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THE ARMIES OF BACTRIA 700 BC - 450 AD

VOLUME 1 (TEXT)

Valerii P Nikonorov

Colour Plates by Rory Little
Black &White Art by Alexander Sil'nov

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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.

Dr Philip Greenough (Editor)

THE ARMIES OF BACTRIA
700 BC - 450 AD

Dr. Valerii P Nikonorov

Author's Dedication: To all my true friends.

Author's Acknowledgements: I am deeply thankful to Alexander V. Sil'nov, who as well as executing the line drawings, provided inestimable help in preparing briefs for the colour art; also my heartfelt gratitude to Philip Greenough, the Series Editor, for his great patience, understanding and encouragement. I should add that the writing of this book would have been impossible without a grant from the International Research and Exchange Board (IREX), with funds provided by the United States Information Agency, which enabled me to conduct research in various institutions in the USA, where I had access to a large number of journals used in the present work.

PREFACE

Since ancient Bactrian warfare within the chronological limits proposed has never yet been comprehensively examined as a whole, my aim is to fill this gap to some extent by reconstructing, on the grounds of all the available source materials, the history and development of such fundamental components of warfare as martial equipment and costume, armed forces, battle tactics and structure of military organisation, which took place in Bactria from the Early Iron Age up to the commencement of what might be called Early Medieval times. [VPN]

A note on spelling: As always, in any book concerning 'the ancient and the foreign', spelling represents something of a minor problem. Although we try to make spelling consistent within any individual piece of work, **Montvert** do not insist on any particular 'house style', so in this book one will see, for example, **Sasanian**, rather than the more common, but not necessarily more valid, **Sassanian**. The current author has chosen primarily to use the Latin forms of many Greek words, for example ***machaera*** instead of ***makhaira***. The reader might also note that in this work ancient 'technical' words have not been given accents (for example ***kleros***, which is sometimes written with the letter ***e*** accented); they are an invention to aid pronunciation and were not commonplace in antiquity. [PPG]

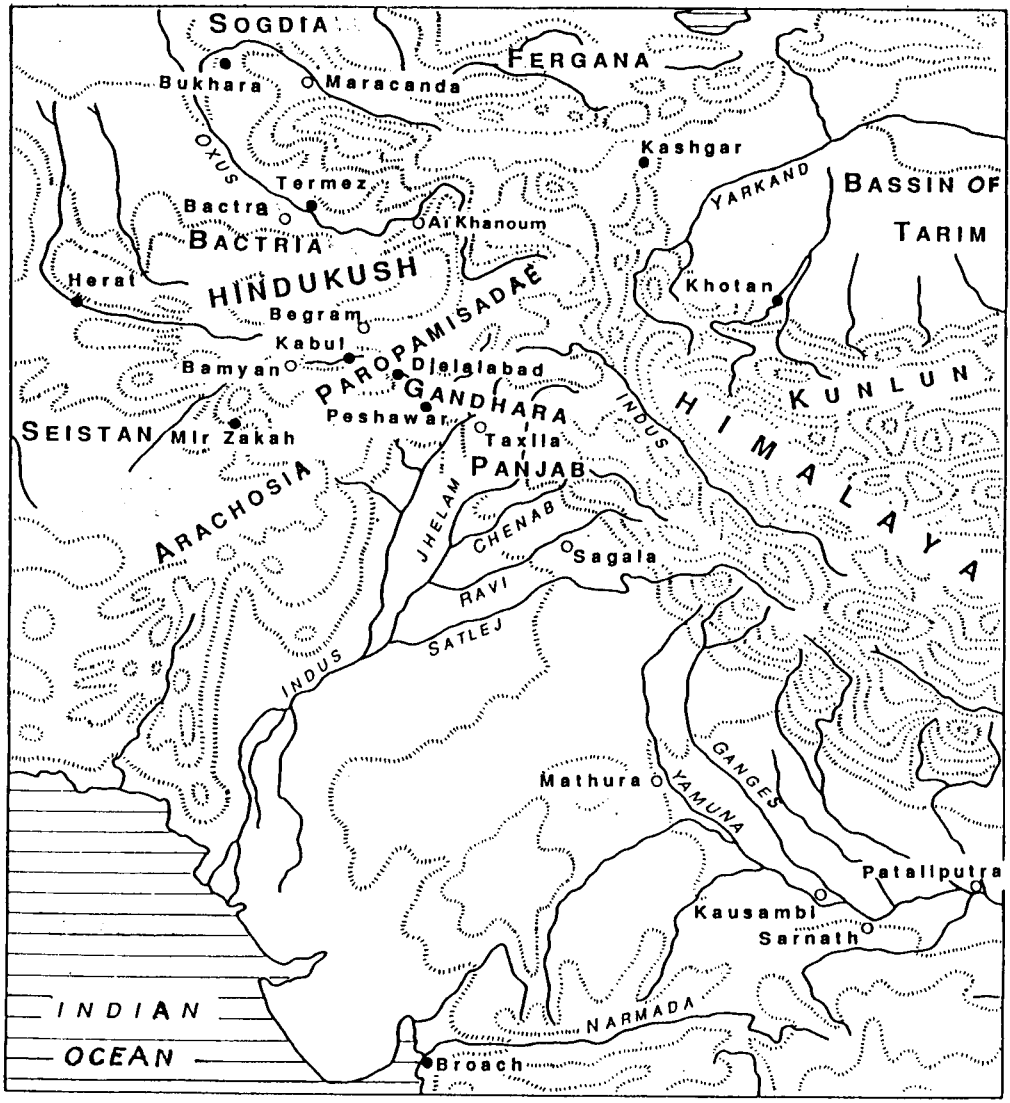
INTRODUCTION

Bactria, in antiquity, was one of the most important countries of Central Asia. In Greek literary tradition it was considered as "an ornament of the whole (of) Ariana" (Strabo, XI, 11, 1), that is of the Middle Eastern lands from Eastern Iran up to India. The resplendence and fame of Bactria were held in high esteem, its riches always engrossing the attention of numerous conquerors, whose ambitions were thought to have gone back to the earliest times. So, the famous Roman historian Tacitus adduces in his *Annals* (II,60) a mention (admittedly, of a fabulous nature) concerning the subdual of Bactria as early as by the mighty Egyptian pharaoh Ramses II (1301-1235 BC). A Greek writer, Ctesias of Cnidus tells us of a similar achievement by the Assyrians.

The formation of Bactria as a historico-cultural region must have begun some time around the transition from the Late Bronze to the Early Iron Age, that is within the very early 1st Millennium BC. It was then that Eastern Iranian-speaking peoples, moving from their mysterious motherland, occupied vast spaces of Central Asia. One of these tribes, called Bactrians by later Greek and Latin sources, started digesting little by little a territory on the Oxus (modern Amudarya) river basin. During the first half of the 1st millennium BC they settled oases on the Upper and Middle Oxus. This region is already mentioned in the *Avesta*, the sacred book of the Zoroastrian religion, in one of its oldest parts, a geographical section of the *Vendidad* (I,6,7) under the name of Bakhdish. In Old Persian inscriptions of the Achaemenids the country is denominated Bakhtrish, whereas the Graeco-Latin narrative tradition calls it Bactria or Bactriana. Its political and administrative centre was always the city of Bactra called also Zariaspa (present day Balkh), situated in the oasis of the same name to the south of the Oxus.

As regards more exact geographical bounds of Bactria, the present author follows the latest competent conclusions based on the careful study of archaeological, textual, epigraphic and toponymic data. These all show Bactria as a region comprising extensive lands between the mountain system of Hissar, Baisun and Kugitang in the north and the Hindukush mountain range in the south; and between the upper riches of the Oxus/Amudarya in the east and its middle stream coast in the district of Kerki in the west.

In other words, according to modern geographical definition, the former Bactrian territory consists of two areas, namely that lying in Northern Afghanistan, which may be conditionally denominated "Southern Bactria" and that to the north of the Amudarya, or "Northern Bactria", which embodies southern regions of Uzbekistan and Tajikistan as well as a south-eastern extremity of Turkmenistan. The Northern Bactrian area must have been divided by the moment of the Macedonian invasion (329-327 BC) into at least three parts which are mentioned by historians of Alexander the Great under the names of the Paritacae/Paritaceni land (Arr. *Anab.*, IV, 21,1; 22,1), Gazaca (Curt., VIII, 4,1) and Bubacene (Curt., VIII, 5,2); and what is more, at that time these names seem to have covered altogether the historico-cultural term "Northern Bactria" introduced by scholars not so long ago (see in detail Rtveladze E V in *Silk Road Art and Archaeology* 1, 1990, pp. 4-14).



