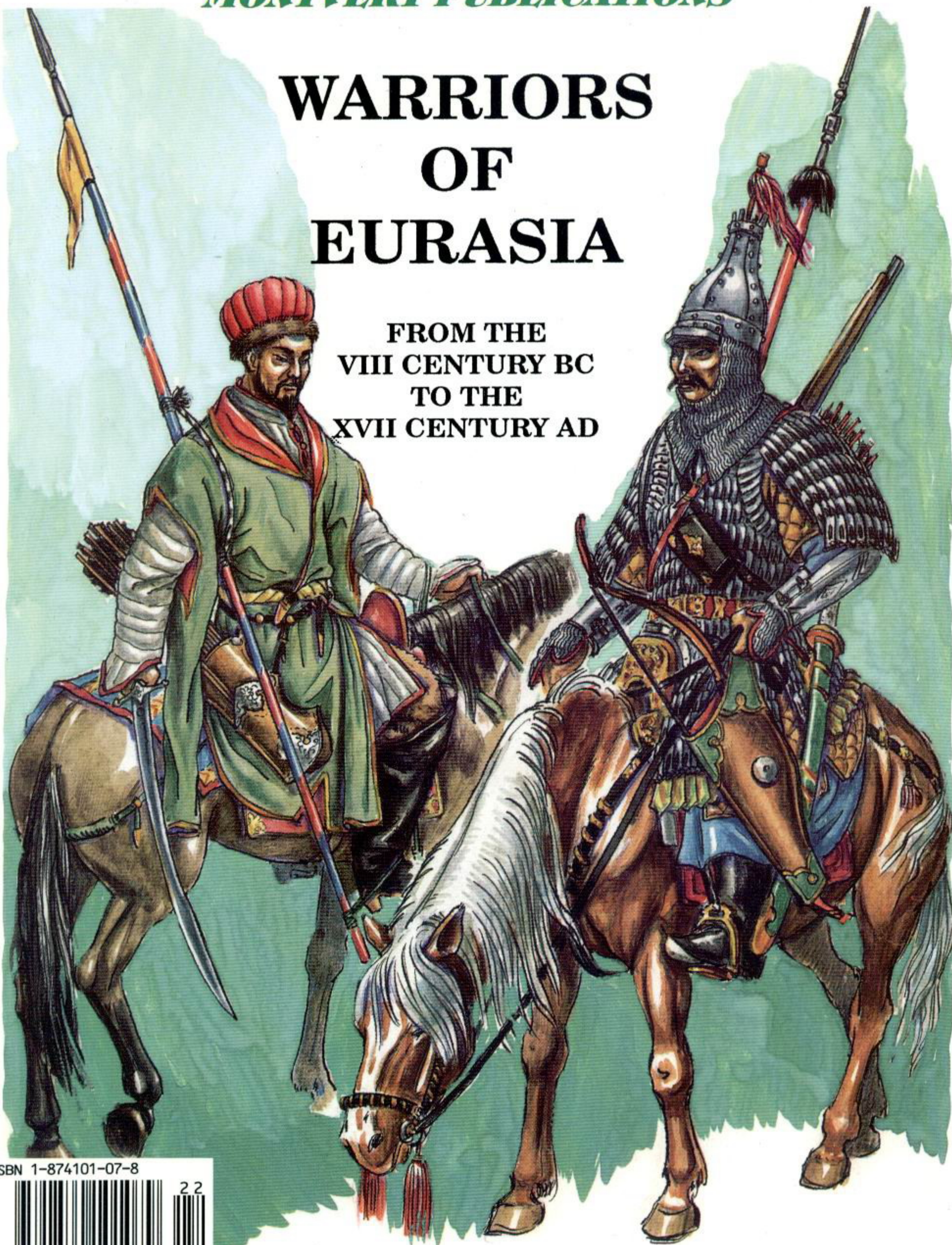


MONTVERT PUBLICATIONS

WARRIORS OF EURASIA

**FROM THE
VIII CENTURY BC
TO THE
XVII CENTURY AD**



ISBN 1-874101-07-8



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Mikhael V Gorelik

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Dr Mikhael V Gorelik

Colour Plates
by
the Author

Published by Montvert Publications

Published in 1995 by Montvert Publications

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Montvert Publications, 2 Kingswood Grove, Reddish,
Stockport SK5 6SP

Montvert Publications (Distribution), PO Box 25,
Stockport SK5 6RU

ISBN 1 874101 07 8

A CIP catalogue record for this book is available from
the British Library.

A note to the reader: This is one of a series of Montvert titles which aim to present some of the best up to date analyses of the history, dress, equipment and organization of various ancient and medieval armies.

AUTHOR'S DEDICATION

To Galina

PREAMBLE

As far as content is concerned this book represents a slight departure from others in the series, in that rather than being a detailed analysis of warriors from a relatively small 'slice' of time and geography it is something of a broad overall 'sweep'. It is the plan to deal with some of the peoples encountered in this volume in more minute detail at a further point in time. We hope and trust that the appetite of our readers has been whetted.

The colour plates and their corresponding texts have been arranged as far as possible in chronological order, although sometimes a case could be made for reversing positions. This applies mainly to Plates 3 and 4, Plates 6 and 7, and Plates 12 and 13.

In any work dealing with ancient peoples from foreign lands, spelling in English is often something of a minor problem, for example 'Genghis', 'Genghiz', 'Jenghis', 'Jenghiz' and 'Chinghis' are all spellings of the same name. Any attempt to follow a particular system completely, inevitably leads to some familiar names being spelt in unfamiliar manners and so this policy has been avoided, however endeavours have been made to use unique proper names consistently throughout. These will be found in the 'People and Places' index.

Dr. Philip Greenough (editor)

Printed by Joseph Ward Colourprint Ltd.
Dewsbury, Yorkshire

PREFACE

In ancient and medieval times the lands of what is now referred to as the former Soviet Union provided the battlegrounds for some of the most fantastic warriors history has known. The purpose of this book is to give us a glimpse of what they looked like. It features twenty-two full colour plates showing expert reconstructions of nearly seventy exotic warriors from places as far apart as from the Danube in the west to the Pacific Ocean in the east, where Chuckchi warriors even terrorised the inhabitants of the western coasts of America! Each plate is accompanied by its own text giving a short historical outline and a description of the military characteristics and arms and armour of its principals.

INTRODUCTION

War is the most tragic part of human existence, yet it has been with us since Neolithic times. Wars have been waged between neighbours either to rob or to guard against robbery of possessions and land. Strange as it may initially seem, but because of the importance of armed forces to their societies, 'warcraft' has always been the focus of great human endeavours of intellect and craftsmanship. Hence the medieval man-at-arms was virtually an embodiment of the technological and artistic achievements of his community. However, the level of a society's skills in warcraft has not always been directly in proportion to its level of technological, social and economic development. Many underdeveloped, 'barbaric' societies have displayed surprisingly effective military organization, in contrast to some highly sophisticated civilizations which have not, but, ultimately, early societies which failed to bring their level of warcraft up to sufficient standard were inevitably doomed to perish. The received wisdom that brackets nations into those with a military tradition and those to be considered as 'doves of peace' has to be rejected, for the latter cease to exist. For example, the allegedly 'peaceful' Chuckchi were up to the 19th century AD a spectacularly warlike nation who terrified all the inhabitants of the Behring strait shores. Having beaten off the Cossacks of the Tsar, they acquired unique status as a free commonwealth of the Russian Empire subject neither to the *yasak* tribute nor to Russian civil law.

Hopefully, by understanding, rather than ignoring, the military traditions and history of the past we can obtain the knowledge which will enable us to avoid the grave mistakes which end in bloodshed.

The study of ancient warcraft is a specialised and complex branch of historical study. The specialist has to analyse the archaeological record, ethnographic materials, surviving items of weaponry, different, and often conflicting, written sources, and last but not least, the visual record left to us by the fine arts. Moreover, given the conditional and, sometimes, deceptive nature of the data, a training in philological, linguistic and art study techniques is a distinct advantage. Specialists or not though, the startling discoveries of the past will never cease to amaze us.

M.G.



1C - Cimmerian horse archer, VIII century BC

FROM THE TAUROS MOUNTAINS TO THE TAURICA STEPPES

The Urartians, who spoke a northern Caucasian language cognate of those of the Chechens, Ingushs and the majority of the Daghestani peoples, flourished in the 1st millennium BC. The kingdom of Urartu, centred on Lake Van in eastern Anatolia, encompassed vast conquered areas in what are now eastern Turkey, Armenia and north-western Iran. The Urartian army consisted of infantry, outstanding cavalry and powerful chariot units. The sciences of fortification and horse-breeding for military needs were well developed. In combat Urartian warriors wore an armour made either of tied bronze plaques or of iron scales sewn onto a soft base, broad chased bronze girdles, tall bronze or (more rarely) iron helmets, breastplates or pectorals. They were equipped with shields of bronze or wood, of leather or osier with bronze bosses (*umbos*). Chargers, especially chariot horses, were barded. As offensive weapons the warriors used arrows, maces, bronze battle-axes, stone and clay balls for use with slings. Swords, daggers, spears and battle pitchforks were hammered from iron. The highly standardised Urartian weapons were manufactured according to the highest aesthetic and technical criteria.

In the early 1st millennium BC, the autochthonous population of Transcaucasia and the Caucasus spoke a number of languages akin to those spoken at present in these areas but excluding the Indo-European (Armenian, Ossetian, Tat) and Turkic (Azerbaijani, Karachai-Balkarian, Kumyk and Nogai) ones. They formed a mosaic of small independent chiefdoms or 'countries', dozens of them being named in Urartian texts. They were governed by the tribal nobility, who occasionally formed coalitions. In spite of their low standard of social development at that time, Caucasian 'countries' had enormous economic potential. They became the arms workshop of a vast region. Bronze maces, battle-axes, swords, daggers, spears and battle-pitchforks were their favourite weapons. Arrows often had obsidian heads, just hard enough to penetrate a soft armour and brittle enough to break after piercing the enemy's flesh. Wicker shields were covered with leather. Girdles of sheet bronze or leather became their favourite defensive equipment; metal plaques of different dimensions were sewn to leather armour. Bronze helmets, similar to those manufactured in Asia Minor, were occasionally worn. The warriors fought mainly on foot, with cavalry and chariots tending to be used as shock units.

