildarchiv Preussischer Kulturbeistiz)**

during their wars in Latvia during the winter of 1211–12. They, however, had their chains of castles along the rivers to fall back on. The Mongols had only their mobile encampments, but both would have agreed that the best seasons for campaigning were dry summers and frozen winters. It was the time in between that had to be avoided. Novgorod was saved from a Mongol onslaught partly on account of the spring thaw that turned the land into a morass. No Mongol warrior could operate under such conditions.

Extremely arid areas which lacked grazing also posed immense challenges and forced the Mongols to carry fodder for their mounts or seize stored food. Both actions affected the prized Mongol skills of being mobile and planning for future needs.

### Seas and rivers

Mongol naval practice may be said to have begun when the Korean campaign revealed a curious weakness in Mongol warfare. In 1232 the Koryo court slipped away from Kaesong and took refuge on the fortified



**The western end of the citadel of Afrasiab or early medieval Samarkand. It was abandoned following the Mongol conquest. The mud-brick fortifications were excavated some years ago by Soviet archaeologists. (David Nicolle)**

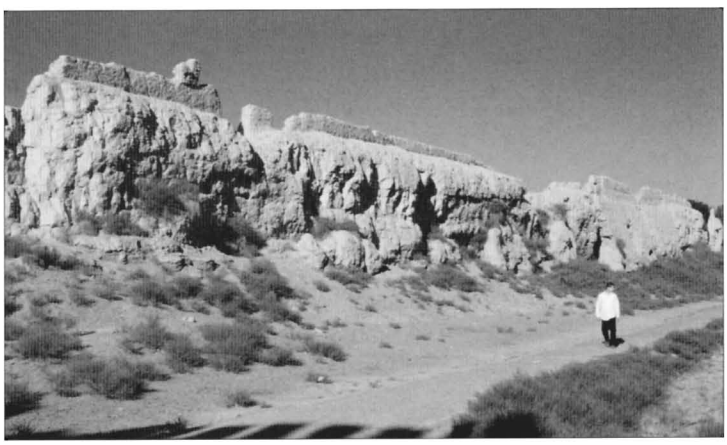
**A few stretches of the mud-brick fortified walls of Bukhara still stand. They follow the line of the walls that faced Genghis Khan and may even rest upon 13th century foundations, although they have of course been rebuilt several times. (David Nicolle)**

island of Kanghwa, so for the first time in any campaign the Mongols were faced with a sea barrier. In spite of all attempts to overcome Kanghwa they did not succeed in capturing the island, even though the watery gap was only half a mile wide!

The Korean problem was eventually solved by raiding so thoroughly on the mainland in classic Mongol fashion that the Kanghwa position became irrelevant. But when the Mongols marched against southern China the seas and rivers could not be so easily ignored. Early in 1265 the Mongols and the Southern Song clashed at Diaoyu in Sichuan province, where the Mongols not only won the battle but captured 146 ships. The confiscation of the vessels showed that Khubilai Khan appreciated that the Mongols now needed a navy, and the Mongols, a nation of horsemen unacquainted with the sea, took to naval warfare with amazing speed.

Accounts of the first Mongol invasion of Japan in 1274 give a very good idea of how the Mongols combined naval and land activities in what may be termed amphibious operations. When the Mongol ships drew close to the beach, traction trebuchets launched a 'shore bombardment' of iron-cased exploding bombs. This was the first experience that the Japanese had of gunpowder weapons, and it created such an impression on one leader of samurai that he deliberately included a picture of one in the painted scroll he commissioned. The nature of the weapon as a fragmentation bomb is clearly shown.

When the Mongols came ashore they fought dismounted and in dense phalanxes, loosing clouds of arrows. This point of detail was no doubt added to the Japanese account because of the puzzling contrast it presented to the traditional Japanese way of fighting, which preferred single combat above all. There was no shortage of hand-to-hand fighting, however, during the hours that followed.



### The defended town

The development of Mongol siegecraft provides the outstanding example of how the Mongols were willing and able to learn from the people they had conquered. The first teachers of siegecraft to the Mongols were Chinese artisans, and successive Khans always spared usefully talented individuals from massacre when a city fell. We read of the Mongols digging a mine under the Xixia fortress of Shazhou in 1224 and using catapults. At Kuju in Korea in 1231 the Mongols

loaded carts with grass and wood and overturned them beside the gates so that fires could be started. They also built siege towers and used hide-covered 'sows' to protect parties digging under the walls. The account of the Russian campaign against the city of Riazan in 1237 tells us how on the dawn of the sixth day of the siege the Mongols began to storm the city, 'some with firebrands, some with battering rams, and others with countless scaling ladders for ascending the walls'.

