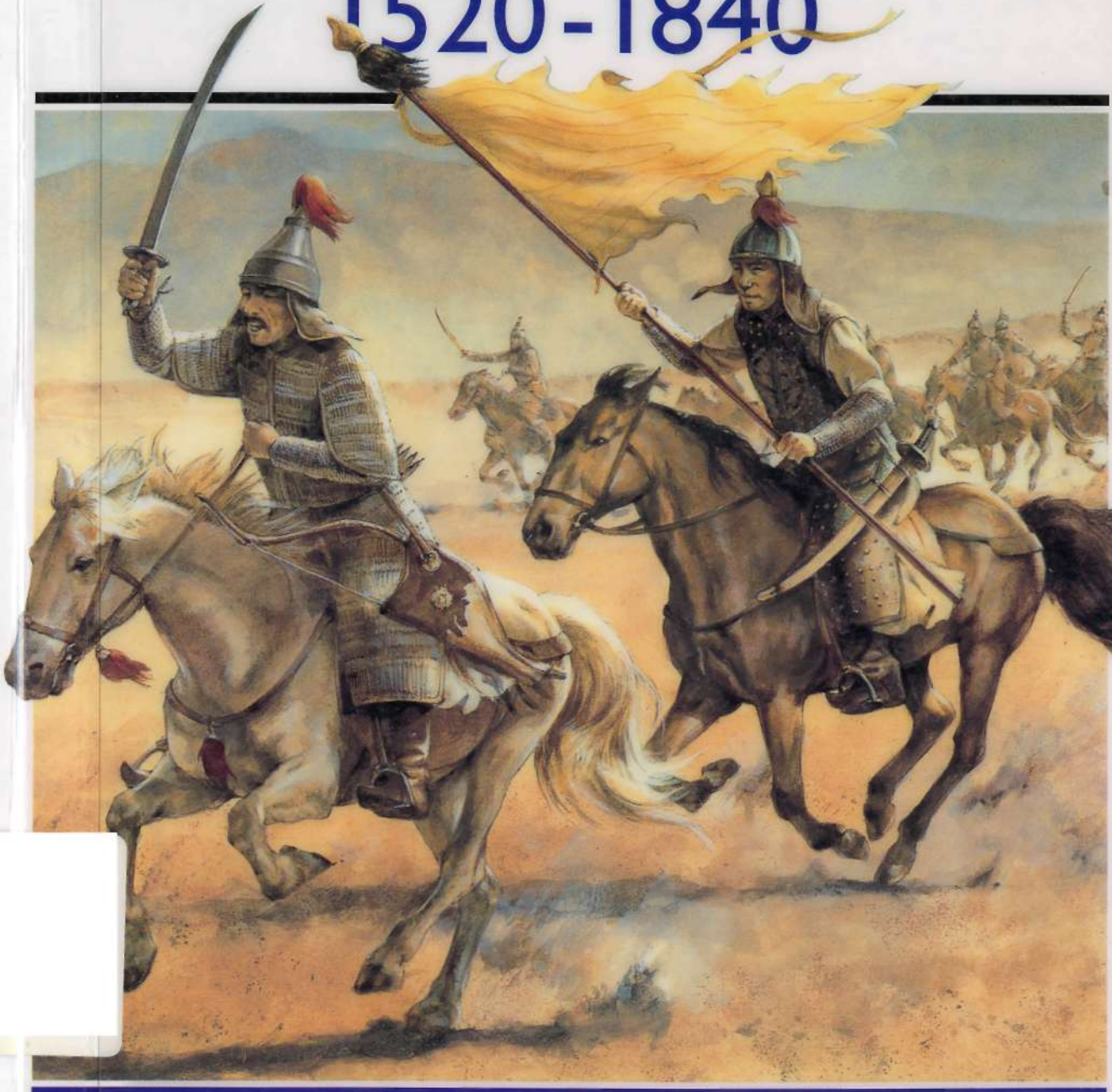
OSPREY MILITARY
MEN-AT-ARMS SERIES 307

LATE IMPERIAL CHINESE ARMIES 1520-1840



CHRIS PEERS CHRISTA HOOK

SERIES EDITOR: LEE JOHNSON

OSPREY MILITARY MEN-AT-ARMS 307

LATE IMPERIAL CHINESE ARMIES 1520-1840

TEXT BY
CHRIS PEERS

COLOUR PLATES BY
CHRISTA HOOK

OSPREY MILITARY

First published in Great Britain in 1997 by Osprey, a division of Reed Consumer Books Limited, Michelin House, 81 Fulham Road, London SW3 6RB
Auckland and Melbourne.

Osprey

2nd Floor, Unit 6, Spring Gardens, Tinworth Street, Vauxhall, London SE11 5EH

ISBN 1 85532 599 3

Filmset in Singapore by Pica Ltd
Printed through World Print Ltd., Hong Kong
Editor: Sharon van der Merwe
Design: Adrian Hodgkins

For a catalogue of all titles published by Osprey Military, please write to:
Osprey Direct, PO Box 443, Peterborough, PE2 6ALA

Acknowledgements

The author especially wishes to express his thanks to the following for their invaluable help and advice with this and the previous volumes: Duncan Head, Thorn Richardson of the Royal Armouries, and the staff of the Department of Oriental Antiquities at the British Museum.

Publisher's Note

Readers may wish to study this title in conjunction with the following Osprey publications:
MAA 284 *Imperial Chinese Armies (1) 200BC - AD589*
MAA 295 *Imperial Chinese Armies (2) 590 - AD1260*
MAA 306 *Chinese Civil War Armies 1911-49*
MAA 218 *Ancient Chinese Armies*
MAA 251 *Medieval Chinese Armies 1260-1520*

Artist's note

Readers may care to note that the original paintings from which the colour plates in this book were prepared are available for private sale. All reproduction copyright whatsoever is retained by the Publisher. All enquiries should be addressed to:
Scorpio Gallery, P.O. Box 475, Hailsham, East Sussex BN27 2SL
The Publishers regret that they can enter into no correspondence upon this matter.

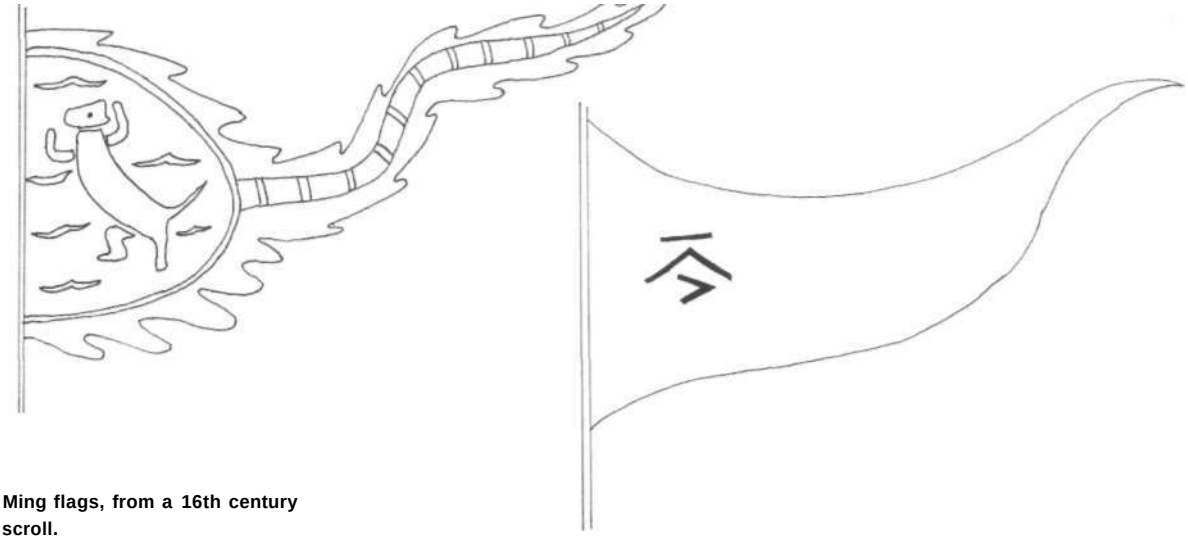
LATE IMPERIAL CHINESE ARMIES 1520-1840

INTRODUCTION

This is the fifth and final volume in a series which has attempted to outline the military history of China from the earliest historical records until the middle of the 19th century. Until recently this history has been relatively inaccessible to the general public in the West. There has, therefore, been a tendency to suppose that the art of war in China remained static over long periods of time, and that the parlous state of its armed forces at the time of the Opium Wars was their normal and unalterable condition, somehow rooted in the 'non-military' nature of the people of China and their culture. It is to be hoped that this series has gone some way to dispel that myth, and to promote some awareness of a history as varied, as interesting, and indeed as violent, as that of Europe.

This volume covers the period between the arrival of the first seaborne Europeans and the beginning of the series of 'unequal treaties' which forcibly opened China to European influence from the 1840s. During the Middle Ages, China had been in the forefront of military technology, pioneering the development of the cannon and the ocean-going ship, which foreigners were later to use against her. After the 15th century this progress was not maintained, and stagnation set in. The reasons for this remain the subject of much debate, but we can identify some of the main factors: the lack of interest in warfare shown by the scholar class; excessive government regulation, driven by the fear that improved weapons might get into the hands of rebels; bankruptcy and corruption during the declining years of the Ming dynasty; and perhaps above all the lack of local rivals of comparable strength, which bred a complacent assumption that Chinese organisation and numbers would always prevail. Whatever the reasons, by the 16th century European firearms were already superior to Chinese designs, and by the middle of the 19th, China had fallen so far behind the industrialising West as to be effectively helpless.

The huge size of the empire, its cultural self-confidence and its political sophistication prevented this technological imbalance from being as immediately disastrous as it had been for many other societies. There was never any question of the Chinese being subjugated by a handful of foreigners, as the Aztecs and Incas had been. In fact, as late as the end of the 18th century - following an era which had seen the world increasingly divided into colonial powers and their victims - China was still on the side of the winners. The Ch'ing dynasty of the Manchus, who had overthrown the native Ming in the 1640s, then ruled over the largest and most populous empire in the world, with territories that had doubled in size in the previous few decades.



Ming flags, from a 16th century scroll.

a. White animal on red ground, outlined in white, with yellow 'clouds'; streamer white, with alternate bands of red and blue; fringe dark blue or red.

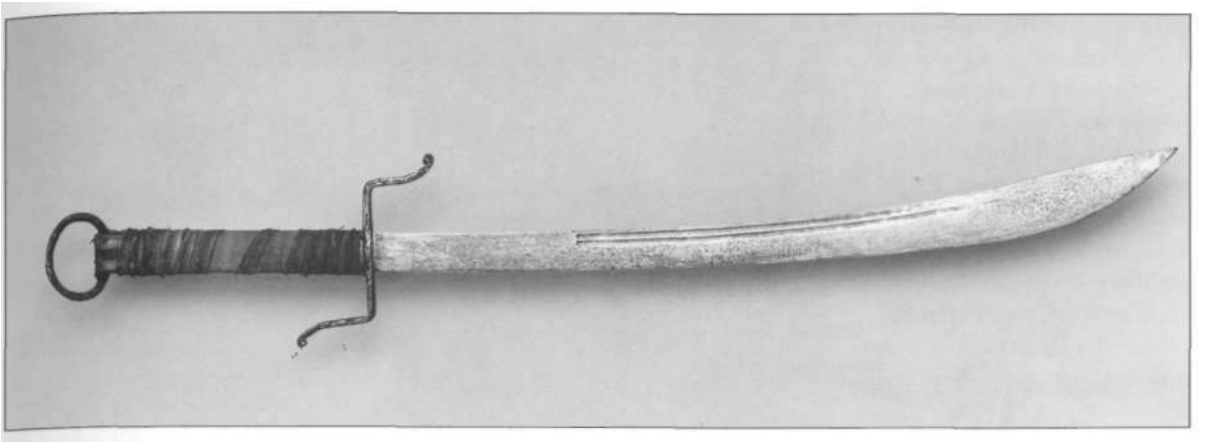
b. Dark blue, with red character.

Under the Manchus, China reached its greatest ever extent - roughly the present boundaries of the People's Republic plus Taiwan, Mongolia and the northern part of Manchuria. In the process of gaining this territory they had finally subjugated the Central Asian nomads, the main threat to Chinese civilisation for two millennia. The period covered here also saw: the building of the present Great Wall; the forestalling of a Japanese attempt to conquer Korea; the tremendous and protracted struggle for power between the Ming and the Manchus; and successful Manchu expeditions as far afield as Siberia, Kazakhstan and Nepal.

Inevitably, China's increasing contact with the West provides us with a new perspective on its military system. For the first time we are able to take a detached view, and see it not just through Chinese eyes, but through those of outsiders. Perhaps equally inevitably, the picture we get is not a flattering one. When reading the accounts of people as far apart in time as de Rada in the 1570s and Huc in the 1840s, it is impossible not to be struck by the similarities. The Chinese, we are repeatedly told, are cowardly and unwarlike, and when forced to fight, do so in disorganised crowds, capering and shouting in a ridiculous manner, with the emphasis on show rather than effectiveness.

Reconciling this picture with the real military achievements of the Ming and Ch'ing dynasties is one of the more difficult tasks attempted here. We are helped, however, by a plentiful supply of information from the Chinese. The number of official and local histories, memoirs and gazetteers containing military data is vast, although only a tiny proportion is yet available in translation. Contemporary military encyclopaedias, of which the most famous is Mao Yuan-i's *Wu Pei Chih* of 1621, are another indispensable source. And of course there is a great deal of surviving artistic evidence, weapons and armour - much of which, ironically, has found its way to museums in the United Kingdom as a result of the defeats inflicted on the Ch'ing in the 19th century.

I have tried to acknowledge the outstanding contribution to this series of the curators of some of this material. Naturally, they are not responsible for any errors, nor for any of my idiosyncrasies of interpretation.



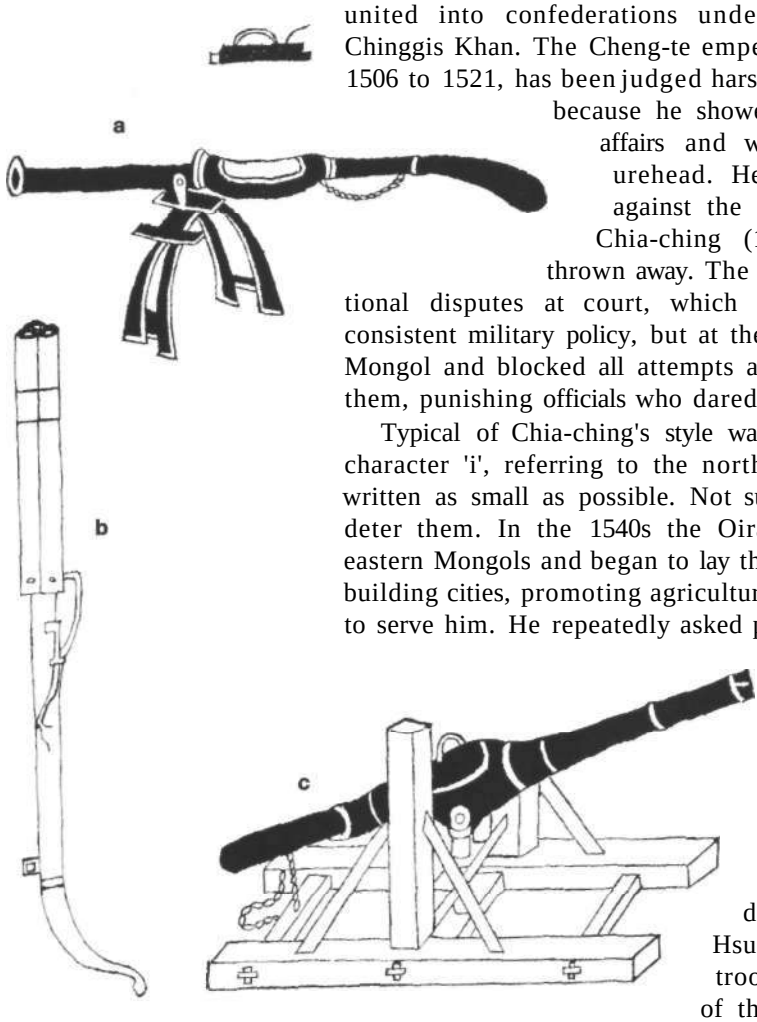
This Chinese two-handed sword dates from the 19th century, but blades of identical shape were already in use in the 16th - see Plate A. (Board of Trustees of the Royal Armouries, No. XXVI-58s)

CHRONOLOGY

1517	Mongols defeated at Ying-chou. Arrival of the first Portuguese ambassador.
1525	Seagoing junks ordered destroyed in an attempt to isolate China from foreign influences.
c.1540	Construction of modern 'Great Wall' system begun.
c.1540-c.1565	Heyday of *wo-k'ou* piracy in south-east China.
1550	Siege of Peking by Altan Khan.
1567	Ban on overseas trade lifted.
c.1583	Rise to power of Nurhachi, future founder of the Manchu state.
1593-98	War against the Japanese in Korea.
1618-19	Major Ming offensive against the Manchus defeated.
1626	Ming victory over Manchus at Ning-yuan. Death of Nurhachi.
1636	Manchus proclaim the Ch'ing dynasty.
1644	Death of last Ming emperor. Short-lived Shun dynasty of Li Tzu-ch'eng. Manchus capture Peking.
1661-1722	Reign of K'ang-hsi emperor.
1664	Manchu conquest of Fukien. All of mainland China now under Ch'ing control.
1673-81	Revolt of the 'Three Feudatories'.
1683	Fall of the pro-Ming Cheng regime in Taiwan.
1689	Sino-Russian border fixed by Treaty of Nerchinsk.
1696	Defeat of Galdan Khan. Eastern Mongolia becomes a Ch'ing protectorate.
1720	Tibet becomes a Chinese vassal.
1736-96	Reign of Ch'ien-lung emperor.
1757	Imperial decree restricts foreign trade to Canton.
1757-59	Defeat of the Jungar Mongols and their Muslim allies.
1792	Gurkhas of Nepal defeated by a Chinese expedition.
1793	British embassy under Lord Macartney in Peking.
1817-27	Muslim 'Jihad' of Jahangir in the Tarim Basin.
1839	Outbreak of first Opium War with British.
1842	Treaty of Nanking opens more Chinese ports to Western trade. British seize base at Hong Kong.

THE LATE MING, 1517-1598

Although the Ming dynasty had expelled the Mongols from China in 1368, in the 16th century the main external threat still came from Mongol descendants on the northern frontier, who were intermittently united into confederations under leaders claiming descent from Chinggis Khan. The Cheng-te emperor of the Ming, who reigned from 1506 to 1521, has been judged harshly by traditional historians, in part because he showed an unseemly interest in military affairs and was not content to remain a figurehead. He achieved some success in battle against the Mongols, but under his successor, Chia-ching (1522-67), the gains were quickly thrown away. The new ruler presided over endless factional disputes at court, which prevented the development of a consistent military policy, but at the same time he was fanatically anti-Mongol and blocked all attempts at reaching an accommodation with them, punishing officials who dared to undertake negotiations.



Ming artillery, from 16th century manuals:

a. A breech-loading *fo-lang-chi ch'ung,* from *Ch'ou Hai T'u Pien,* 1562.

b. A three-barrelled handgun from *Wu Pei Chih,* 1621.

c. A gun for shipboard use, from *Ch'ou Hai T'u Pien.*

Typical of Chia-ching's style was an edict which ordered that the character 'i', referring to the northern 'barbarians', should always be written as small as possible. Not surprisingly, such measures failed to deter them. In the 1540s the Oirat leader Altan Khan reunited the eastern Mongols and began to lay the foundations of an organised state: building cities, promoting agriculture, and attracting Chinese renegades to serve him. He repeatedly asked permission to trade with China, but this was refused. The Ming instead toyed with plans for an attack on him - an enterprise which was eventually abandoned because of the government's growing financial difficulties. In any case, in 1548 Altan struck first, capturing and demolishing the frontier walls in the Hsuan-fu area. Two years later his troopers rode round the eastern flank of the unfinished Great Wall and laid siege to Peking. Although Altan eventually withdrew, this humiliation highlighted the powerlessness of the Ming field armies, and gave extra impetus to the policy of building walls to keep the nomads at bay. Two decades of destructive raiding followed, until in 1571, after the death of Chia-ching, Altan was finally allowed to trade peacefully. For the next 20 years the Mongol frontier was relatively quiet.