The steppes from the northern Pontic area to the Aral Sea and beyond were inhabited by Iranian speaking nomadic tribes of cattle- and horse-breeders. In the early 1st millennium BC, they became the first people to put mounted archers into the field. Some of the tribes in the steppes of northern Ciscaucasia came into contact with local proto-Adyg tribes, outstanding metallurgists who produced not only bronze weapons and ornaments, but iron blades as well. In the 8th century BC hosts of mounted archers poured through the mountain passes into Transcaucasia and further to the Near East, Asia Minor and northern Mesopotamia. They became known as the Cimmerians. Their new battle order utterly surprised the enemy, and victories were gained one after another. The peoples of the Near East were eager to adopt the achievements of the nomads: the light bridle and the soft saddle, a small tight bow and arrows with superior ballistic characteristics. Besides bows and arrows, the Cimmerians used iron daggers and (quite rarely) swords. They also fought with spears, bronze Caucasian battle-axes, stone maces and picks - the archaic weapons of their ancestors. Defensive arms, except for shields of wood and leather, were almost never used. Only the noblest warriors occasionally wore armour, imported from beyond the Caucasus. The fame of the Cimmerians and their exploits has survived in the Georgian language where the word *gmiri* means 'giant'. But the lustre of their achievements was short-lived. To the north, in the steppes of Ciscaucasia, new forces were gathering . . .



2A - Scythian warrior, V century BC

2B - Pontic Greek *hoplite*, IV century BC

2C - Scythian heavy cavalryman, V century BC

THE SCYTHIANS, THE GREEKS, THE MEOTIANS AND OTHERS . . .

The great historian of antiquity, Herodotus, 'The Father of History' has described the ancient inhabitants of south-eastern Europe. Among them we know best of all (owing to the archaeological record, artefacts, descriptions and linguistic data) the Iranian-speaking Scythians, the Adyg-speaking Meotians of the Kuban region and the Greeks. Whereas the Greeks and the Scythians had come to the northern shores of the Black Sea in the 7th century BC only shortly before Herodotus' time, the Meotians were by that time rightly considered to be the autochthons of the Kuban area.

The culture of the Scythians was very much akin to that of the Meotians, though the latter were engaged in sedentary cattle-breeding and farming and the former were mostly nomads. This culture had taken shape in the mid-7th century BC as a result of Scythian campaigns in the Near and Middle East, whence they had acquired such equipment as a scaly metal armour, a cast metal helmet and a ceremonial and defensive horse bridle. The Scythians, routed by the Medes, streamed back to their bases in the Kuban region where they had played a decisive role in the genesis of early Meotian culture. Thence they conquered vast lands as far as the Danube to the west and to the latitude of Kiev to the north, and established the three Scythian kingdoms there. The population of these kingdoms consisted of the royal house, the men-at-arms stratum and free commoners. Scythian society was highly militarised. The fame and notoriety of the Scythians, who drank the blood of their enemies, used their scalps for towels and the skin of their hands for quivers, spread like wildfire. They were especially renowned and feared as matchless mounted archers, overwhelming the enemy's fighting spirit with a rain of short arrows with bronze heads, loosed from small composite resilient bows.

Yet the Scythians (and the Meotians) were not only light archers. With their javelins they were able to hit a loping hare at full gallop and to pierce armour. Their offensive gear included a short (circa 2m) and a long (circa 3m) spear, battle-axes, short and long daggers (*akinakes*) and long (70-100 cm) swords. In battle, volleys of arrows were followed by a charge with lances followed by hand-to-hand combat for which the bulk of the men-at-arms dismounted. Only the bearers of long swords were able to remain on horseback throughout.

The Scythians and the Meotians wore an elaborate panoply. It consisted of armours of different design: long-sleeved, short-sleeved and sleeveless, with long greaves, short cuisses, abdominal and shoulder pieces and semi-soft back-pieces. All these were made of leather on which iron or (more rarely) bronze scales were sewn. Helmets in the 7th-6th centuries were cast in bronze in the shape of rounded casques. Later helmets resembled scaled hats. Many helmets were purchased from the Greeks; these were often remodelled after Scythian fashion. The armour also included a battle-girdle/sword belt, often covered completely with sewn-on narrow vertical iron or bronze plaques. Very large girdles/corselets were also in use. Occasionally greaves made of vertical bronze bands sewn to leather or Greek forged *knemides* mimicking the human shin and calf were worn. Rectangular, oval and lunate shields were manufactured of thick leather, often armoured with iron strips or scales. Shields and armour breastplates were decorated with golden images of beasts or of their heads, hooves and claws.

Greek colonists brought with them from their native land Greek weapons: a short sword (*xiphos*) and a large machete (*machaira*), bronze helmets and armour cuirasses, greaves (*knemides*) and round shields covered with chased bronze. In the Pontic steppes, the Greeks could hardly use their battle formation, the phalanx. It seems likely that they used less rigid infantry formations. Moreover, they constantly enlisted local Scythian and Meotian contingents, which led to an interaction of Greek and 'barbarian' warfare.

B

3A - Saka heavy cavalryman, IV century BC

3B - Parthian heavy cavalryman, II-III century AD

3C - Kushan heavy cavalryman, II-III century AD



FROM THE HEART OF THE ASIAN STEPPES

While Alexander of Macedon was fighting valiantly in the Near and Middle East, in Central Asia and northern Indus, in the steppes of Inner Asia amidst the Saka tribes, new processes were maturing that were to revolutionise the whole system of warfare in an immense territory for centuries to come. When Alexander's cavalry clashed in their epic battle with the Persian army they narrowly avoided being crushed by its Saka detachment. Later, the Saka supported Spitamenes, the chief of the Central Asians fighting for freedom from the Macedonian king. Eventually, having forced a crossing of the Syr-Darya, Alexander's army routed the Saka. Before the crossing the Macedonians hurled missiles from catapults at the Saka crowded on the opposite bank. According to one ancient account, an arrow pierced a heavily armoured Saka warrior. Not long before this event, the Saka did not widely use costly defensive armour. It is worth noting that the full set of armour came into use amid the westernmost and the easternmost Saka tribes: in the west owing to the fight against Persian rule, in the east due to their active participation in the turmoil on the north-west frontier of China. In both cases the achievements of the Persians and the Chinese respectively in the development of defensive arms were borrowed, but the autochthonous tradition was by no means abandoned.

As a result of an interaction of borrowed and local traditions, a set of armour for a heavy cavalryman was rapidly designed. It consisted of an armoured jacket fitting at the waist, with a high armoured neck-guard, brassards of steel or hard leather bands and rings, greaves and a helmet. The latter, though originally being a cast bronze casque, was riveted or welded of several iron pieces. An armoured horse-cloth protected the charger, whose head was covered by a chamfron made of hard leather and iron.

Offensive weapons underwent some changes as well. The main weapon, the bow, became more tight after the eastern nomads, the Huns, the Saka began to make the horns of their bows longer and faced them with bone. Bronze arrowheads were replaced by the iron ones of a different size. Iron swords became widespread. It is noteworthy that their method of securing their sword belt and accoutrements, was borrowed from China. Even the pommels, the guards, the loops or scabbard slides, the scabbard tips, often made of jade, were directly imported from China. Spears were used for the first charge. In fact, all these weapons had been seen before, having been used by the Scythians and the Persians as well as by Chinese chariot fighters and infantrymen. Yet only among the Saka in the late 4th-3rd centuries, did this set of arms become prevalent amongst the heavy cavalry such that this army component turned into a decisive factor on the battlefield. The use of this set of weapons enabled the Saka and the Yuezhi to press the Huns. However, in the 3rd century BC the latter took their revenge and their western neighbours were forced to flee westwards. Amongst them were the Kushans, who in the 3rd century BC created an enormous empire which spread from Central Asia to India. In their weaponry, the principles of the Saka weapon set were most impressively accomplished, having undergone some drastic improvements.

In the 3rd century the Parthians conquered ancient Parthia (in what is now Turkmenistan). In the first centuries of the Parthian empire, the heavy Parthian cavalry gained victories over the Romans, and had domain from Turkmenistan to Syria. They wore a scaled armour of the Persian and Scythian type. Five hundred years later, when the empire was nearing its decline, Parthian knights also wore an armour of large plates joined by thongs or iron rings as well as a mail-coat invented by the Celts as early as the 4th century BC and borrowed by the Parthians from the Romans. Also from the latter came metal masks on pointed helmets. Swords, bows and spears were similar to those of the Kushans. The millennial history of the tactics of oriental knights, mounted archers, lancers and swordsmen had begun.

THE NORTHERN PONTIC SHORES ON THE EVE OF THE NEW ERA

In the late 1st millennium BC - early 1st millennium AD the northern shores of the Black Sea remained one of the centres of classical civilisation constantly in contact with the 'barbarian' world of the steppes. By this time various tribes had migrated from beyond the Don, from the steppes of the Volga region, Central Asia and Siberia. Known to classical authors as the Sarmatians, they became the supreme power in the steppes. They had routed the Scythians, partly assimilated, partly annihilated them and, having thus broken through to the Danube, began to attack the Transdanubian Dacians and, later, the Romans who had come to this region. With the latter, the Sarmatians had to clash in Crimea in the Lower Don region, in Transcaucasia where after Pompeius' conquest in the 1st century BC many Roman garrisons were stationed.

The Sarmatians scored their biggest successes in the 1st century AD. At this time, the Alanians who had moved into the northern Pontic area from the steppes of Tian-Shan, played the leading part among them. From their distant homeland the Sarmato-Alanians had brought a new military system utilizing properly equipped heavy cavalry as the shock force. Their offensive weapons were very similar to those of the Parthians and the Kushans. They included a long (some 4m) spear with a large head, a long (1m and longer) sword, with the pommel in the shape of a stone disc, in a scabbard secured to the sword-belt through a special loop or slide (such slides, of Chinese workmanship, were frequently brought directly from China), and a short dagger in a sheath with four twin loops enabling the dagger to be strapped to the right hip and to the belt. Both heavy and light cavalry were equipped with powerful bows. These were larger than those of the Scythians, long ranged and reinforced with horny facing-plates. The arrows of these bows had trilobate iron heads. The bow and arrows were kept in a *gorytos* akin to that of the Parthians and the Kushans demonstrating the common origins of cultures of those peoples. Defensive gear, however, differed. The Sarmatians of the northern Pontic area probably seldom used it and, of all the types of armour, preferred the mail-coat borrowed from the Romans. The mail-coat was often reinforced with scaled armour either in the shape of scales woven into the mail-coat or as a separate armour with scales sewn to a leather or linen base (whose form was also of Roman origin). Sarmatian armour was occasionally decorated with *phalerae*, richly ornamented metal disc-shaped twin breastplates. Sarmatian horses were but rarely barded.