The Mongols' reputation for siege warfare grew rapidly almost from their first campaign against the Xixia when they built a dyke to flood out their enemies. So even though sedentary city dwellers were faced by what appeared to be a mounted and mobile nomad army, it was never an option for cities to close their gates and hope the Mongols would go away. Good siegework had to be countered by equally good defences. Some steps were quite simple, albeit laborious and devastating. For example, the inhabitants of one city targeted for attack not only laid waste the countryside for four or five miles around, but also carefully removed every stone they could find so that they could not be used as catapult ammunition. There was a similar shortage of stones during another campaign. We are not told if this was deliberate, but the enterprising Mongol artillerymen used balls of mulberry wood instead, hardening them by soaking them in water.

The siege of Nishapur is a good example of the preparations the Mongol would make for siege warfare. We read that: 'although Nishapur is in a stony region they loaded stones at a distance of several stages and brought them with them. These were piled up like heaps in a harvest, and not a tenth part of them were used. The people of Nishapur saw that the matter was serious and that these were not the same men they had seen before; and although they had 3,000 crossbows in action on the wall and had set up 300 mangonels and ballistas and laid in a corresponding quantity of missiles and naphtha, their feet were loosened and they lost heart.'

**A Mongol family walking towards a *ger*. (David Lambert)**

### Siege crossbows

The first type of siege weapons adopted by the Mongols were siege crossbows. Siege crossbows are among the most ancient of all siege weapons, having their origins in Ancient China. They were essentially very large versions of the familiar handheld crossbow, designed to be operated from a stout framework. They flung huge arrows, including fire arrows, and could also be used for throwing small stones. Siege crossbows were often mounted on the battlements of a city wall, but there were also portable and collapsible varieties that the Mongols are known to have taken on campaign with them. For example, in 1255 Mongke Khan's army included many 'shooters of fiery arrows worked by a wheel' – no doubt a reference to the siege crossbow's winch which 'worked in such wise that one bow string would pull three bows, each of which would discharge an arrow of three or four ells in length'. Mongke's machines also threw pots of naphtha, and were themselves fireproofed by being covered in hides. The Mongol crossbows could be broken down into five or seven parts, and were transported on carts to the site of action. One thousand 'crews' of Chinese artillerymen accompanied Hulegu to the west and helped breach the walls of Baghdad in 1258.

Some of the best evidence for the Mongol use of siege crossbows comes from the accounts of their campaigns against the Assassins of Persia. The Assassin castles were rocky fortresses that commanded the surrounding valleys. This made any attack on them a very difficult proposition, and the Mongols' long-range bombardment of the Assassin castles is mentioned by the chroniclers as being crucial to their victory. The operation was initially very difficult because of the advantage of height possessed by the defenders, and the Assassins certainly caused some casualties among the Mongols by 'counter-battery fire'. We are told that the Mongol engineers tried wherever possible to position their catapult crews on mountain peaks opposite the fortresses, and that teams of 'athletes' were stationed about 300 yards apart to transport the

**Mongol warriors in armour, from Raschid-al-Din's *World History*. The use of a mace for hand to hand combat is shown here. (Courtesy of Edinburgh University Library)**

frames and poles of the collapsible catapults up the slopes. Hulegu himself commanded from one of these vantage points. In Juvaini's poetic words, 'The next day, when the lid of night was lifted from the oven of the earth and the loaf-like disc of the sun was pulled out of the paunch of darkness, the King ordered his bodyguard to climb to the top of the highest peak and pitch the royal encampment there'.

The Assassins responded with a fierce stone bombardment of their own. The Mongols returned fire from their newly acquired positions, and from the descriptions it would appear that at this stage they were using siege crossbows, which could throw arrows and stones, rather than traction trebuchets: '. . . the young men were splitting hairs with lance like arrows and themselves flinching before neither stone nor arrow. Arrows, which were the shaft of Doom discharged by the Angel of Death, were let fly against these wretches, passing like hail through the sieve-like clouds'.