The same indecisiveness characterised the Chia-ching reign on other fronts. In 1513 Hami - an outpost on the Silk Road which had been controlled by the Ming since the 14th century - was occupied by the Sultan of Turfan, one of a number of independent Muslim rulers who had succeeded the Timurid and Chagatai Mongols in the Tarim Basin. The Chinese retaliated by hiring several armies of Mongol mercenaries to recapture Hami, but without success. In 1528 the city was finally written off, but the revelation of Ming weakness provoked raids from Turfan into

Despite its mythological subject matter, this 16th century painting, 'The Conversion of Hariti', contains many interesting details of late Ming military equipment. Note especially the crossbowman in the foreground, cocking his weapon with the aid of a foot stirrup, and the halberdiers at top right, wearing lamellar helmets and body armour. (British Museum)

north-west China, as well as revolts by Muslims within the empire. In 1537 a major expedition was planned against Vietnam, which had stopped paying tribute, but after three years of dithering the emperor dropped the idea. Subsequently the Burmese and Vietnamese, also scenting weakness, began to raid the southern provinces of Yunnan and Kwangsi.

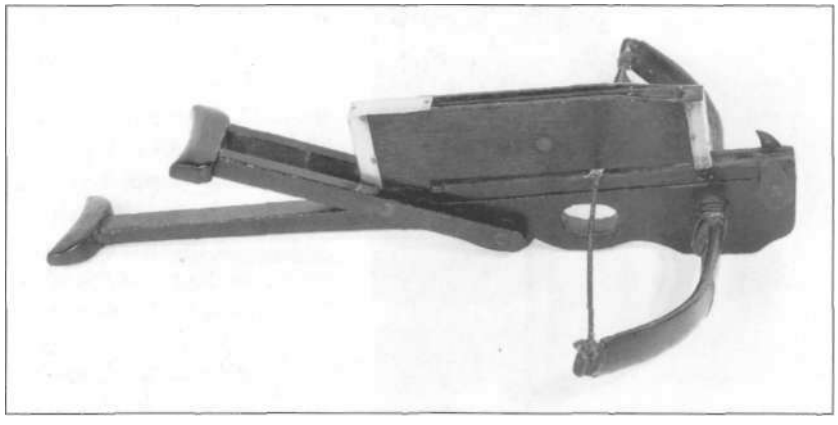
Another serious problem arose in the 1540s, when the pirates who had long plagued the south-east coast began to organise themselves into an effective military force. The main cause of this situation was the short-sightedness of the Chinese government, which from 1525 had attempted to isolate the population from foreign influences by a series of edicts restricting trade and seafaring. Local merchants seized offshore islands to use as bases for illegal trading with the Japanese and Portuguese, and soon graduated to full-scale piracy, raising large armies and even attacking cities on the coast. The pirates were initially supported by merchant families from Kyushu and Honshu, and reinforced by contingents of the Japanese pirates who had been operating for two centuries around the coasts of south-east Asia. The latter were always a minority, however; despite the name which the Ming gave to the insurgents - *wo-k'ou* or 'Japanese pirates' - more than two thirds of their manpower was Chinese.

In 1547 Chu Wan was sent to suppress the insurgency, but the merchants had friends in the provincial government who engineered Chu Wan's dismissal.

Yet more stringent restrictions on shipping prevented even fishermen from making a living and drove them to join the rebellion, so that by 1554 the *wo-k'ou* were stronger than ever, defeating several Ming armies on land, and threatening major coastal cities like Nanking and Hangchow.

It was a combination of measures that finally brought the situation under control: two able generals, Hu Tsung-hsien and Ch'i Chi-kuang, intensified the military pressure, enabling the capture of the leading pirate, Wang Chih, in 1557. Then, in 1567, the ban on overseas trade was lifted. Profiting from the newly discovered route across the Pacific to the Spanish possessions in America, the region began to prosper and discontent receded.

The Wan-li emperor, who came to the throne in 1573, was not without ability, but was a prisoner of a system which by now kept emperors virtually imprisoned within the palace, isolated from the world outside. His reign was noted for the 'Three Great Campaigns', often



Repeating crossbow, 19th century. Such weapons had been in service with Chinese infantry since Ming times. (Board of Trustees of the Royal Armouries, No. XXVI-36b)

quoted at the time as proof that the Ming armies were still formidable. Two of these campaigns, however, were relatively insignificant. The Po-chou War was sparked off in 1587 by a warlord in Szechwan, Yang Ymg-lung, who drew his support mainly from the native Miao tribes. Yang remained independent for several years while the government was occupied elsewhere, but in 1600 an army - also mainly of local tribesmen - led by Li Hua-lung defeated him in a 100-day campaign. The Ordos Campaign of 1592 was even more localised. The garrison of the city of Ninghsia revolted and allied itself with a Mongol chieftain, but the uprising collapsed in October of that year when government troops diverted water from a nearby lake to undermine the walls of the town.

The main focus of attention in the Wan-li reign was the third of these 'Great Campaigns', in Korea. In 1592 the Japanese, under Hideyoshi Toyotomi, invaded the peninsula - apparently with the ultimate objective of conquering China. At first they made rapid progress, taking the cities of Seoul and P'yong-yang before halting to regroup. In January 1593 a Ming army, under Li Ju-sung, crossed the Yalu River into Korea and beat the Japanese outside P'yong-yang. Hideyoshi's men were suffering supply difficulties - exacerbated by Korean naval activity and by Chinese agents, who had burned a large food depot behind the lines - and withdrew to a bridgehead in the far south, near Pusan. An uneasy truce followed, until in October 1596 a Chinese embassy visited Japan with the aim of making peace.

The outcome illustrates one of the defects of Chinese foreign policy: the Chinese were unable to come to terms with the idea that 'barbarian' rulers might expect to be treated as equals. Hideyoshi had anticipated a partition of Korea, and perhaps the hand of a Ming princess in marriage, but all the Chinese were prepared to offer him was recognition as king of Japan (of which he was already the *de facto* ruler), provided that he accepted the status of vassal and agreed never again to invade the mainland. Incensed by what he saw as an insult, Hideyoshi advanced on Seoul again the following year, but was blocked by a force of 50,000 Chinese. The Korean admiral Yi Sun-sin, helped by a Ming fleet under the artillery expert Ch'en Lin, had command of the sea, preventing supplies and reinforcements from reaching the Japanese, and again forcing them to fall back as winter approached. During 1598 Chinese attacks at Ulsan, Sunchon and Sochon were all beaten off with very heavy losses, but they succeeded in keeping the Japanese penned up in their

RANK INSIGNIA OF THE MING

1 st and 2nd Grades	LION
3rd Grade	TIGER
4th Grade	LEOPARD
5th Grade	BEAR
6th and 7th Grades	TIGER-CAT
8th Grade	RHINOCEROS
9th Grade	SEA HORSE

Ming officials were distinguished by square embroidered patches worn on the chest and back. In the case of military officers these bore animal emblems, listed above in descending order of rank.

bridgehead. When news of Hideyoshi's death arrived at the end of the year, both sides were exhausted and happy to make peace. The Japanese evacuated Korea, giving the Ming a strategic victory.

Statue of an imperial guardsman, from the 16th century Ming tombs outside Peking. (Duncan Head)

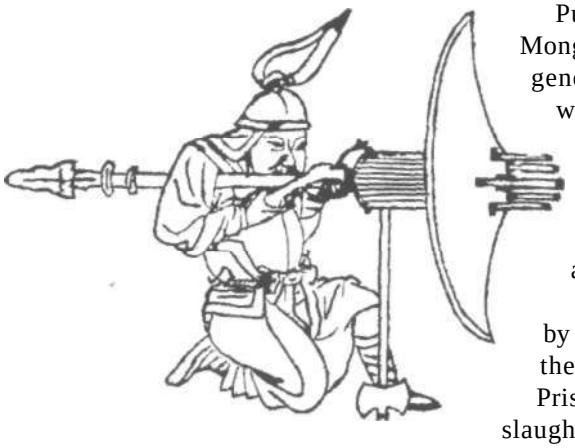
Late Ming Armies

The story of the corruption and inefficiency which undermined the hereditary *wei-so* military system of the early Ming has been outlined elsewhere (see MAA 251, *Medieval Chinese Armies).* By the 16th century the old guards and battalions were becoming a liability rather than an asset: they were chronically understrength, since officers continued to keep men on the rolls after they died or deserted in order to claim extra pay, and were lacking in training and discipline. Ch'en Chien, writing of the Chia-ching reign, describes the *wei-so* army as 'the source of many troubles. They start riots and try to revolt whenever the authorities are slow in paying them ... whenever there is a rumour of war there is actually fear that the army may be injured. Accordingly, village guards and mercenaries are employed to deal with the bandits. In a word, civilians are used to protect the soldiers.'

By the middle of the 16th century the core of the Ming forces consisted of mercenaries hired from the general population - a system similar to that employed by the Sung dynasty. Like those of the Sung, however, these men tended to be of low social status, the days when a military career was considered respectable in China having long passed. They were recruited mainly from vagabonds and amnestied bandits, were poorly and erratically paid, and were often robbed by their officers. Being of many different origins, the mercenaries formed a heterogeneous army with units that varied widely in size and fighting qualities. Men from Hsiang-fu in Honan, for example, were easy to control but cowardly. On the other hand the Mao-hu-lu ping, who were ex-miners, were considered brave but undisciplined. The men of Szechwan were inveterate looters, and easily distracted from a pursuit by discarded enemy baggage. In general, peasants were thought to make better soldiers than the streetwise urban misfits who sometimes volunteered; the latter were inclined to give too high a priority to self-preservation.

Against internal rebels it was thought advisable to employ men from distant provinces: soldiers from Liao-tung were especially effective against the Shensi rebels in the 1630s, as they could not understand their dialect and so could not be bribed or subverted. (Troops recruited from Shensi itself proved to be useless, as they often came from the same villages as the rebels and tended to fraternise with them instead of fighting.)

Foreign troops were also recruited. Mongols were employed in contingents varying in size from whole tribes, hired for expeditions into Central Asia, to small bands of prisoners of war, who were transported to remote parts of the empire as garrison troops, and were distinguishable from the Chinese only by their red caps.



Ming gunner firing a light five-barrelled piece, the *hsun lei ch'ung.* After Shen Ch'i P'u, 1598.

Pubei, the leader of the Ordos revolt of 1592, was a Mongol whose family had served in the Ming army for generations. Several of the Jurchen tribes of Manchuria were vassals of the Ming and also provided soldiers, fighting - like the Mongols - as cavalry. Small groups of Japanese were hired in the late 16th century, and an allied Korean contingent fought alongside the Ming in the 1618-19 campaign against the Manchus.

Traditionally the troops were encouraged to fight by a system of rewards for enemy heads taken, but by the 17th century this practice was being widely abused. Prisoners of war and innocent civilians were often slaughtered to provide evidence of fictitious victories, and there was even a well-established procedure for steaming Chinese heads to remove the traces of their headgear and so enable them to be passed off as Manchus. This helped to keep the government in ignorance of the true military situation by inflating the reported numbers of enemy dead. In 1640 the Ch'ung-chen emperor tried to abolish the system, but by then the dynasty was crumbling, and it was too late to restore discipline.

Like the *wei-so* troops, many mercenary units quickly became liabilities. In 1620 Shen Kuo-yuan submitted a report on the Peking garrison quite as damning as Ch'en Chien's verdict on their predecessors: 'It would be impossible to depend on them for the defence of the capital if war should break out. It is said that the authorities dare not reform them lest the attempt at reform should lead to a riot. They dare not train them since this might cause the same disaster.'

European observers tended to be equally scathing about the quality of Ming armies. Matteo Ricci, for example, writing at the end of the 16th century, considered that their strength lay in their numbers rather than their skill. Many reform movements were started - notably that of Chang Chu-cheng in the Wan-li period - but little progress was made against the weight of vested interests involved. Corruption had become institutionalised: in one area, for example, the officers had established fixed tariffs for such privileges as exemption from drill, or permission to 'borrow' army horses for private use. On one typical occasion in the 1560s, only 30,000 soldiers could be found in the Hsuan-fu district to repel a Mongol invasion, although the local commander had been drawing salaries for 120,000.

In the field, the diversity of units made central control difficult. This was compensated for to some extent by sheer numbers. The armed forces of the early Ming were said to number around three million men, although because of the chronic maladministration it is impossible to establish what the real strength was. The Spaniard Martin de Rada gives a list of garrisons for the late 16th century totalling 4,178,500 foot and 780,000 horse. This no doubt represents a paper strength never achieved in practice, but the steadily increasing population of the empire - from perhaps 65 million in 1400 to 150 million in 1600 - did ensure that by the standards of the time late Ming armies could be very large.

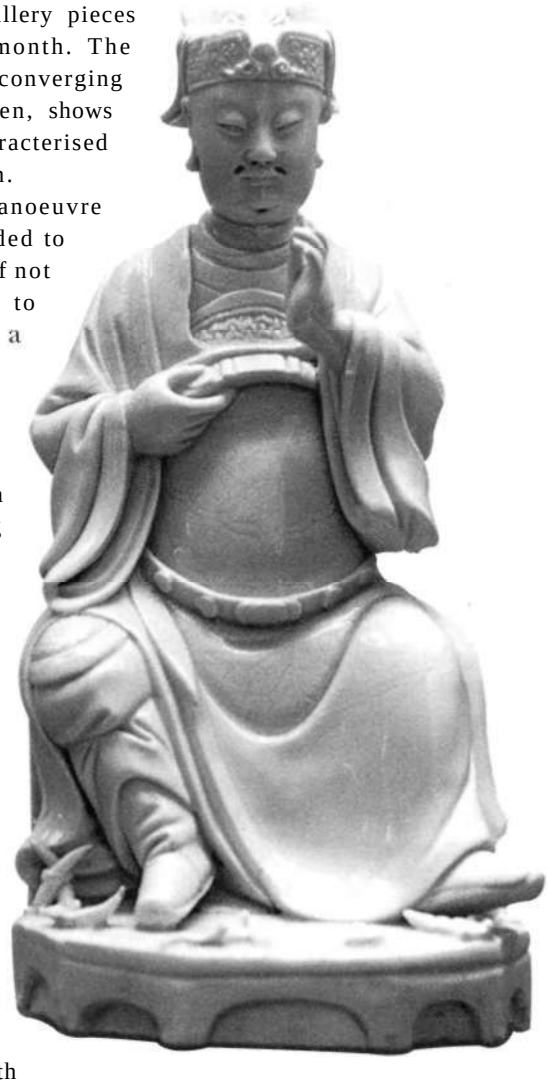
In strategic terms they were also fairly mobile, assisted by the advanced infrastructure of roads and bridges which had grown up as a result of the economic boom of the 11th-13th centuries. In the Ninghsia

campaign of 1592, for example, a train of 400 artillery pieces covered 300 miles over difficult terrain in about a month. The campaign of 1619 against the Manchus, involving a converging attack by four separate columns totalling 200,000 men, shows that the sort of ambitious operations which had characterised the early years of the dynasty could still be undertaken.

On the battlefield itself, rather than trying to manoeuvre these huge and sketchily trained masses, generals tended to put themselves at the head of specially picked units of not much more than battalion size and use these to spearhead attacks. Liu T'ing, for example, led a bodyguard of 736 men in 1619, fighting personally in the front rank with a two-handed sword. Many such elite troops were ferocious fighters who took vows to die with their commanders rather than flee, and their desperate charges greatly impressed their allies in Korea. However, with most of the able officers fighting as ordinary soldiers, the problems of control became even worse; the tactical manoeuvre warfare practised by earlier Ming armies had become largely replaced by a reliance on massed frontal attacks.

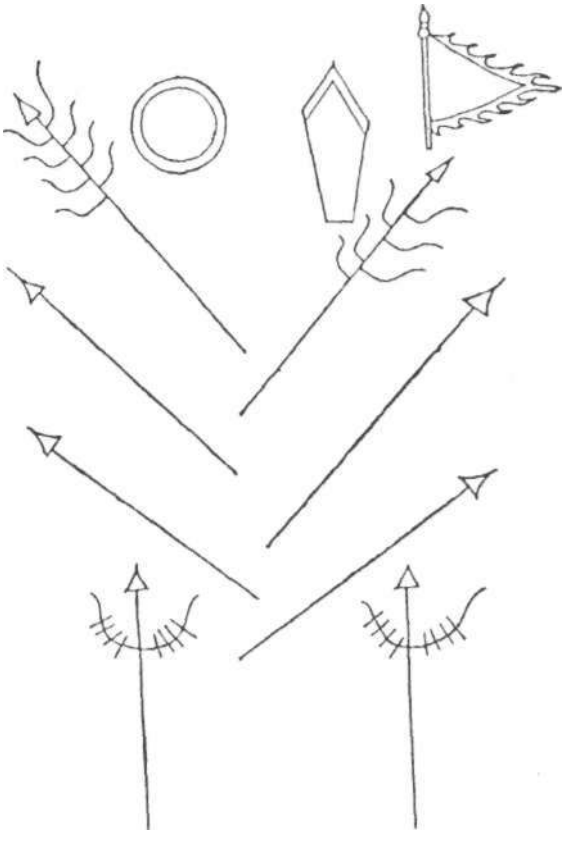
European observers commented on the amount of training and drilling which went on even in peacetime, but the emphasis tended to be on individual weapon skills rather than manoeuvring in formed bodies. According to de Rada, Chinese archers were 'very skilful', but of their infantry generally he comments: '... their manoeuvres were not done in ordered array ... but in crowds and all huddled very close together'.

There were, however, exceptions to the general decline in military science. Outstanding among Ming commanders was Ch'i Chi-kuang, who took command of an army in Chekiang in 1555, tasked with defeating the *wo-k'ou* pirates. Finding that the latter had established a moral superiority over the government troops, Ch'i imposed a strict system of discipline. On occasion he personally executed officers who retreated without orders. The men were also motivated through speeches and religious imagery, and they received intensive training in small-unit tactics and individual combat techniques. At a higher level, Ch'i's operations were carefully planned, often with the aid of clay models of the terrain.



Ming figurine, depicting an official wearing a ceremonial version of traditional armour. (British Museum)

Ch'i's most famous innovation was the 12-man 'mandarin duck' squad, in which each soldier had a precisely defined role. Four of them carried long spears, with which they could outreach the Japanese swords on which the pirates' best troops relied; the spearmen were protected in close combat by two swordsmen - one on the right with a large shield and one on the left with a small round shield and some javelins - and two men carrying bamboo saplings, with the branches still attached. These could be used to entangle the enemy and keep him at a distance. A rearguard of two men with three-pronged fire-lances, an officer, and a porter, completed the squad. This arrangement seems rather inefficient,



Schematic representation of the armament of the 'mandarin duck' squad, after Ch'i Chi-kuang. (See text for detailed explanation.)

with only one man in three actually equipped for offensive action, but in the context of Ch'i's isolated command, with plenty of peasant manpower available but no capacity for manufacturing sophisticated weapons, it was no doubt a logical approach.

A distinctive feature of the *wo-k'ou* themselves was the Japanese swordplay employed by some of their infantry - both Japanese and Chinese who had learned their methods. They raised and lowered their swords in unison, signalled by officers with folding fans, and wielded them so swiftly that an enemy 'could see only the flash of the weapon, not the man'.

At first the pirates were better disciplined than the government troops and frequently outmanoeuvred them, but when possible they preferred to stand on the defensive. Ch'i Chi-kuang noted that 'the pirates always manage to sit on the heights waiting for us. Usually they hold on until evening, when our soldiers become tired. Then they dash out ... They adorn their helmets with coloured strings and animal horns of metallic colours and ghostly shapes to frighten our soldiers'.

Ch'i gradually gained the upper hand over the pirates, and in 1568 he was transferred to the northern front at Chichou to fight the Mongols. Here too he introduced innovative organisations and tactics suited to the local conditions. These were essentially defensive - as befitted a mainly infantry force facing cavalry on the open steppe - and were based on a section of 20 men deployed around a two-wheeled mule-drawn war wagon. Each wagon carried two light artillery pieces manned by a team of ten, who also manhandled the vehicle in battle. The remaining ten men carried various close-combat weapons, although four of them also had muskets. Ch'i was opposed to excessive reliance on firearms, because those of which he had had experience in the south were badly made and prone to misfire or even explode.

Ch'i Chi-kuang illustrated many of his tactical innovations in his *Lien Ping Shih Chi* of 1571. These are soldiers of his 'mandarin duck' squad.

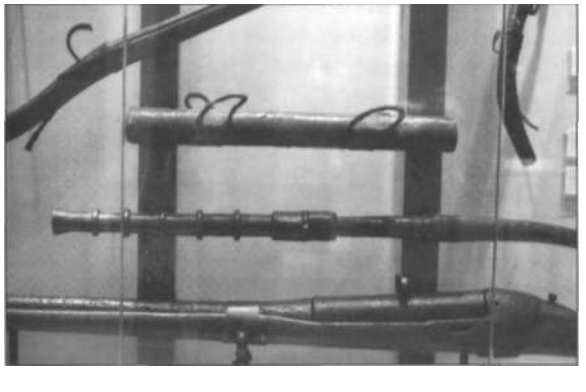
Ming Artillery

The question of firearms was one frequently debated in the late Ming period, but it was generally agreed that wherever possible their numbers should be increased. In 1530 a proposal was submitted for replacing garrison troops with small cannon, each manned by three men, thus releasing nine-tenths of the manpower for agriculture. Several thousand of these weapons were manufactured over the next few years, but production was never sufficient to achieve the ideal. Around this time, the traditional Chinese artillery began to be replaced by Western types. Advanced matchlock weapons seem to have been introduced into north-west China from the Ottoman Empire, via Turfan, during the Hami campaign of 1513-24, and into the rest of the country in the 1540s by Japanese pirates, who had only recently copied them from the Portuguese. The weapons were known to the Chinese as 'bird's beak muskets', presumably because of the 'pecking' action of the cock which held the match.