The redoubtable glory of the Sarmatian knights and the effectiveness of their weaponry induced the warriors of the Bosporan kingdom, the Greeks and the men-at-arms from various autochthonous and newly-come nations to adopt completely their military system, for it must be remembered, the Bosporan kingdom, though a dependency of Rome, was entirely independent culturally.

The backbone of the Roman army was of course the *legionary*, a heavily armed foot soldier. By the eve of the new era, his weaponry had been brought to a state of perfection with respect to technology and standardisation. Offensive weapons included a pair of javelins (*pila*) with a small head on a long rod made of pig iron, a short sword (*gladius*) and a dagger. The helmet was in itself a feat of engineering, absolutely impervious to slashing strokes. Mail armour and the unique *lorica segmentata* armour of iron strips tied on the inside by vertical thongs were equally widespread, though the latter, flexible and light, was at the same time more solid than mail. The warrior was also protected by an armoured belt with an armoured 'apron' and a large wooden tile-shaped shield with an iron boss at the centre and bronze bindings along the edge.



THE BARBARIANS AT THE TURNING POINT OF HISTORY

It is common knowledge that the breakdown of the Roman Empire signalled the end of antiquity and the beginning of the Middle Ages. This breakdown was caused by the great migrations of the 'barbarians'. Moving initially only to the frontiers of the Empire, they ultimately put an end to four thousand years of ancient history. This great movement began from the heart of Central Asia. The Huns, proto-Turkic nomads who in former times had crushed the Kushans and the Saka and terrified China, were routed in Mongolia by the proto-Mongols, the Sienbi, and moved west. These bearers of a well-developed nomadic culture enriched by Chinese influence mixed with local Iranian-speaking cattle-breeders in Central Asia and the Tian-Shan region, and created in the 3rd-4th centuries AD a magnificent set of weapons based on Central Asian traditions of the early 1st millennium AD. It consisted of a long cavalry spear with a pennant or a bell attached to the shaft, a long two-handed double-edged (sometimes single-edged) sword and a dagger either strapped to the right hip or slung from the belt at the front. The main weapon of the Huns was an enormous bow with bone and horny reinforcing facing plates. The bow was kept in a *gorytas* either strung or unstrung. The defensive arms were very rich including a helmet of iron strips crowned with a finial, bearing a plume or a figurine of a fabulous beast with a leather or a mailed camail. The throat was protected by a high armoured gorget. Mail was widespread, although it was worn underneath a more solid long lamellar armour (composed of strapped together plates) with a scaled 'pelerine', shoulder pieces and brassards (both made of steel strips). Greaves of steel strips were secured to overlap mail chausses. The equipment of the Huns and their horses was richly adorned with gold and silver plaques with inlaid red stones or glass.

The Huns, who had mixed with the Ugriic tribes and the Sarmatians and wiped off the face of the earth those who stood in their way, became known to the entire world. The appearance of a Hun warrior of the 3rd-4th centuries AD west of the Urals slightly changed in comparison with former times. Mail became even more widespread, the helmet more rounded and occasionally made in two parts. All this was due to the Roman influence, however, the Huns' warcraft, in its turn, greatly influenced that of their neighbours and adversaries, the Sarmatians and the Romans.

In 375 AD, in the steppes of the Lower Dnieper, the Huns routed the troops of the state of the Goths, a Germanic people who had lived along the Dnieper and the Dniester for more than 150 years and who had recently been Christianized. Then both the Huns and the Goths pounced upon the Roman Empire.

In the 4th-5th centuries, the armament of the Goths (as well as that of other Germanic tribes of Central Europe) comprised a long dagger, the *saxe*, a spear, javelins and a long sword derived from the late Roman cavalry sword, the *spathia*. Battle-axes were also in use. Simple bows were made of a single strip of wood. Arrows were kept in a cylindrical wooden quiver strapped to the back. The Gothic noblemen who fought mounted had, besides swords, a rich defensive panoply in which the Roman traditions and the Germanic achievements had been synthesised. Most often they wore a mail-coat, sometimes with long sleeves and a mail coif. The egg-shaped helmet was composed of four or two parts tied by a wide framework, richly adorned and gilded. The helmet had cheek-pieces and often also a camail and was crowned by a hair or feather plume. Large round shields were made of planks. They were occasionally covered with leather and painted. The edges of the shield were reinforced by iron clips; at the centre there was a rounded iron *umbo*. Shields were often adorned with laid-on metal figurines of birds, beasts, mounted and foot warriors as well as with crosses.

5A - Middle Asian Hunnic heavy cavalryman, V century AD

5B - East European Hunnic heavy horse archer, V century AD

5C - Gothic warrior, V century AD



ON THE GREAT SILK ROAD

The 6th-8th centuries saw events of global importance take place in Eurasia. These were connected primarily with the activity of Turkic tribes whose homeland had been situated in Mongolia - in the Mongolian Altai, in the Hangai, in the Orkhon valley. Thence the Turki, having made their kindred nomads join them, went to conquer new pastures and sedentary subjects. The lands they conquered stretched from the Baikal region to the Caucasus, but the Turkic empires, the *qaghanates*, were short-lived though constantly revived under the rule of one and the same royal house, the Ashina. The military power of the ancient Turki was based on their powerful cavalry, consisting of mounted archers equipped with composite long bows with whining arrows. The arrows were kept in a stocking-shaped case slung from the belt on the left side (the whole set was called *saadak*). The warriors also carried fairly long battle-knives (often also swords) slung from another belt. This sword-belt was, so to speak, an 'identity card' of some sort; its fabric and shape, the number and position of metal plaques indicating precisely the social position of its owner. The heavy cavalry formed the shock strength of the Turkic army. The horsemen were equipped with long cavalry spears, a sword, a broadsword or (in later times) a sabre; often a battle-axe with a small head was also used. They wore helmets constructed from several riveted pieces with a plume and a mail tippet of chains or camail of tied plates, and a lamellar armour whose plates were made of steel or thick and hard lacquered leather. They had fairly large round wooden shields, sometimes greaves and brassards. The steeds of the heavy cavalrymen were often protected by chamfrons, neck bards and 'horse-cloths' of tied iron or leather plates.

Control over the Silk Road, which connected China with the West and the Near East, was one of the economic pillars of Turkic empires. Along this route were situated the colonies of the Iranian-speaking Sogdians, artisans and merchants whose core area had been the regions of Samarkand, Bukhara and Pyanjikent. In the 7th century these cities reached their heyday only to fall under the blows of Islamic invaders. The victorious Arabs, having routed one by one the Sogdian rulers, had cleared the way to Central Asia for the islamised eastern Persians, the Tajiks.

The Sogdian warriors, the smallholders (*azats*) and big landowners (*dihkans*) used high-quality weaponry either of local origins or borrowed from their suzerains, the Turki. The local tradition was represented by narrow long swords and daggers, while knives and broadswords as well as *saadaks* were borrowed. Unlike the Turki, the Sogdians preferred mail-coats and mail chausses, yet for greater safety, a long lamellar armour was worn on top. Over the armour, a leather 'pelerine' to which shoulder pieces were attached was worn. The head was protected by an elegant spheroconical helmet with ornamented ear-pieces. A camail often covered the entire face except the eyes. Underneath the helmet a leather quilted comforter was worn, that could occasionally be used independently. The arms and legs were protected by articulated brassards and greaves made either of single plates or of 'bracelets'. Sogdian shields were always round, made of wood covered with leather. The larger shields bore a mask of a monster (a reminiscence of the Greek Gorgons), the smaller ones were covered with black leather and reinforced with a decorated border and four or five iron bosses. The steeds, in all probability, were not barded, yet the bridle was equipped with a curb for better governing. A metal chamfron was used. Magnificent painted images of Sogdian knights charging the enemy in close order, with their spears thrust forward have survived. Even after the Arabian conquest, the traditions of the Sogdian knights and their equipment remained for a long time a model for the men-at-arms of the Middle East and Central Asia.



6A - Sogdian warrior, VII century AD
6B - Turk heavy cavalryman, VI century AD
6C - Sogdian noble heavy cavalryman, VII century AD

THE 'ROMANS', THE SLAVS AND THE AVARS

In the 6th century AD in Eastern Europe, in the northern Pontic steppes in the Balkans and in the Lower Danube, events of great importance were taking place. The Eastern Roman Empire, Byzantium, acquired a military strength hitherto unheard of and was resolutely re-establishing the former frontiers of the great empire. North Africa and Italy, as well as other areas came back under the aegis of Constantinople. Dependencies of this 'Second Rome' were also situated in the Crimea, in Abkhazia and in part of Armenia. The Byzantine army consisted of the most heterogeneous contingents, including professional units, conscripts, warriors recruited from the dependent population, and tribal 'barbarian' corps serving for money. Tribal corps had their own weapons, but other units were, as a rule, equipped by state armouries. However, both the 'barbarian' mercenaries and the neighbours of the Empire did their best to acquire a variety of high-quality Byzantine weapons.

Offensive weapons varied according to the branch of the army. The light infantry was equipped with javelins, slings and daggers. Composite bows, powerful and resilient, used both by foot soldiers and cavalymen, were akin to those of the Parthians and the Huns. They were worn about the neck while arrows were kept in a cylindrical quiver on the back. Heavily armoured warriors, either mounted or unmounted, were equipped with long spears and swords, with scabbards usually slung from a shoulder-belt. Defensive gear comprised a large round or oval shield made of wood covered with richly decorated leather, with a high iron *umbo* and a helmet of several riveted pieces with cheek-pieces and a crest. The warriors wore either a mail hauberk, sometimes with a hood, or a lamellar (made of plates attached to each other) or scaled (made of plates sewn to a soft base) armour, as well as long high-necked shirts, hose and shoes and a cloak with a hood.

In the 6th century the Slavonic tribes that had reached the Lower Danube became the main threat to the Empire. In the 5th century, the Slavs spread in all directions from their homeland (situated north of the Carpathians), were inducted into the Hun kingdom and warred against the Goths. Slavic warrior bands raided the Byzantine territory, drove away cattle, plundered, killed or carried away people. In more than one place the frontier of the Empire was broken through and whole clans and tribes of Slavs populated Thrace (what is now Bulgaria), the larger part of the Balkans and some areas of Greece. The Empire retaliated with punitive expeditions, yet at the same time tried to enrol the Slavs as soldiers for they were considered to be powerful, adroit, sturdy and courageous warriors. They were equipped with javelins and spears, battle-axes, small simple bows with poisoned arrows and were protected by enormous wooden oval shields or small round ones. They wore long narrow trousers, leather leggings, sometimes also embroidered shirts and cloaks.