Map i. The regions and their main city-centres connected with the history of Bactria in Graeco-Bactrian through Kushan times (after Bopearachchi, 1991)

HISTORICAL SKETCH

The earliest period of Bactrian history is attested by Ctesias of Cnidus, a Greek physician and writer, who had been living at the Achaemenid court from 415 to 398 BC and afterwards wrote *A History of Persia* in twenty-three books, but which unfortunately, have survived only in some passages in the works of later authors (mainly of Diodorus of Sicily and of Photius). In his History, he relates that there was a powerful kingdom in Bactria during pre-Achaemenid times. In particular, he describes (§ 4, ed. by I V Piankov. Dushanbe 1975) a campaign of war of the Assyrian King Ninus against the Bactrian King Oxyartes. Having been defeated at first by the latter in a battle, the former was finally able to conquer the country following the capture, as a result of the very hard siege, of its capital city, Bactra. The majority of scholars have agreed, rejecting some fabulous details of Ctesias' story (by the way, the Assyrian invasion of Bactria, doubtless never in actuality took place), that the independent and mighty Bactrian state must have existed in reality. It must have thrived within the 7th and 6th centuries BC. It was at that time that, according to the testimony of the archaeological data, the process of forming strongly fortified cities, such as Bactra/Balkh, Altyn-Dilyar-tepe, Kyzyl-tepe and others, took place both north and south of the Oxus. It well accords with Ctesias' report that there were a lot of considerable towns in pre-Achaemenid Bactria. The formation of the national Bactrian kingdom was brought about as much by urgent social and economic reasons as by the menace of nomadic invasions from the north and the possible expansion of the Median empire from the west.

In the second half of the 6th century, most probably between 538 and 529 BC, Bactria had been conquered by Cyrus the Great, the celebrated founder of the Achaemenid Persian empire. Undoubtedly, it played its part as the most important eastern satrapy of the Achaemenids throughout their rule. Bactria was peaceful when the majority of Achaemenid satrapies rose in rebellion against the king Darius I in 522-521 BC. And what is more, the Bactrian satrap, a Persian Dadarshish by name, on Darius' order in December 522 suppressed a revolt in Margush, the region of the Margus (modern Murghab) river valley (Margiana of Graeco-Roman authors). After that, taxes in the sum of 300 talents indicate that Margush-Margiana must have become a part of the Bactrian satrapy. It is needful to underline that the Bactrian satraps were usually appointed from the nearest kinsmen of the Persian kings. Nevertheless, the Achaemenid administrative system seems not to have been introduced into Bactria, and the real power there was perhaps held by the local nobles.

In 331 BC, after the decisive defeat of the Persians by the Graeco-Macedonian army of Alexander the Great at Gaugamela, the Bactrian satrap Bessus had treacherously killed the last Achaemenid king, Darius III Codomannus, and then attempted to create in the eastern lands of the former Persian empire a new kingdom with its centre in Bactria, proclaiming himself as king. However, in his struggle against Alexander he was not lucky, and finally he was captured and put to death on the Macedonian king's order.

During 330-327 Alexander subdued the regions of Central Asia with fire and sword, overcoming desperate resistance from the peoples of Bactria and Sogdia, the fertile land situated north of the former in the Zerafshan river valley, the capital city of which was Maracanda (modern Samarkand). And subsequently, having left garrisons and settlements of Greek military colonists in the vanquished countries, the Macedonian king moved his

army, reinforced with Central Asian contingents, to India. However, very soon - in 325 and again two years later - the Greek colonists of Bactria and Sogdia, dissatisfied with their status, twice rebelled and put the Macedonian control there in a critical position. True, they were suppressed. The united satrapy of Bactria and Sogdia was then ruled by the vicegerents, consecutively Philippus and Stasanor appointed by Alexander's nearest successors. Seleucus I, the founder of the mighty Seleucid kingdom, reconquered the eastern territories in the very late 4th century BC. From that time on, Bactria was controlled by Seleucid governors, including even Seleucus I's own son and heir Antiochus (future I and The Saviour by nickname), who was able to resist a very dangerous invasion of the Middle East by the northern nomads in the early 3rd century.

About the mid-third century BC the Bactrian satrap Diodotus, using the weakening of the Seleucid state during the reign of Antiochus II, separated from his sovereign and proclaimed himself king. The same actions were also undertaken at that time by the Parthian vicegerent Andragoras and his Sogdian colleague Euthydemus. Under such circumstances the beginning of a new kingdom usually called by scholars "Graeco-Bactrian" had come about. True, two Seleucid monarchs - Seleucus II in 231 and Antiochus III in 208-206 BC - attempted to restore the hold over the former far eastern domains. However, their efforts were in vain, although in particular, the latter monarch initially conducted successful military operations against Parthia and Bactria, but the Seleucids no longer had the forces to hold them.

The Graeco-Bactrian period, lasting for a little over one hundred years, was a prosperous time for the country, when, as a continuation of the previous Seleucid undertakings, there were further rapid developments in city-building, money circulation and trade activity in Bactria. Eventually the expansion of the Bactrian Greeks increased. Very soon after its origin, their kingdom included in the north the territory of Sogdia, the last Seleucid satrap of which, Euthydemus, became the third Graeco-Bactrian ruler (it was he who repelled Antiochus' aggression). During his reign, at least, Sogdia remained under Greek control. In the early second century BC Euthydemus' son and heir Demetrius had launched a campaign of war to the south of the Hindukush, and it finally led to the creation of the so-called "Indo-Greek" kingdom including the territories of Arachosia (the region of Kandahar) and Paropamisadae (the region of Kabul) in Southern Afghanistan, as well as those in north-western India, such as Gandhara (in present-day Pakistan) and even some others further south. The capital city of Gandhara, famous Taxila, became then the chief residence of the Indo-Greek intruders. By now, proceeding from plentiful finds of their coins, known to us are the names of no less than 30 Graeco-Bactrian and Indo-Greek kings. Their exact number is uncertain because the scholars sometimes mark out some sovereigns under one and the same name, for instance, Euthydemus I and II, Demetrius I and II, and so on, whereas only eight of them are also mentioned by narrative and epigraphic sources. And so a considerable part of the history of the Greek hold in the far eastern lands is reconstructed on the basis of studying numismatic data. Incidentally, a recent fundamental monograph by O Bopearachchi (1991) is the best of the works devoted to Graeco-Bactrian and Indo-Greek problems, and most of his conclusions concerning both the sequence and chronology of the kings will be followed by us. Amongst the rulers of Bactria proper, besides those named above, especially worthy of note is Eucratides the Great (about 170-145 BC); the most celebrated of the Indo-Greek kings is Menander the Saviour (about 155-130), who had a good reputation in ancient Indian narrative tradition.

The nature of the Greek domination in both the states seems to have been the same. The ruling class descended from the Greek colonists settled by Alexander the Great and his successors in Central Asian countries. The native aristocracy did not play any conspicuous part in the supreme power system. Nevertheless, there was no serious consolidation between the Bactrian and Indian Greeks, and what is more, their relations were often hostile. So, Eucratides the Great having strengthened himself in Bactria subsequently conducted wars against the dynasty of Euthydemus, the members of which had established themselves in the lands south of the Hindukush. All this very much weakened both kingdoms and each of them, forced to act alone, proved unable to resist a formidable menace from the north. In the second half of the 2nd century BC numerous hordes of Central and Inner Asian nomads invaded Bactria and destroyed the Greek hold there. As to the Indo-Greeks, their kingdom after the great king Menander the Saviour collapsed into a number of independent principalities headed by Greek dynasts; some of them existed for a long time after the collapse of the Bactrian Greeks, but were gradually absorbed by the northern nomadic invaders. The last of these domains, that of Strato II and his son, situated in the eastern part of the Indus river basin may have survived until the very beginning of the 1st century AD, as it has been shown by O Bopearachchi (1991).