Fo-lang-chi p'ao, or 'Frankish cannon', were probably first encountered on board two captured Portuguese ships in 1523, and were being manufactured in China by 1529. Originally they were iron breech-loaders of the type mounted on Portuguese warships, but it seems that later the same term was used for larger bronze or iron muzzle-loaders, as well as for light, portable wooden copies. The quality of Chinese gun founding seems to have varied greatly from one area to another: de Rada describes their artillery as small and 'most inferior', but in 1585 Juan de Mendoça described cannon 'of huge greatness, and better made than ours'. Methods of employing artillery could also be very sophisticated: a local history of Soochow describes gunners spotting by telescope in the wars of the Ch'ung-chen reign (1628-43) against Li Tzu-ch'eng's rebels. This predates the widespread use of the technique in Europe.

By the end of the 16th century European heavy artillery was considered so superior to indigenous types that the latter had almost disappeared except for the defence of city walls; where their mobility and rate of fire were less important than in the open field. During the T'ien-ch'i reign (1621-27) sacrifices were offered to the *great fo-lang-chi* cannon as though they were gods. Europeans themselves were generally recognised as the experts in the use of artillery, and the Ming frequently sought European help in the wars against the Manchus. When, in 1621, three Portuguese guns manned by African slaves arrived on the Manchu front, they were credited with beating off the enemy virtually unassisted.

Chinese light artillery. 17th century bronze 'silk gun' (top), which would originally have been bound with raffia and covered with silk. The hooped iron gun is of uncertain date, but is a typical 16th century design. (Royal Armouries)



It was mainly because of their ability to cast cannon that a succession of Jesuit missionaries was permitted to reside in Peking. The first of these was Matteo Ricci, who arrived in 1602 and was soon coerced into producing guns for the Ming, as was his successor, Adam Schall, in 1642.

Conservatism and xenophobia led some to oppose the adoption of new foreign weapons. As late as 1642 Liu Tsung-chou was advising the emperor against relying on firearms, on the grounds that the T'ang and Sung dynasties had managed without them. In fact soldiers from many areas remained unfamiliar with guns, and

the lack of experience of Chinese artisans led Hsu Kuang-ch'i to argue in 1630 that the manufacture of powder and shot should be left entirely to Europeans. At the same time, Hsu had to fend off a suggestion from the emperor that they could make better use of the expensive imported cannon by increasing the recommended charge of powder. The Chinese were notoriously casual with gunpowder, and accidents were common: hundreds were killed in one explosion in 1605 after a group of soldiers, finding that their powder supply had been stored for so long that it had congealed into a solid block, attacked it with axes.

Even in late Ming times the majority of soldiers were equipped with more traditional weapons. Cavalry were mainly mounted archers - a technique adopted from the Mongols. They had declined in importance since the early Ming because of a shortage of horses - a problem common to all dynasties without easy access to the northern grasslands. Infantry used bows, crossbows, long swords and polearms, of which many different types are illustrated in books such as the *Wu Pei Chih.* The majority of infantry wore no armour, but lamellar and probably brigandine armour, made of leather or iron plates, was in use, especially for cavalrymen and officers.

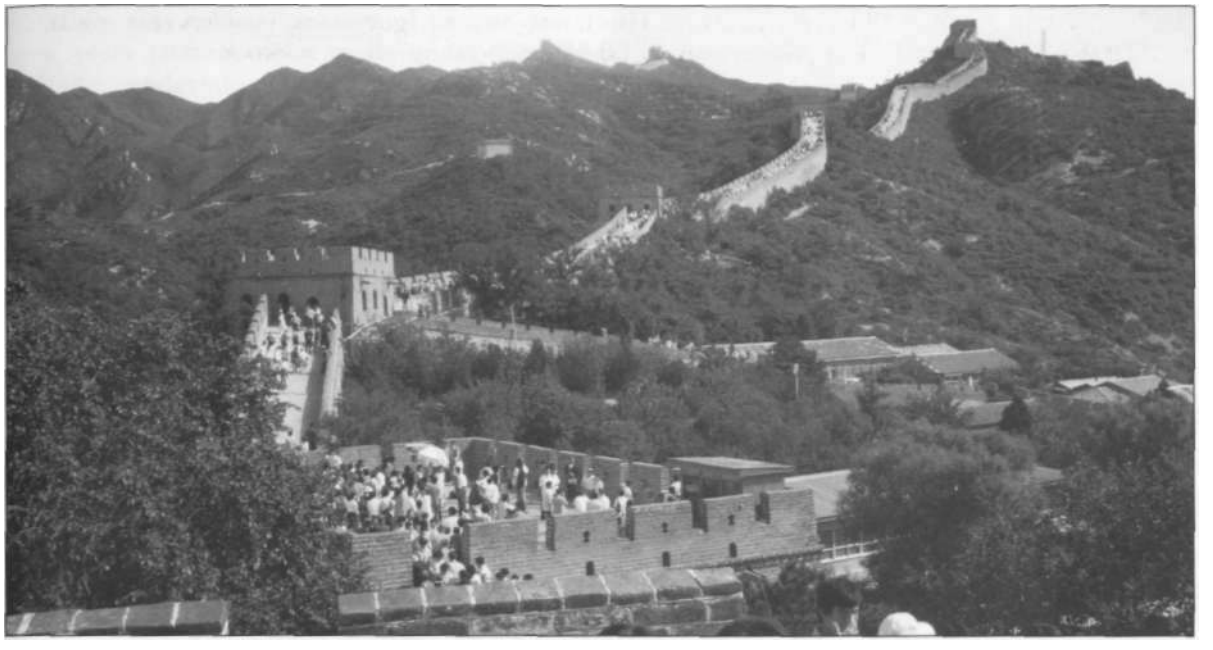
The Great Wall north of Peking. (Duncan Head)

THE GREAT WALL

Of all the military accomplishments of the Chinese, the best known in the outside world has been the 'Great Wall'. Many of the claims which are made about it are misleading, however. Although the first continuous frontier wall was constructed under the Ch'in dynasty about 215 BC, the usual assumption that it has enjoyed an uninterrupted existence since that time is incorrect. The succeeding Han dynasty (202BC-AD220) also maintained a 'Great Wall', which extended as far west as modern Kansu Province, but much of this was newly built, and it is not clear how much of the Ch'in construction survived even then. In later years the whole system fell into disuse, and although some regimes did build new lines in various places, others maintained no such walls. The present construction dates from the 16th and 17th centuries, and along most of its course it runs well to the south of the line of the Ch'in original.

The Ming, ever conscious of the danger from the northern steppes, began erecting fortifications as soon as they took over the frontier zone in the 1370s, and systematic wall building began in the Ordos region in the 1480s, under the minister of war Yu Tzu-chun. By 1540 Yu's rammed earth walls were already being eroded away. The growing threat from Altan Khan's new Mongol state was then countered by the construction of a series of defence lines in stone and brick, built mainly by the local garrison troops. This was not undertaken as a single project, but as a series of responses to Mongol attacks, beginning in the west and moving eastwards as successive raids were blocked and diverted in that direction. In some places the Mongols demolished the walls, and they had to be repeatedly rebuilt.

The wall's actual line probably owes much to the vicissitudes of politics at the Ming court, where proponents of aggressive 'forward' policies and defensive wall-building ones were constantly competing for power.

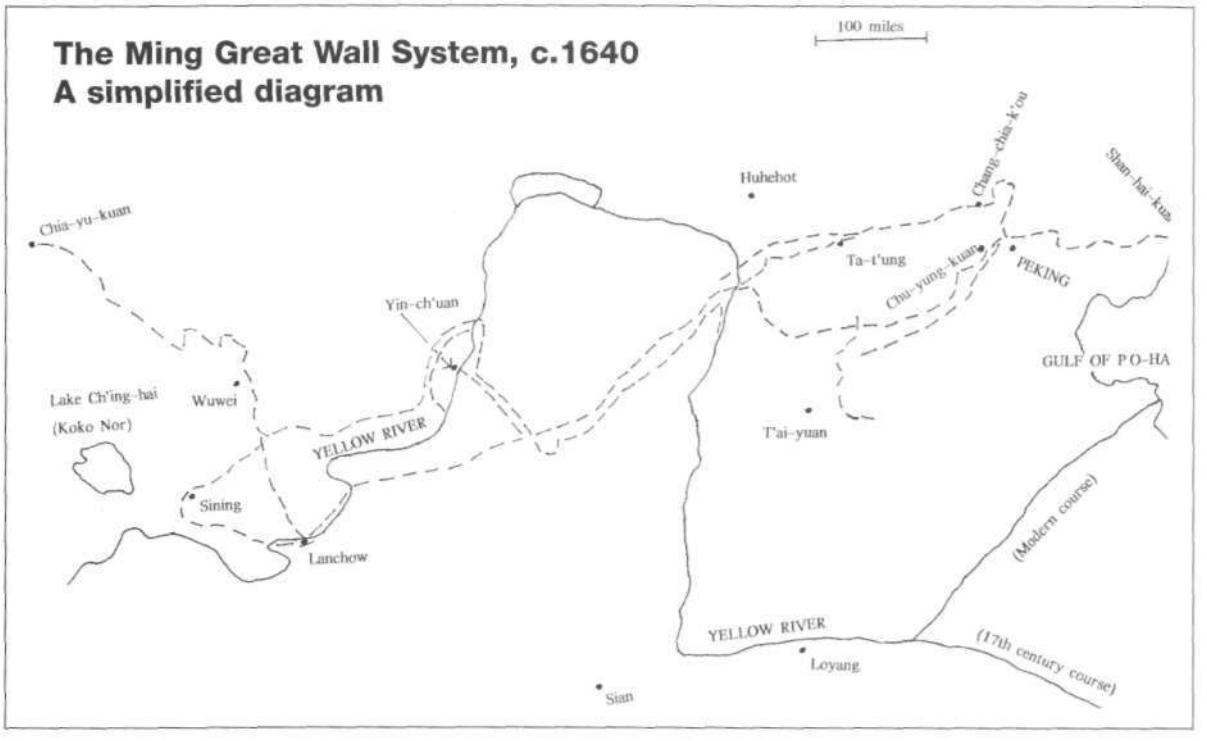


Some sectors in the west were never finished in stone, and remain to this day as low banks of earth; others, such as those protecting the cities of Ta-t'ung and Peking, were much more solidly constructed. At Badaling, north of the capital, the wall averages about 24 feet in height, 20 feet wide at the base and 16 feet wide on top - broad enough for five horsemen to ride abreast. It is faced with stone, with battlements at the top, and loopholes in places, to enable the defenders to shoot from inside. Projecting buttresses every 150 yards permitted enfilading fire, and stone towers were added every 300 yards or so, with firing ports for artillery and crossbows.

The three most important forts on the wall were: Chia-yu-kuan, the 'Heroic Pass in the Sky' in the Chilian mountains at the western end, built in 1372, but only linked to the line along the Yellow River in the 1570s; Chu-yung-kuan, near Peking, which had also been a major fortress since the beginning of the Ming period, but whose present walls date from about 1580; and Shan-hai-kuan in the east, on the Gulf of P'o-hai. Impetus was given to the construction of this eastern sector by the rise of the Manchus in the last decades of the 16th century, but the work was still not complete when Wu San-kuei, the commander at Shan-hai-kuan, let the Manchu armies through in 1644. The Manchus thus came into possession of the territory on both sides of the wall.

Battlements on the wall, showing firing ports for muskets. (Duncan Head)

At the end of the 16th century the length of the wall was divided into nine *chen*, or military zones, each commanded by a general and subdivided into *lu*, or garrisons, of varying strength. Many sectors were manned only by patrols and sentries, but in the most important areas the wall itself

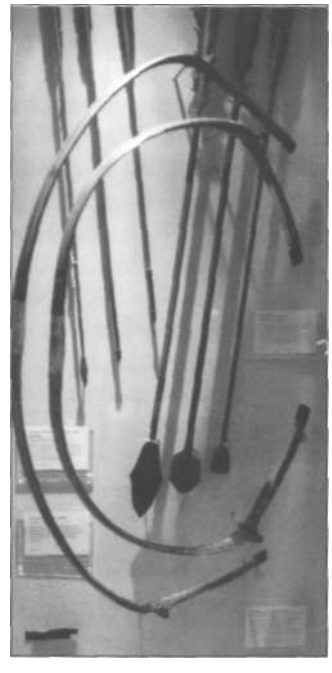


became the core of an elaborate system of defence. Outlying forts, or *pao,* were built on either side in order to break up and channel an attack, or to provide a base for counter-attacks.

Immediately in front of the wall was a strip of raked sand to show up the tracks of enemy raiding parties. Sentries could give warning of attacks by means of a prescribed system of bonfires and gunshots. For example, if the enemy was less than 100 strong, one gun was to be fired and one fire lit; for over 10,000 invaders, five shots and five bonfires were used. Coloured smoke or mounted messengers could be used to convey additional information.

Well behind the wall, the main garrisons were kept in reserve in walled camps, or *ch'eng.* They deployed heavy crossbows and guns located permanently in the towers. The value of firearms for defence against nomad cavalry was recognised early on, and from 1412 cannon were deployed in the northern frontier fortifications. They were supplied to the garrisons in considerable numbers: in Shensi between 1536 and 1538, for instance, 9,300 iron and brass guns were issued.

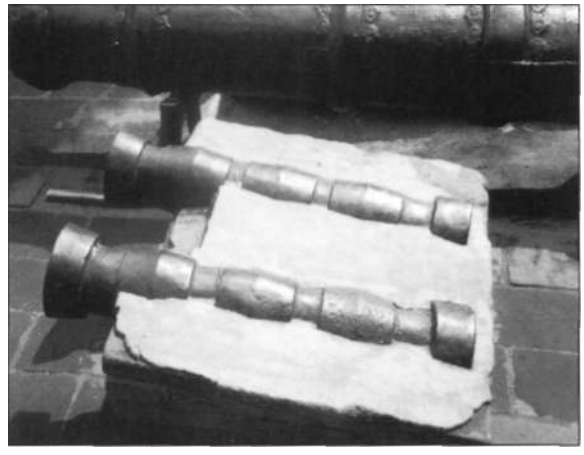
Composite recurve bows from the Ch'ing period. Both Manchus and Mongols used weapons of this type. In the background can be seen a group of broad-headed whistling arrows, used for signalling. (Royal Armouries)



THE EUROPEAN IMPACT

While the attention of the Ming government remained concentrated upon the northern frontier, an entirely new threat was growing in the south. The Portuguese had discovered the sea route round the Cape of Good Hope to India in 1498, and soon began working their way further eastwards in search of the Spice Islands. In 1511 they captured Malacca, a city state on the Malay Peninsula which paid tribute to the Ming, and in 1517 the first Portuguese fleet reached China itself. It departed

peacefully after selling its cargo of pepper, but three years later another party, under Simao Andrade, undermined prospects for further friendly relations by attacking Chinese ships near Canton, and building a fort without permission on an offshore island. A short but indecisive naval war followed, after which the Portuguese were allowed to trade at Chang-chuen-shan and Ningpo, until they wasted this gain by once more indulging in piracy. During the 1540s they often collaborated with the *wo-k'ou* in smuggling their goods into the empire via the south-east coast. In 1557 they established a base on the peninsula of Macao, which was informally tolerated by the Ming government; eventually becoming the main port for trade between China and Europe.



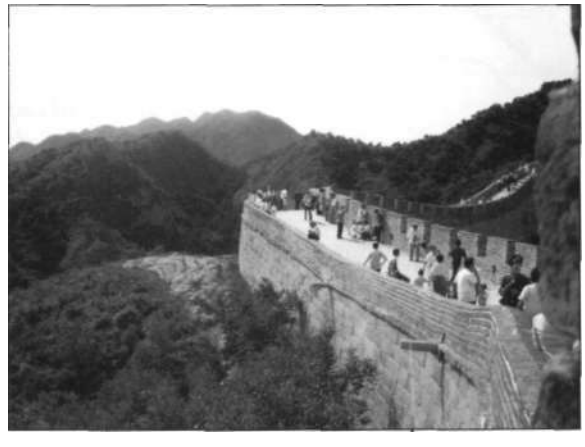
Ming cannon on the Great Wall. (Duncan Head)

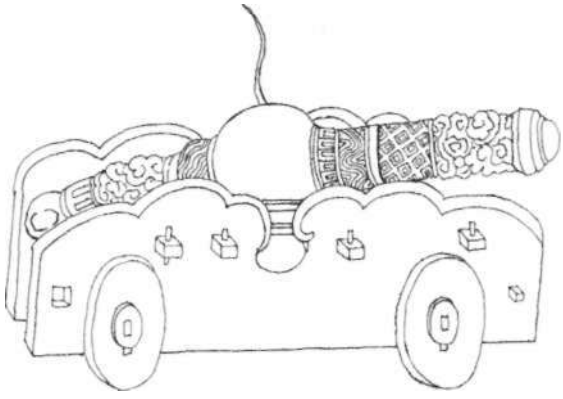
The next Europeans to establish relations with China were the Spanish, who began acquiring bases in the Philippines in the 1560s. After 1567, when the Ming ban on overseas voyages was lifted, a lucrative trade with Spanish America grew up. As we have seen, 16th century European observers generally had a low opinion of Chinese military prowess, and it was perhaps natural that the Spanish, fresh from the conquest of vast empires in America, should entertain similar ambitions in Asia. Several proposals for the conquest of China were made - notably that of Andres de Mirandola, who outlined his plans in a letter to Philip II in 1569 - but the invasion never took place. In fact in 1574 the tables were turned when the Cantonese pirate Lin Feng nearly captured Manila - then protected only by a small wooden fort - in a surprise attack. He used ships so well provided with cannon that they were at first mistaken for Portuguese. The Spanish later co-operated with the Ming naval commander of Fukien Province in an attempt to catch Lin. It was suggested that they might receive a base at Amoy on the Chinese coast in return for their help, but as Lin managed to avoid capture, this concession was never granted.

In 1622 a Dutch fleet occupied the Pescadores Islands off the south coast and used them as a base for preying on Chinese shipping. The Ming repeated their earlier mistake by prohibiting trade, in an attempt to deprive the Dutch of victims and potential collaborators; however, this only succeeded in forcing many local people to resort to piracy and smuggling. In 1624 an improvised Ming fleet drove out the Dutch, who moved to Taiwan. The Chinese pirates, however, continued to flourish under the leadership of Cheng Chih-lung, who built up a strong power base in the southern coastal regions.

Overall, the Europeans made an unfavourable impression on the Chinese, who with some justification regarded them as little more than pirates. European behaviour reinforced the tendency of the Ming towards isolationism - a policy which was also favoured by the Manchus.

This view of the wall shows how the fortifications were combined with difficult terrain to produce a formidable obstacle. (Duncan Head)



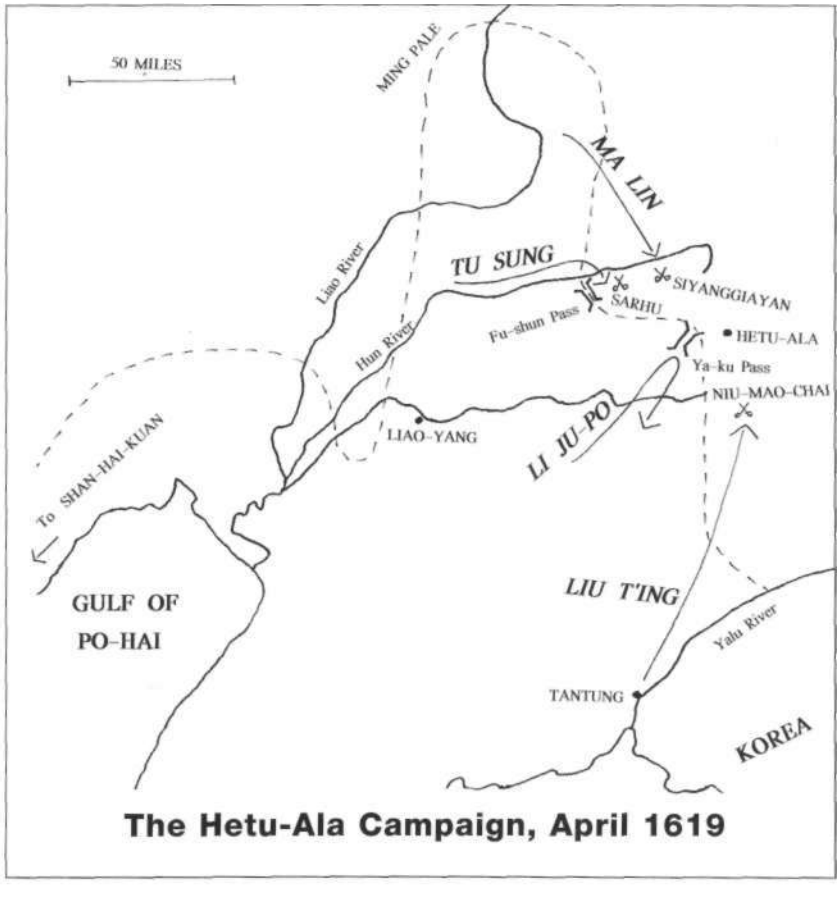


Ming heavy artillery: a *t'ung fa kung* bronze muzzle-loader, after Ch'ou Hai T'u Pien.