We can therefore build up a picture of the Mongols firing siege crossbows across the valley on a broadly horizontal trajectory. By contrast, the defending Assassins used traction trebuchets and hand-held crossbows, which would have been highly effective against Mongol attackers climbing up to them on foot. The Mongols also used large fire arrows loosed from their siege crossbows to burn the wooden superstructures of the Assassin fortresses: 'From the towers bows sent up swift feathered shafts and an "ox's bow" [i.e. siege crossbow] which had been constructed by Khitan craftsmen and had a range of 2,500 paces, was brought to bear on those fools, when no other remedy remained; and of the devil-like Heretics many soldiers were burnt by those meteoric shafts. From the castle also stones poured down like leaves, but no more than one person was hurt thereby'.

After this initial assault peace negotiations were held, but the Mongols took advantage of the coming and going of the messengers to find more suitable sites for their catapults and assemble them undisturbed. The parley failed, and the next day a general assault began

**The operation of a counterweight trebuchet by Muslim engineers on behalf of the Mongols. From Raschid-al-Din's *World History*. (Courtesy of Edinburgh University Library)**

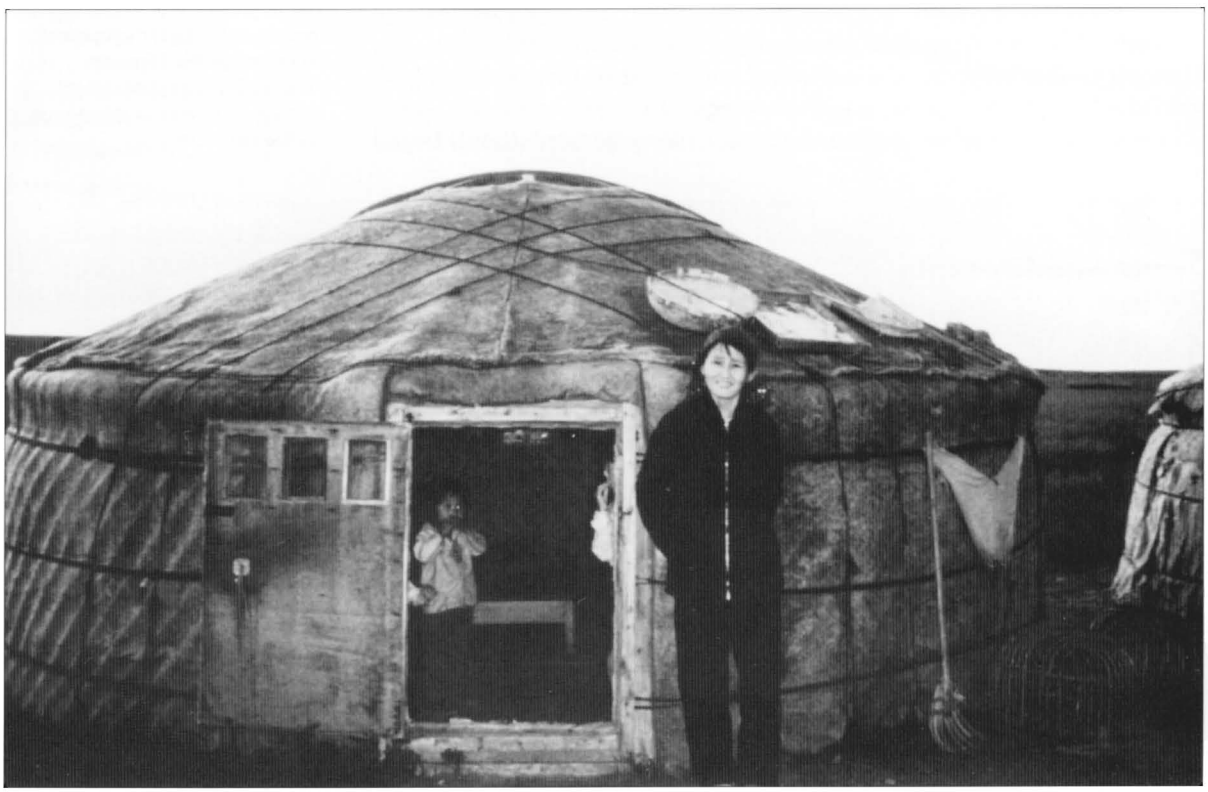
from these new and greatly advantageous positions. The very strong 'mangonels' in the account below are probably traction trebuchets, as the author distinguishes them from the crossbows. They were no doubt brought into action at this stage in the proceedings because suitable sites had now finally been won. 'As for the mangonels that had been erected, it was as though their poles were made of pine trees a hundred years old, (as for their fruit, "their fruit is as it were the heads of Satans") and with the first stone that sprang from them the enemy's mangonel was broken and many were crushed under it. And great fear of the quarrels from the crossbows overcame them so that they were utterly distraught'.