An account of the nomadic conquest of Bactria is told both in ancient Chinese and Graeco-Latin narrative traditions. The Chinese chronicles (*Shih-chi*, *Han-shu* and *Hou-Han shu*) inform us that in former times the Great Yüeh-chih, a nomadic people, had been dwelling in lands of north-western China, in the present-day province of Kan-su, but subsequently, between 174 and 160 BC, under pressure from their neighbours and rivals the Hsiung-nu, they were forced to leave their homeland and flee westwards. Migrating in this direction, the Yüeh-chi came at first to the Ili river valley (in modern Kirghizstan), where they fought with the local people of the Sai and banished them towards the south to Chi-pin (in north-western India). After that, however, they were themselves defeated and ousted by another alien tribe of nomadic origin, the Wu-sun, who must have earlier been their neighbours in Kan-su. Again forced to move westwards, the Yüeh-chih passed across Ta-yuan (the Ferghana valley) and reached the Kuei (Oxus) river, south of which they subdued Ta-hsia (Southern Bactria).

The information given to us by Graeco-Latin authors is less comprehensive. Strabo describing in his *Geography* the peoples of Asiatic Scythia points out that the most celebrated of these nomads were those "who took away Bactria from the Greeks, namely the Asii, Pasiani, Tochari and Sacaraucae, having been moved from a region on the opposite bank of the Yaxartes (present-day Syrdarya river), situated beside the Sacae and Sogdians, which was possessed by the Sacae" (XI,8,2). Another writer, Pompeius Trogus, speaking in the Prologi 41 and 42 of his lost historical work about Scythian tribes which occupied Bactria and Sogdia, denominates them the Saraucae, Asiani and Tochari, that is he actually repeats Strabo's list of the tribal names.

However, difficult as it may be to reconcile the reports of Strabo and Trogus with those of the Chinese annals, one may conclude, on the basis of our current level of knowledge, that the powerful invasion of Bactria was launched by a wide coalition of kindred nomadic peoples speaking mostly languages of the Eastern Iranian group. At least a considerable part of the invaders were the nomads of Central Asia, called jointly by Graeco-Latin authors the Sacae or Scythians, who arrived from the Trans-Syrdarya steppe area, the tribes that were

denominated by the so-called Sacaraucae-Saraucae and Sai. The other portion was formed by the Yüeh-chih as well as the Wu-sun of the Chinese chronicles, who must actually have come from Inner Asia and involved the Central Asian nomads in their movement. The Yüeh-chih may be identified with the Tochari, the Wu-sun with the Asii-Asiani/Pasiani of the antique writers. The Yüeh-chih-Tochari played the leading role in that part of the invasive tribal confederation which conquered Bactria and settled it . They later gave to Bactria a new denomination known since the late 4th century AD, namely Tokharistan). This conquest seems to have taken place between 133 and 129 BC.

The bulk of the Saca strangers did not stay but moved on further. Some of them, reinforced by the Tochari, went westwards and intruded into the Parthian empire. Fighting against them, two Arsacid kings, Phraates II and Artabanus II, were killed; the latter in fact died from a wound inflicted in a battle with the Tochari in 123 BC. Only the next Parthian ruler, Mithradates II (123-88) was able to stop the newcomers and to direct their movement towards the south-eastern part of his domains, namely the region of Drangiana (the Hilmend river basin). The Sacae, who had settled there, gave it their name in the form of Sacastana ("land of the Sacae", now Sistan). These Sacae were most probably the vassals of the Parthian Arsacids.

The other groups of the Sacae, in particular the Sai of the Chinese sources, moved southwards and penetrated into Gandhara and Arachosia, where, in the first half of the 1st century BC, they established an independent kingdom that is usually called the "Indo-Saca" or "Indo-Scythian". Its first ruler was Maues. Among his successors worthy of mention are Spalirises, Azes I, Azilises, Azes II, all of whom are known solely owing to their coins. The Indo-Sacae, in the course of their struggle to consolidate and extend their power, conquered the last Indo-Greek petty kings. Afterwards, in the early 1st century AD, the Indo-Saca domination in north-western India was replaced, in turn, by a new alien dynasty of Parthian origin (coming perhaps from Sacastana), which has been called the "Indo-Parthian". The first and most celebrated Indo-Parthian monarch was Gondophares, who ruled until about the mid-first century over Gandhara and neighbouring regions.

As regards Bactria proper, the Chinese annals narrate that the Yüeh-chih had first been living north of the Kuei-Oxus and ruling from there over the territory to the south of it and then, in about 100 BC, they crossed the river and occupied the whole of the country. Their capital became Lan-Shih (Bactra). The Yüeh-chih divided Bactria into the five *hsi-hou* or *yabgu* (these terms meant at the same time a prince and a principality), namely those of Hsiu-mi, Shuang-mi, Kuei-shuang, Hsi-tun and Tu-mi. For more than a hundred years these principalities were self-dependent, however, after that period of time had elapsed one of the *yabgu*, of Kuei-shuang (that is Kushan), attacked and subdued the other four princes and proclaimed himself as king of a united state. It was Kujula Kadphises (or Kadphises I) the real founder of the Kushan empire. His reign lasted from about 50 AD to just before 90 AD. Having gone beyond the bounds of Bactria he took Gandhara from the An-hsi rulers (that is the Indo-Parthian successors of Gondophares) and conquered Paropamisadae and Arachosia as well. His son and heir Vima Kadphises (or Kadphises II) was perhaps able to extend the empire further southwards, deeper into the north-western part of the Hindustan subcontinent. He seems also to have launched a relatively successful campaign against the Chinese forces in Eastern Turkestan in 90 AD in order to stop the Han expansion to the west.

The next Kushan monarch was the famous Kanishka I. Though the dating of his reign is still a subject of discussion, his years of rule, nevertheless, are placed most convincingly within the second quarter of the 2nd century. It was under Kanishka I that the Kushan empire reached the zenith of its power, when it must have included the district of Kaushambi (in the Ganges valley) in the south-west and some territory of the Tarim basin (in Eastern Turkestan) in the north-east.

According to both the numismatic and epigraphic data, Kanishka I's successors may be put in the following sequential order: Vasishka, Huvishka, Kanishka II (all belonging to the second half of the 2nd century), Vasudeva (the late 2nd to the first quarter of the 3rd centuries) and, finally, this list of the Great Kushan emperors is closed by Kanishka III (the second half of the 3rd century). It should be noted that the period under review, that is from Kadphises I to Kanishka III, was undoubtedly a very flourishing time for Bactria. Especially worthy of note are such achievements as the building of many new cities and settlements, a substantial increase of cultivated area, and a powerful upsurge of trade operations on the southern length of the Great Silk roads. All these developments were of course due to the stable conditions which prevailed in Bactria under the Great Kushans.