THE FALL OF THE MING

In the 16th century the descendants of the Jurchen tribes, who in the 12th century had conquered north China and established the Kin dynasty (see MAA 295 *Imperial Chinese Armies* 2), were still living in Manchuria. They were nominally vassals of the Ming, who knew them as the 'Chien-chou Commandery'. As late as the 1590s they fought alongside the Chinese in Korea. From 1583, however, a leader named Nurhachi began the process of moulding the tribes into a centralised state. In 1601 he set up the famous 'Banner' system, which, like the *meng-an mou-k'o* of the medieval Jurchen, organised the whole population into military units and their supporting households. Then, in 1616, Nurhachi took this process to its logical conclusion and proclaimed himself, in Chinese style, Emperor T'ien Ming of the Later Kin dynasty. (The term 'Manchu', by which his people became known, is commonly applied to the period of Nurhachi's rule, although it was not in fact adopted until 1635. For convenience, despite the anachronism, we will follow this usage here.)

By 1618 all but two of the Manchu tribes acknowledged Nurhachi's authority. The exceptions, the Yehe and the Haihsi, were still under Ming protection - a fact which inevitably set Nurhachi on a collision course with China. The Manchus began by attacking the town of Fu-shun, which quickly surrendered, and destroying a Ming army sent to relieve it.



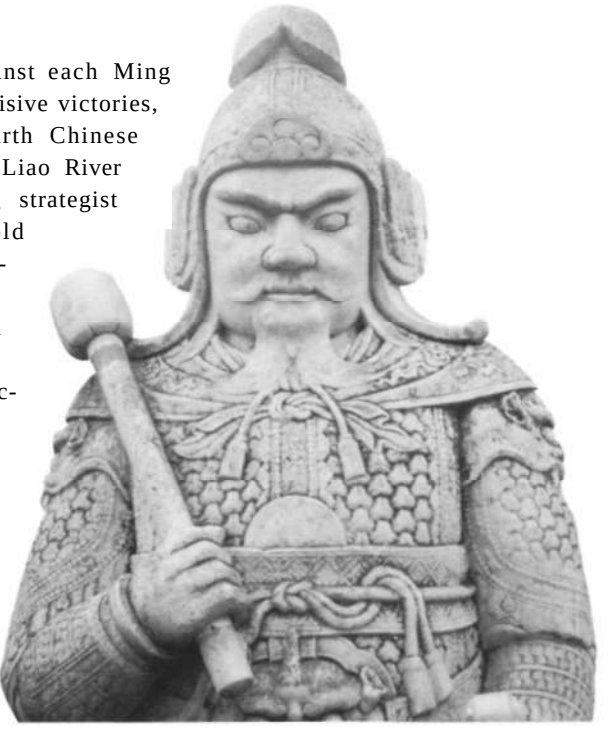
The Hetu-Ala Campaign, April 1619

The Chinese response was to raise a force of 200,000 troops, including Yehe and Korean allies, under the command of the eminent general Yang Hao. In April 1619 they crossed the frontier, advancing in four widely separated columns on the Manchu capital at Hetu-ala.

Nurhachi was outnumbered by perhaps three to one, but he was operating on interior lines and his troops - mainly Manchu and Mongol

cavalry - were more mobile. He concentrated against each Ming column in turn, and in a single week won three decisive victories, at Sarhu, Siyanggiayan and Niu-mao-chai. The fourth Chinese column hastily withdrew. The territory east of the Liao River quickly fell into Manchu hands. The able Ming strategist Hsiung T'ing-pi managed to restore order and hold the line of the Great Wall, but one of his subordinates took the offensive against Nurhachi again in 1621, and was defeated. Huang was unfairly blamed for this disaster and eventually executed.

The Manchus were unable to follow up their successes immediately. In 1626 they suffered a major defeat outside the town of Ning-yuan - mainly due to Ming superiority in firearms. Nurhachi received a wound in this engagement which may have been the cause of his death soon afterwards. They also experienced difficulty in absorbing the Chinese population of their new territories. Attempts to conciliate them in order to make use of their manpower were often frustrated by traditionalist generals, who still thought in terms of plunder rather than permanent conquest. The people of Yung-p'ing and Ch'ien-an, for example, were massacred when these towns fell in 1629, in defiance of official policy.



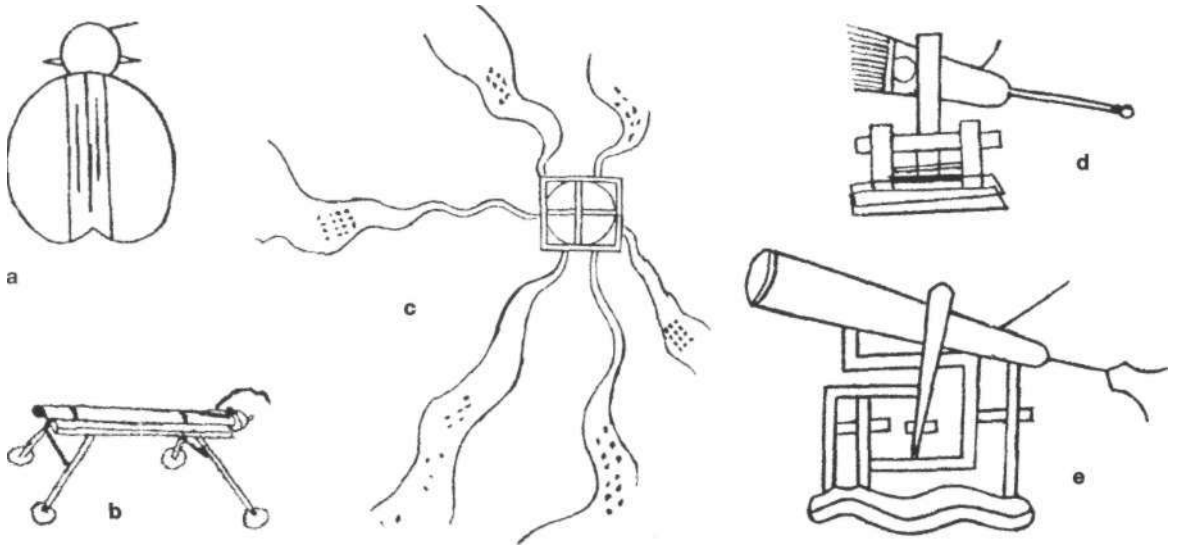
This close-up of one of the statues outside the tombs of the Ming emperors shows the complex construction of the armour worn by late Ming officers. (Duncan Head)

The capture of Yung-p'ing did bring with it an unexpected breakthrough, however. Manchu armies had until then been at a disadvantage in positional warfare, because they had no artillery train to match that of the Ming. Within the city the victors found European-trained gunsmiths, who were removed to Manchuria. By 1631 the Manchus were casting their own cannon.

By this time, however, another danger had arisen to distract the Ming. Peasant rebellions had been frequent throughout the 16th century, and now unrest was growing as a result of unfair taxation, official corruption and poverty exacerbated by population growth and natural disasters. This was a pattern which the Chinese had learned to associate with the withdrawal of the 'mandate of heaven' from a doomed dynasty. By the middle of the 1620s, government control had already been lost in several areas.

In 1627 the province of Shensi in the north-west erupted into open revolt. The people there were noted both for their poverty and for their skill at arms; many of them were excellent horsemen. Reinforced by thousands of defecting soldiers, they at first avoided pitched battles with government troops, but despite numerous setbacks, they gradually expanded. By the mid 1630s they had overrun most of central China, as far east as the lower Yangtze valley.

Eventually the various rebel bands coalesced into armies, led by loosely allied warlords. One of these was Chang Hsien-chung - known as the 'Yellow Tiger' - who has left a reputation as the worst mass murderer in Chinese history. In 1642 Chang was in Anhui on the lower Yangtze, but under pressure from the Ming armies he moved upriver to Cheng-tu in Szechwan, where he began a reign of terror. The inhabitants of captured cities were routinely massacred, as were the owners of any land



a. 'Shooting star' cannon shell.
b. Ming gun on four-legged stand, from *Tai-tzu shih-lu* of 1635.
c. 'The enemy of ten thousand men': an incendiary device which also gave off poisonous smoke, used to defend city walls.
d. 'Nine-arrow heart-piercing' cannon.
e. 'Divine frightening' cannon. Unless otherwise stated, the above are taken from the *T'ien-kung k'ai-wu* of 1637.

or property which Chang coveted. He killed officials and scholars wherever he found them, and responded to any disobedience by slaughtering whole units of his own men. Although the toll of victims attributed to this lunatic must be exaggerated - contemporaries quoted numbers as high as 600 million, far greater than the entire population of China at that time - he seems to have virtually eliminated the upper classes of Szechwan society. Chang remained at large until 1647, when his own followers handed him over to the Manchus.

More rational - and hence more dangerous - was Li Tzu-ch'eng, whose policy was to present himself as a protector of the common people. Supporters flocked to him as Ming authority collapsed, and in 1643 he proclaimed himself the first emperor of the Shun dynasty. In May 1644 he entered Peking, whereupon the Ming emperor, Ch'ung-chen, committed suicide.

However, the establishment of the new dynasty was thwarted by the commander of the north-eastern frontier, Wu San-kuei, who made an alliance with the Manchus. With their help he defeated Li outside the fortress of Shan-hai-kuan on the Great Wall. The Manchus, led by Prince Dorgon, lost no time in seizing their opportunity. They occupied Peking and set up their own imperial court, ruling as the Ch'ing dynasty. Li Tzu-ch'eng fell back to the north-west, where he fortified the T'ong Pass against his pursuers. Early in 1645 the Manchu Prince Dodo forced the pass and drove him further westwards. Li died soon afterwards, and his followers dispersed.

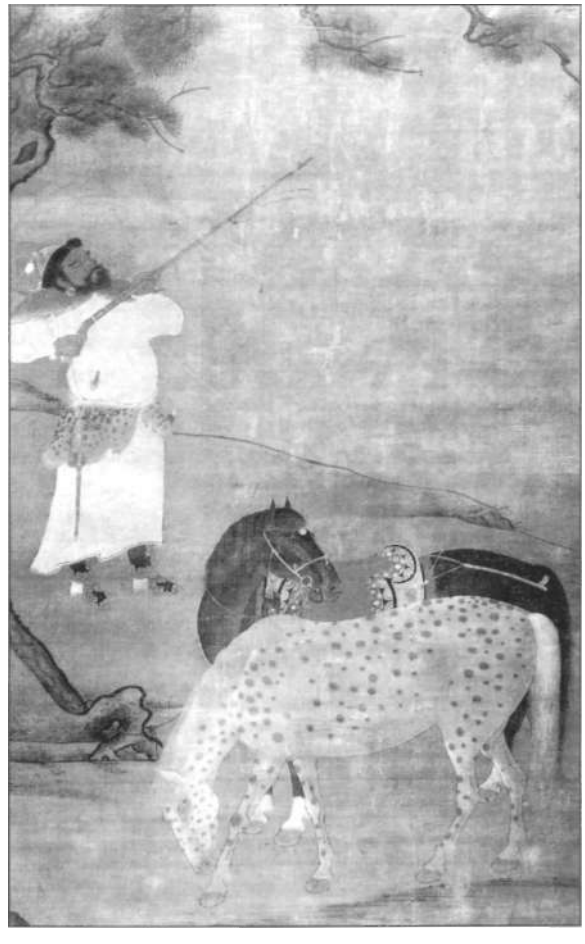
The Ming policy of centralisation meant that the loss of the capital was a fatal blow. There was nowhere else in the empire which could provide a strong enough power base to permit reoccupation. Nevertheless, they did not collapse immediately. A successor to their late emperor was selected and installed at Nanking, where the regime became known as the Southern Ming. Its fatal weakness, however, soon became apparent: the court was distracted by disputes between rival princes, and its armies were depleted by a spate of defections to the Manchus. The remaining troops, still numbering several hundred thousand, could not be paid or supplied from the reduced territories

under Ming control, so had to be allowed to plunder, thus alienating the populace.

To many Chinese of the official class, the Manchus now seemed to be the only power capable of restoring order. There was much popular opposition to the conquerors - in particular to a decree which forced the Chinese to shave their heads and wear the pigtail, in Manchu style - but the Ming leaders proved unable or unwilling to mobilise it. In 1645 Chin Sheng tried to organise a local militia in Chiang-nan which would have involved the total militarisation of the villagers - even the women were to be taught to fight.

But the revolutionary implications of this were unacceptable to his colleagues, whose experiences had made them wary of arming the people. Their attitude was typified by Yang T'ing-shu, who was invited to join a pro-Ming guerrilla band in the Soochow region. He accepted their protestations of loyalty, but asked: 'From where will you get your supplies?' The guerrillas replied: 'From the people.' 'If that is the case,' said Yang, 'then you are bandits. What has that to do with loyalty?'

A Ming counterattack early in 1645 collapsed, and Prince Dodo swept into the Yangtze valley, where the local commanders surrendered. Early in June the Manchus crossed the Yangtze at Chen-chiang; Nanking fell soon afterwards. The Ming loyalists fell back towards the south-east coast, where in a series of campaigns between 1646 and 1650 their strongholds were gradually reduced, by the Manchus and their growing band of Chinese allies. The Ming appealed in desperation to the Portuguese and Japanese for aid. The latter stood aloof, but in 1647 the Portuguese provided 300 arquebusiers from Macao, who were involved in an epic but doomed defence of the city of Kweilin under the command of a Christian Chinese general, Ch'u Shih-ssu. In 1659 the last Ming emperor, Yung-li, was forced to flee to Burma. Two years later the Chinese general Wu San-kuei, fighting for the Ch'ing, followed him and forced the Burmese to hand him over for execution.



A 'Tartar Huntsman', from a Ch'ing painting. Muskets used in warfare from the 17th century were very similar, and were usually fired from the chest or hip, since the small, curved stock was unsuitable for bracing against the shoulder. (British Museum)

THE SHUN ARMY

When he founded his short-lived Shun dynasty in 1643, Li Tzu-ch'eng had about 60,000 men under his command. They were organised into five divisions, split in turn into a varied numbers of units; each unit had 50 cavalry, 150 infantry and 30-40 servants. The largest division had 100 such units, while a further 130 or so were divided among the other four divisions. Perhaps inspired by his surname, which was the same as that of the founder of the T'ang dynasty (618-907), Li tried to gain an aura of legitimacy by adopting T'ang titles for his officials.

Manchu cavalry, c.1625, from *Tai-tzu shih-lu.*

a. Heavy cavalry with bow and sword.

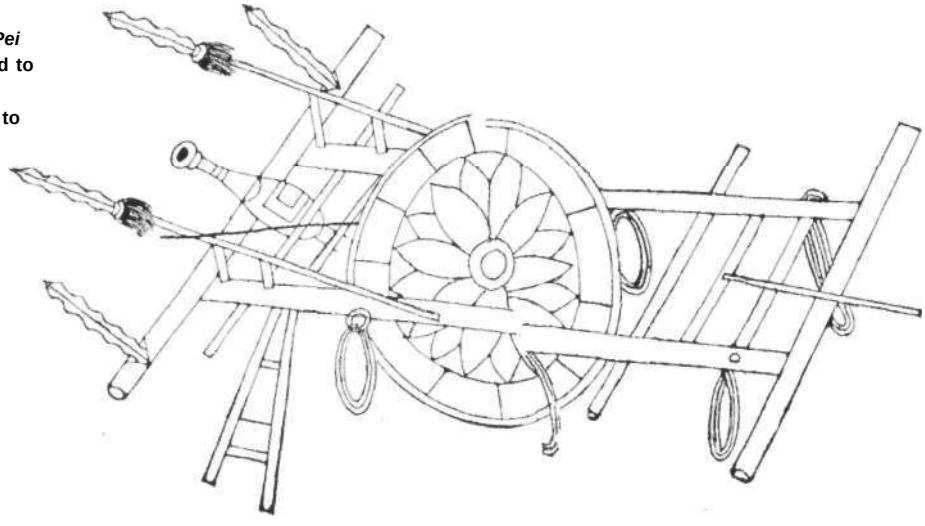
b. Standard bearer.

c. The Khan Nurhachi and his umbrella bearer. Both wear lamellar armour. See Plate C for reconstructions based on these and other figures from this source.

Earlier in his career, Li had lost his army after a defeat by the Ming at Tzu-t'ung in 1638; then he had had to ask for help from the Muslim rebels of Ma Shou-ying, who were also based in the north-west. Ma had given him some men, who formed the core of his new army. Muslims were therefore a significant element in the Shun forces, and there were even rumours that Li himself had adopted Islam. The main Muslim rebel forces continued to co-operate with Li, and in fact outlasted him. They fought on against the Manchus until 1650, when they were crushed by an army under Meng Ch'iao-fang.

Although the Shensi rebels had originally been poorly equipped, by the 1640s they had handguns and artillery in large quantities. These had not only been captured from the government; some had been manufactured in their own foundries. (One Ming official lamented: 'What we possess [in firearms] cannot be compared with theirs.') Li's victory over Tso Liang-yu in 1642 was attributed to this superiority of artillery. The Shun were also strong in cavalry, and some sources suggest that many of the infantry were mounted when on the march. The *K'ou-shih pien-nien* describes the spectacle of the rebel armies crossing rivers on their horses, of which there were so many that they seemed to block the flow of the water. Li is said to have needed boats only when crossing the Yellow River. By the time of their entry into Peking, in 1644, the Shun troops were uniformed, in green coats and white caps.

Discipline was good at first, although it deteriorated after the fall of the capital. Li had little interest in employing the talents of existing officials, whom he regarded as corrupt. But the vast fortunes which Li had counted on seizing from them turned out to have been a myth. The



This drawing from the *Wu Pei Chih* depicts a gun attached to an assault wheelbarrow - another invention ascribed to Ch'i Chi-kuang.

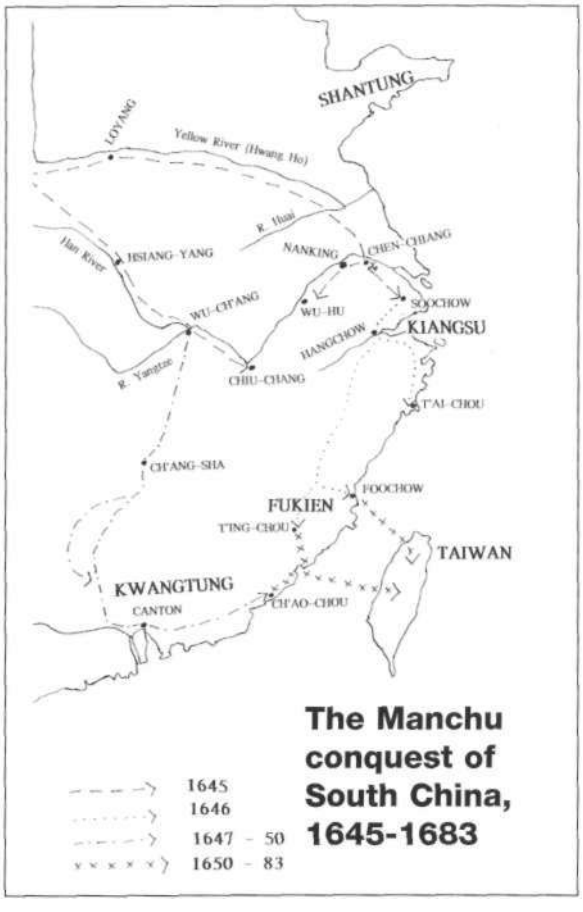
resultant financial crisis made it difficult to pay or even feed the troops, and they began to rob the people. When Wu San-kuei's approach was reported, many men were reluctant to fight, having supposed that the war was over. In the crucial battle at Shan-hai-kuan the Shun army collapsed, and the disillusioned citizens of Peking welcomed the Manchus as liberators.

THE CH'ING DYNASTY, 1644-1842

It was to be some time yet, however, before the Manchus were able to enjoy their conquests in peace. The son of the pirate Cheng Chih-lung, Cheng Ch'eng-kung (better known in the West as Coxinga), remained at large along the south-east coast, building up a formidable force of Ming loyalists. In 1655 he advanced northwards with 250,000 men and 2,300 ships, with the avowed aim of restoring the Ming. The Ch'ing sent a fleet of their own, but their inexperience in naval matters led to its loss in a storm. In 1659 the overconfident Cheng besieged Nanking with the aim of luring his enemies into a decisive battle on land. The Manchus obliged, routing Cheng, who was forced to retreat with his fleet to the island of Taiwan.