The Ismailis took what shelter they could from the dual bombardment, and after some fierce fighting, the castle surrendered. Their leader Rukn al Din submitted to the power of the Mongols, 'And to that familiar abode and well known dwelling he bade farewell with a thousand pains and pangs, such a farewell that another meeting was unimaginable. Against the decree of Eternity Past of what avail the numbers of castles and the strength of fortifications'.

### The use of trebuchets

The other variety of siege engine that the Mongols adopted was the trebuchet. The earlier version, the traction trebuchet, consisted of a long pole pivoted from a framework with the motive power for the throw being provided by a team of men. They would be trained to pull in unison at the word of command. Traction trebuchets were lighter than the more familiar counterweight trebuchets that were developed later and could more easily be moved from place to place. Their great

**A modern *ger* with its present-day inhabitant. Trays of milk curds are drying on the roof. (David Sneath)**



disadvantage was that the large team pulling the ropes presented a very vulnerable static target for 'counter-battery fire'. The account of the siege of Kuju in Korea in 1231 contains lively descriptions of siege warfare from both sides: 'The Mongols then attacked the south wall of the city with fifteen large catapults very quickly. Pak So also constructed platforms on the city walls and mounting catapults on them, he hurled stones and drove the attackers off. The Mongols soaked faggots with human fat, accumulated many of them, then attacked the city with fire. When Pak So tried to put them out with water, the fire burned more fiercely. He had his men mix mud of earth and water and throwing it on the fires extinguished them. The Mongols also set fire to carts loaded with grass and attacked the towers over the city gates. Pak So had stored water on top of the towers beforehand, and they poured it on the fire carts. The flames were then extinguished'.

The Korean hero Kim Kyongson nearly received a direct hit from one of the Mongol catapults as he supervised the operation, but he refused to move even though his guards had been killed, because he believed that the garrison's morale was more important than his own personal safety. Thirty more days of attacks followed, with 30 Mongol catapults hurling rocks that knocked holes in the walls in 15 places, but the breaches were repaired and strengthened with chains. Traction trebuchets were also used in Syria in 1260, when the citadel of Aleppo was captured after a seven-day bombardment.

The traction trebuchet was eventually replaced by the counterweight trebuchet. This happened in 1272 at Xiangyang, the northern outpost of the Southern Song, which withstood a siege by Khubilai Khan from 1268 to 1271 while being defiantly supplied by river boat. Even when a river blockade was finally put in place and firmly maintained traction trebuchets and siege crossbows proved incapable of causing any real damage to the twin cities and their walls, so Muslim counterweight trebuchets and their operators were summoned to China from the lands of the West. It is interesting to note that the traction trebuchet had made its way from China to the West centuries earlier, and now it returned in a new and more terrifying form.

The counterweight trebuchet had long been valued in Europe since its first recorded use in 1165. The Muslim trebuchets were constructed at the Yuan capital, where Khubilai Khan attended some of the trials in person, and they were then transported to Xiangyang. This may have been done by dismantling the machines, although they could have been mounted on wheeled carriages. Projectiles could now be launched which were ten times heavier than any stone fired hitherto, and one particular shot (perhaps exceeding 200 lb) launched on target brought down the drum tower of Xiangyang with a noise like thunder. A commentator noted that 'the projectiles were several feet in diameter, and when they fell to the earth, they made a hole three or four feet deep'.

### Jungles and war elephants

The jungles of Southeast Asia could not have been more different as a battleground from the arid wastes of Persia or the wide rivers of China, and here too the Mongols were to face very different weapons. The tribesmen of Java, for example, would have used blowpipes with poisoned darts against them, but the most spectacular clash came with

**Light Mongol horsemen crossing a river, from Raschid-al-Din's *World History*. (Courtesy of Edinburgh University Library)**