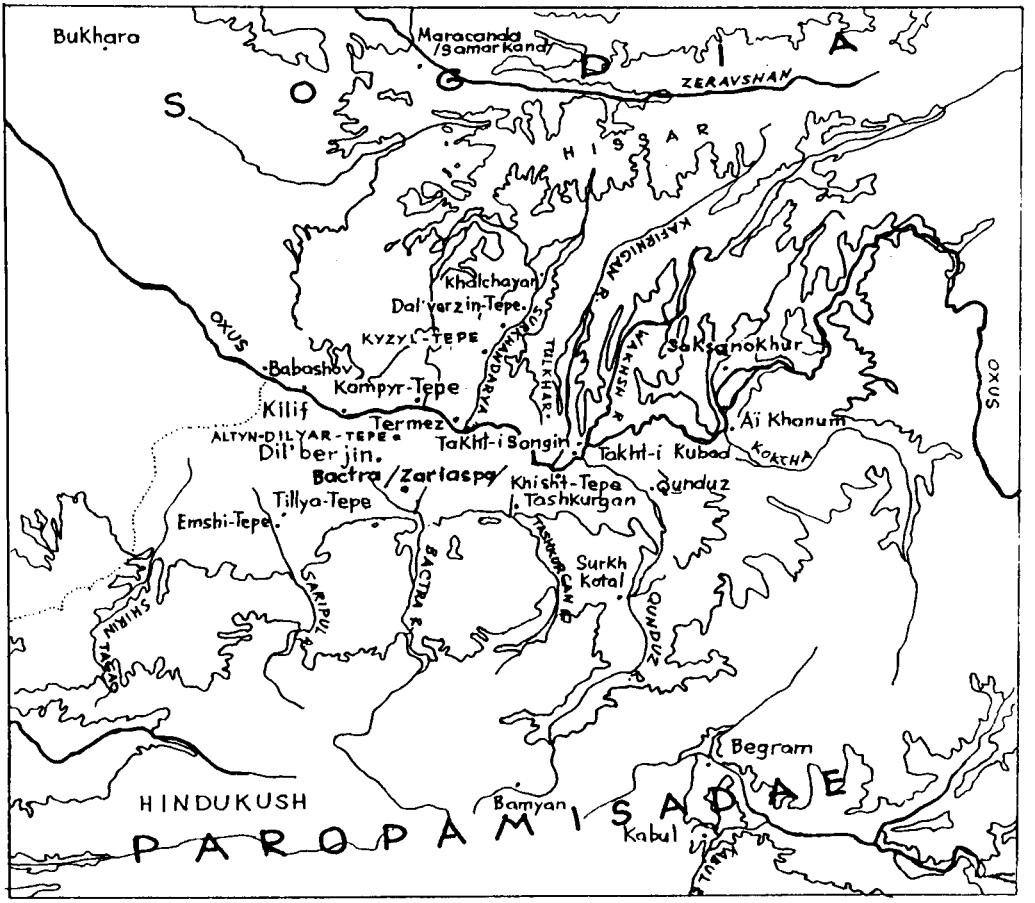
The serious weakening of the Kushan empire starting in the second quarter of the 3rd century AD coincided chronologically with the rising of the Sasanian Persians in Iran, who had overwhelmed their predecessors from the Parthian Arsacid dynasty and then created a very mighty state. Its expansion eastwards created a conflict with the Kushans during the reign of the second Sasanian king, Shapur I (243-273), but before the year 262. The Persians won a victory and in the celebrated inscription of Shapur on the Kaaba-i Zardusht in Naqsh-i Rustam (erected in 262) the Kushanshahr ("land of the Kushans") was mentioned as subdued. In consequence of their defeat the Kushans had to make territorial concessions and to recognise Sasanian political control as well. It seems possible that not later than from the last quarter of the 3rd century some part of the former Kushan empire, including Bactria, began to be ruled by the Sasanian governors bearing typical Persian names (Ardashir, Hormizd, Varahran, and so on) with the title of Kushanshah ("King of the Kushans") known on their coins. As in the Achaemenid model, they were appointed from the nearest kinsmen of the Persian kings.

The Kushano-Sasanian governorship had been continuing in Bactria without serious complications until 356 AD when, according to the Roman historian Ammianus Marcellinus, the Cuseni (that is Kushans) rose against the Persians, acting in alliance with two alien peoples of nomadic origin, the Chionitae and the Gelani, who must have arrived from the north. The rebellion proved to be so dangerous that the Sasanian monarch Shapur II became occupied himself in hard fighting in his eastern possessions. Only in 358 was he able to conclude a treaty with the allies of the Kushans and to return home (XVI,9,3-4; XVII,5,1). Hence it follows that the Kushan lands were by then suppressed. True, some time after, in the midst of Bactrian Kushans a new and strong leader came to the fore, namely Kidara, whose name is known thanks to his coins, which imitated those of the Kushano-Sasanian governors and also bore the title of Kushanshah inherited by him from them. It is to be thought that Kidara had destroyed the Sasanian domination in Bactria between 370 and 390. Under the name of Chi-to-lo as a brave and warlike king of the country of the Great Yüeh-Chih (Bactria) with the capital city at Po-lo (Balkh-Bactra) he is

figured in the Chinese chronicle *Pei-shih*. In the very late 4th or very early 5th century Kidara crossed the Hindukush and conquered some lands to the north of Gandhara and Peshawar as well. In all these actions he must have been actively supported by the Chionitae, who seem to be called the Kidarite Huns (obviously after Kidara's own name) by the Byzantine sources (though, most likely, they had nothing in common as a people with the well-known Inner Asian Huns of the Mongoloid race). Some time later, as the Chinese evidence tells, under the pressure of the Hsiung-nu, who may be identified with another alien and enigmatic people of nomadic origin, the Hephthalites, Kidara was forced to retire back to the Bactrian region, but before that he had left his son as ruler in Peshawar. Then he completely vanishes from sight in the sources.

Subsequently, it is reported that the Sasanian king Yazdgerd II (438-457) launched some campaigns eastwards in order to re-conquer the territory of the Late Kushans, where he fought with variable success against the Kidarite Huns. About 450 the latter were ejected from Bactria by the Hephthalite newcomers. Moving westwards the Kidarite Huns were decisively defeated in about 468 by the Persian king Peroz. The coming of the Hephthalites to Bactria, which by then was already denominated Tokharistan (the earliest mention of this name dating from 383 AD), marked the beginning of the following epoch of its history, namely Early Medieval times.

Such is the general historical background, against which ancient Bactrian warfare was developing. As we have seen, after the initial pre-Achaemenid age, Bactria was no longer a state owned by its native population. Throughout its history it was dominated by alien conquerors. These circumstance impinged very much upon its cultural spheres, including warfare, which bore a mixed character with strong foreign elements. It is the consequential complexity that makes the study of Bactrian warfare especially interesting.



Map ii. The Bactrian region and its principal archaeological sites

THE SOURCES

Bactrian warfare will be considered in six main chronological periods:

- 1. **Ancient Bactrian**, about 700 to about 550 BC;
- 2. **Achaemenid**, the second half of the 6th century to 327 BC;
- 3. **Hellenistic**, the last quarter of the 4th to about the mid-second centuries BC, but also including the **Indo-Greeks** of the 2nd and 1st centuries BC;
- 4. **Yüeh-chih**, the second half of the 2nd century BC to about the mid-first century AD;
- 5. **Great Kushan**, the second half of the 1st to about the mid-third centuries AD;
- 6. **Late Kushan** (or **Kushano-Sasanian** and **Kidarite**), the second half of the 3rd century to about 450 AD.

This consideration will be done on the basis of the complex study of available sources divided into the three categories, namely written (narrative and epigraphic); archaeological (actual finds of military equipment); iconographic (representations of warriors and weaponry on works of art).

The reader will find detailed information pertaining to these sources, including their provenance and dating, both in the text of this volume and in the captions to the figures and plates in Volume 2.

It seems needful to say some introductory remarks. Narrative evidences on Bactrian warfare are not numerous, not to mention epigraphic ones which are extremely scarce. For the Ancient Bactrian period we have solely some fragments from the lost work of Ctesias of Cnidus, already discussed. The Achaemenid epoch is provided, first of all, with relevant passages from the *History* by Herodotus, the *Anabasis* by Arrian and the *History of Alexander the Great* by Curtius Rufus. For Hellenistic times very important is Polybius' story about the war between the Seleucid king Antiochus III and his Graeco-Bactrian Colleague Euthydemus. Some information can be extracted from the *Epitome* by Justinus who had abbreviated the historical writing of his precursor, Pompeius Trogus, which no longer survives. Additional information on Indo-Greek warfare can be found in ancient Indian sources, such as the Buddhist treatise *Milindapanha* (The Questions of Milinda) and the epic *Mahabharata*. The period of Yüeh-chih through Kushan times is covered only by the Chinese textual sources namely the *Shih-chi*, *Han-shu*, *Hou-Han shu*, *Nan-Chou (I-Wu) chih*, and some others.