17th century brigandine armour. Although pictorial sources hint at the use of such armour by the Ming, the earliest surviving examples date from the beginning of the Ch'ing. (Royal Armouries)

There he found the Dutch in possession, but drove them out of their main stronghold, Fort Zeelandia, after a nine-month siege. Shortly afterwards Cheng died, but his successors held Taiwan for another 20 years. The island was poor, however,



and a Ch'ing blockade imposed further hardship. The Cheng regime was never able to raise enough men or ships for an invasion of the mainland, and by 1664 the whole of the mainland coast was firmly in Manchu hands.

In 1673 a major revolt, known as the 'Rebellion of the Three Feudatories', broke out against the Ch'ing in south China. This crisis was provoked by the young and inexperienced K'ang-hsi emperor, who had attempted to reduce the privileges which had been granted to some of the leading Chinese generals in return for their support. The most powerful of these generals was Wu San-kuei. He retained command of the army with which he had invaded Burma, and ruled almost independently over much of the west and south-west, making enormous profits from his control of mines and trade routes. Joined by several other commanders, Wu proclaimed his own 'Chou' dynasty, and for a time threatened to overrun the whole country. But other Chinese generals remained loyal to the Ch'ing, and in 1676 Wu was weakened by the defection of two principal allies, Wang Fu-ch'en and Keng Ching-chung. Wu died in 1678, and the Ch'ing armies gradually closed in on K'un-ming, the remote city in Yunnan where he had established his capital. His successor, Wu Shih-fan, committed suicide in 1681, bringing the rebellion to an end.

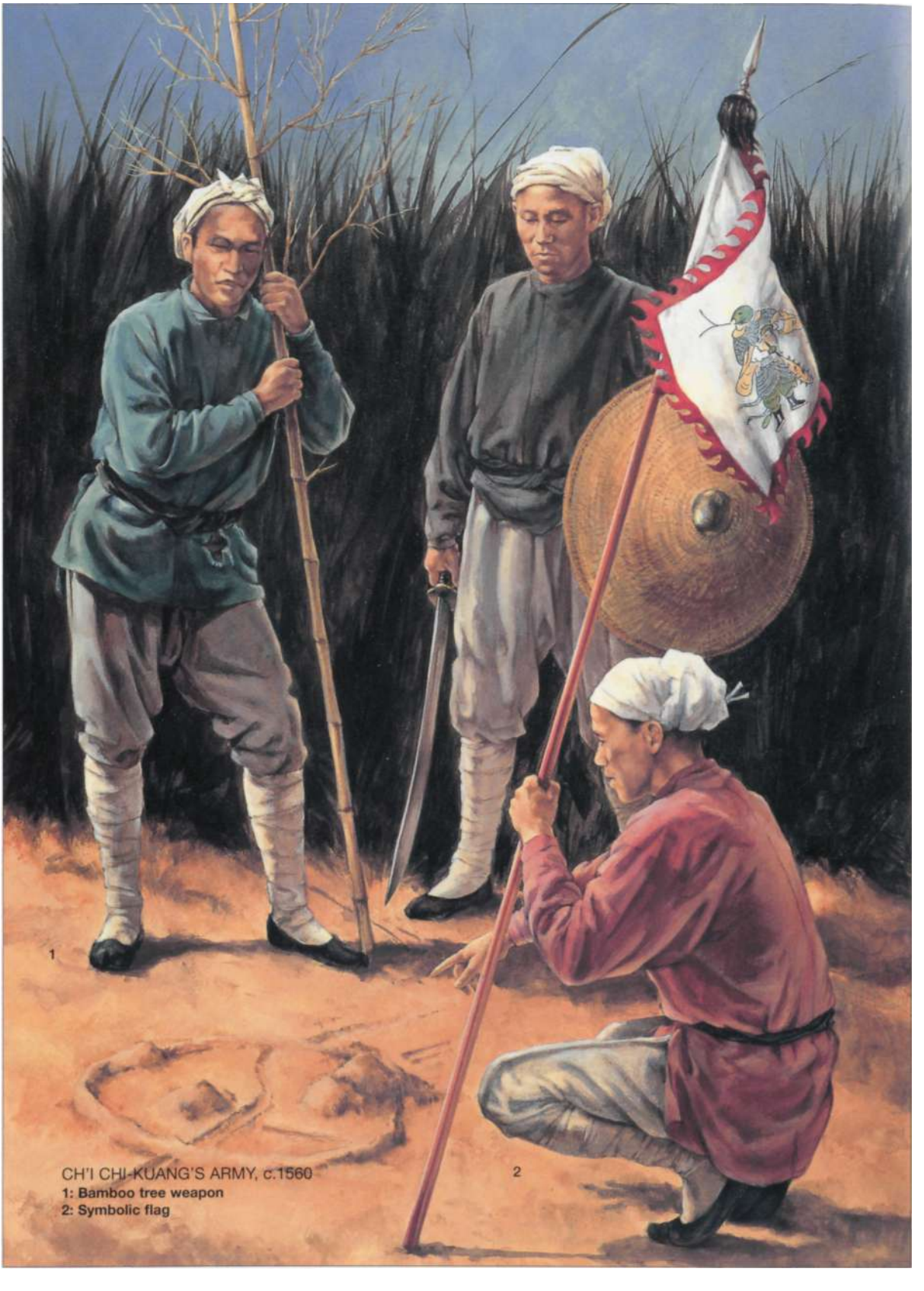
Despite his previous record and his own dynastic ambitions, Wu presented himself as a Ming loyalist, and his men cut off their Manchu pigtails and wore their hair in the traditional Chinese style, under white caps. They also carried white flags, as a sign of mourning for the Ming. Wu's army was noteworthy for maintaining a corps of 45 elephants. It is not clear when this was first established, but the animals were presumably acquired through his contacts with Burma.

After the defeat of the Three Feudatories, most of the Chinese heartland enjoyed a period of peace under a series of able and long-lived emperors: K'ang-hsi (1661-1722), Yung-cheng (1723-36) and Ch'ien-lung (1736-96). Civil order was imposed somewhat heavy-handedly, but official corruption was brought under control, and the tax burden on the peasantry was relatively light. For most of the 18th century China enjoyed unprecedented prosperity. Beginning in the K'ang-hsi reign, the empire was able to undertake a series of successful military campaigns which expanded its boundaries to their greatest ever extent.

One of the first external threats came from the Russians, who were moving south and eastwards from their settlements in Siberia. In 1652 they invaded the Amur valley in Manchuria and massacred the tribes there, who were vassals of the Ch'ing. At first they were driven off by a Manchu expedition, but they returned two years later and attempted to take their boats up the Sungari River, a tributary of the Amur, which led into the Manchu heartland. In the spring of 1658 they were decisively

MING TROOPS, 16TH CENTURY
1: Standard Bearer
2: Swordsman, c.1590

A



CH'I CHI-KUANG'S ARMY, c.1560
1: Bamboo tree weapon
2: Symbolic flag

MANCHU CAVALRY, c.1625
1: Manchu élite cavalryman
2: Cavalryman in brigandine armour

THE SIEGE OF KWEILIN, 1647
1 and 2: Ch'ing infantry
3 and 4: Portuguese infantry

D

CAVALRY, 18TH CENTURY 1: Manchu horse-archer 2: Muslim musketeer 3: Camel-mounted artillery

E

TIBETANS, 17TH AND 18TH CENTURIES

1: Infantryman

2: Cavalryman

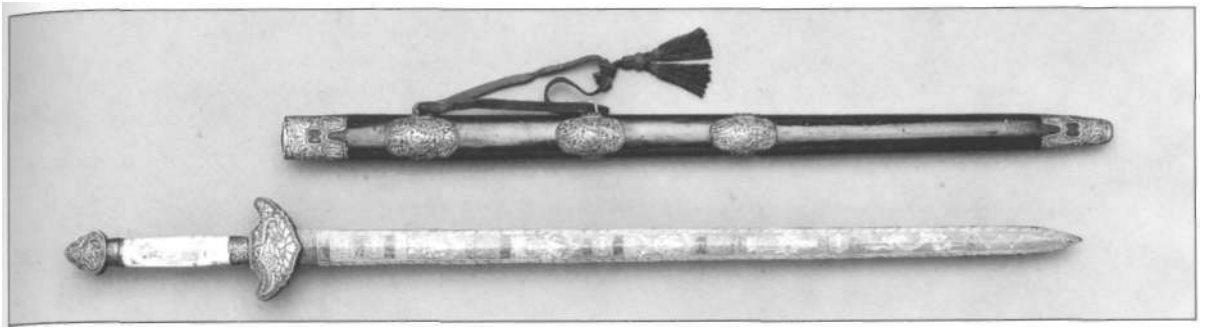
The Ch'ien-Lung Emperor
and bodyguards

G

INFANTRY, 18TH AND 19TH CENTURIES

1: Manchu Guardsman, c.1760
2: Swordsman, c.1790
3: Miao Tribesman

H



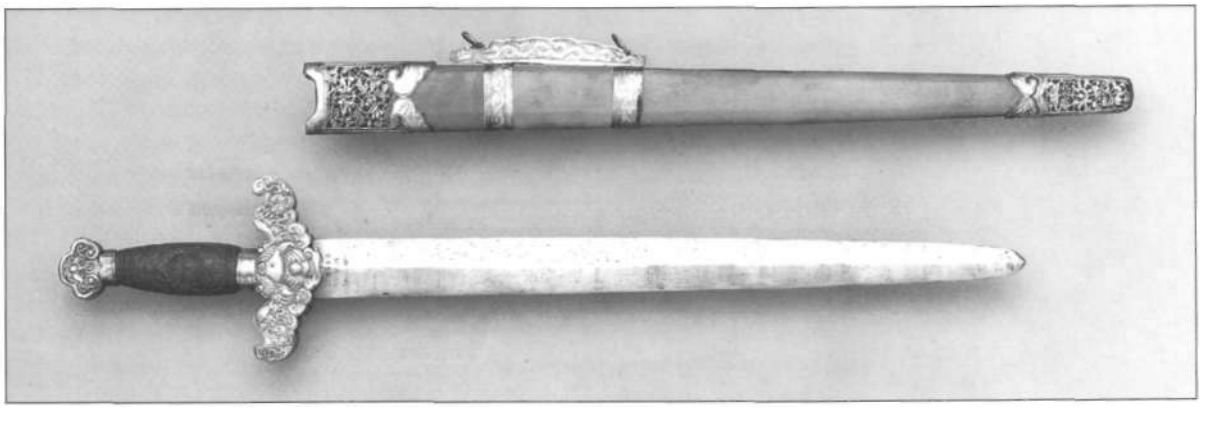
'Jian' or ceremonial sword, from the Ch'ien-lung reign (1736-96). (Board of Trustees of the Royal Armouries, No. XXVI-90s)

defeated by a Ch'ing fleet of river boats armed with cannon. In 1685 fighting broke out again over the Russian fort at Albazin on the Amur. The issue was eventually settled in 1689 by a conference between the Russian ambassador and the Manchu prince Songgotu, who was backed up by an army of 15,000 men with 50 cannon. The Russians, who had no more than 2,000 troops in the area, were suitably impressed and agreed to make peace. This agreement, the Treaty of Nerchinsk, was the first between China and a European power, and was a clear victory for the former. Ch'ing rule over northern Manchuria was acknowledged, and it remained unchallenged until the 1850s.

The eastern Mongols or Khalka had been allied to the Manchus since before the Manchu conquest of China, but in the west a group of independent tribes known as the Oirats had occupied the Tarim Basin and Tibet and established an aggressive rival empire. In 1686 their leader, Galdan Khan, attacked the Khalka, provoking war with the Ch'ing. In 1696 K'ang-hsi himself led an expedition into Mongolia. Galdan attempted to avoid battle, but was trapped between converging columns and defeated at Jao Modo, near present-day Ulan Bator. The khan escaped, but was hunted down the following year.

This victory gave the Ch'ing control of most of what is now Mongolia, but further west one of the Oirat clans, the Jungars, was gradually rebuilding its strength. In 1755 war broke out again, and two years later a Manchu army under Chao Hui invaded the Ili valley. The Jungars were virtually wiped out, and the Muslims of the Tarim Basin, who had supported the Jungars, were also defeated, in 1759. The Ch'ing frontier was pushed forward as far as Lake Balkhash and the Pamir mountains, where Chinese armies had not penetrated since the days of the T'ang.

Another 'jian' sword from the same era. By this time these traditional straight, double-edged weapons were largely restricted to ceremonial use; the single-edged curved *'dao',* optimised for cutting, was preferred for combat. (Board of Trustees of the Royal Armouries, No. XXVI-170s)



'The Battle of Altshur', an 18th century engraving depicting the Ch'ing victory over the Kodjas in 1759. See Plate E for reconstructions based on the figures shown here. (Library of Congress, Washington DC)

Part of the reason for the Manchu success was their own affinity with the Central Asian nomads: their cavalry fought in the same style, as highly mobile mounted archers, and the Ch'ing armies could outmanoeuvre the Mongols on the steppe - something which traditional Chinese forces had seldom managed to do. Furthermore, the nomads, who had for centuries relied on the vast spaces of the steppe for protection, could no longer retreat beyond the reach of armies based in China, for the Russians were advancing from the opposite direction, into what is now Kazakhstan.

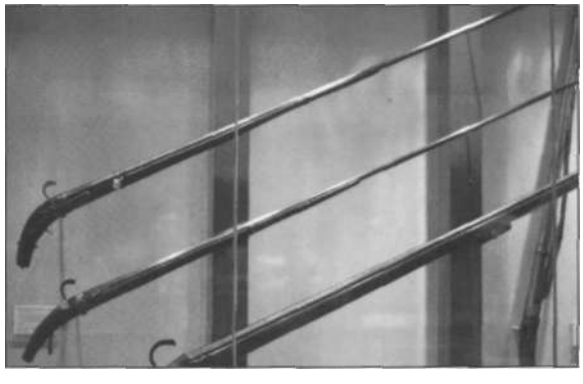
Other influences were also at work to weaken the Mongols: those under Ch'ing rule had been impoverished by the government's policy of restricting them to specific grazing grounds, which in time of drought were unable to support their horse herds; tribes beyond the frontier suffered from chronic political disunity and a devastating series of epidemics, probably transmitted by farmers and traders moving into their lands as the settled population increased; and the spread of Buddhism may also have encouraged some Mongols to abandon their traditional warlike pursuits. A combination of factors, therefore, lay behind the sudden evaporation of the Mongol menace which had dominated Chinese military policy for so long.

Success on other fronts led to the Ch'ien-lung reign being remembered for its 'Ten Great Victories', although they were not all of equal significance. Tibet had been reduced to vassalage in 1720, and nominal Ch'ing authority was maintained thereafter by sporadic expeditions. In 1790 Gurkhas from Nepal invaded Tibet and looted the rich monastery of Tashilhunpo. The Dalai Lama asked Ch'ien-lung for help, and an army of 80,000 men was dispatched under the Manchu general Fu K'ang. Fu quickly drove out the invaders, pursued them over the Himalayan passes and defeated them at Nawakot, not far from Katmandu. The Gurkhas agreed to pay tribute to Peking, which they

continued to do until 1908. In view of the well-known prowess of the Gurkhas in their later encounters with the British, this campaign provides an interesting insight into the performance of Chinese armies in the late 18th century. It is clear that they were still in the front rank of Asian powers, in terms not just of numerical strength, but also of strategic mobility and effectiveness on the battlefield.

Not all of Ch'ien-lung's campaigns were so successful, however. Between 1767 and 1771 four armies sent against Burma met with disaster, although eventually the Burmese king agreed to pay a nominal tribute. In 1786 an expedition was sent by land and sea to Vietnam in support of the last king of the later Le dynasty (another vassal, who had been deposed by rebels). In 1789 the Ch'ing suffered a defeat and had to abandon the campaign, but the king of the new Nguyen dynasty also paid tribute. In practice, however, this amounted to no more than an agreement to restore trading relations.

In the south-western provinces of Yunnan, Kweichow and Szechwan, maladministration and an influx of Chinese colonists caused recurring trouble among tribes such as the Miao. The revolt in Chin-ch'uan in Szechwan lasted intermittently for 30 years after 1746, and the campaign which finally suppressed it, in 1771-76, is said to have cost twice as much as the wars against the Jungars. The tribes of Taiwan and the Muslims of the north-west also revolted in the 1780s, necessitating yet more expensive military operations.



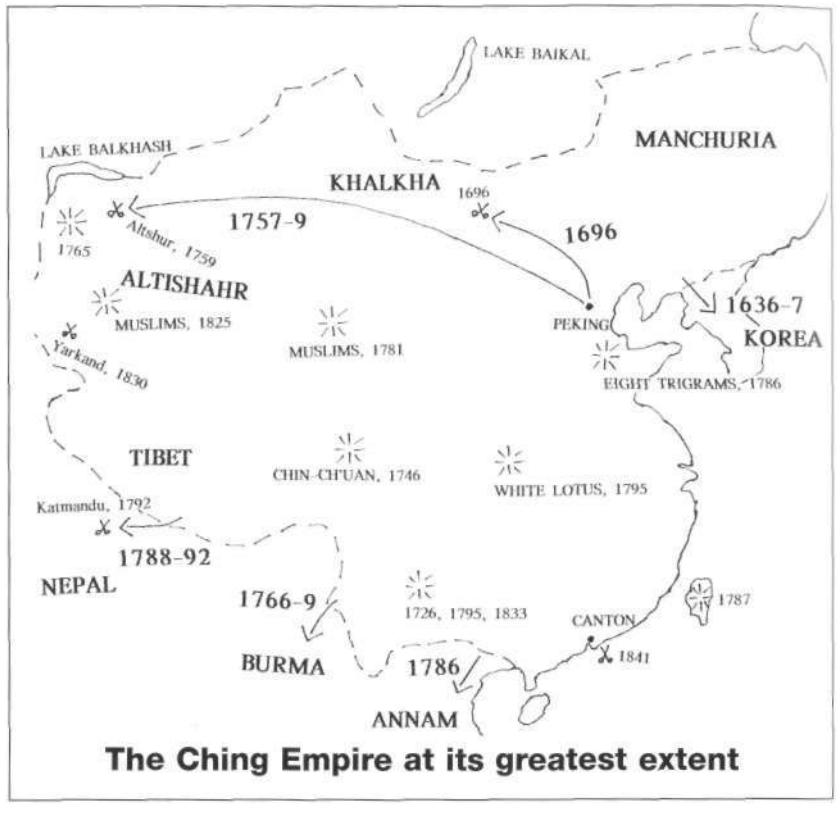
19th century matchlocks, typical of those used by Ch'ing musketeers. (Royal Armouries)

The growth of the population of the empire under the Ch'ing was spectacular: from 140 million in 1740 to 360 million in 1812. Reasons often given for this include the decline of epidemic diseases and the importation of new food crops, but it is likely that a major cause was the long period of internal peace imposed by the Manchus. However, this vast increase in population brought its own problems. Natural disasters leading to popular unrest have been a recurring theme throughout Chinese history, but by the end of the 18th century the explanations being given were beginning to have a very modern ring. Population pressure was forcing farmers to cultivate marginal land and cut down the trees on the hillsides. This led to soil erosion and silting of the rivers, with consequent disastrous floods.

Furthermore, as the ageing Ch'ien-lung emperor lost his grip on the government, corruption reappeared. Soon the Chinese peasantry began to show signs of unrest. The revolts led by the White Lotus secret society after 1795 were especially serious: in 1813 a related group, the Eight Trigrams rebels, entered Peking and nearly stormed the imperial palace. Early in the 19th century the Muslims of the Tarim Basin resumed their struggle for independence under a leader called Jahangir, who between 1817 and 1827 repeatedly challenged Ch'ing authority with the support of his co-religionists from Kokand, beyond the frontier. Economic recession made the situation worse. By the 1840s the Ch'ing dynasty was widely regarded as being in decline.

It was the issue of trade which eventually brought about the fatal clash between China and Europe. The Ch'ing inherited the approach to

19th century Indo-Chinese spearhead. This curved style, reminiscent of the Japanese naginata, was also widely used by Chinese troops. (Board of Trustees of the Royal Armouries, No. XXVI-1981)



foreign policy which had infuriated Hideyoshi, and persisted in the diplomatic fiction which regarded all embassies from other powers as proof that their rulers acknowledged the overlordship of the Son of Heaven. These 'tribute missions', however, were expensive for their hosts to receive with proper ceremony, and were generally unwelcome. In 1757 overseas trade was restricted to the city of Canton. Ch'ien-lung's response to Lord Macartney's embassy from Britain has become famous: the British were informed that it was impossible for an ambassador to be allowed to reside in Peking, and that a trade agreement was unnecessary, as China had no need of foreign goods.