**Khubilai Khan, the first Yuan (Mongol) emperor of China. (Japan Archive)**

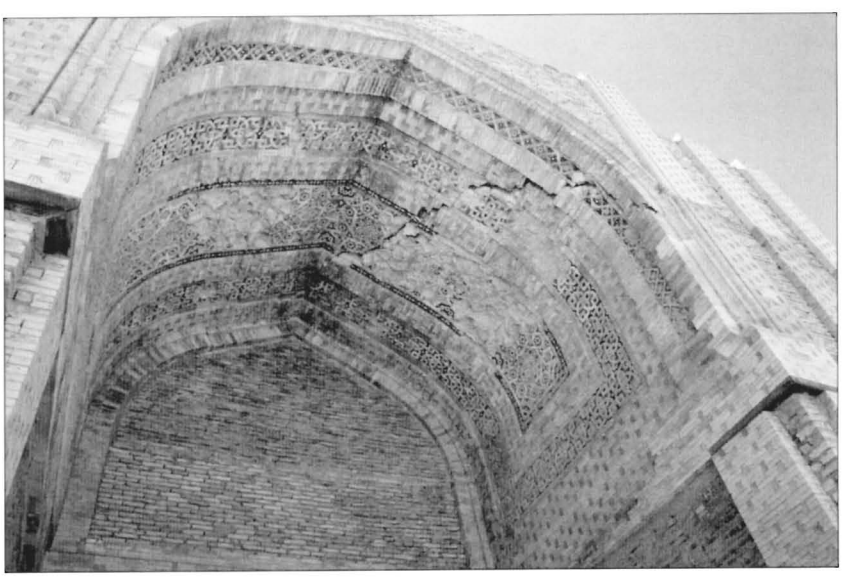
the king of Burma's war elephants. The Mongols' resolution of the problem is told at some length by Marco Polo: 'The King of Mien [Burma] had, let me tell you, 2,000 great elephants, on each of which was set a tower of timber, well framed and strong, and carrying from 12 to16 well-armed fighting men'.

We also know that on either side of the howdahs of the Burmese war elephants were weapon containers made out of bamboo tubes. As for the capacity of the howdahs, the number of soldiers may well be an example of Marco Polo's notorious exaggerations, and a source of 1485 mentions a more realistic eight- to ten-man crew. Marco Polo tells us that the leader of the 'Tartars' commanded an army of 12,000 mounted men, which sounds a not unreasonable figure. The Mongol commander Nasir al-Din led his men through 'a great wood, thick with trees,' and then deployed them to meet the Burmese army on the flat plain beyond, which is consistent with what we know of the Mongols' tactical preferences. Marco Polo continues, 'And when the king's army had arrived in the plain, and was within a mile of the enemy, he caused all the castles that were on the elephants to be ordered for battle, and the fighting men to take up their posts on them'.

As the elephants approached them the Mongols calmly dressed their ranks and advanced towards the strange enemy, but as they drew close it was their horses, not the riders, that became alarmed and swerved, turning back against their masters' commands. 'And when the Tartars perceived how the case stood, they were in great wrath, and wist not what to say or do: for well enough they saw that unless they could get their horses to advance, all would be lost. But the Captain acted like a wise leader who had considered everything beforehand. He immediately gave orders that every man should dismount and tie his horse to the trees of the forest that stood hard by, and that then they should take their bows, a weapon that they know how to handle better than any troops in the world. They did as he bade them, and plied their bows stoutly, shooting so many shafts at the advancing elephants that in a short space they had wounded or slain the greater part of them as well as of the men they carried'.

So once again the Mongols showed their ability to embrace change when faced with new circumstances of warfare, and the results were quite dramatic. As Marco Polo puts it, 'when the elephants felt the smart of those arrows that pelted them like rain, they turned tail and fled, and nothing on earth would induce them to turn and face the Tartars. So off they sped with such a noise and uproar that you would have believed the world was coming to an end! And then too they plunged into the wood and rushed this way and that, dashing their castles against the trees, bursting their harness and smashing and destroying everything that was on them'.

The jungles of Southeast Asia were probably the terrain most different from steppe conditions that the Mongol warrior ever had to endure. It was also terrain in which he was never asked to campaign again. As the rule of Khubilai Khan gave way to his successors and the great Mongol Empire began to operate in a separated form, the Ilkhans of Persia and the Golden Horde of Russia faced new challenges on more familiar ground. As for Western Europe, the myth of the ever-mobile, all conquering and always terrible Mongol warrior grew more vivid with every century that passed.