As to archaeological material, there have been some finds of articles of military equipment at some ancient Bactrian sites, although the bulk of them have been discovered at the two most outstanding. the first of these is Takht-i Sangin, a fortress lying on the right bank of the Upper Amudarya (named also Pyanj), at its junction point with the Vakhsh river (south-western Tajikistan). During the period from 1976 to 1985 the so-called Oxus Temple was excavated there by the Russian-Tajik expedition directed by B A Litvinskiy and I R Pichikiyan. This building, in existence from the late 4th century BC through Late Kushan times, saw the piling up of an enormous collection of various weapons which had been brought to the temple by worshippers as votive objects. This armament collection is still unpublished in full, except for several items belonging to the Achaemenid and Hellenistic ages. The second site is a Greek city, the ruins of which are now called Ai Khanum, situated on the left bank of the Pyanj, at the point where the Kokcha river falls into it. This considerable centre of Greek south-eastern Bactria must have been founded in the late 4th or early 3rd century BC and continued in existence until about 145 BC. The excavations conducted there from 1964 to 1978 by the French archaeological mission headed by P Bernard have revealed some building complexes, including an arsenal, treasure-house and others, which contained a lot of finds of Graeco-Bactrian arms, armour and horse equipment. Besides these two sites, also worth notice is Dil'berjin, an ancient city lying in the Balkh oasis, north-west of Balkh-Bactra, which was investigated from 1970 to 1977 by the joint Soviet-Afghan expedition directed as a whole by I T Kruglikova and where some weaponry dating from Hellenistic through Kushan times was obtained.

For the Yüeh-chih and Early Kushan periods very important are some offensive arms discovered at two large barrow cemeteries of the nomadic population situated on the right bank of the Amudarya, namely that called Tulkhar of the Bishkent valley in south-western Tajikistan and that called Babashov in south-eastern Turkmenistan. They were both excavated by A M Mandel'shtam in 1955-1959 and in 1960, 1962 correspondingly. The former has to be dated to the last one third of the 2nd century BC through the 1st century AD, the latter has the same initial date, but its final one comes to the second century AD. Therefore, these Northern Bactrian necropolises may be connected with the strange peoples of the Yüeh-chih invasive coalition. In addition, a rich burial-ground belonging to the period from the late 1st century BC to the mid-first century AD was explored in 1978 and 1979 under the directorship of V I Sarianidi (as another project of the Soviet-Afghan expedition mentioned just above) at Tillya-tepe near Shibergan in north-western Afghanistan. One of its graves, Number 4, contained a noble warrior of high rank with parade equipment.

For Kushano-Sasanian and Kidarite times we have at our disposal actual pieces of arms and armour from sites of the Kobadian oasis in south-western Tajikistan (such as Ak-tepe II and others), which were found during many years of excavations.
It goes without saying, that requiring attention are synchronous archaeological data obtained in the lands around Bactria, above all in Gandhara and Sogdia. Thus, articles of 1st century AD armament and horse harness have been discovered at the site of Kirkap of the Gandharan chief city Taxila, held in succession by occupants of Saca, Parthian and Early Kushan origins. Hence it follows that the military equipment from there must have been used at the same time (or some even earlier) in Bactria proper because at least some of the newcomers arrived in north-western India across its territory.

Among the iconographic materials belonging to the Achaemenid period, very considerable are the famous reliefs from the Persian royal residence at Persepolis in Southern Iran, depicting subject nations. Equally famous is the Oxus Treasure, which contained various works of art, a collection of which (kept at present in the British Museum) is thought to have come from one of the two sites on the right bank of the Pyanj, either Takht-i Sangin or Takht-i Kuwad. As regards the other periods of time, Hellenistic through Late Kushan, relevant to them are various pieces of art bearing representations of armed figures, namely terracottas, sculptures, wall paintings decorations of garments, ivory carvings and so on, which have been found at Bactrian sites both north and south of the Amudarya. Of these sites, besides the above mentioned (Takht-i Sangin, Tillya-tepe, Dil'berjin), deserving attention are also those situated in the Surkhandarya oasis of Southern Uzbekistan, namely Old Termez, Khalchyan, Dal'verzin-tepe and Kampyr-tepe. The last three of them were excavated over a period of many years by the Uzbekistan Expedition of the History of Art (organised in the Khamza Fine Arts Research Centre in Tashkent) under the overall direction of G A Pugachenkova. However, amongst them all, a special place belongs to Kampyr-tepe, a fortress lying on the former right bank of the Amudarya, about 30 km west of Termez. This site that was in existence from the Graeco-Bactrian age until the second half of the 2nd century AD. It has been investigated under the directorship of E V Trveladze since 1982 and it has already provided us with a number of unique works of the minor arts; some armament articles have come to light as well.

Substantial additions to our database of illustrative material are provided by numerous coins of rulers who were, directly or indirectly, connected with the Bactrian region: those of the Graeco-Bactrian and Indo-Greek kings, of the Indo-Saca and Yüeh-chih princes, of the Great Kushan emperors. of the Kushano-Sasanian governors. On them are often depicted personages in arms, on horseback or on foot, as well as items of military equipment in use at the time.

CHAPTER 1 - THE ANCIENT BACTRIAN PERIOD
(ABOUT 700 TO ABOUT 550 BC)

In the first chapter of the *Vendidad* that may have been created within the period under review, Bakhdish-Bactria is described as a beautiful country "with uplifted banners". This epithet is perhaps the earliest evidence of the warlike character and bravery of the Bactrians, who were famed for both these attributes throughout the whole of their history. The aforementioned Greek author Ctesias, our main informant about the Ancient Bactrian kingdom, notes both the numerical strength and the bellicosity of the men of Bactria (§§ 2,4; 4,1). In his account of the war between Bactria and Assyria (the real enemy of the former is unknown, but it is more likely to have been the Median empire which flourished in Iranian lands from the late 7th through the first half of the 6th century) he relates that the Bactrian king Oxyartes was able to call up for military service all the men fit to carry weapons, namely an army 400 thousand strong (§ 4,2), which is, of course, incredible.

Nevertheless, some of Ctesias' data, collected by him from more reliable sources whilst staying in Persia , is deserving of our attention. First of all he speaks of the Bactrian system of recruitment and of the structure of military command as well. So it is known that it was the king who called to arms the bulk of the male population of the country when a campaign of war was forthcoming. He was also the commander-in-chief, conducting the troops to battle in person (§ 4,3). Besides him, certain "chieftains" (*hegemones*) are mentioned as being in the army staff (§ 7,3), that is generals who were most probably leaders of the tribal communities denominated in the text (§ 4,4) as "native lands" (*patrides*). These communities, being at the same time administrative districts of the kingdom, were located in the large oases both to the south and north of the Oxus. Each of them had a capital fortified city. As such district centres one must consider not only Bactria but also Altyn-Dilyar-tepe and Kyzyl-tepe already in existence in that epoch according to the results of archaeological works carried out at these sites. The king obtained the Bactra (Balkh) oasis district as his main domain, whereas the other district chieftains were in point of fact, his vassals. One of their principal duties was to bring their own contingents to the king's army on his order, heading their warriors during campaigns.

As far as tactical employment of troops on the field of battle is concerned, Ctesias (§ 4,3) only attests two tactics of the Bactrians. The first tactic was to attack suddenly an enemy advanced detachment, not waiting for the approach of its main body. The second tactic was to pursue the defeated foes thoroughly.

Unfortunately, there are not any textual and pictorial evidences concerning army forces, military garments and arms in the Ancient Bactrian kingdom. As to archaeological material, we have at our disposal solely a small number of bronze arrowheads found at pre-Achaemenid sites in Southern Bactria. For example, a quiver set of six arrowheads has been discovered at Kutlug-tepe (Figure 1e-j). They are all of the bilobate (or flat) type, two of them being provided with projecting sockets, two with concealed sockets and two with tangs. These Early Iron Age examples go back to the Late Bronze Age prototypes used in the same Southern Bactrian region (Figure 1a-d).

It is to be supposed that as early as the end of the period under review a new variety of bronze arrowheads began to be introduced into Bactrian military practice, namely the trilobate which were notable for improved ballistic qualities (true, their principal utilisation dates from subsequent times). This innovation was due to the influence penetrating from the Central Asian steppe area, where nomadic Iranian-speaking tribes called by Graeco-Latin sources the Sacae, Scythians, and Massagetae had settled at the beginning of the 1st millennium BC. Very early on, these cattle and horse-breeding peoples commenced using cavalry warfare. Being mounted warriors, the northern nomads launched distant raids southwards to rob the wealthy oases of Sogdia, Bactria and other lands. Their populations, being forced to seek means of defence, built fortified cities and united in state formations like the Ancient Bactrian kingdom. At the same time the settled peoples in the course of struggle against the nomads borrowed from the latter some features of their warfare, such as weaponry and the mode of fighting from horseback. It is thought that at least a considerable portion of the troops of the Bactrian national kings consisted of cavalrymen, otherwise their tactic of lengthy pursuit of a defeated enemy, recounted by Ctesias, would not have been possible.