The main threat to both the Slavs and Byzantium came from the steppes north of the Black Sea. These were invaded by the Avars, Turkic-speaking nomads from Central Asia, who had routed the southern Slavonic tribes and included them into their kingdom. Byzantium was attacked by Slavic infantry followed by Avar cavalry. The Avars brought to Europe a saddle with high pommels, stirrups and straight single-edged blades which they later transformed into sabres. The heavy cavalry of the Avars wore helmets which were either riveted or made of narrow strips of iron tied together, with a finial and a panache, ear-pieces and mail tippet (camail), a lamellar-armour cuirass with shoulder-pieces, cuisses and brassards of iron strips. Round wooden shields were but rarely used. The Avars also brought to Europe special heads for cavalry lances, quivers of a specific shape, and long bows kept unstrung in a stocking-shaped case. Even the long caftans of the Avars came into vogue in Constantinople.

A

7A - Avar heavy cavalryman, VII century AD

7B - Slavic tribal warrior, VI-VII century AD

7C - Byzantine heavy infantry, VI century AD



THE KNIGHTS OF THE STEPPES AND FOOTHILLS

After the Hun invasion and the migration of the Avars, the steppes of the Don and the Kuban, the foothills of Daghestan and the Volga area were inhabited by Turkic tribes, the remnants of the Hun 'empire'. The majority of these were called Bulgars or Bulgarians. Their languages formed a distinctive group within the Turkic family (among the modern Turkic languages, only the Chuvash belongs to this group). In the second half of the 7th century the Bulgarian tribes of Ciscaucasia and the Azov Sea region formed three states: the Savir kingdom on the shores of the Caspian sea, the Great Bulgaria khanate in the Kuban area and the Azov sea region, and the Khazar qaghanate in the Daghestan steppe. In the late 7th century the Khazar qaghans belonging to the noblest royal house of Ashina, which had ruled over the Ancient Turkic qaghanate, crushed Great Bulgaria ruled by the khans of the noble Turkic house of Dulo. Some Bulgarians fled to the Danube, some to the Volga, but the majority of them submitted to their kinsmen, the Khazars. In the early 8th century the Khazar qaghanate like a great many oriental states was invaded by the Arabs. Yet, unlike the peoples of Central Asia and Transcaucasia, the Khazars, in spite of several lost battles, succeeded in upholding their independence thereby shielding Eastern Europe from Arabian conquest. However, they had to leave ravaged Ciscaucasia for the Lower Volga region where their capital had been founded, and the Don region where Khazar fortresses were erected. These were surrounded by the sites of Slavonic farmers and Alanian artisans. The Iranian-speaking Alanians, the descendants of Sarmatians and the ancestors of the Ossetians, were included into the Khazar qaghanate and spread up to the Crimea and the Don region. The Khazar rulers reigned over the lands from the Middle Dnieper (where in Kiev, the centre of the Slavonic tribe of the Polyans, the residence of the Khazar governor, the *tudun*, the Shambat-Mankermen fortress, was situated) up to the Middle Volga.

The principal strength of the Khazar army was the several thousand-strong guard of the qaghan which served for pay, and the forces of Khazar, Bulgarian and Alanian chiefs. The army consisted of heavy and light cavalrymen. Their war-gear maintained the traditions of the Turkic qaghanates, but was subject to influences from the Caucasus, Byzantium and Central Asia. A powerful composite bow and arrows were the most important weapons. However, the sabre (together with the broadsword) assumed an ever-growing importance. It acquired at the time its 'classical' shape. To a cavalry spear, battle-axes, preferred by the Alanians, and flails with weights, cherished by the Khazars, were added. Long battle knives were very popular. More rarely pairs of knives that seem likely to have been missile weapons are encountered. Defensive gear was abundant. Riveted sphericoconical helmets with mail tippets, mail and lamellar armours were worn by everyone. Probably, the Khazars possessed additional pieces of equipment redolent of Central Asia, the homeland of their rulers, typically brassards, greaves and bards. Khazar armour was fairly original; its plates were clamped by iron rivets but not too tightly so that the armour remains flexible. This method of manufacture was more laborious, but rendered the armour more resistible. Round wooden shields were reinforced by a high round iron *umbo* at the centre. In the second half of the 9th century a wave of Magyar (Hungarian) nomads poured west from the south Urals. The Magyars were friendly with the Khazars and embraced numerous elements of their culture, including warfare, yet conserved their own quite impressive traditions showing a strong Central Asian influence. Their heavy cavalry was akin to that of the Khazars, Bulgarians and Alanians, but looked smarter and more 'Asiatic'. At first, the Magyars settled in the Lower Dnieper region and terrorised Danubian Bulgaria and Byzantium, but were in their turn routed by the Pechenegs. They then went up the Dnieper, past Kiev and through the Carpathians reaching their new homeland in the late 9th century. During this movement the Magyars came into contact with the Slavs of the Dnieper region, and Slavic warfare became enriched with Magyar elements.



8A - Khazar noble heavy cavalryman, VIII-IX century AD

8B - Magyar noble heavy cavalryman, IX century AD

8C - Alanian noble cavalryman, X century AD

M. Gorkin

FROM THE URALS TO LAKE BAIKAL

In the 9th-11th centuries, when in Eastern Europe the early Russian kingdom was arising and becoming firmly established, west of the Urals equally large and warlike 'state formations' of Turkic-speaking nomads were taking shape. The qaghanate of the Kimak tribe, stretching from the Irtys' river to the Tian-Shan was the largest, yet at the same time the most precarious among them. The Kimaks not only raised cattle in the steppes, they built impregnable strongholds with high walls and deep moats. Kimak armourers supplied their warriors with pointed helmets, either forged or riveted of steel sections, with mail tippets. The warrior's body was also protected by mail, often supplemented with a lamellar cuirass made of a set of attached-together plaques. Long spears, broadswords and sabres, small battle-axes, flails and indispensable bows and arrows were all used as offensive weapons. Round shields were sometimes used. It seems likely that bards, probably of quilted leather or thick felt, were not unknown. The steppes of Minussinsk (what is now Khakassia) were the homeland of the Kyrghyz, who in the 9th century, as earlier, refused to be subordinate to the *qaghans*, the rulers of Central Asia. They spread from their native hollow to the vast southern lands, routed Uighur troops, conquered Mongolia and Tuva and extended the power of their rulers, the *azhs*, to the eastern limits of the Kazakh steppes and the Baikal area. This empire did not last long; a hundred years later the Kyrghyzes left the vast lands which were of no use to them. However, they went on ruling southern Siberia for many centuries while the Kimak state collapsed fairly soon; the Kypchaks (Cumans) as well as a number of other tribes set up on their own. The weaponry of the Kyrghyzes, though fairly similar to that of the Kimaks, had its own distinctive traits. Kyrghyz helmets were not so perfect from the technical point of view. Mail was unknown, only lamellar armour being used. The archaic character of their weaponry was emphasised by the use of wooden elements of armour including brassards, shoulder-pieces and greaves. The Kyrghyzes did not use flails and maces, but small battle-axes were widespread and, besides sabres and broadswords, swords were widely used. Among the finds of Kyrghyz weapons, fine blades imported from Central Asia and Iran, are encountered. Of particular interest are metal ornaments from Kimak and Kyrghyz panoplies, namely belt plaques and horse harness buckles. Of very similar forms, they are of striking finesse and splendour of ornamentation, showing diversified and elaborate designs.

In the 10th-11th centuries the power in a number of states was seized from Islamic nobles of Iranian and Arabian origins by Turkic warlords, either the chiefs of independent tribes or *gulams* (bought slave soldiers). For upon becoming a ruler of an Islamic state one had to adopt Islam, and the new converts, though not well-versed in Islamic commandments, had become the most ardent fighters for their new religion. The interaction of the steppe and sedentary traditions engendered in Central Asia and eastern Iran certain interesting forms of weapons and military equipment. Helmets with camails carried on the Sogdian tradition. Defensive armour combined a lamellar, mail or quilted armour with long mail or quilted oversleeves and a quilted hem. Cavalry shields were round, those of the infantry were large and oval. Tops of the boots made of hard leather served as greaves. Steeds were fully protected by bards of painted leather. The rich array of offensive weapons comprised spears and javelins, sabres, swords and daggers, maces of different shape, battle-axes, picks, bows and arrows, slings and arbalests.



9A - Kyrgyz heavy cavalryman, IX century AD
9B - Kimak noble cavalryman, X-XI century AD
9C - Oguz heavy cavalryman, XI-XII century AD

THE VIKINGS, THE VARANGIANS AND THE RUSSIANS

Eastern Europe, like a great many European areas, became, in the 8th century, the arena of activity of the Scandinavian Vikings - warlike and mercantile bands. These bands consisted of free commoners, the *bonds*, of outlaws banned from the community for some offence and warlike nobles, earls, who led them. Usually the Vikings were seafaring merchants and pirates, but on the mainland they acted as foot companies (old Norse *druots*, hence the Finnish *Ruotsi*, 'the Swede', hence the Slavic *Rus*, 'the Russians'). The Vikings gradually settled in the centres of inter-tribal and international 'barter' along the Volga Road from the Baltic to the Caspian Sea. They usually maintained peaceful trading relations with the aboriginal Finnish tribes of the Baltic sea shores and Volga area and the Slavs of north-eastern Europe. Eventually, however, some bands headed by their leaders tried, often quite successfully, to seize power over the local populations. In the 8th century, the Swedish Vikings who had founded the Aldegjuborg site (what is now the Old Ladoga) and exacted tribute from the aboriginals, played the major role in this process. In the mid-9th century the Swedes were driven out, but an intestine war compelled the chiefs of the Slavonic tribes to transfer power to a Jutland earl, Rurik. The latter came with 'his house' (*sin hus*) and 'faithful warriors' (*treu waer*). These Scandinavian idioms have survived in early Russian annals, but have been interpreted incorrectly as proper names; the chronicle says that Rurik came to Russia with his two brothers, Sineus and Truvor. The city of Kiev that had flourished under the Khazars as a northernmost outpost of the Khazar empire was seized first by the former men-at-arms of Rurik, Haskjold and Tyr, then by a parent of Rurik, Helgi. The latter was succeeded to the throne by Rurik's son, Ingvar, whose dynasty reigned over Russia up to the 15th century. All these perturbations exerted their influence on the formation of the early Russian set of arms. The Vikings in the 9th-10th centuries preferred swords with Frankish blades imported from the Rhine area, and mounted in Scandinavia. They also fought with battle-axes and spears with long, either narrow or very broad heads. They wore a mail-coat, a rounded helmet with a half-mask or a 'blind' camail and were equipped with a round wooden shield with an iron *umbo*. Distinguished warriors (the Varangians or *waering*) were adorned with torques and arm-rings. The weapons of the Slavs in the 8th-9th centuries comprised, as in earlier times, spears, javelins, battle-axes and bows. They protected themselves with large oval shields. The Russians of the Dnieper area, especially the inhabitants of Kiev and Chernigov, borrowed many elements of weaponry from the steppe peoples, the Magyars and Khazars. To Scandinavian shields and swords were added sphericoconical helmets of the steppes, a distinctive bow-set and richly decorated belts. Mounted combat became more and more widespread and the attention of the Russians was attracted by the steppe sabre. In the north, horse harness was decorated after the Scandinavian fashion, while in the south it was hardly distinguishable from the Magyar or Khazar types. As a result of a symbiosis of the Scandinavian and the steppe Khazaro-Magyar cultures based on the local Slavic and Finnish substratum, an original set of 'west-east' weaponry was created. It was lighter than the oriental set, more diversified than the occidental one and very smart. By the 10th century, practically all the elements of weaponry and military equipment of the new state of Russia, could have been manufactured in the workshops of the principal cities of the 'qaghan of the Russians' in Kiev, Chernigov, probably also in Ladoga, Novgorod, Smolensk and Polotsk.