**One of the ruined buildings in Urgench may be all that remains of the Khwarazm Shah's palace. The monumental porch is decorated with stucco arabesques. (David Nicolle)**

## GLOSSARY

**arban** company of ten
**ger** Mongol dwelling
**jaghun** company of one hundred
**kabtaut** night guard
**keshig** the Mongol imperial guard
**khorchin** archers of the guard
**kumiss** fermented mare's milk
**kuriltai** great assembly
**mingghan** company of one thousand
**paiza** Mongol tablet of authority
**qubchur** the contributions paid by a Mongol warrior
**shulen** a thick Mongol stew
**tumen** company of ten thousand
**turghaut** day guard
**yurt** common expression for '*ger*'

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**This modern wooden statue is of a Mongol warrior, and stands outside the museum of the battle of Leignitz in the village of Legnica Pole. (Japan Archive)**

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**Mongol warriors are depicted here in a medieval European manuscript on show in the museum of the battle of Leignitz in the village of Legnica Pole. (Japan Archive)**

# COLOUR PLATE COMMENTARY

## PLATE A: THE MONGOL WARRIOR AS A LIGHT ARCHER

This plate shows the classic image of a Mongol warrior, typical of the members of the hordes that swept across the known world. His role is that of a light mounted archer, and this plate concentrates on his personal equipment. He is wearing a coat that ties at the right side, heavy trousers and lined leather boots with thick soles. He has a fur-trimmed felt hat, an item that frequently appears on contemporary western illustrations. From his belt hangs a sword and his bow case. The quiver is suspended round his neck and shoulders and hangs at his right side. He carries a short Mongol bow.

**1** The Mongol bow unstrung. It would be strung against the curve shown here.
**2** A selection of Mongol arrowheads.
**3** A Mongol coat, showing one way of tying it at the right side.
**4** and **5** Two Mongol hairstyles, based on descriptions written by contemporary European travellers.
**6** Mongol boots. They are of heavy leather and well worn!
**7** A quiver.

## PLATE B: THE MONGOL WARRIOR AS A HORSEMAN

The Mongol warrior and his mount were almost inseparable, so this plate concentrates on the Mongol warrior as a horseman. The horse wears decorative trappings, and its tail is plaited. The use of a bow from the saddle is shown. Two horsemen are practising by loosing their bows at an upright log of wood.

**Insert 1** Mongol saddle. The Mongol saddle was a very solid affair. It was made from wood and kept rubbed with sheep fat as a protection against the rain. It was high in the back and at the front, thus providing a secure seat for an archer to discharge his arrows in any direction.

**Insert 2** *Paiza* (tally plate). The efficient imperial courier service that kept the Khan in Karakorum in touch with his outlying territories bore testimony to the qualities of the Mongol horse and its riders. These elite riders, the eyes and ears of the Khan, wore a large *paiza*, a medallion of wood, base metal or silver or to show the status and rank of the person sending the message. One example that has survived bears the inscription, 'the person using the horse must wear the medallion otherwise he will be detained'.

## PLATE C: THE MONGOL WARRIOR'S LOGISTICAL SUPPORT SYSTEM

To the background of the siege of Kiev, we see the extensive logistical support system that followed the Mongol hordes, even though the pace of the 'baggage train' was far slower than the highly mobile scouts. In the rear is the Golden Gate of Kiev. The Mongol warrior was followed by extraordinary 'mobile homes' and baggage carts of enormous size. As their use seems to have died out with the passing of the Mongol Empire we are dependent upon western observations of them from the thirteenth and fourteenth centuries, all of which agree on the general appearance of the carts. We see here a very large yurts carried on a four-wheeled wagon. William of Rubruck described them being pulled by 22 oxen at the front on one yoke, and eleven behind on another. The axle of the wagon 'was the size of a ship's mast'. Marco Polo's description is similar.

In the foreground riders are seen leading spare horses. An individual warrior would typically have had with him five or six horses used for remounts. The other main means of transporting supplies and equipment was by using camels. As a means of transport the camel could carry a heavier load for a longer period of time than a horse. During the Mongol conquests camels carried equipment and also pulled smaller wagons as seen here. In the middle ground a traction trebuchet is being used to fling fire bombs against the wooden defences of Kiev.

## PLATE D: THE MONGOL ARMY ON THE MOVE

This plate shows the Mongol army on campaign. They are travelling across the steppes and have rested by a river . Camels are loaded with supplies, and we note the armour on the heavy cavalrymen. The Khan sits on his horse on a hillock to watch them go by. His yak tail standard is flying and he has a mounted drummer with him.