CHAPTER 2 - THE ACHAEMENID PERIOD
(SECOND HALF OF 5th CENTURY THROUGH 327 BC)

From the time of its absorption by the Achaemenid empire, Bactria constantly supplied the royal army with one of the most efficient non-Persian national contingents, which, along with the Saca and Indian, constituted the real corps d'élite. Curtius Rufus says that among the people subject to the Persians the Bactrians were "the most valiant" and that as "a nation fond of war . . . ., they were always in arms" (IV,6,3). Bactrian contingents partook in most of the great campaigns of the Achaemenid monarchs. As early as 522 the troops from Bactria, showing loyalty to Darius I and on his order, had suppressed under the command of the satrap Dadarshish the rebellion in the neighbouring region of Margush/Margiana, as it is reported in § 38 of the famous Behistun inscription (Kent, R G, *Old Persian: Grammar, texts, lexicon*. New Haven, 1953$_2$, p.127). Some time later, in 480-479 the Bactrians campaigned against the Greeks. Our main source, Herodotus, in his description of national contingents of the king Xerxes' army invading Greece, reports of a Bactrian force, that headed by Hystaspes brother of the Persian monarch, which consisted chiefly of foot and mounted soldiers, both provided with one and the same light outfit (VII,64;86). When, after the naval defeat at Salamis, Xerxes decided to retire himself from Greece, he left there Mardonius as the general-in-chief to continue the war, and the latter picked out for his force mostly the Persians, Medes, Sacae, Bactrians and Indians, all comprising both foot and horse; each of these national formations was taken by him in a body (Hdt., VIII,113). The Bactrians fought at the decisive land battle of the campaign, near to Plataea, and shared the common mournful fate of the army of invasion. The foot Bactrians occupied a place in the main infantry line of the Persian array, side by side with the Medes; the Bactrian troopers on horseback were allotted to the whole cavalry force which was deployed by Mardonius isolated from the infantry (IX,31-32).

It is probable that, after Xerxes' incursion into the Balkan Peninsula, a settlement of Bactrian military colonists came into existence in Asia Minor (Briant, P, in *Mémoires de la Mission Archaéologique Française en Asie Centrale* I, 1988, p.175), who were settled in accordance with the Achaemenid kings' usual practice of founding military colonies of foreign subjects in the conquered territories of the Near East for strengthening their hold there. It was in the midst of these colonists that a detachment of Bactrian horsemen 2,000 strong, was recruited to take part at the battle of the Granicus river against the Graeco-Macedonian army of Alexander the Great just intruding into the Achaemenid empire (334 BC). It was placed under the command of the Persian general Rheomitres on the right wing of the imperial host (Diod., XVII,19,4).

Three years later, the Achaemenid king Darius III, failing in the struggle with Alexander, ordered the Bactrian satrap Bessus to bring eastern contingents to Babylonia to fight the Graeco-Macedonian troops at the decisive battle of Gaugamela (Arbela); 9,000 Bactrian cavalry were drawn up on the left wing of Darius' army. In spite of the fact that this battle was again unsuccessful for the Persian monarch, the Bactrians fought valiantly in co-operation with Central Asian Scythians. After the defeat the remainder of them departed eastwards with Darius himself (Curt, IV,6,2; 9,2; 12,6; 15,18; V,8,4; Arr *Anab*, III,83; 11,3; 6; 13,3-4; 16,1; Plut *Alex*, 32).

Subsequently, the Bactrian troopers were with their satrap Bessus who murdered the Persian king, but then they left him (Curt, V,8,4; 12,6; 13; 19; VII,4,20; Arr *Anab*, III,21,4; 28,8-10). During the anti-Macedonian revolt in Central Asia (329-327) the bulk of Bactrians stood up to the invaders (Curt, VII,6,13-15; VIII,1,3-5; 15-17;5,2; Arr *Anab*, IV,1,5; 16,1; 17,6-7; 22,1-2; Diod, XVII, argum 24). True at the same time a Bactrian regiment, along with a Sogdian, had formed a part of the troops of Amyntas, Alexander's governor of Bactria, and were later allotted to a Macedonian punitive corps headed by Coenus, which acted in Sogdia (Arr *Anab*, IV,17,3; compare 17,6). Upon suppressing the rebellious regions, Alexander introduced extra contingents of the Central Asian peoples, including Bactrians, into his army to use them in India (Curt, IX,2,24; 33; Arr *Anab*, V,12,2). Later on, in 324, after the Indian campaign, the Macedonian king incorporated into his army 30,000 young men from the conquered lands, who were armed and trained after the Macedonian model. In particular, he enlarged his élite, Companion (*hetairoi*) cavalry at the expense of adding to its units Bactrians, Sogdians and other Eastern Iranians, who stood out for their nobility, beauty and other qualities. Some of the recruits were attached to the fifth *hipparchia*, the rest - to the royal vanguard squadron (*agema*) with a Bactrian named Hystaspes put as their chief (Arr *Anab*, VII,6,1; 3-5).

Armed forces: Herodotus, speaking of the Bactrians serving in Xerxes' army, pays principal attention to soldiers on foot and on horseback. However, describing the equipment of the Median, Indian, Bactrian, Caspian and Lybian cavalrymen, he points out that all these peoples used chariots (*harmata*) too (VII,86). Since no additional information concerning them, first of all about their use as a fighting force, is met in his text, one may suppose that in this passage we are dealing not with real war-vehicles, but rather with transport carriages to carry personages of military command and their domestics, as well as necessary supplies and munitions. As such a specimen we might consider the well-known gold model of a Persian (?) two-wheeled chariot pulled by four horses or ponies and containing a driver and his noble passenger, which belongs to the Oxus Treasure collection (Fig. 4f). As for real war-chariots, which appear to have been introduced into the Achaemenid army only by the end of the 5th century (Head D, 1992, pp.44-48), they are never mentioned by our sources in connection with Bactrian warfare proper.

Some of the Bactrians may also have been employed in Xerxes' fleet, as the outstanding Greek poet Aeschylus notices in his poem *The Persians* (vv. 306-307; 318-319, ed by L von Schiller. Berlin 1869); at the naval battle of Salamis, two Bactrians named Tenagon and Artames were killed, and although both were doubtless military leaders, it seems quite probable that they were in command of their kinsmen added to the Persian ships' crews, not so much as sailors, but as what we might now call marines.

While Herodotus describes both the Bactrian infantry and cavalry as equally important parts of the basic body of the Persian army, in the Late Achaemenid period only the latter seem to have been important for only they are referred to in the royal army composition. Curtius informs us that Bactria being rich both in people and horses was able to deliver 30,000 cavalrymen (VII,4,30). In this connection it is important to note that in most modern editions and translations of the text of Aeschylus' *The Persians* verse 318, where the Bactrian Artames is mentioned to have been lost at Salamis, is normally followed by verse 315, which features a chief (*hegemon*) of a 30,000-strong "black" cavalry force (that is, most likely, consisting of horses of black colour). This means in turn that Artames was at

the head of 30,000 Bactrian riders. If so (though the proposed verse sequence cannot, of course, be proved with sufficient certainty and in any case this figure is too big for the Bactrian mounted contingent employed by Xerxes), the coincidence in the figures cited by both Curtius and Aeschylus is significant; maybe it reflects the actual cavalry resources of Achaemenid Bactria, well known to the western writers. Indeed, the fertile and intensively irrigated plains of the country possessed all the necessary conditions for breeding splendid horses in great numbers. As an interesting aside, the second denomination of the capital city, Bactra, was Zariaspa, which may be interpreted from Iranian as "(famous for) the horses of golden colour".