10A - Viking warrior; X century AD

10B, C - Dnieper Russian warriors , X century AD

M. Gorelik

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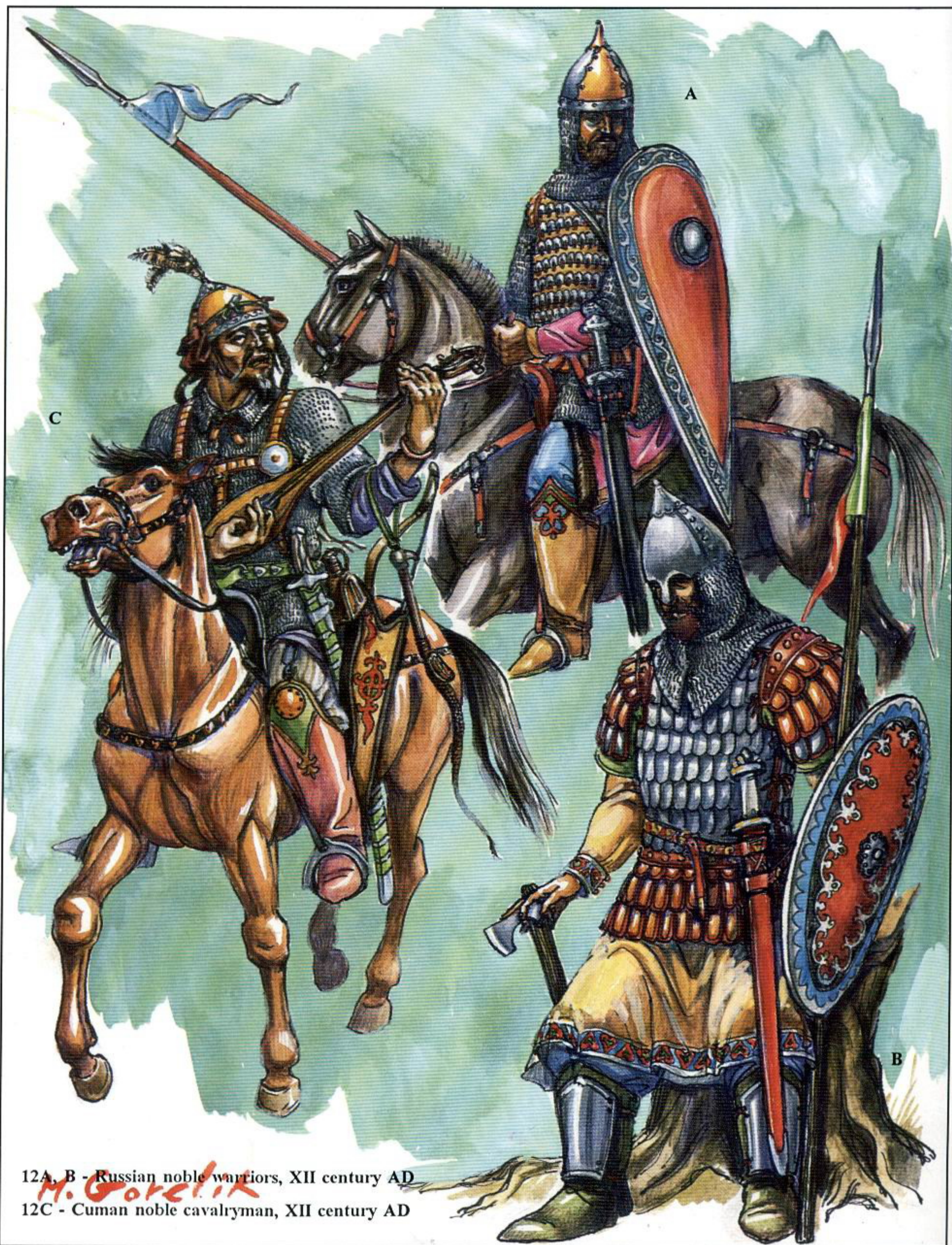
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Where words share an identical root only one entry will usually be found covering all variations, for example 'Bulgars' appears and represents also 'Bulgar', 'Bulgaria', 'Bulgarian' and 'Bulgarians' as appropriate.



FROM THE BALTIC BREAKERS TO THE VOLGA

In the 9th-11th centuries, north, west and east of the Middle Dnieper and the Ladoga area, the heartlands of the Slavonic tribes, was to be found an immense milieu of Baltic and Finnish tribes. Some of these became nations with a sophisticated culture (the Lithuanians, the Estonians, the Latvians, the Karelians, to some extent also the Vepsians, the Prussians, the Mari, the Mordovians). Some conserved their primitive way of life (the Vodians, the Izhorians, the Kurshians) whereas some were assimilated by the Slavs (the Merians, the Muromians, the Meshcherians, a part of the Vepsians). It is worth noting that the fate of an ethnos often depended on the standard of its military equipment. Baltic tribes, for instance, created an original and impressive set of weaponry. It included battle knives (often of such dimensions that they may well be called single-edged swords), battle-axes with a relatively narrow blade, in the case of the Latgallian often reinforced with a bronze band on the handle, and spears and javelins with medium-sized heads of a characteristic shape. The Lithuanian tribes developed a sword pommel of distinctive shape with two volutes. The Baltic nobility often used imported Scandinavian swords, big spearheads and battle-axes. Baltic warriors were not very fond of bow and arrows and, apparently, preferred hand-to-hand combat. The nobles fought on horseback, a horse cult becoming widespread among the Lithuanians and the Prussians. Their weapons were richly adorned with bronze bindings, chased, engraved or incised. Sword-belts and spears were similarly decorated. The Lithuanians and Prussians created an especially splendid horse harness. Whilst offensive weapons were abundant, there was practically no defensive armour. There existed only local round wooden shields covered with leather or skin, occasionally with an iron *umbo*. Only the Lithuanians and Prussians had helmets. These were rare and mostly of foreign manufacture. The arms were protected by thick bronze bracelets particularly popular among the Latgallians. The weapons of the Vepsians, Merians, Muromians and Meshcherians were scanty and archaic: javelins, small battle-axes (sometimes socketed), knives, bows and arrows. These tribes were defenceless before the forces of Kiev. On the contrary, the south-eastern, steppe panoply of the Mordovians enabled them to resist bravely the onslaught of the Russian princes. Only in the late 12th century did the Mordovians have to withdraw from the lands where Nizhni Novgorod was founded. Even when they came under the rule of the Golden Horde, Mordovian princes were relatively independent. Mordovian warriors carried sabres and broadswords, battle-knives, steppe bows and arrows with appropriate cases, light battle-axes, spears and sword-belts with metal plaques. Yet many elements were of local design akin to that of the Baltic weapons. The Mordovian nobility, like that of the Lithuanians, was mounted but in their case preferred lashes to spurs. Volga warriors, like their Baltic counterparts, practically did not wear any armour giving their adversaries an advantage over them.



12A, B - Russian noble warriors, XII century AD

12C - Cuman noble cavalryman, XII century AD

THE GOLDEN AGE OF RUSSIA

By the end of the 10th century the 'heroic', 'barbarian' period of Russian history was nearing its end. The echo of the far-reaching campaigns of Igor's son Sviatoslav subsided. The Trans Eurasian trade route shifted from the Volga to the Dnieper. From that time on the commerce between the Varangians and the Greeks, from Scandinavia and the north of Eastern Europe to Byzantium, southern Europe and the Near East, was wholly under the control of the ruler of Kiev, the 'qaghan of Russia'. The Balkan adventure of Sviatoslav that had ended in his own death deprived the new state of its most restless and active element, the Russians of Scandinavian origin, thousands of whom had perished in the fields and gorges of Bulgaria. Conversely, the positions of the autochthons, Slavonic and Finnish nobility, became stronger. Owing to the activity of their restless qaghan they became acquainted with the outside world. The eldest, unloved son of Sviatoslav, Vladimir, worked hard at strengthening the ties within his kingdom which stretched from north to south. He succeeded in binding together Kiev and Novgorod, and his unifying efforts were crowned by the adoption of Christianity as the unique religion of his multinational empire. Immediately, from Eastern Rome to Russia, flowed not only theological teaching and wonders of church art, but also military tracts and 'vogues' in accordance with the image of the Byzantine apotheosis of a Christian warrior. The external impetus from Byzantium was, essentially, the 'last piece in the jigsaw' in the development of the Russian set of armament. During the following centuries it evolved only as a result of internal changes. The weaponry of a Russian man-at-arms, who was usually mounted, included a sword of a Frankish type decorated in a local Christiano-Byzantine style, a Slavonic battle-axe, a spear of either the European or the steppe type, a flail of steppe origin and a Kiev mace with cut spikes. He wore a helmet of a form borrowed from the south-east through the steppes, a mail hauberk, a scale or a lamellar armour of Byzantine type and was equipped either with a large drop-shaped shield of Byzantine origin or with a round shield, popular in the steppes, but decorated after Byzantine fashion. In the 12th century some minor elements, including greaves of forged plates were added to this set of arms. Armaments were gradually becoming more standard and easier to manufacture. This fact was probably due to the increase in production. The Russian set of weapons was akin to that of the European men-at-arms, yet the Russian armour was more solid and heavy owing to scaled and lamellar armours which either supplanted or even supplemented mail armour, the predominant armour of western Europe. Moreover, the Russian man-at-arms was an archer, differentiating him from his European counterparts. On the whole, the Russian set of arms is akin to that of the noble warriors of the Balkans and the Near East, Central Asia and Iran.