Ultimately, however, the growing military and commercial power of Europe could not be kept out. The British insistence on being able to sell the opium they produced in India, in spite of the social evils brought about by its consumption, gave rise to an episode which left a long legacy of bitterness in China. Opium had been banned by the Ch'ing in 1731, but since the 1770s smuggling had flourished. After 1816 the British East India Company began to flood the Chinese market with the drug, hoping to reverse the balance of trade which until then been in China's favour.

The effects of this policy - on law and order, on the currency, which risked collapse as silver poured out of the country, and on the individuals, including many soldiers, who became addicted to the drug - have sometimes been exaggerated, but they were enough to provoke the Ch'ing government to take action. In 1839 Lin Tse-hui ('Commissioner Lin') was sent to Canton, the main centre for opium imports, to stop the smuggling. He confiscated opium and expelled British merchants, who appealed to their own government for support.

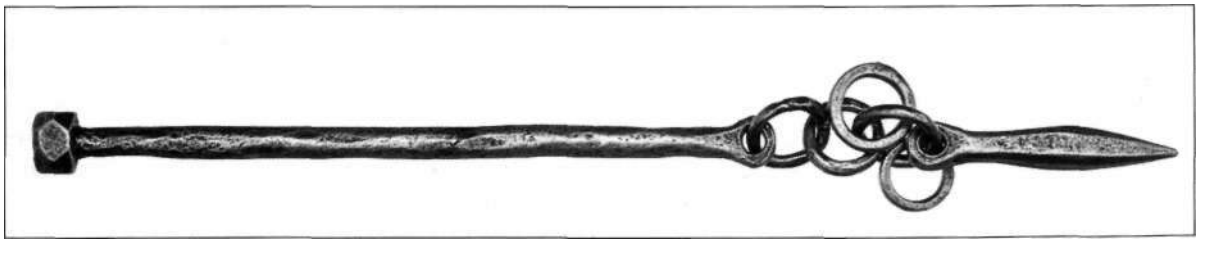
In 1841 full-scale war broke out. The British advanced by land and sea from Canton to Nanking, smashing every attempt by Ch'ing forces to oppose them. In the following year the Chinese government was forced to sign the Treaty of Nanking, consenting to the opium trade and granting Britain a base at Hong Kong, as well as the right to trade at several other ports.

The series of 'unequal treaties' with the European powers which followed was doubly humiliating because such a relationship with outsiders was so completely unprecedented. For 3,000 years China had seen itself as the centre of the political universe, granting the privilege to trade or live in the 'Middle Kingdom' only to those who showed suitable reverence for China's institutions. Even when the military balance of power had temporarily swung in favour of the 'barbarians', invaders had generally been quick to acknowledge the superiority of Chinese culture. The Manchus, for example, had soon begun to outdo the Chinese themselves in their eagerness to maintain the dignity of the empire. Now that the myth of military superiority had been shattered, the prestige of the Ch'ing dynasty had suffered a serious blow. The 'Opium War' was thus one of the main causes of the great rebellions which convulsed the empire in the mid 19th century (see MAA 275, *The Taiping Rebellion).*

Ch'ing Armies

The core of the Manchu military system at the time of the conquest consisted of the *pa-ch'i,* or Eight Banners. When the system was set up, in 1601, there were four Banners - the Yellow, White, Red and Blue - distinguished by flags of the respective colours. In 1616 four more Manchu Banners were created, using flags of the same four colours but with contrasting borders. In addition, an army carried a black silk flag, which was used as a rallying point and seems to have been regarded as sacred; Nurhachi is described as offering sacrifices to it. Each Banner was divided into five *jalans,* or regiments, each of five *nirus,* or 'arrows'. A *niru* had a nominal strength of 300 men.

An invaluable source for the appearance and equipment of Manchus of the conquest period is the *Tai-tzu shih-lu,* an illustrated biography of Nurhachi published in 1635. This shows armoured cavalry with bows, swords and lances, and also infantry equipped with spears, swords, bows and handguns. It has been suggested that the standard deployment was to shelter the cavalry behind three lines of infantry - spearmen, swordsmen, then archers. It is not certain how many of the infantry were Manchus rather than Chinese allies; nor how rigid the difference was at this time between members of the original Jurchen tribes and assimilated Chinese. It is often assumed that all the former were cavalry. However, before the conquest of China the Manchu state had not been



Chinese iron chain whip, 19th century. Such exotic weapons were associated with martial artists and members of secret societies rather than regular troops. (Board of Trustees of the Royal Armouries, No. XXVI-50c)

THE COST OF EQUIPMENT FOR CHI'EN-LUNG'S ARMIES

SWORD	.5 oz
MATCHLOCK MUSKET	1.5 oz
BOW	3.6 oz
SHEAF OF ARROWS	3.6 oz
UNIFORM	4.0 oz

Values in ounces of silver. From information provided to Lord Macartney in 1793.

wealthy and had suffered from recurring famines, so it is unlikely that the expense of mounting all the soldiers could have been met. The infantry in the *Tai-tzu shih-lu* are dressed very similarly to the Manchu cavalry and - apart from the guns which some foot soldiers carry - use the same weapons. Later, in the Ch'ing period, a logical division of labour was maintained where possible, with the Chinese providing the infantry and artillery, and the Manchus the cavalry.

From 1618 the Manchus also relied heavily on subject Mongol cavalry, although they regarded the Mongols as undisciplined, and a bad influence on Manchu warriors. In 1634 the Mongols were organised into their own Banners, which by 1644 also numbered eight. They were commanded by a hereditary Mongol aristocracy, the *jasaks,* or 'Banner princes'. The Banners were divided into *jalans* like those of the Manchus, each of which comprised six *sumuns.* Other Mongol groups, like the Khalka who assisted against Galdan in the 1690s, were allies rather than subjects, and remained in their own tribal units. The Mongols continued to fight in their traditional manner as mounted archers as late as the 1860s, although matchlock muskets were also in use by the mid 18th century.

In the 1620s the conquest of Liaotung brought large numbers of Chinese under Manchu rule. At first the conquerors levied one man in 20 to serve in the Manchu Banners, but this was raised to one in ten when the first Chinese Banner was formed, in 1630. Numbers increased rapidly, until in 1642 there were eight Chinese Banners, in which one in three of the male population was liable for service. Throughout the dynasty, however, Chinese and Mongols were also to be found in the Manchu Banners, although in diminishing numbers. Later the Chinese Banners declined in importance, possibly as a result of the mistrust engendered by the Three Feudatories Rebellion.

By the 18th century the majority of native Chinese troops were to be found in the *lu-ying,* or Green Standard army. This had originally been a garrison force. It consisted of more than a thousand *ying,* or battalions, of widely varying strength scattered throughout the provinces, leaving the Manchus concentrated around Peking, on the northern frontier and in the more important towns. (For more detailed coverage of the military organisation of the late Ch'ing, see MAA 275, *The Taiping Rebellion.)*

The Chinese were not regarded by the Manchus as very good soldiers, and their loyalty was often suspect. At Yung-p'ing in 1630 they fought with signs reading 'New Soldier' pinned to their backs so that the Manchus could keep an eye on them. They were often accused of standing back and allowing the Manchus to do all the fighting, and of hiring incapable substitutes to serve in their place - a practice which had spread to the Manchus themselves as early as the 1630s.

Even in the 19th century foreign visitors observed that the Manchu troops were much better than the Chinese, and that it was to the advantage of the regime to keep it that way. However, Chinese numbers, along with their expertise with ships and artillery, meant that it was impossible to do without them. Chinese officers had held high positions

in Ch'ing armies as early as the 1620s, when hereditary ranks were given to the most loyal. Li Yung-fang, who surrendered the town of Fu-shun in 1618, was the first defector of rank, and was eventually given command of a Banner. His sons all became officers in the Chinese Blue Banner.

Wu San-kuei and the other 'Feudatories', along with lesser collaborators, were of vital importance to the Manchu conquest of China after 1644, and were rewarded with generous grants of land and political privileges which at first amounted to virtual independence. Even after Wu's revolt, in 1673, Chinese generals such as Chao Liang-tung remained loyal to the Ch'ing and led armies against the rebels. During the Ch'ien-lung reign Manchus and Mongols began to replace natives in the high command, but this process was never completed, and indeed was reversed after the middle of the 19th century.

The Ch'ing rulers generally showed great respect for Chinese culture and literature, but there is little evidence that this extended to the traditional military classics. In fact the K'ang-hsi emperor is reported to have dismissed them as 'full of nonsense about water and fire, lucky omens and advice on the weather, all at random and contradicting each other'. He advised his officers to ignore them and rely instead on strength of will and careful planning.

By the 1620s infantry handguns and even artillery were beginning to appear in Manchu armies, but the cavalry remained reluctant to give up their bows. Pictures of the Altshur campaign of 1759 show them still fighting as horse-archers against mounted Muslim musketeers, and even 30 years later the government was worried that the Bannermen might neglect their archery skills because of the new popularity of firearms. This was not necessarily an illogical preference, since matchlock firearms were awkward to handle and reload on horseback, and a well-trained archer could shoot much more quickly.

19th century outsiders usually described Ch'ing troops as cautious to the point of timidity, but although sanctioned by some elements of Chinese tradition, this was largely a response to the Europeans' superiority in firearms. British observers during the Opium Wars remarked that the enormous casualties suffered initially by the Chinese were the result of their attempts to come to close quarters with steady infantry armed with the new percussion muskets. Excessive caution was certainly not in evidence among the Manchus in their heyday. K'ang-hsi, for example, described how he had pursued Galdan Khan into the steppes in the 1696 campaign - leaving behind first the Chinese infantry, then the artillery, and pressing on with the cavalry alone. He took the enemy completely by surprise, and was rewarded with all the signs of precipitate flight: abandoned armour; bowls of unfinished food; and women, children and the sick left behind.

Mobility was also required of the artillery. In the 1675 campaign against Wu San-kuei, the existing iron guns were found to be too heavy to take the field. Following the Ming example, the Jesuit Verbiest was ordered to supervise the casting of lighter bronze pieces, which proved very successful. From then on guns of this type, whether imported or cast locally, were the mainstay of the Ch'ing artillery. Indigenous development had not entirely ceased, however, and Chinese inventors continued to approach the authorities with ambitious ideas, such as the 28-round repeating gun which Tai Tzu presented to K'ang-hsi in the

19th century armour for a Manchu Imperial guardsman. By this date such armours were worn mainly for ceremonial purposes; the iron plates were generally omitted, and the studs were retained purely for show. Note also how the decorative pattern recalls the small plates of earlier Ming armours. (Board of Trustees of the Royal Armouries, No. XXVMOa)

19th century iron mace, with a claw head designed to catch in an opponent's clothing. (Board of Trustees of the Royal Armouries, No. XXVI-55C)

1670s. Like similar efforts in Europe, it was probably too complicated for existing construction techniques, and never saw action.

By the early 19th century, the Ch'ing army was beginning to show signs of deterioration. The long period of internal peace was partly responsible for this, for most units had no recent experience of action, and their training diverged more and more from the needs of actual combat. By the 1820s it seems to have finally been recognised that the gun was replacing the bow as the weapon of choice. One reason for this is likely to have been that it required much less training to use. According to a Chinese officer who attended Lord Macartney's party in 1793, matchlocks were preferred to flintlocks, since the latter, though quicker to reload, were more liable to misfire. In fact there were not even enough of the older weapons to equip the majority of the troops. Typically, J.F. Davis reported of the soldiers at Tientsin in 1841: 'Some few had matchlocks, but the greatest number nothing but swords, with bows and arrows.'

Davis also noted the skirmishing drill which the musketeers practised: they 'shot in rapid succession, and kept up a sort of running fire round a man who stood with a flag in the centre, and served as a pivot to the rest'. In general the individualistic, almost gymnastic, style of military exercise which 16th century observers had noted still prevailed, the lack of disciplined opposition during the long Manchu peace having provided no incentive for the rediscovery of the value of solid infantry formations. Huc's scathing description of a review in the 1840s is well known: 'It is impossible to imagine anything more whimsical and comic than the evolutions of the Chinese soldiers; they advance, draw back, leap, pirouette, cut capers, crouch behind their shields, as if to watch the enemy, then jump up again, distribute blows right and left, and then run away with all their might, crying "Victory! victory!"'

In defensive techniques too appearance was often valued above effectiveness. Lord Macartney observed that the firing ports in many city walls were not provided with guns, but with doors on which were painted 'the representations of cannon, which at a distance look somewhat like the sham ports of our men of war'. In 1841 Davis noted watchtowers made of mats, painted to resemble brick or stone. He ridiculed this as 'playing at soldiers', though he would not have known of the long and honourable Chinese tradition of using dummy fortifications to deceive an opponent. More serious symptoms of decline included the poor state of repair of many personal weapons, the shortage of horses among the Bannermen, which forced many who were nominally cavalry to fight on foot, and the growing addiction to opium among the soldiery.

At the same time, the relative military effectiveness of the tribal and Chinese peasant populations - the very people least likely to be loyal to the dynasty - was increasing. Chinese civilians were initially forbidden to possess firearms, but during the 18th century they became very common

among smugglers and bandits - to the extent that in 1760 the prohibition had to be lifted in order to allow the law-abiding to protect themselves. By the 1830s some bandits even had their own artillery pieces, and feuding clans in Fukien Province built fortified 'gun towers' all over the countryside. The Miao of the southern mountains were well equipped with guns and crossbows, which K'ang-hsi had permitted them to keep despite their support for Wu San-kuei; K'ang-hsi recognised the practical impossibility of disarming them. The government was never able to subdue them, and was reduced to building forts at the bottom of the mountain passes in a largely unsuccessful attempt to stop them raiding into the plains. As late as the 1830s, Ch'ing troops seeking to advance into Miao territory suffered several severe defeats. Twenty years later many of the tribesmen were to throw in their lot with the Taipings.

A watchtower on the Ming wall. By Ch'ing times the wall had lost its strategic value, and was allowed to fall into disrepair. (Duncan Head)

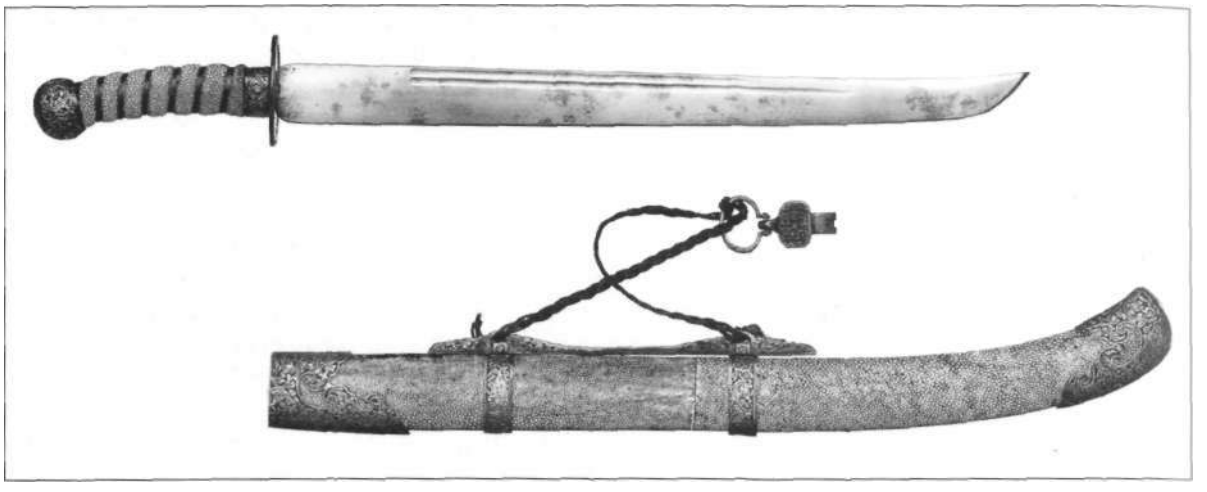
Seven Significant Battles

Ying-chou, 1517

In October 1517 a large Mongol force bypassed the border fortress of Ta-t'ung and advanced into China. On 18 October they were stopped at Ymg-chou, 40 miles south of Ta-t'ung, by a Ming army. The first day's fighting was inconclusive, but the following day the Cheng-te emperor himself arrived with reinforcements and took control of operations. He played an active role in the fighting and killed at least one Mongol; he also only narrowly avoided capture. The battle lasted for two more days, but at dusk on 20 October the Mongols withdrew towards the north. The Ming pursuit was swift, but was halted by a sudden dust storm.

P'yong-yang, 1593

Forty-two thousand Ming troops under Li Ju-sung entered Korea in January 1593 and advanced on the city of P'yong-yang. Opposing them was Konishi Yukinaga with 18,700 Japanese. The Japanese garrisons of two nearby forts fled, isolating Konishi, who nevertheless deployed for battle on a hill north of the city. This was a strong position, which could not be outflanked, as it was protected on the west by mountains and on the south and east by the Tadong River. The Japanese had fortified their front with earthworks and palisades, behind which they drew up their



A 19th century sword, with scabbard. The angled hilt, covered with ray skin, is characteristic of Ch'ing period weapons. (Board of Trustees of the Royal Armouries, No. XXVI-191S)

arquebusiers. The Chinese possessed some artillery, but with only 3,000 musketeers were at a disadvantage in hand firearms. Li, therefore, had no choice but to order a frontal attack; this began on 10 February. Korean observers were shocked to see the unarmoured Chinese infantry repeatedly charging the Japanese line and being shot down in their hundreds. After two days of fighting, however, the Japanese were driven from their positions and retired inside P'yong-yang, leaving behind 2,000 dead. Li Ju-sung stopped to rest his exhausted troops, and Konishi took the opportunity to evacuate the city and flee southwards. Belatedly, Li followed him with 1,000 cavalry, but encountered a larger Japanese force near Seoul and had to abandon the pursuit.

Sarhu, 1619

Four separate Ming columns set out in April 1619 with the aim of converging on the Manchu capital at Hetu Ala. The first to encounter the enemy were the 25,000 troops of Tu Sung - a notoriously rash commander known to his enemies as 'Tu the Madman'. Tu forded the Hun River with his infantry and cavalry, in his haste leaving behind a unit of wagons equipped with artillery, which were unable to cross. He broke through some Manchu barricades on the far shore and took a few prisoners, then rushed forward at the head of his men, straight into an ambush by 30,000 Mongols. Cutting his way out, Tu attempted to seize the commanding high ground on a nearby mountain. This was a logical move, but Nurhachi had foreseen it and deployed his Manchus there in another ambush. Tu was killed, along with all his divisional commanders and most of his men.

Chen-chiang, 1645

The strategically important city of Chen-chiang, on the south bank of the Yangtze, was held against the Manchus by a large Ming garrison. This was commanded by Cheng Hung-k'uei and Cheng Ts'ai, the brothers of the pirate warlord Cheng Chih-lung, and included many men armed with muskets. The night of 1 June 1645 was foggy and visibility was poor, so the Manchus, under Prince Dodo, attempted a diversion. They floated unmanned rafts across the river, carrying burning torches. The nervous Ming troops opened fire on these, wasting most of their ammunition,

while the real Manchu army crossed undetected further upriver. At dawn the defenders discovered the enemy advancing on them along the southern shore, and panicked. The Cheng brothers abandoned their men escaping to Foochow by ship. Chen-chiang fell almost without a fight, leaving the new Ming capital at Nanking exposed.

The Two Sieges of Albazin, 1685-86

By 1685 the Russians had been evicted from the whole of the lower Amur valley in northern Manchuria, except for the fort of Albazin, which was held by about 500 Cossacks. The wooden fortifications consisted of a high stockade with corner towers on which artillery could be mounted, surrounded by a moat. Outside the moat was a palisade, and beyond that iron stakes hidden in pits. In June 1685 a Ch'ing army of 10,000 men arrived under the local Manchu governor, Sabsu. They built siege works and put gunboats on the Amur River to isolate the fort, then set fire to the outer palisade. The Russian commander, Tolbuzin, surrendered and was allowed to retire to Nerchinsk. The Manchus burned the fort and left, but neglected to destroy or harvest the crops that the Russians had sown in the vicinity. Soon afterwards Tolbuzin reoccupied the site with 826 men, 12 cannon and a Prussian engineer, who supervised the rebuilding. Albazin was now well stocked with food and gunpowder. In July 1686 Sabsu returned with 7,000 men and 40 cannon. He placed his heavy guns on a hill a third of a mile away and the lighter pieces about 500 paces from the palisade. Then, under cover of a bombardment, the Manchus shot fire arrows and attacked from the cover of wheeled shields. However, several attempts to scale the walls with ladders were repulsed by the Russian guns. Tolbuzin was killed leading a sortie, but the fort held out until November, when negotiations began between the two governments. By this time only 66 defenders remained alive. The Russians realised that Albazin could not be held, and in the subsequent peace treaty they agreed to abandon it.