Battle tactics: During the period under review, so long as the Bactrians were predominantly light-armed, they joined in fighting first by shooting bows at great and middle ranges; then, upon approaching an enemy array, they cast javelins from a short distance; lastly, in hand-to-hand combat they applied their spears and short swords (*acinacae*) as thrusting weapons as well. It was the common mode of fighting for both the cavalry and infantry. Some representations of lightly equipped Bactrian soldiers, both mounted and on foot, are known on works of art from the Oxus Treasure (Figs 3,1-3; 4,1-5). It is interesting to underline that the attacking Bactrians made a real shock impression upon their foes by their formidable outward appearance, obtaining a certain advantage just before close combat. Curtius quotes the words of Parmenion, one of the most experienced Macedonian generals, who remarked upon the terrible faces of the Scythians and the Bactrians confronting the enemy, their shaggy beards and unclipped hair, as well as the enormous bulk of their mighty bodies; in order to avoid this obnoxious "psychological attack" he even recommended assaulting them at night, and not during the daytime (IV,13,4-5).

The earliest testimony of Bactrian tactics, admittedly, indirect and very scanty, can be found in Herodotus' account of the battle of Plataea (in 479). He tells us that at its initial stage Mardonius' united cavalry, including the Bactrians and consisting wholly of horse-archers (*hippotoxotai*), charged the Greek battle-order and caused great losses to it both by throwing javelins and shooting arrows. In addition, so as to prevent the Greeks from getting drinking water, they filled up a spring called Gargaphia, and used their missiles to deny access to the Asopus river (IX,49).

More detailed data on the matters in question are given by the textual sources dealing with the battle of Gaugamela/Arbela (331 BC). The Bactrian cavalry were deployed on the left wing of the Achaemenid forces. The principal composition of this wing was as follows: in front was a Bactrian advanced detachment, 1,000 strong and the same number of the Central Asian Scythians also called by our informers the Dahae, as well as the Arachosians and the Susians who together numbered 4,000; placed next were 100 scythed war-chariots; after them was the main body of Bactrian cavalrymen under the command of their satrap Bessus, 8,000 in number; lastly, bringing up the rear of the column were 2,000 warriors from another Asiatic nomadic tribe, the Massagetae (Curt, IV,12,6-7; Arr *Anab*, III,11,3; 6). In the course of the battle the Bactrians fought in co-operation with both of the mentioned Scythian peoples, the Dahae and the Massagetae, and it was their combined onslaught at the beginning of the fighting that nearly put the Graeco-Macedonian army in the most difficult position. The Bactrian vanguard and the Scythians, acting against Alexander's right wing, charged and crushed a cavalry regiment headed by Menidas. Then

the Macedonian king directed against them his other mounted units under the command of Aretes, who was initially successful. However, when the second, main Bactrian forces joined the battle, the situation changed again. The new Scytho-Bactrian attack inflicted great losses on the horsemen of Alexander (Arr *Anab*, III,13,2-4; Curt, IV,15,12-19; see also Plut *Alex*, 32). But at the cost of incredible effort the Graeco-Macedonians were able to improve the position. The majority of Bactrians fell that day; only about 3,000 riders, that is one third of their initial numbers, accompanied the defeated Persian monarch in his flight from the field (Curt, V,8,4).

To all appearances, the cited episode is the first literary evidence of tactical co-operation between lightly and heavily armed cavalry forces. In other words, it is the earliest mention of the classical tactics later executed *par excellence* by the Parthians, namely those which combined the use of mounted lancers in full armour, called by Graeco-Latin sources *cataphracti* or *cataphractarii* (see them in detail Mielczarek M *Cataphracti and Clibanarii: Studies on the Heavy Armoured Cavalry of the Ancient World*. Lodz, 1993), in harmony with light horse-archers (Greek *hippotoxatai*, Latin *equites sagittarii*). the Bactrians, who during all the Achaemenid period were light-armed soldiers fighting from horseback with bows and javelins (Figs 3a-c and 4e), are typical examples of the latter. Light mounted bowmen also formed the bulk of the Daha and Massagetic contingents, whilst the rest of them were heavily armoured. Arrian points out directly that the Scythians and their horses, in comparison with Alexander's riders, were better protected with defensive armour (*Anab*, III,13,4). How these armoured Scythians were equipped, we can conceptualise first of all thanks to an extremely interesting piece of a terracotta flask dating from about the same time, which has recently been discovered at Khumbuz-tepe in the Lower Amudarya valley (Southern Khorezmia). Here is a fragment of the representation of a mounted warrior, he and his horse seeming to be fully protected; on the former clearly visible are a large armoured thigh-guard and a hooped tube-like leg-guard, on the latter can be seen a saddlecloth and a trapper, both armoured (Fig 4g). It should be noted that the device for the horseman's thigh appears to be not unlike the well known combined protector in the shape of a large piece, attached to the saddlecloth and covering both the rider's leg and the horse's flank, which is described under the term *parameridia* by Xenophon (*De re eq*, XII,8; *Cyr*, VII,1,2; compare VII,4,1) and is also pictured on some monuments of art from Achaemenid Asia Minor (Head D, 1992, fig. 43a,c,d). Furthermore, Arrian in his description of those Scythian horsemen who fought Alexander's troops on the banks of the Tanais (Syrdarya) river mentions as their defensive weapons a shield (*gerron*) and a corselet (*thorax*) (*Anab*, IV,4,4). In addition, Curtius informs that on the eve of the battle of Gaugamela, Darius III carried out a reform of arms of his army, including the introduction of armour for both the riders and their mounts, namely coverings (*tegumenta*) consisting of series of fastened iron laminae (IV,9,3). Most probably it was not a genuine innovation (which, in any case, could not concern the whole cavalry of the Persian king); more likely this account is inspired by the recruitment of the Asiatic Scythians for the decisive campaign in order to resist the first-class heavy cavalry of Alexander the Great. The fact is that the nomadic peoples of Central Asia had an old tradition to fight in armour from horseback. So, it is reported by earlier written sources that the Massagetae provided their war-horses with breastplates of bronze (Hdt, I,215) and wore corselets themselves (Strabo, XI,8,6).

What was the principal offensive weapon of the Scythian heavy-armed cavalrymen at the battle of Gaugamela? Diodorus, also speaking, like Curtius, of the armament reform of Darius III before his last battle, notifies us that he ordered the production of swords and lances (*xysta*) much longer than those in use before, for there was an opinion that Alexander had won the previous battle (at Issus in 333 BC) owing to his advantage in weaponry (XVII,53,1). One presumes the weaponry in question to have been very long, one-handed Macedonian cavalry spears called by our sources *xysta* or *dorata* or *sarissae*, so efficiently utilised by Alexander's cavalry in his main battles (see Chapter 3 for more on these lances) and which must have inspired the Persian king to want to adopt them for his mounted troopers. However, there is another interpretation that has recently been proposed by N. Sekunda (1992, p.29). He assumes that the *xyston* of Diodorus' passage might be interpreted as a *contus*, the two-handed massive lance belonging to the classical cataphract armament. As its earliest picture he adduces a terracotta flask piece found at a Khorezmian site of Koi-Krylgen-kala and dated to the late 4th or 3rd century BC, on which is depicted a lightly armed rider in pursuit (Fig. 3d). Since the historians of Alexander tell nothing about the principal offensive arm of the armoured Scythians at Gaugamela, we may accept any of these hypotheses. And so, it still remains impossible to maintain with certainty that it was in this battle that the debut of the *cataphracti*, being distinguished by the use of not only full armour but also the lance-contus, took place. Nevertheless, it seems well-grounded to believe that both they themselves and their tactics to co-operate with light horse-archers arose in the Central Asian steppe area in consequence of military contacts between the nomadic tribes dwelling there and the invasive Graeco-Macedonian army. It was then, not later than the late 4th or the early 3rd century BC that the juxtaposition and synthesis of fully armoured Central Asian knight and Macedonian mounted lancer saw the birth of the genuine *cataphractus*; the former adopted the latter's *sarissa*, but modified it into the more massive and somewhat shorter *contus*. However, borrowing too from the Macedonians their tactical employment of a solid cavalry formation armed with lances and ready to charge a hostile array, the steppe reformers again introduced an innovation here. Unlike the Macedonian practice of the co-operation between heavy cavalry and infantry, the Asiatic *cataphracti* co-ordinated with the traditional troop type of the ancient Middle East - light cavalry armed with bows. At the same time it is needful to bear in mind that cataphract regiments, recruited from the noble clan members, were never too numerous, whilst light horse, consisting of the ordinary tribesmen, had always a sizeable superiority over them in the whole composition of a joint cavalry force. Moreover, neither the former nor the latter were able to decide the outcome of a battle acting alone; only their close tactical co-operation could win the victory.