In the 11th-12th centuries a new rival to Russia emerged from the steppes, namely the Cumans. This great people failed to form a kingdom yet created several chiefdoms and attacked Russia. After the first successes of the Cuman troops the punitive campaigns of the Russian princes followed. Gradually an unstable equilibrium was established. The Cuman khans, in-laws of the Russian princes, became involved in intestine wars in Russia. This fact even led to the christening of many an eminent khan. Cuman warriors were invariably mounted archers. The nobles were also equipped with sabres and spears. They used mail and, rarely, round shields and helmets. The latter were richly decorated being exclusive to the nobility.

The weaponry of the so-called 'black hoods', Turkic tribes serving the Kiev kingdom and constituting the bulk of its cavalry, was akin to that of the Cumans.



13A - Georgian noble heavy cavalryman, XI century AD
13B - Armenian guardsman, IX century AD
13C - Noble heavy cavalryman from the Atabeg states in Arran and Azerbaijan, early XIII century AD

BEYOND THE CAUCASUS

The 10th-13th centuries saw the heyday of medieval Transcaucasian culture. Yet there was no political stability; there existed a state of constant war between the rulers of the Abkhaz and some Georgian kingdoms, the Armenian kingdoms and principalities, the rulers of Arran, the shahs of Shirvan, the emirs of the Ildengizi dynasty and many others. (Note, that Arran is ancient Caucasian Albania, the present-day Azerbaijanian Republic, which in fact, except for the Nakhichevan area, has nothing to do with historical Azerbaijan which is an area of Iran, Arran only being given the name of Azerbaijan in the 1920s).

The main strength of the armies of the Christian states of Armenia and Georgia was their cavalry, who were akin to European knights and constituted a privileged military nobility. They formed contingents of heavy cavalry and light mounted archers. The weaponry of these countries was based on Byzantine armaments and, to a certain extent, on those of the Islamic Orient with some nomadic Turkic innovations. Among the offensive weapons swords, spears, javelins, maces, battle-axes, composite shafted weapons of the halberd type, composite bows and arrows were prevalent. Divers and elaborate items of defensive gear were also widespread. Bell-shaped helmets sometimes had a nasal or a neck-piece and were always equipped with a mail tippet. The warrior's body was protected by a mail or a splint armour. The latter could reach the waist, the hips or the knees, and could be sleeveless or have short or long sleeves. The structure of the armour was usually lamellar or, more rarely, scaled. In Armenia, moreover, broad lamellar collar and articulated brassards made of horizontal bands of metal were used. Shields were round or (rarely) drop shaped. Bards, apparently, were not utilised.

Our knowledge of the weaponry and warcraft of Islamic Arran before the 12th-13th centuries remains obscure, but for after this period we have reliable written and graphic sources. Noble warriors played a more modest role here though they formed heavy cavalry. Light cavalry and foot archers were recruited as slave soldiers (*gulams*) and from warlike pious citizens - 'fighters for the faith' (*ghazi*). The weaponry of the Arranian shock cavalry was typical of Moslem knights. They were equipped with swords and sabres, spears and maces, powerful small bows and protected by mail and soft quilted armours, *khaftan* and *gazaghian* (hence the words *caftan* and *kazakin*, Russian traditional outer garments) and a lamellar armour, *javshan*. Helmets (usually egg-shaped) had a half-mask with camail or a 'blind' mail tippet. Round shields were either large and flat or small and convex. Drop-shaped shields were also used. The horse cloth covering the steed completely was borrowed by the Moslems from their European counterparts, the crusaders. A characteristic trait of adornment of helmets, shields and horse-cloths in the areas connected with Asia Minor was the abundant use of tassels.

The fame of Transcaucasian weaponry was won, not only by brilliant victories of Georgia under Queen Tamar, the Armenian kingdom of Cilicia and the Ildengizi emirate, but by the skilled armourers who manufactured the weapons and the fearless merchants who sold them everywhere.

14A - Russian noble guardsman, middle XIII century AD

14B - Mongol heavy cavalryman, XIII century AD

14C - Mongol horse archer, XIII century AD



M. Gorelik

14 THE HARD CENTURY

The 13th century began with wars. Russian duchies and Cuman khanates warred with each other, forming coalitions with Lithuanian tribes, Polish princedoms, and Swedish and Hungarian rulers. In Transcaucasia a similar state of affairs prevailed. In Central Asia and Mongolia and southern Siberia, two gigantic young empires emerged: the empire of Khwarazm, ruled by Shah Muhammed, and the empire of the qaghan Temujin, better known to us as Genghis Khan. In the Far East the towering Chin empire seemed invincible.

In Russia the set of war-gear was getting heavier and, simultaneously, its elements were becoming standardised and simplified, a process akin to that taking place in Europe. Swords became narrower, battle-axes became heavier, spearheads more massive. Judging from archaeological finds and pictorial evidence, the Russian men-at-arms of the 13th century wore mail and armour made of plates either sewn to a leather or cloth base or else attached to each other by thongs. They also wore mail solerets of a type borrowed from Europe. From the late 12th century onwards, helmets with masks or half masks in the shape of a human face came into vogue both in Europe and in Asia, and Russian warriors took up this fashion.

The Mongol army gained innumerable victories and in half a century ensured the rule of the descendants of Genghis Khan in the greater part of Eurasia. It used sophisticated tactics and strategy, even utilising advanced engines of war, and was excellently armed. The host consisted exclusively of horse, both heavy and light. The warriors all used their powerful (more than 60 kg of tension force) bows to great effect. The arrowheads were of different size and shape. The Mongols were equipped with spears with a hook on the socket. Sometimes battle-axes and, very often, maces were used.

The defensive armour of the Mongols carried on Central Asian traditions, yet in many ways was quite original. Mongolian corselets, *khuyags*, were made of iron, steel and sometimes of bronze, often of leather, thick and hard as plywood. Quite often in a single 'suit' of armour, different systems of armouring were combined.

15A - Russian noble warrior, XIV century AD

15B - Lithuanian warrior, XIV century AD

15C - Golden Horde heavy cavalryman (*oglan*)
, 2nd half of the XIV century AD



M. Gorelik

RUSSIA, LITHUANIA AND THE HORDE

In the second half of the 13th century and throughout most of the 14th century major events in the history of Eastern Europe took place. For over a century this region was dominated by the rulers of the Golden Horde, the descendants of Juchi, Genghis Khan's son. They governed not only through their mighty army, but also through political manoeuvring. North-east Russia was a tangle of warring states whence, under Duke Ivan Kalita rose Muscovy, while south-west Russia became a part of the Lithuanian-and-Russian Grand Duchy.

Major changes in weaponry occurred at this time owing to the interaction of the war-gear of Central Asia, the Moslem Orient (due to the Islamisation of the Golden Horde), Russia and Central Europe. Russian weaponry was itself subject only to slight changes. There emerged ear-pieces added to helmets, breastplates on cuirasses, richly adorned quivers, and armours whose soft base was reinforced with large rectangular steel plates from both the inner and outer sides, the Russians calling this armour by its Turkic name, *kuiak*.

Lithuanian weaponry belonged on the whole to the Central European tradition, though it had its own particular traits. Europe and Lithuania adopted (as a result of their acquaintance with the armoured cavalry of the Mongols) heavy armour of large iron plates riveted to a soft base, as well as the lamellar armour long since used in Russia. Sabres of the European type and Tatar type (later also sabres of the Hungarian type) served as close-combat weapons. Bows of the steppe type, and javelins were used for long-range fighting.

The weaponry of the Horde probably made the most rapid progress. Her artisans, having appreciated the handiness of ring-mail, succeeded in overruling its relative lack of solidity; we encounter for the first time armour where mail is interwoven with steel plates, first rectangular and then narrow. Such armour was called *javshan*, a Persian word; its narrow-splint variety was called *bekhter*. The sabre was drastically improved; it became more curved, the blade grew wider, the third or quarter nearest the tip even wider still and called *elman*. A type of lance with a narrow head became the most widespread type of spear.

- 16A - Italian consul in the Crimea, 1377 AD
16B - Ottoman *janizary*, middle XV century AD
16C - Crim Tatarian *myrza*, XV century AD



UNDER THE SKIES OF TAURICA

By the 13th century AD the Crimea, ancient *Chersonesus Taurica*, and the adjacent lower reaches of the Don, Dnieper and Dniester were included into the spheres of influence of both the Cuman nomads and the decrepit Byzantine Empire. The Seljuk sultanate in Asia Minor was sizing up the Taurica. The local population, consisting of Greeks, Armenians, Karaites, Jews, Goths, Alans and Turks, lived in the cities and villages, grew wheat and grapes, grazed sheep, manufactured excellent pottery, dried and smoked fish, made wine and traded, and hardly ever made war. Everything changed in the mid-13th century. Taurica became a part of the Golden Horde's domains and participated in the process of culture genesis in the western area of the empire of the successors of Genghis Khan. Gradually the influence of Moslem Asia Minor became the strongest. At the same time, Italian merchants from Genoa and Venice, having received the necessary authority from the khans of the Golden Horde, set up in a number of the old centres their self-governed colonies with their own military forces. Thus Italian culture was implanted in the Crimea. In such colonies as Soldaia, Mod Sudak, Kafa, Feodisia, Tana, Azov, Chembalo, Balaklava, Moncastro and Belgorod-Dnestrovski the novelties of European weaponry were juxtaposed with the military inventions of the Golden Horde and the Islamic Orient.

Armed forces of Italian colonies numbered but a handful of soldiers; some dozens of highly paid European mercenaries and one or two hundred *gazarians*, the local nomads (descendants of the Khazars?) who served as mounted police. The Europeans were armed with crossbows, swords, halberds, bows and later with hand-guns and cannons. Only the highest officials (the consul, the commander of armed forces) wore the full knight's armour panoply. In the 14th century it consisted of mail, a cuirass of large thick iron plates riveted on the inner side of a soft base covered with velvet or broadcloth. Greaves, brassards and gauntlets of steel and leather parts reinforced with metal completed the set of war-gear. The main weapons of the nobility were swords, spears, daggers, maces and picks. In the 15th century the armour was made completely of steel, and firearms became widespread.

In 1475 the Crimean strongholds, both Italian and Gothic, the cities of the Lower Don, Dnieper and Dniester were conquered by a newly born giant, the Ottoman empire. The shock force of the Ottoman infantry was made up of the 'new host' (*jeni çeri*) the famous *janizaries*. The *janizaries*, recruited as children from forced levies in conquered lands, essentially wore no defensive armour. Clothed in 'uniform' caftans and caps, they were armed with a sabre, a knife, a bow and, later, also with a gun and a *yataghan*. There existed both light cavalry, serving for booty, and heavy cavalry. The armoured Turkish knights, the *spahi*, wore mail-coats and cuirasses, combined mail-lamellar armour, either pointed or low helmets, brassards and greaves. They were equipped with *saadaks*, sabres, broadswords, daggers, knives, battle-axes and spears, and rode barded horses.