## PLATE E: THE MONGOL WARRIORS SET UP CAMP

In this plate we see the successive stages involved in erecting a *ger* as the Mongols set up camp during the Khwarazm campaign. The *ger* consists of a mobile home built around a framework of wood covered in felt and secured by stout pegged ropes. The characteristic round shape is the other feature found invariably throughout the ages. First the flooring is laid down. Then the framework of the walls (carried on pack animals) was opened up like a trellis. It was then pulled into a circle to create the wall of the *ger*. In the second picture a number of straight poles are fitted in around the upper rim of the side wall and joined at the apex by a circle that provided the smoke hole. In the third picture we see felt being draped and fastened across the ensemble and tied securely in place. The felt covering was in two parts for the wall and the roof. It provided good insulation and protection from the severe steppe weather. In the final picture the Mongol family are making themselves at home. One woman has a churn, and the flock of sheep is being tended by a child.

## PLATE F: MONGOL WARRIORS IN HAND-TO-HAND COMBAT AT THE BATTLE OF THE KALKA RIVER, 1223

This plate shows Mongol warriors coming to grips with their opponents at the battle of the Kalka River in 1223. Mstislav Romanovich of Kiev and Mstislav Svyatoslavich of Chernigov made the decision that the Russians and Polovtsians should move east to seek out and destroy the Mongols wherever they might be found. When the expeditionary force was on its way the Mongol envoys met the main body at Pereyaslavl and tried to persuade them from fighting. But when a second attempt at parley failed the army crossed the Dnieper and marched eastwards across

the steppes for nine days, little knowing that they had been misled by a Mongol false retreat conducted on a grand scale. Here they encountered a Mongol army at the Kalka River and were heavily defeated. The chronicler wrote:

*...his Kuman warriors failed, and retreated in such haste that they galloped over the Russian camp and trampled it underfoot. And there was not time for the Russian forces to form ranks. And so it came to complete confusion, and a terrible slaughter resulted.*

In this hand-to-hand fighting the Mongol bow is little in evidence. Instead spears, swords, maces and shields are all being used. The Mongol standard flies at the rear.

### PLATE G: WOUNDED MONGOL WARRIORS AT THE SIEGE OF KAIFENG, 1232

The scene is the siege of Kaifeng in 1232. In this celebrated siege the Jin capital was attacked by the Mongols under the famous general Subadai. Thunder crash bombs, which were iron-cased fragmentation bombs, were brought into action in the city's defence. The fuses were lit, the trebuchets released, and:

*there was a great explosion the noise whereof was like thunder, audible for more than a hundred li, and the vegetation was scorched and blasted by the heat over an area of more than half a mou. When hit, even iron armour was quite pierced through.*

A separate account states that those who were not wounded by fragments were burned to death by the explosions, so the Mongols were forced to resort to desperate defensive measures as they approached the city walls. A portable wooden shield is being lifted against the wall to give some protection. Here we see Mongol warriors who have suffered from the Chinese explosive devices. They are receiving medical treatment for burns and other wounds. Another has an arrow sticking out of his leg.

### PLATE H: THE MONGOL WARRIOR AS A HEAVY CAVALRYMAN

In marked contrast to Plate A, this plate shows a Mongol warrior in the role of a heavy cavalryman, and the plate concentrates on his personal equipment. The Mongol heavy cavalry would probably dominate the counter-attack situation. In these melee actions we must discard the traditional image of the Mongol light archer and see instead the well-protected heavy horsemen attacking with spears, swords and maces and defending themselves with their shields. The most notable difference from Plate A is the suit of armour and helmet. A whip is attached to the horse's saddle.

**1** A Mongol helmet.
**2** A Mongol shield.
**3** Mongol mace.
**4** Details of armour construction.
**5** The smaller items of field equipment of a Mongol warrior are grouped together and consist of a file, an axe, a coil of rope, a lasso, an iron cooking pot, two leather bottles and a leather bag closed by a thong to keep clothes and equipment dry when crossing rivers.

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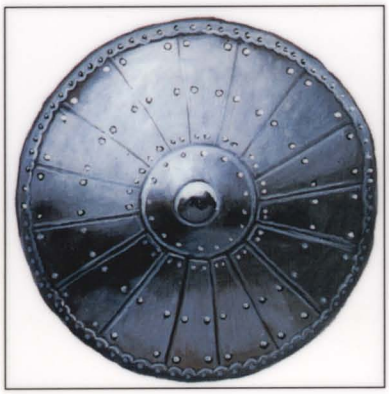

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