Maymyo, 1767

Ming Jui, a son-in-law of the Ch'ien-lung emperor, advanced on the Burmese capital at Ava with 50,000 men in two columns. The first proceeded through Bhamo and the second, under Ming himself, further south, via Hsien-wi. The first column was held up outside a fortified position at Kaungton, and contrary to Ming's orders its commander retreated. The Burmese king, Hsinbyushin, then despatched two divisions to deal with Ming Jui. One, consisting of 10,000 infantry and 2,000 cavalry, advanced directly to meet the Chinese, while a larger force, under the overall commander Maha Thiha Thura, moved by a circuitous route over the hills to the south to get behind them. Ming quickly repulsed the frontal attack and resumed his advance, but the Burmese remained in contact and continued to harass him. The Manchu cavalry were prevented from foraging or protecting their lines of communication, and supplies began to run short. Two days later, 50 miles north-east of Ava, Maha Thiha Thura appeared in the rear of the invaders. In three days of fighting, the Chinese were encircled by the two Burmese divisions. Ming concentrated his entire army against the smaller enemy force in an attempt to break out, but the Burmese held on until their other division came up and attacked the Ch'ing from

behind. 2,500 Chinese were taken as slaves, and the rest were massacred. Ming Jui committed suicide.

Yarkand, 1830

Ten thousand Kokandi cavalry crossed the Ala T'au mountains into the Tarim Basin and seized the Chinese frontier city of Kashgar. The nearby garrison at Yarkand held out, despite numbering only 500 Bannermen and 4,500 poorly trained local militia. The Ch'ing commander, Pi-ch'ang, deployed 400 of his regulars outside the east gate of the city and left 1,000 militiamen to guard the Muslim town and the Manchu cantonment. He prepared fields of fire for his few artillery pieces by demolishing outlying market stalls and buildings. The Kokandis tried to rush the gate, but lost some 300 men to cannon fire in their first charge. They then regrouped and attacked again. When this charge was also broken they withdrew, taking with them a large haul of slaves and loot from the surrounding countryside.

THE PLATES

A: MING TROOPS, 16TH CENTURY

1 Standard Bearer This figure is based on a painted scroll in the National Palace Museum in Taipei, depicting an Imperial procession, probably of the Chia-ching Emperor (1522-67). Several units wear this combination of blue coat and red hat. It is not clear whether the dots on the coat are intended to represent a simple pattern or, as assumed here, the rivets of brigandine armour. Such armour, constructed of iron plates fastened to the back of a fabric garment, is well known from the early Ch'ing period and later, but no Ming examples have survived. The similarity in appearance to surviving 17th century armours (see Plate C) is, however, suggestive. The banner is a 'tiger flag' (although the animal depicted appears to be a leopard); these and similarly shaped 'dragon flags' appear in this source in great profusion, carried by both horse and foot.

2 Swordsman, c.1590 A Ming scroll now in San Francisco shows figures of this type in several scenes from the Korean campaign of 1592-98. With few exceptions, the coats are red or white; other sources also mention green and black clothing. Headgear - whether of the type shown or the traditional soft caps tied up over the hair - is invariably white. Most of the infantry in this source carry spears, but two-handed swords were popular among officers and their bodyguards. (For reconstructions of other Ming troop-types see MAA 251, *Medieval Chinese Armies.)*

B: CH'I CHI-KUANG'S ARMY, C.1560

Derived from drawings in Ch'i Chi-kuang's own manuals, these figures represent peasant soldiers of the army with which Ch'i defeated the *wo-k'ou* pirates in south China. They wear no armour, but are dressed in what is essentially the day-to-day dress of working-class Chinese. The weapon of figure 1 is simply a bamboo tree, complete with branches, which was used to pin an enemy while the accompanying spearmen despatched him. The flags carried by Ch'i's units employed symbolism derived from popular folklore and astrology.

2 shows one example, based on Ch'i's own designs. Earlier Ming regulations prescribed red clothing for elite troops and standard bearers, although pictorial sources suggest that such rules were not strictly adhered to.

C: MANCHU CAVALRY, C.1625

This plate is based mainly on a series of illustrations in a biography of Nurhachi, the *Tai-tzu shih-lu,* dating from 1635.

1 Manchu Elite Cavalryman Nurhachi is shown in one picture surveying the battlefield from beneath the shelter of his royal umbrella. He and his bodyguard wear lamellar armour. Although horse armour was known, it does not appear in this source. The majority of the Manchu cavalry are armed with bow and sword, although some also carry lances.

2 Cavalryman in Brigandine Armour In the 17th century most, if not all, Manchu cavalry still appear to have worn armour. This was often lamellar, as worn by Figure 1, but others - both infantry and cavalry - are shown in the *Tai-tzu shih-lu in* what appear to be studded coats. These no doubt represent a type of brigandine, with iron plates concealed inside the fabric. The coat worn by this figure is based on a 17th century example from the Royal Armouries, Leeds.

D: THE SIEGE OF KWEILIN, 1647

1 and 2 Ch'ing Infantry The *Tai-tzu shih-lu* shows several of these mobile pavises being pushed into action, manned by either archers or handgunners. Primitive-looking multi-barrelled handguns like these make their appearance in scenes illustrating Nurhachi's later campaigns. They are very similar to Ming types, and were no doubt captured or copied from the Chinese. They were thought to be more reliable in the fierce winds of the north than more modern weapons, and more capable of stopping charging cavalry.

3 and 4 Portuguese Infantry Kweilin was held for the Ming by a detachment of Portuguese allies. Portuguese colonial troops were noted for their ragged and half-starved appearance, and many were also very young. Nevertheless they were formidable fighters, and highly valued by the Ming for their expertise with firearms. Their African slaves were surprisingly loyal, and were often considered to be their best troops. Even in the 17th century many of them were still armed with halberds, or with sword and buckler.

E: CAVALRY, 18TH CENTURY

1 Manchu Horse-archer Although armour remained in use for high-ranking officers well into the 19th century, it seems to have fallen out of favour with the majority of Manchu cavalry at some time during the first half of the 18th century. Of the mounted archers depicted in the source for this figure - an engraving of 1774, based on drawings by Catholic missionaries depicting the Battle of Altshur in 1759 - none wears armour, and only a few officers have helmets. Manchu Banner troops were generally uniformed, yellow and white were popular colours for cavalry. The peacock feather hanging from this man's cap was a decoration awarded for valour in battle.

2 Muslim Musketeer From the same source as Figure 1, this is one of a group of mounted musketeers shown fighting the Manchus. They apparently represent Muslim followers of the Khojas of the Tarim Basin. Note the folding bipod attached to the barrel to aid dismounted shooting.

3 Camel-mounted Artillery Light artillery pieces were sometimes mounted on camel-back to improve mobility. The weapons shown in this source appear to have less in common with the heavy muskets or jingalls seen in the 19th century than with the light bronze or wooden cannon used by the late Ming, sometimes on four-legged carriages. Such pieces were often bound with raffia and covered in silk; hence they were sometimes known as 'silk guns'.

F: TIBETANS, 17TH AND 18TH CENTURIES

Tibet was nominally a Ch'ing vassal from 1720, and Tibetan troops fought alongside the Manchus in the Gurkha War of 1792. The Monlam festival - commemorating the inauguration of the Fifth Dalai Lama, in 1642 - was celebrated until the 1950s with the aid of performers dressed in authentic armour and equipment of the period. These figures are based mainly on photographs taken by European visitors, with other details from Tibetan and Central Asian armours in the Royal Armouries. A Chinese account in the *Wei Tsang T'u Chih* of 1792 confirms that this type of equipment was still in use at that time.

1 Infantryman Most Tibetan infantry were archers or spearmen; although some in the Monlam pageants carried flintlocks, the date these weapons were adopted is unknown. Spears were often reinforced with spiral strips of metal, since the local wood was of poor quality and prone to break. The shield is of woven bamboo, and was large enough to be slung on the back in retreat, covering most of the body. According to Chinese sources, shields were sometimes plated with iron and painted with pictures of tigers.

2 Cavalryman Although the *Wei Tsang T'u Chin* mentions only swords, spears and guns as cavalry weapons, this man, like many of the Monlam participants, carries both bow and musket. The musket probably largely replaced the bow during the 18th century, as it did among the Manchus. Both 'willow leaf lamellar and mail armour were in use: the latter was probably imported from Persia or India, the former perhaps spread by Central Asian or Mongolian influence. Lamellar horse armour was also known.

G: THE CH'IEN-LUNG EMPEROR AND BODY-GUARDS

These figures are based on a painting by the Italian Jesuit Castiglione, showing the emperor at an archery contest. As late as the end of the 18th century Manchu emperors continued to practise the archery skills of their ancestors; however, after K'ang-hsi (1661-1722) they no longer took the field in person. The system of coloured buttons worn on the cap to denote rank was an innovation of the Ch'ien-lung period. Until then, different coloured robes had been worn, with badges depicting animals for military and birds for civil officials - a continuation of the Ming tradition.

H: INFANTRY, 18TH AND 19TH CENTURIES

1 Manchu Guardsman, c.1760 A portrait in the Metropolitan Museum of Art, New York, shows the imperial bodyguard Huer-cha equipped as an archer. As a man of some importance, he would probably have been mounted on campaign, but by the end of the 18th century many Manchu Bannermen no longer possessed horses, and were forced to serve on foot.

2 Swordsman, c.1790 This man's costume is based on an engraving of 1789, which shows Ch'ing troops disembarking from boats for an attack on the Vietnamese. His weapon is a *dao,* or single-edged sword, designed for cutting. The shield, with its ferocious face motif and the character 'wang' on that face's forehead, is often associated with wearers of the striped 'tigerman' costume, but was not restricted to them. In this engraving, the shield is carried by soldiers in normal attire; they are forming a protective rank in front of a row of matchlock men. Units with titles such a 'Tiger Guards' were known as long ago as the Western Chou dynasty (c.1000 BC), but the tigermen were probably an 18th century innovation. They formed part of the Banner system, organised into small groups attached to companies of other infantry. Their main function was to defend against cavalry by frightening the horses. Other Manchu infantry commonly wore blue, white or grey coats, although numerous variations are known. Chinese troops of the Green Standard army were similarly dressed, with the same Manchu-style hat and pigtail. (See MAA 275, *The Taiping Rebellion,* for other examples of Manchu and Chinese soldiers of this period.)

3 Miao Tribesman The non-Chinese peoples of the south and south-west were not fully pacified even in the 19th century, and they frequently rebelled against the Ch'ing. This man is a member of one of the many different Miao tribes, each of which had a distinctive costume and hairstyle. He wears a suit of leather armour from the Royal Armouries' collection. This example was still being worn in the early part of the 20th century; it would have been useless against firearms, but could have provided protection against the bows which were still the most common missile weapon in Chinese armies as late as the 1840s. The Miao were quick to adopt muskets, and were skilled in their use. They used the thickly wooded and hilly terrain of their homelands to good effect, excelling at ambush and even using gunpowder mines to block mountain passes.

BIBLIOGRAPHY

'The Ming Dynasty, 1368 - 1644', *The Cambridge History of China*, Vol. 7, Part 1 (Cambridge University Press 1988)

Chan, A., *The Glory and Fall of the Ming Dynasty* (University of Oklahoma Press 1982)

Huang, R., *1587, A Year Of No Significance - The Ming Dynasty in Decline* (Yale University Press 1981)

Hummel, A., *Eminent Chinese of the Ch'ing Period* (Washington 1943)

Lord Macartney (J. Cranmer-Byng, ed.), *An Embassy To China*

Na Chih-liang, *The Emperor's Procession - Two Scrolls of the Ming Dynasty*, National Palace Museum (Taipei 1970)

Smith, B. and Weng, W., *China - A History in Art*, Studio Vista (London 1973)

Spence, J., *Emperor of China - Self Portrait of K'ang-hsi* (Jonathan Cape 1974)

Spence, J., *From Ming To Ch'ing* (Yale University Press 1979)

Waldron A., *The Great Wall of China* (Cambridge University Press 1990)

Notes sur les Planches en couleur

A: TROUPES MING, XVIe SIECLE

A1 Porte-étendard Plusieurs unite portent ce melange de manteau bleu et de chapeau rouge. Nous ne sommes pas certains si les pois du manteau sont censes representer un simple motif ou si, comme on le pense ici, ils representent les rivets d'une armure brigandine. A2 Epeiste, v. 1590 A de rares exceptions, les manteaux sont rouges ou blancs. D'autres sources mentionnent egalement des vetements verts et noirs. Les couvre-chefs sont toujours blancs. La plupart des soldats d'infanterie, selon cette source, portent une lance, mais les epees a double poignee étaient appréciées par les officiers et leurs gardes du corps.

B: ARMEE DE CH'I CHI-KUANG, v. 1560

Ces figures representent des soldats paysans de l'armée avec laquelle Ch'i vainquit les pirates "wo-k'ou' dans le sud de la Chine. Ils n'ont pas d'armure et ils portent, en gros, le costume quotidien des classes ouvrieres chinoises. L'arme de la Figure 1 est un simple bambou, avec ses branches, qui etait utilise pour immobiliser un ennemi pendant que les lanciers l'achevaient.

C: CAVALERIE MANCHU, v. 1625

C1 Soldat de cavalerie d'elite Manchu La majorite des soldats de cavalerie Manchu sont armes d'un arc et d'une epee mais certains portent aussi une lance C2 Soldat de cavalerie en armure brigandine II est represents avec ce qui semble etre un manteau clouts, qui represents sans aucun doute un type de brigandine, les plaques de metal etant cachees a l'interieur du tissu.

D: SIEGE DE KWEILIN, 1647

C1 et C2 Infanterie Ch'ing Des pistolets primitifs a plusieurs barils, comme ceux-ci, appa-raissent dans les scenes qui illustrent les campagnes plus tardives de Nurhachi. Ils sonttres similaires aux types Ming et furent sans aucun doute captures aux Chinois ou copies.
3 et 4 Infanterie portugaise Les soldats coloniaux portugais etaient connus pour leur apparence loqueteuse et affamee. Beaucoup etaient egalement tres jeunes. Leurs esclaves africains etaient d'une loyaute surprenante et etaient souvent considered comme leurs meilleurs soldats. Meme au XVIIe siecle, beaucoup etaient encore armes d'une ballebarde ou d'une epee et d'un ecu.

E: CAVALERIE, XVIIIe SIECLE

E1 Archer monte ManchuLes troupes qui portaient la banniere Manchu n'avaient generalement pas d'uniforme. Le jaune et le blanc etaient des couieurs appreciees dans la cavalerie. La plume de paon qui retombe du couvre-chef de cet homme est une decoration pour bravoure au combat. E2 Mousquetaire musulman Notez le bipied pliant fixe au barillet pour faciliter le tir hors de la selle. A3 Artillerie a dos de chameaux Les pieces d'artillerie legere etaient quelquefois montees a dos de chameau pour ameliorer la mobilite des troupes. Les armes illustrees ici semblent avoir moins de choses en commun avec les lourds mousquets ou "jingalls" que Ton remarque au XIXe siecle qu'avec les legers cannons de bronze ou de bois utilises par les troupes de la fin de l'epoque Ming, quelquefois sur des chariots a quatre pieds. Ces pieces etaient souvent liees avec du raphia et recouvertes de soie, d'oii leur nom de "canons de soie".

F: TIBETAINS, XVIIe AU XVIIIe SIECLE

F1 Soldat d'infanterie La plupart des soldats d'infanterie tibetains etaient des archers ou des lanciers. Les lances etaient souvent renforcees avec des lanieres de metal en spirale car le bois du pays etait de mauvaise qualite et etait cassant. Le bouclier est en bambou tresse et etait suffisamment grand pour etre porte en bandouliere sur le dos durant un repli et couvrir la plus grande partie du corps. F2 Soldat de cavalerie Cette homme porte un arc et un mousquet. Les armures 'a feuille de saule", a lamelles et a cotte de mailles etaient utilisees.

G: L'EMPEREUR CH'IEN-LUNG ET SES GARDES DU CORPS

Le systeme de boutons de couleur portes sur le couvre-chef pour indiquer son rang est une innovation de la periode Ch'ien-lung. Auparavant, on portait des robes de couieurs differentes avec des badges qui representaient des animaux pour les officiels militaires et des oiseaux pour les officiels civils, dans la tradition Ming.

H: INFANTERIE, XVIIIe - XIXe SIECLES

H1 Garde Manchu, v. 1760 Comme il s'agissait d'un homme important, il aurait sans doute ete a cbeval durant les campagnes mais, a la fin du XVIIIe siecle, les porte-etendard Manchu ne pos-sedaient plus de chevaux et etaient forces de servir a pied. H2 Epeiste, v. 1790 Son arme est un 'dao' ou epee a simple tranchant, congue pour couper. Le bouclier, avec le feroce visage qui y est represents, avec le caractere 'wang' sur le front, est souvent associe aux hommes qui por-taient le costume 'tigre' a rayures mais ne leur £tait pas reserve. H3 Membre de la tribu Miao Cette homme fait partie de l'une des nombreuses tribus Miao. Chacune possedait un costume et une coiffure specifiques. Il porte une armure de cuir. Elle n'aurait pas resists aux armes a feu mais l'aurait protege contre les arcs qui etaient toujours l'arme la plus commune dans les armees chinoises jusque vers 1840.

Farbtafeln

A: MING-TRUPPEN, 16. JAHRHUNDERT

A1 Standartentrager Mehrere Einheiten tragen diese Kombination aus blauer Jacke und rotem Hut. Es ist nicht klar, ob es sich bei den Tupfen auf der Jacke um ein einfaches Muster handelt, wie hier angenommen wird, oder um die Nieten eines mit Stoff bezogenen Kettenpanzers.
A2 Schwertfechter, ca. 1590 Mit wenigen Ausnahmen waren die Jacken rot oder weiB. In anderweitigen Quellen wird auch grune und schwarze Kleidung erwahnt. Die Kopfbedeckung ist durchgehend weiB. Der GroBteil der Infanterie in dieser Quelle tragt Speere, doch waren bei den Offizieren und deren Leibwachtern auch zweihandige Schwerter beliebt.

B: CH'I CHI-KUANGS HEER, ca. 1560

Auf dieser Abbildung sind Bauernsoldaten des Heeres dargestellt, mit dem Ch'i die 'wo-k'ou"-Piraten im sudlichen China besiegte. Sie waren nicht durch Riistungen geschutzt und tragen Kleidung, die im groBen und ganzen der Alltagskleidung der chinesischen Arbeiterklasse entspricht. Bei derWaffe der Rgur Nummer 1 handelt es sich einfach urn einen Bambusbaum samt Zweigen, der dazu benutzt wurde, einen Feind an Oil und Stelle festzuhalten, wahrend die begleitenden Speerwerfer ihn toteten.

C: **MANDSCHU-KAVALLERIE,** ca. **1625**

C1 Kavallerist der Mandschu-Elite. Der GroBteil der Mandscbu-Kavallerie ist mit Bogen und Schwert bewaffnet, allerdings haben einige Soldaten auch Lanzen bei sich. C2 Kavallerist in stoff ii be rzogenem Kettenpanzer Dieser Soldat tragt ein Kleidungsstuck, das wie ein mit Nieten versehener Mantel aussieht. Zweifellos handelt es sich jedoch urn eine Art von Kettenpanzer, wobei die Eisenplattchen im Stoff verborgen sind.

D: DIE BELAGERUNG VON KWEILIN, 1647

D1und D2 Ch'ing-Infanterie Eher primitiv aussehende, mehrlaufige Handgewehre wie diese tauchen in bildlichen Darstellungen Nurhachis spaterer Feldziige auf. Sie sind den Ming-Modellen sehr ahnlich und waren zweifellos den Chinesen abgejagt oder von ihnen kopiert worden. D3 **und D4** Portugiesische Infanterie Die portugiesischen Kolonialtruppen waren fur ihr schabiges, halb verhungertes Erscheinungsbild bekannt. Viele der Soldaten waren auBerdem noch sehr jung. Ihre afrikanischen Sklaven waren erstaunlich loyal und gelten weithin als ihre besten Soldaten. Sogar im 17. Jahrhundert waren viele von ihnen noch immer mit Hellebarden oder mit Schwert und rundem Schild bewaffnet.

E: KAVALLERIE, 18. JAHRHUNDERT

E1 Mandschu-Bogenschiitre zu Pferd Die Soldaten des Mandschu-Banners waren im allge-meinen uniformiert, wobei gelb und weifl die bevorzugten Farben fur die Kavallerie waren. Die Pfauenfeder an der Miitze dieses Mannes stellt ein Ehrenzeichen dar, das fur Tapferkeit im Kampf verliehen wurde. E2 Moslem-Musketier Man beachte das zusammenklappbare Zweibein, das am Lauf angebracht ist, urn - wenn nicht zu Pferde - das SchieBen zu erleichtern.
E3 Artillerie auf Kamelen Leichte Artillerfestucke wurden manchmal auf den Riicken von Kamelen vertrachtet, was fur grbBere Beweglichkeit sorgte. Die Waffen, die in dieser Quelle gezeigt sind, scheinen weniger mit den schweren Musketen beziehungsweise 'Gingalls' des 19. Jahrhunderts gemeinsam zu haben als mit den leichten Kanonen aus Bronze oder Holz, manchmal auf vierbeinigen Wagen, wie sie die spaten Ming benutzten. Derartige Stucke wurden oft mit Raffiabast umwickelt und in Seide eingewickelt: daher bezeichnet man sie gelegentlich auch als 'Seidengewehre'.