Upon the downfall of the Golden Horde in the 15th century there emerged in the Crimea an independent khanate governed by the local dynasty, the Girais. The khanate fielded a large cavalry force consisting mostly of light archers. However, the nobility (the *murzas* and *begs*) as well as their men-at-arms, the *uhilans*, were equipped with the finest specimens of defensive armour, usually originating from Turkey. Offensive weapons were often imported as well, but the Crimean khanate produced her own weapons too, exquisitely designed Crimean sabres, knives and bows being exported to the Caucasus, Central Asia, Russia, Rzeczpospolita (Poland and Lithuania) and Moldavia. Later times saw the production of fine Crimean handguns which were exported abroad.



17A - Heavy horse guardsman of Timur, last third XIV century AD

17B - Heavy crossbowman, Khurasan, 2nd half XV century AD

17C - Uzbekian khan equipped as heavy cavalryman, XVI century AD

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HEIRS OF THE EMPIRE

In the 1370s, the states of the Genghisides - the Golden Horde in Eastern Europe and Transuralia, the Chagatai's *ulus* in Central Asia and what is now Kazakhstan were shaken to their foundations. In both lands legitimate khans from the House of Genghis became mere puppets in the hands of their *amirs*, namely Mamai in the Golden Horde (the *ulus* of Juchi), and Timur in the *ulus* of Chagatai. Timur, a Mongol from the Barlas tribe by birth, worked his way up to the position of *amir* through war, intrigue and treason, to become the ruler of an immense empire. His conquests were achieved with a powerful standing army supported in case of need by tribal levies. In the 1380s and 1390s the Golden Horde became Timur's bitter enemy. The glorious victory of Dimitri, prince of Moscow, and his allies over the usurper Mamai who had split the Horde, blazed the way open for Tokhtamysh from the House of Genghis to re-unify the Horde, and under his rule she was almost reinstated to her position of former glory and might. However in 1395-96 Timur routed Tokhtamysh and ravaged the cities of the Golden Horde. The Horde never recovered from the effects of this defeat having lost her centres of large-scale manufacture and trade. Timur's own empire disintegrated right after his death, but his grandsons ruled up to the late 16th century in a series of, usually, vast and flourishing states. However, trouble was brewing further north; in the twenties in Tura city on the Tobol river the Uzbek khanate was proclaimed, from which, in the mid-15th century, a group of tribes broke away. Those renegades who had set up an independent nomadic khanate were called the Uzbek-Kazakh or just the Kazakh ("those having no suzerain"). Thus the Kazakh khanate emerged. The Kazakhs retained their nomadic ways while the Uzbek khans moved southwards against the cities and oases of Central Asia and conquered them.

The forms of weaponry in the area stretching from the Kuban river to Issyk-Kul were in the meantime being developed along symbiotic Central Asian and Islamic lines, though the Moslem Near- and Middle-Eastern tradition was beginning to prevail. Among the offensive weapons sabres predominated, long battle knives and daggers were very popular; bows, crossbows, spears, maces and axes were also widely used in the late 14th century. Armour used included mail, cuirasses of steel strips, body armour of plates riveted to the inner side of soft cloth, and quilted armour reinforced with metal. Composite mail-plate armour began its triumphant progress. Hinged articulated brassards and greaves became quite common, yet there emerged also composite brassards with gauntlets and greaves with knee-guards, whose evolution had followed European models. Helmets were equipped with a number of defensive pieces, and resilient wicker shields were prevalent. Methods of making armoured horse bards were akin to those used for human body armour.

In the 15th century under the influence of the Near East the pattern of armament for the next two centuries was laid down. New types of sabres and daggers emerged, battle-picks become widespread. European forms were rejected; gauntlets were abandoned and the legs were covered with paddle-shaped armours of iron strips, mail or plates attached to the girdle. In the late 15th and early 16th centuries mail-plate armour became predominant, though the armour made of plates riveted to the inner side of a soft cloth as well as simple mail were quite popular. The epoch saw the spread of firearms; cannons and hand-guns. It should be noted that following the ravages of Timur, the raids of the Uzbeks and Kazakhs, the Golden Horde (on a very large scale) and Central Asia (to a considerable extent) reduced their own manufacture of high quality armaments and switched over instead to using imported Iranian, Turk and Indian weapons.

RZECZ AND SECH : THE HUSSARS AND THE COSSACKS

In the 14th-15th centuries the western Russian lands seemed to find durable peace under the grand dukes of Lithuania. In the late 14th century Grand Duke Vitautas became king of Poland and for 400 years western Russia was part of a new Lithuano-Polish state (*Rzeczpospolita*). However, in the 15th century, the great duchy of Muscovy claimed sovereignty over all the lands of the former Russian state, and western Russia became the bone of contention between Poland and Muscovy. An even greater menace to Outlying and White Russias (Ukraine and Beyelorussia) came in the shape of the raids of the Crimean khanate, contending with Lithuania for control of the lower reaches of the Dnieper and Dniester.

The Lithuanian cavalry constituted the core component of their host. The smaller part of it consisted of typically European, heavily armoured knights, both mercenaries and local noblemen, while the larger part recruited from middle and petty landowners, the *szlachta* (both Greek Orthodox and Roman Catholic) formed medium and light horse. A powerful influence on the weaponry and tactics and military role of the cavalry was exerted by the Hungarian medium cavalry, the hussards. The distinctive trait of Lithuano-Polish hussards was the lack of defensive armour, though they sometimes wore a mail-coat or a cuirass beneath the caftan. Their single piece of protection was a small shield; this was wing shaped, very effective for a mounted soldier. Occasionally this shield had a cut in the upper right corner against which the shaft of the spear, the main weapon of the hussards, rested. Yet another offensive weapon was the saddle-sabre, later supplemented with the *koniczar* a very long rapier used to finish off a dismounted enemy. The hussards can be thought of as knights without armour and helmets.

In the 15th and early 16th centuries the bulk of soldiers using firearms in *Rzeczpospolita* were mercenaries from central and Western Europe. However, in the mid-16th century the number of Lithuanians in this arm of the service became more numerous. Besides fuse muskets they were armed with a sabre and often had mail protection or even a helmet.

In the 15th century in the steppe area south of the two grand duchies, Muscovy and Lithuania, a powerful socio-military phenomenon, the Cossacks, emerged. It appears that the first Cossacks, based upon studies of their names, were Tatars. However, the free bands of Cossacks were constantly re-manned with Russians by birth, usually outlaws from rural communities. Originally the Russian Cossacks were river and sea robbers, but gradually they switched to the horse. Some concentrated around the *szlachta* centres; some escaped down the Dnieper, where, in the Khortitsa island, they founded their own stronghold, the Zaporozhskaya Sech. The government of the *Rzeczpospolita* tried to use the Cossacks against the Crimean khanate. In the wars against Muscovy the Sech supplied hetmans from the noblest Greek Orthodox *szlachta* families. The Cossack host was well organised and original both in tactics and in weaponry. Only the highest Cossack commanders wore mail-coats and brassards. The main long-range weapon for a long time was the bow, though the Cossacks were quick to appreciate the advantages of firearms and were keen to adopt them. Besides the second main offensive weapon, the sabre, the leaders of the Cossacks were equipped with maces, picks and axes, the symbols of their freedom.

18A - Lithuanian light cavalryman, early XVI century AD

18B - Lithuanian heavy *chotman*, middle XVI century AD

18C - Zaporozhian leader, early XVII century AD



THE MUSCOVITE HORSE OF THE 16th CENTURY

The 15th century, witnessed the conquest of Novgorod by Muscovy, the centralisation of Russia under the Muscovite grand duke and, finally, the ultimate liberation of the Russians from the yoke of the Golden Horde. Strangely enough, we have been left practically no evidence of the armament of the Muscovite cavalry. It is true that its form might be determined by a process of deduction but it can not be seen directly. We shall therefore turn our attention to the equipment of the Muscovite horse of the 16th century, the epoch which saw the formation of the Russian kingdom and the beginning of Russia's conquest of the Volga area, the Urals and Siberia and subsequent transformation into empire. During this period, the form army, a predominantly cavalry force, of the united state took shape. Tens of thousands of noblemen and their armed bondmen, the Muscovites and those originating from the former independent duchies, the christened Tatars and subjects of Rzeczpospolita, the Lithuanians, Poles, Russians, Cossacks and even burghers received estates in exchange for their military service as cavalymen, cavalry being the dominant force on the battlefields of Eastern Europe.

Such a system allowed the Muscovite state to have enormous contingents of heavy and medium cavalry since every landowner was duty bound to go to war fully armed, accompanied by several fully armed bondmen. All the horsemen were on the rolls according to their grades and had to have weapons appropriate to the grade. They received fixed salaries proportionate to the standard of weaponry and the number of fighting men supplied.

It is worth noting that in the 16th century the appearance of the Muscovite cavalymen became orientalised. All the foreign observers who had had the opportunity to see the Muscovite army noticed this phenomenon. According to their accounts, the Muscovites were dashing riders; they galloped at full speed and changed direction on their small horses, all of which were bought from the Nogais, used their sabres for slashing, and shot arrows. Among their weapons the sabre, the flail, the long knife, the small battle-axe and bows and arrows prevailed. The spear disappeared altogether and, from the Orient, the *jidor erid*, a set of javelins in the same scabbard with the broadsword was borrowed. Sabres and bows were of typically oriental design, though the majority were manufactured in Muscovy, the most luxurious in the Kremlin workshop, the newly founded Oruzheinaya Palata (the Armoury). Defensive armour included helmets of the Turko-Persian type, often with a finial gonfanon, the so-called *misyrkas* (Egyptian helmets from the Arabian Misr - 'Egypt') consisting of a mail tippet and a convex iron disc on the top. These were often worn beneath a helmet or a cap. Ring mail was widely used. Splint-mail armours (*bakhtorets*, *yushmans*) were especially valued as well as *kuiaks*, that is armours whose soft base was reinforced with steel plates from both sides. Mail was usually worn beneath splint-ring armour as well. The 16th century became the century of quilt both in civilian and military life. There were several types of quilted armour worn either on their own or with mail-coats and cuirasses. The quilted armour designated by the Mongolian word *tegiliai* could be used as a modest protection by a poor warrior, but quite often it was covered with velvet, brocade and silk, and became a rich and smart armour. It provided excellent protection since, between the layers of cloth and leather, metal strips were often sewn in.

19A - Russian noble light horse archer, XVI century AD

19B - Russian *boyarin* cavalryman, XVI century AD

19C - Rich Russian foot archer, XVI century AD



BETWIXT THE DNEIPER AND THE IAIK

From the second half of the 16th century onwards, after the conquest of the Kazan and Astrakhan khanates, the state of Moscow moved in on the vast homeland of the nomads which stretched from the lower reaches of the Dnieper and Don through the Kuban valley and the Lower Volga up to the Iaik river (renamed Ural in the 18th century by order of Catherine II). The situation in these lands was anything but quiet. There were intermittent wars, and forays reaching to the outskirts of Muscovy, Poland and Moldavia. Up to the early 17th century the *murzas* of the Greater and Lesser Nogai Hordes were the dominant force in the steppes. Many of them became vassals of the Moscow tsar, the Crimean khan or the sultan of the Turks. As a rule, Nogai warriors paid little attention to using defensive armour, but there was wide choice of offensive weapons. Each warrior had a *saadak* with bow and arrows. Lances, battle knives and flails were equally widespread. The rich and the lucky had sabres. The arms and costume of rich Nogai horsemen, the *oylans*, exemplified the achievements of many military genres, including the gear of the uhlans (whose name derives from the Turkic word *oylan*, meaning 'son'), light lance-bearing cavalry. However, the Cossacks, fugitives from Muscovy, Moldavia and the Polish-Lithuanian state were even more eager to borrow their weapons, costume and military devices.

The principal forces in the northern Caucasian steppes were the warriors of numerous Adyg tribes; the Kabardinians, Circassians, Ubykhs, Shapsugs, Bzheduhis, et al. The princes, *pshti*, of these tribes were served by fully armoured guardsmen, *uzdens*. The bulk of the host had mail armour, often helmets, brassards and, occasionally, small round shields made of wood or hard leather and bound with iron. Adyg men-at-arms were also armed with bows and arrows, sabres and spears. Amongst them in the 17th century a new kind of sabre without a hand guard emerged.

Wearing shining mail, red and grey caftans, short shaggy felt cloaks, and sporting unusual headdress, Adyg warriors set an example of elegance for their neighbours.

In the early 18th century a major event took place in the steppes between the Don and Iaik; as a result of their hundred years' drive westwards the Kalmyks under Khan Ayuka invaded the region. The Nogais were routed; some had to migrate and were included into the Bashkir and Kazakh ethnoses. The Kalmyks founded their own khanate; this was subject to the Muscovite tsars who they served faithfully. The victories of the Kalmyks were due not only to their high degree of military skill and discipline and valour; Kalmyk warriors were armed to the teeth. Many of them wore lamellar armour, *kuiaks*, and mail over quilted coats. Kalmyk helmets derived from those of the Manchus, their neighbours and rivals in their remote Central Asian homeland. Thence originated also the broad Kalmyk sabre. Besides powerful bows, Kalmyk warriors used firearms. Many of them used lances with very long heads. At first the horses of the Kalmyk nobility were barded, but gradually bards as well as lamellar armours and high helmets vanished from the battlefield.

20A - Circassian noble cavalryman, XVI-XVII century AD

20B - Nogai Tatar cavalryman, XVI-XVII century AD

20C - Kalmyk noble cavalryman, XVII century AD



ON THE BROAD EXPANSE OF SIBERIA

The 16th century was marked by powerful Muscovite thrusts eastwards and northwards. Having conquered and annexed the Kazan khanate, Muscovy acquired a springboard for conquests in the north-east and for clearing the way to the lands rich in the goods attractive to merchants from East and West, namely furs. The freedom-loving inhabitants of northern Russia took the most active part in these ventures. The Stroganoffs, merchants, sponsored the ataman (chieftain) of the Volga Cossacks, Ermak, to war against (and almost inadvertently ruin) the Siberian khanate, whose forces had been destroying their settlements. One should not think that the progress of the Cossacks to the Pacific Ocean was easy and checked only by the taiga and that smiling aborigines were swearing allegiance to the 'White Tsar' as they brought in sables. On the contrary, the Russian pioneers usually had to overcome, often with extreme violence, fierce resistance; whole populations were often put to death and settlements burned. Firearms and the disunity of the scattered natives contributed to the victories of the pioneers. However, they were not constantly victorious since the Siberian aborigines were often equipped with better defensive weapons as well as cold steel.

At the very beginning of the conquest of Siberia the chiefdoms displayed elements of a proto-urban civilisation of the Ob Ugrians, the Khanty and Mansi (distant relatives of the Hungarians). These chiefdoms of hunters and fishermen fielded but several dozens of warriors each, yet they fought bravely using powerful large glued bows, spears and maces, their noblemen equipping themselves with imported sabres. They wore imported mail armour and locally manufactured armours of iron, leather covered with layers of fish-glue and horn plates attached together and cuirasses of enormous thick elk's antlers.

Further east lay the lands of a multitude of Tungus tribes. North of them lived the Yakuts, the northernmost Turkic nation who had been driven north from Transbaikalia in the early 2nd millennium AD. Like the southern Tungus, the Evenks and the Yakuts were mounted warriors governed by their princes. Their defensive weapons included a fairly long composite bow, a spear and the *palma*, a long knife-shaped blade attached to a shortened spear-shaft. The *palma* served as a replacement for both the spear and the sword, though the Yakuts and Evenks did manufacture straight single-edged swords as well. It is noteworthy that the Russians in the 17th century believed Yakut iron to be as good as German, and far better than Russian. Warriors wore high iron helmets and *kuiakhis*, armours made of leather with iron strips sewn on. The horses of the Yakut noblemen were also barded in such armours. In the far north-east of Siberia the pioneers encountered a nation which they were unable to conquer, the Chuckchi. After a hundred years of warring (1640-1740) the Chuckchi kept their autonomy. The Chuckchi were the most warlike nation; their raids terrified the inhabitants of the American and Asian shores of the Behring strait. Their war-boats conveyed ashore mighty warriors wearing heavy and unwieldy armours. Their defensive armour included helmets, brassards and greaves made either of thick bonded strips attached to each other by thongs (later bone was replaced by iron) or of strips of a very thick and hard multi-layered walrus leather. The most interesting part of the Chuckchi armour is the 'shield' worn on the back, rather similar to that worn in former times by the Scythians. The Chuckchi shield was made of wooden boards covered and fastened together with walrus leather. After loosing arrows at the enemy from their small but very powerful bows made of horn and whalebone fastened together with tendons and glued, the Chuckchi warriors would throw off their armour and charge with spears and maces.

21A - Khanty-Mansi warrior, XVI-XVII century AD

21B - Yakut heavy cavalryman, XVI-XVII century AD

21C - Chukchian warrior, XVII-XVIII century AD



THE AUTUMN OF MUSCOVY

In the 17th century, Muscovy, having overcome the ordeals of the 'Time of Troubles', began her swift transformation into an enormous empire. She annexed the well-developed western Russian lands such as the Ukraine, parts of White Russia and the vast forests of Siberia, and established her sovereignty over parts of the northern Caucasus. The Ukrainian Cossacks, who had formally provided regiments to serve the Polish crown, and the cavalry of the Tatars and Kalmyks were recruited into the Muscovite army. The army was reformed along European lines. Some regiments were created after the 'foreign fashion' and supplied with European equipment, and sometimes European personnel and known as 'German' regiments. The artillery arm was rapidly developed. The number of infantrymen equipped with firearms, the *strel'tsi*, was increased. In short, the army was transformed from a medieval host into a more modern regular army. Yet the medieval elements of the Muscovite army still presented a colourful and splendid spectacle.

The shock force of the host was still provided by the cavalry, manned by landed gentlemen who went to war fully armed, mounted and accompanied by their similarly equipped followers. The quality of an individual's equipment depended on the size of the estate (as well as on the wealth and generosity of the landlord). Weapons of offence included sabres, broadswords of Hungarian origin, Turkic *konchaks*, long rapiers used to finish off a dismounted enemy. Picks and battle-axes were also very popular. In spite of the widespread adoption of firearms (horsemen used saddle pistols kept by pairs in special saddle-holsters) bows and arrows did not lose ground. The spear was replaced with a set of javelins in a scabbard, borrowed from the Turks, the *jid* (from Mongolian *zhida* 'spear'). Defensive equipment was rich and diverse, and included various helmets and *misyurkas*, mail and splint-mail armours; *yushmans*, *bekhterets*, *kalantars*, *kuiaks* made of metal plates sewn to cloth, quilted *tegiliais*, armours of large splints loosely attached together to preserve ease of movement, brassards, jambeaux (either mail or splint-mail), *buturluks*, greaves forged from three parts. The bulk of the defensive armour was of oriental type, the most magnificent specimens actually being manufactured in the Orient, although in Moscow fine specimens of weaponry were being made after the Turkic, Kyzylbash (Persian) or Crimean fashion, as well as after the Muscovite fashion. The same can be said about offensive weapons although in this case a large number of weapons were manufactured in accordance with Polish and Hungarian styles. European influences were prominent in the manufacture of firearms. In the Kremlin Armoury, a splendid and magnificent Moscow style was developed. It manifested itself mostly in the decoration of horse harness, the main indicator of wealth and social status in Muscovy. It is worth noting that in Russia in the 17th century the bard (*chaldar*) appeared, however, it only really played a decorative role.

The large part of the infantry was made up of the so called 'levied Cossacks', recruited from free poll-tax paying classes who were used mainly to defend cities. For their service they were exempt from taxation, given firearms and salary and were free to use any defensive gear and cold steel of their own choice.

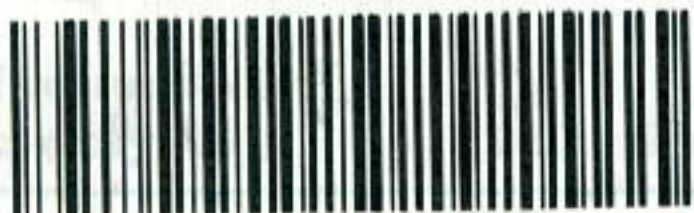
The mounted horseguard of the tsar quartered at the Kremlin presented an interesting spectacle. They wore rich caftans and caps, their clothes and horse harnesses were luxuriously decorated. They also bore white swan wings on the back (like the Polish Hussars' wings) and gilt dragons on spears.



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22A - Tsar's 'horseguard' (jiltsi), XV
22B - Cossack city infantryman, XVII

22C - Voyevoda (voyevoda), XVII century AD



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