F: TIBETANER, 17. BIS 18. JAHRHUNDERT

F1 Infanterist Die meisten Soldaten der tibetanischen Infanterie waren Bogenschutzen oder Speerwerfer. Die Speere waren haufig mit spiralfdrmigen Metallstreifen verstarkt, da das ein-heimische Holz schlechter Qualitat war und leicht abbrach. Der Schild ist aus geflochtenem Bambus und groB genug, daB er beim Riickzug auf den Riicken gehangt wurde und den GroBteil des Kbrpers bedeckte. F2 Kavallerist Dieser Soldat tragt sowohl einen Bogen als auch eine Muskete. Es wurden zwei Riistungsarten benutzt: Der 'Weidenblatt'-Lamellenpanzer und der Kettenpanzer.

G: DER CH'IEN-LUNG-KAISER UND SEINE LEIBWACHTER

Die Anordnung farbiger Knopfe auf der Miitze. die den Rang erkenntlich machte, war eine Neuerung der Ch'ien-lung-Ara. Bisher hatte man Gewander unterschiedlicher Farbe getragen und Abzeichen, die beim Militar Tiere zeigten, bei Zivilisten-Beamten Vdgel - eine Weitertiihrung der Ming-Tradition,

H: INFANTERIE, 18.-19. JAHRHUNDERT

H1 Mandschu-Gardist, ca. 1760 Da es sich bei diesem Soldat um eine Person von einigem Stellenwert handelt, ist anzunehmen, daB er bei Feldzugen beritten gewesen ware. Allerdings besaBen viele Manner des Mandschu-Banners gegen Ende des 18. Jahrhunderts keine Pferde mehr und muBten daher ihren Dienst zu FuB tun. H2 Schwertfechter, ca. 1790 Seine Waffe ist ein 'Dao", also ein einkantiges Schwert, das zum Schneiden gedacht war. Der Schild mit seinem furchteinfldBenden Motiv auf der Vorderseite und dem Zeichen 'Wang' auf der Stirnseite wird oft mit Tragern des gestreiften Tigermensch'-Kostiims in Verbindung gebracht, doch wurde er nicht nur von diesen Mannern getragen. H3 Stammesmitglied der Miao Dieser Mann gehdrt einem der vielen verschiedenen Miao-Stamme an, die jeweils charakteristische Kleidung und beze-ichnende Haartrachten aufwiesen. Er tragt eine Lederriistung. Diese ware zwar zum Schutz gegen SchuBwaffen nutzlos gewesen, kdnnte jedoch ein Schutz gegen die Bogen gewesen sein, die bei chinesischen Heeren noch bis in die 40er Jahre des 19. Jahrhunderts die gangigste Wurfwaffe darstellten.

Continued from backcover

I6TH AND I7TH CENTURIES

256 THE IRISH WARS 1485-1603
191 HENRY VIM'S ARMY
279 THE BORDER REIVERS
58 THE LANDSKNECHTS
101 THE CONQUISTADORES
239 AZTEC. MIXTEC AND ZAPOTEC
263 MUGHUL INDIA 1504-1761
307 LATE IMPERIAL CHINESE ARMIES 1520-1840
235 THE ARMY OF GUSTAVUS ADOLPHUS (1) INFANTRY
262 THE ARMY OF GUSTAVUS ADOLPHUS (2) CAVALRY
14 ENGLISH CIVIL WAR ARMIES
110 NEW MODEL ARMY 1645-60
203 LOUIS XIV'S ARMY
267 THE BRITISH ARMY 1660-1704
97 MARLBOROUGH'S ARMY
86 SAMURAI ARMIES 1550-1615
184 POLISH ARMIES (I) 1569-1696
188 POLISH ARMIES (2) 1569-1696

I8TH CENTURY

118 THE JACOBITE REBELLIONS 1689-1745
261 EIGHTEENTH CENTURY HIGHLANDERS
296 LOUIS XV'S ARMY (I) CAVALRY
302 LOUIS XV'S ARMY (2) FRENCH INFANTRY
304 LOUIS XV'S ARMY (3) FOREIGN INFANTRY
308 LOUIS XV's ARMY (4) LIGHT TROOPS AND SPECIALISTS
260 PETER THE GREAT'S ARMY (I) INFANTRY
264 PETER THE GREAT'S ARMY (2) CAVALRY
285 KING GEORGE'S ARMY 1740-93 (I)
289 KING GEORGE'S ARMY 1740-93 (2)
292 KING GEORGE'S ARMY 1740-93 (3)
236 FREDERICK THE GREAT'S ARMY (I) CAVALRY
240 FREDERICK THE GREAT'S ARMY (2) INFANTRY
248 FREDERICK THE GREAT'S ARMY (3) SPECIALIST TROOPS
271 THE AUSTRIAN ARMY 1740-80(1) CAVALRY
276 THE AUSTRIAN ARMY 1740-80(2) INFANTRY
280 THE AUSTRIAN ARMY 1740-80(3) SPECIALIST TROOPS
293 RUSSIAN ARMY OF THE SEVEN YEARS WAR (I)
298 RUSSIAN ARMY OF THE SEVEN YEARS WAR (2)
48 WOLFE'S ARMY
228 AMERICAN WOODLAND INDIANS
39 BRITISH ARMY IN NORTH AMERICA 1775-1801
273 GENERAL WASHINGTON'S ARMY (I) 1775-78
290 GENERAL WASHINGTON'S ARMY (2) 1778-83
244 FRENCH ARMY IN THE AMERICAN WAR OF INDEPENDENCE

NAPOLEONIC PERIOD

257 NAPOLEON'S CAMPAIGNS IN ITALY
79 NAPOLEON'S EGYPTIAN CAMPAIGN 1798-1801
87 NAPOLEON'S MARSHALS
64 NAPOLEON'S CUIRASSIERS 8, CARABINIERS
55 NAPOLEON'S DRAGOONS S LANCERS
68 NAPOLEON'S LINE CHASSEURS
76 NAPOLEON'S HUSSARS
83 NAPOLEON'S GUARD CAVALRY
141 NAPOLEON'S LINE INFANTRY
146 NAPOLEON'S LIGHT INFANTRY
I 53 NAPOLEON'S GUARD INFANTRY (I)
160 NAPOLEON'S GUARD INFANTRY (2)
199 NAPOLEON'S SPECIALIST TROOPS
88 NAPOLEON'S ITALIAN & NEAPOLITAN TROOPS
44 NAPOLEON'S GERMAN ALLIES (I) WESTFALIA & KLEVE-BERG
43 NAPOLEON'S GERMAN ALLIES (2) NASSAU & OLDENBERG
90 NAPOLEON'S GERMAN ALLIES (3) SAXONY
106 NAPOLEON'S GERMAN ALLIES (4) BAVARIA
I 22 NAPOLEON'S GERMAN ALLIES (5) HESSEN-DARMSTADT 8, HESSEN-KASSEL
211 NAPOLEON'S OVERSEAS ARMY
227 NAPOLEON'S SEA SOLDIERS
176 AUSTRIAN ARMY OF THE NAPOLEONIC WARS (I) INFANTRY
181 AUSTRIAN ARMY OF THE NAPOLEONIC WARS (2) CAVALRY
223 AUSTRIAN SPECIALIST TROOPS OF THE NAPOLEONIC WARS
299 AUSTRIAN AUXILIARY TROOPS 1792-1816
152 PRUSSIAN LINE INFANTRY 1792-1815
149 PRUSSIAN LIGHT INFANTRY 1792-1815
162 PRUSSIAN CAVALRY OF THE NAPOLEONIC WARS (I) 1792-1807
I 72 PRUSSIAN CAVALRY OF THE NAPOLEONIC WARS (2) 1807-15
192 PRUSSIAN RESERVE, MILITIA 8, IRREGULAR TROOPS 1806-15
185 RUSSIAN ARMY OF THE NAPOLEONIC WARS (I) INFANTRY
189 RUSSIAN ARMY OF THE NAPOLEONIC WARS (2) CAVALRY
84 WELLINGTON'S GENERALS
114 WELLINGTON'S INFANTRY (I)
119 WELLINGTON'S INFANTRY (2)
253 WELLINGTON'S HIGHLANDERS
126 WELLINGTON'S LIGHT CAVALRY
I 30 WELLINGTON'S HEAVY CAVALRY
204 WELLINGTON'S SPECIALIST TROOPS
167 BRUNSWICK TROOPS 1809-15
98 DUTCH-BELGIAN TROOPS OF THE NAPOLEONIC WARS
206 HANOVERIAN ARMY 1792-1816
294 BRITISH FORCES IN THE WEST INDIES 1790-1815
96 ARTILLERY EQUIPMENTS OF THE NAPOLEONIC WARS
226 THE AMERICAN WAR 1812-14
77 FLAGS OF THE NAPOLEONIC WARS (I)
78 FLAGS OF THE NAPOLEONIC WARS (2)
115 FLAGS OF THE NAPOLEONIC WARS (3)

I9TH CENTURY

232 BOLIVAR AND SAN MARTIN
281 US DRAGOONS 1833-55
168 US CAVALRY ON THE PLAINS
173 THE ALAMO & THE TEXAN WAR OF INDEPENDENCE 1835-36
301 BOER WARS (I) 1836-98
56 MEXICAN-AMERICAN WAR 1846-48
272 THE MEXICAN ADVENTURE 1861-67
63 AMERICAN INDIAN WARS 1860-90
170 AMERICAN CIVIL WAR ARMIES (I) CONFEDERATE
177 AMERICAN CIVIL WAR ARMIES (2) UNION
179 AMERICAN CIVIL WAR ARMIES (3) SPECIALIST TROOPS
190 AMERICAN CIVIL WAR ARMIES (4) STATE TROOPS
207 AMERICAN CIVIL WAR ARMIES (5) VOLUNTEER MILITIAS
38 ARMY OF THE POTOMAC
37 ARMY OF NORTHERN VIRGINIA
252 FLAGS OF THE AMERICAN CIVIL WAR (I) CONFEDERATE
258 FLAGS OF THE AMERICAN CIVIL WAR (2) UNION
265 FLAGS OF THE AMERICAN CIVIL WAR (3) STATE AND VOLUNTEER
163 AMERICAN PLAINS INDIANS
186 APACHES
288 AMERICAN INDIANS OF THE SOUTH EAST
275 THETAIPING REBELLION 1851-66
241 RUSSIAN ARMY OF THE CRIMEAN WAR 1854-56
193 BRITISH ARMY ON CAMPAIGN (I) 1816-53
196 BRITISH ARMY ON CAMPAIGN (2) 1854-56
198 BRITISH ARMY ON CAMPAIGN (3) 1856-81
201 BRITISH ARMY ON CAMPAIGN (4) 1882-1902
212 QUEEN VICTORIA'S ENEMIES (I) SOUTHERN AFRICA
215 QUEEN VICTORIA'S ENEMIES (2) NORTHERN AFRICA
219 QUEEN VICTORIA'S ENEMIES (3) INDIA
224 QUEEN VICTORIA'S ENEMIES (4) ASIA
249 CANADIAN CAMPAIGNS 1860-70
67 THE INDIAN MUTINY
268 BRITISH TROOPS IN THE INDIAN MUTINY 1857-59
91 BENGAL CAVALRY REGIMENTS
92 INDIAN INFANTRY REGIMENTS 1860-1914
233 FRENCH ARMY 1870-71 FRANCO-PRUSSIAN WAR (I) IMPERIAL TROOPS
237 FRENCH ARMY 1870-71 FRANCO-PRUSSIAN WAR (2) REPUBLICAN TROOPS
277 RUSSO-TURKISH WAR 1877
57 ZULU WAR
59 SUDAN CAMPAIGNS 1881-98
230 US ARMY 1890-1920
95 THE BOXER REBELLION
73 GRENADIER GUARDS
303 BOER WARS (2) 1898-1902

THE WORLD WARS

80 THE GERMAN ARMY 1914-18
81 THE BRITISH ARMY 1914-18
182 BRITISH BATTLE INSIGNIA (I) 1914-18
286 THE FRENCH ARMY 1914-18
245 BRITISH TERRITORIAL UNITS 1914-18
269 THE OTTOMAN ARMY 1914-18
208 LAWRENCE AND THE ARAB REVOLTS
306 CHINESE CIVIL WAR ARMIES 1911-49
293 THE RUSSIAN CIVIL WAR (I) THE RED ARMY
305 THE RUSSIAN CIVIL WAR (2) WHITE ARMIES
309 THE ITALIAN INVASION OF ABYSSINIA 1935-36
74 THE SPANISH CIVIL WAR 1936-39
187 BRITISH BATTLE INSIGNIA (2) 1939-45
112 BRITISH BATTLE DRESS 1937-6
120 ALLIED COMMANDERS OF WORLD WAR II
225 ROYAL AIR FORCE 1939-45
70 US ARMY 1941-45
238 FOREIGN VOLUNTEERS OF THE ALLIED FORCES 1939-45
216 THE RED ARMY OF THE GREAT PATRIOTIC WAR
246 THE ROMANIAN ARMY OF WW II 1941-45
220 THE SA 1921-45 - HITLER'S STORMTROOPERS
311 THE GERMAN ARMY 1939-45 (I) BLITZKRIEG
24 PANZER DIVISIONS
266 THE ALLGEMEINE-SS
34 THE WAFFEN-SS
229 LUFTWAFFE FIELD DIVISIONS
124 GERMAN COMMANDERS OF WORLD WAR II
139 GERMAN AIRBORNE TROOPS
213 GERMAN MILITARY POLICE UNITS
131 GERMANY'S EASTERN FRONT ALLIES 1941-45
147 FOREIGN VOLUNTEERS OF THE WEHRMACHT 1941-45
254 WEHRMACHT AUXILIARY FORCES
103 GERMANY'S SPANISH VOLUNTEERS 1941-45
142 PARTISAN WARFARE 1941-45
169 RESISTANCE WARFARE 1940-45
282 AXIS FORCES IN YUGOSLAVIA **1941-45**
I 17 POLISH ARMY 1939-45
270 FLAGS OF THE THIRD REICH (I) WEHRMACHT
274 FLAGS OF THE THIRD REICH (2) WAFFEN-SS
278 FLAGS OF THE THIRD REICH (3) PARTY 8, POLICE UNITS

MODERN WARFARE

300 FRENCH FOREIGN LEGION SINCE 1945
116 SPECIAL AIR SERVICE
132 MALAYAN CAMPAIGN 1948-60
174 THE KOREAN WAR 1950-53
312 THE ALGERIAN WAR 1954-62
156 THE ROYAL MARINES 1956-84
217 WAR IN LAOS 1960-70
104 ARMIES OF THE VIETNAM WAR (I) 1962-75
143 ARMIES OF THE VIETNAM WAR (2)
209 WAR IN CAMBODIA 1970-75
127 ISRAELI ARMY IN THE MIDDLE EAST WARS 1948-73
194 ARAB ARMIES OF THE MIDDLE EAST WARS (2)
165 ARMIES IN LEBANON 1982-84
133 BATTLE FOR THE FALKLANDS (I) LAND FORCES
134 BATTLE FOR THE FALKLANDS (2) NAVAL FORCES
135 BATTLE FOR THE FALKLANDS (3) AIR FORCES
250 ARGENTINE FORCES IN THE FALKLANDS
202 MODERN AFRICAN WARS (2) ANGOLA & MOZAMBIQUE
242 MODERN AFRICAN WARS (3) SOUTH-WEST AFRICA
159 GRENADA 1983
221 CENTRAL AMERICAN WARS

GENERAL

107 BRITISH INFANTRY EQUIPMENT (I) 808-1908
108 BRITISH INFANTRY EQUIPMENTS (2) 1908-80
72 NORTHWEST FRONTIER
123 AUSTRALIAN ARMY AT WAR 1899-1975
164 THE CANADIAN ARMY AT WAR
214 US INFANTRY EQUIPMENTS
197 ROYAL CANADIAN MOUNTED POLICE
205 US COMBAT EQUIPMENTS 1910-88
234 GERMAN COMBAT EQUIPMENTS 1939-45
138 BRITISH CAVALRY EQUIPMENT 1800-1941
157 FLAK JACKETS

MEN-AT-ARMS SERIES

An unrivalled source of information on the uniforms, insignia and appearance of the world's fighting men of past and present. The *Men-at-Arms* titles cover subjects as diverse as the Imperial Roman army, the Napoleonic wars and German airborne troops in a popular 48 page format including some 40 photographs and diagrams, and eight full-colour plates.

CHRIS PEERS left, was born in 1956. He studied Oriental History at Cambridge University, and since then has pursued a lifelong interest in military history and wargaming. This is his fifth book for Osprey and his third on the Imperial Chinese Armies. He currently lives and works in Birmingham.

CHRISTA HOOK is one of Osprey's most prized artists. She is renowned for the exceptional detail and realism of her work, particularly in Osprey's Warrior series. She has illustrated several books for Osprey including Warrior 10 Saracen Faris 1050-1250 AD.

COMPANION SERIES FROM OSPREY

CAMPAIGN

Concise, authoritative accounts of decisive encounters in military history. Each 96 page book contains more than 90 illustrations including maps, orders of battle and colour plates, plus a series of three-dimensional battle maps that mark the critical stages of the campaign.

ELITE

Detailed information on the uniforms and insignia of the world's most famous military forces. Each 64 page book contains some 50 photographs and diagrams, and 12 pages of full-colour artwork.

NEW VANGUARD

Comprehensive histories of the design, development and operational use of the world's armoured vehicles and artillery. Each 48 page book contains eight pages of full-colour artwork including a detailed cutaway of the vehicle's interior.

WARRIOR

Definitive analysis of the armour, weapons, tactics and motivation of the fighting men of history. Each 64 page book contains cutaways and exploded artwork of the warrior's weapons and armour.

MEN-AT-ARMS SERIES TITLES

THE ANCIENT WORLD

2P8 ANCIENT CHINESE ARMIES
109 ANCIENT ARMIES OF THE MIDDLE EAST
284 IMPERIAL CHINESE ARMIES (I) 200 BC-589 AD
137 THE SCYTHIANS 700-300 B.C
69 GREEK AND PERSIAN ARMIES 500-323 BC
148 THE ARMY OF ALEXANDER THE GREAT
121 ARMIES OF THE CARTHAGIAN WARS 265-146 BC
283 EARLY ROMAN ARMIES
46 THE ROMAN ARMY FROM CAESAR TO TRAJAN
93 THE ROMAN ARMY FROM HADRIAN TO CONSTANTINE
291 REPUBLICAN ROMAN ARMY 200-104 BC
129 ROME'S ENEMIES (I) GERMANICS & DACIANS
158 ROME'S ENEMIES (2) GALLIC S BRITISH CELTS
175 ROME'S ENEMIES (3) PARTHIANSSSASSANIDS
180 ROME'S ENEMIES (4) SPAIN 218-19 BC
243 ROME'S ENEMIES (5) DESERT FRONTIER

THE MEDIEVAL WORLD

247 ROMANO-BYZANTINE ARMIES 4TH-9TH C.
154 ARTHUR & THE ANGLO-SAXON WARS
295 IMPERIAL CHINESE ARMIES (2) 590-1260AD
255 ARMIES OF THE MUSLIM CONQUEST
125 ARMIES OF ISLAM, 7TH-I ITH C
150 THE AGE OF CHARLEMAGNE
89 BYZANTINE ARMIES 886-1118
85 SAXON, VIKING « NORMAN
231 FRENCH MEDIEVAL ARMIES 1000-1300
71 ARMIES OF THE CRUSADES
171 SALADIN & THE SARACENS
155 THE KNIGHTS OF CHRIST
200 EL CID & RECONQUISTA 1050-1492
105 THE MONGOLS
287 BYZANTINE ARMIES I I 18-1461
222 THE AGE OF TAMERLANE
251 MEDIEVAL CHINESE ARMIES
50 MEDIEVAL EUROPEAN ARMIES
151 THE SCOTTISH AND WELSH WARS 1250-1400
94 THE SWISS AT WAR 1300-1500
136 ITALIAN MEDIEVAL ARMIES 1300-1500
166 MEDIEVAL GERMAN ARMIES 1300-1500
195 HUNGARY & THE FALL OF E. EUROPE 1000-1568
259 THE MAMLUKS
140 OTTOMAN TURKS 1300-1774
210 VENETIAN EMPIRE 1200-1670
III ARMIES OF CRECY AND POITIERS
144 MEDIEVAL BURGUNDY 1364-1477
113 ARMIES OF AGINCOURT
145 WARS OF THE ROSES
99 MEDIEVAL HERALDRY

Titles continued on inside back cover

Avec annotations en francais sur les planches en couleur
Mit Aufzeichnungen auf Deutsch iiber den Farbtafeln

ISBN 1-85532-655-8

9 781855 326552