Therefore, hardly in the course of the Gaugamela campaign, but rather a little time later, the new type of units, of cataphracti, were raised in the midst of the Central Asian nomadic peoples, such as, first of all, the Dahae and the Massagetae. Their real debut as a very effective fighting arm seems to have taken place around the mid-3rd century BC, when a Daha tribal branch called the Parni invaded Parthyena and other neighbouring territories of north-eastern Iran and conquered them, starting thereby the creation of the powerful Parthian Arsacid empire. This event as well as the further successful advancement of the newcomers westwards up to the Euphrates river, had to be due to their military superiority over the former owners of Iran and Mesopotamia, the Seleucids. This superiority must have been evinced in the effective utilisation of *cataphracti* acting together with the light horse. It is no mere chance at all that the Parthians, as the direct descendants of the Parni-Dahae,

were especially celebrated in the ancient world for their cataphracts, who in particular played a very considerable part in the crushing defeat of the Roman legions led by Marcus Crassus at the battle of Carrhae (53 BC).

As the second successful employment of cataphract cavalry by the Central Asian steppe peoples one must consider the mighty invasion of Bactria in the second half of the 2nd century BC by the large nomadic coalition with the Yüeh-chih tribe at its head, which destroyed the Greek hold there. Thanks to numismatic evidence (Fig 26a,c,d) it is known that there were Saca *cataphracti* on the side of the intruders (see Chapter 4).

Such is the general synopsis of the present author's hypothesis concerning the origin of the cataphract horse. This hypothesis is sure to be the subject of a much more detailed and argued essay in the future. Now, after this "cataphract" digression, fundamental to understanding the development of warfare in Central Asia from the coming of Alexander the Great onwards, it is time to revert again to Bactrian tactics proper, as practised during Achaemenid times. For the last days of the dynasty we have at our disposal, apart from the the first dalliance at co-operating with armoured horsemen at Gaugamela, some other literary examples of tactical operations of Bactrian soldiery. One of them is the surprising mounted onslaught that is described by Curtius (VIII,2,15-17) in his account of Alexander's measures on suppressing the revolt in Central Asia in 328. There was an engagement between Macedonian troopers headed by Amyntas and a Bactrian cavalry body, about 2,500 strong, when the latter, suddenly charged, inflicted great losses on the enemy and then retired, albeit with substantial losses too.

Another incident is described by the same writer in a slightly earlier passage (VIII,1,3-5). Some Bactrians in company with 800 Massagetic riders laid an ambush against a Macedonian mounted detachment, 300 in number, commanded by Attinas. They hid in the woods while a few of them drove hereabouts a herd of wildstock as lure to the enemy. Pursuing this "booty", the Macedonians were suddenly attacked and annihilated by the ambuscaders. Here it is relevant to add one more report of Curtius (VIIII,2,37); he narrates how Alexander and his cavalry, pursuing barbarians (judging by the context, rather Bactrians), were assaulted by them hiding in a wood. Curtius also speaks of Bactrians ruled by Sisimithres, who had blockaded the narrowest part of the mountain pass to their region (which seems to have ben located in the north of the Surkhandarya valley, in the district of the Iron Gates) with a strong fortification and an efficient force to oppose Alexander's troops in 327 (VIII, 2, 20-22).

The last of the known tactical methods of the Bactrians should perhaps be more properly considered as a strategum, namely their use of "scorched earth policy", which was used by Bessus when the army of Alexander, having crossed the Hindukush, entered Southern Bactria in the early spring of 329. The usurper ordered the territory where the invaders would go to be ravaged. This caused serious hardship to the Graeco-Macedonian troops because on their route food was very scarce (Arr. *Anab.*, III,28,8-9; compare Curt., VII,4,22-25; Strabo, XV,2,10; Aelian. *Hist.*, XII,37).

The structure of military organization: It is known that the territory of the Achaemenid empire was divided into military units called *toparchies* by Greek sources. The Central Asian regions, namely Bactria, Khorezmia and Sogdia must have been united in a single toparchy (Dandamaev M A, Lukonin V G, *The culture and social institutions of ancient Iran*. Cambridge, 1989, p.222). Its head was the Bactrian *satrap* who also performed the duties of commander-in-chief. On receiving the king's orders, he recruited levies from the lands placed under his governance and then conducted them in person on campaign. Amongst such Bactrian satraps, leading the provincial troops, our sources name Dadarshish, Hystaspes and Bessus, all already mentioned. Sometimes they brought to the royal army levies from other regions. Thus, Hystaspes headed in Xerxes' troops marching to Greece not only the Bactrians but also the Sacae (Hdt., VII,64). Bessus, on the other hand, was a leader of the Bactrians, the Indians and the Sogdians at Gaugamela, , but not of the Sacae who were the king Darius' direct allies (Arr. *Anab*., III,8,3).

Following some interesting observations drawn by P Briant from the works by Arrian and Curtius Rufus (*L'Asie centrale et les royaumes proche-orientaux du premier millénaire (c. VIII-e - IV-e siècles avant notre ère)*. Paris, 1984, pp.82-84), we may conclude that Bactria under the Achaemenids continued to be divided into various administrative districts corresponding to the large oasis lands, including mountainous localities which were led by "chiefs" named by Arrian (*Anab*., IV,1,5; 21,1; 9) *hyparchoi* and by Curtius (VIII,2,19; 4,21) *satrapae* (it is timely to remember here the districts-*patrides* and their chiefs-*hegemones*, both attested by Ctesias for pre-Achaemenid Bactria). Each of these local chiefs had a contingent of horsemen, which he levied and conducted at the demand of his satrap to his residence at Bactra/Zariaspa. It was there that the main assembly place *(syllogos*) was situated, where the provincial troops, except for fortress garrisons, were brought, either to take the field or to be reviewed, exactly as such military reviews were annually arranged by the Persian kings in the western parts of their empire. In accordance with old Iranian practice these actions were usually accompanied by special religious rites performed by the priests of the Zoroastrian faith, who were called *Magi*. Thus, Curtius narrates that in the marching order of the Achaemenid army at its head carried on silver altars was the fire called by the Persians sacred and eternal, while next to come were the *Magi* who chanted their hymn (III,3,9-109; compare V,1,22). In this connection and attracting attention are some male figures portrayed on a number of gold votive plaques from the Oxus Treasure, which may be identified with the *Magi* because they hold in their hands the characteristic bundle of rods which was necessary to make incantations before the fire altar (Strabo, XV,3,15). True, most of these bearers of the bundle, called *barsom*, are shown without any weapon, whereas two of them are armed with short swords-*acinacae* (Dalton O M, 1905, cat. nos. 48 and 70; see our Fig 4a and Pl 1A). None of the Classical texts speaks of any weapon being carried by the *Magi*. And so, it is possible that the aforementioned two personages could have been not only priests, but also local rulers who combined priestly and military functions. One of their duties might have been to begin a campaign by themselves performing the religious ceremony before the fire altar.

It remains vague whether the terms applied by our sources to the Bactrian mounted warriors, namely *hippeis* in Greek and *equites* in Latin (properly "cavalrymen"), were only technical meaning just "soldiers on horseback", or they designated some kind of a social order as P Briant has assumed in the work just cited. Such an order, that of the "horsemen", was later in existence in both the Parthian and Sasanian societies; its members, the real

Iranian chivalry, received for their military service as cavalrymen allotments from the king or the powerful landlords. True, the social structure incorporating the order of the "horsemen-chevaliers" took shape in Arsacid Iran in consequence of the nomadic conquest; this professional order, privileged with respect to the autochthonal population, consisted of descendants of the original founders of the Parthian empire from the alien Scythian people of the Parni-Dahae (see Koselenko G A *in Annales littéraires de l'Université de Besançon* 251, 1980, pp.177-199), amongst whom being a member of the mounted soldiery, as in other nomadic societies, was a very important social attribute. However, the same conditions for the rise of a similar order in Bactria could not appear earlier than in post-Hellenistic times, when the region was already being occupied by the nomadic conquerors and their descendants (see later). Moreover, it seems very unlikely that the figures for Bactrian cavalrymen listed by Curtius and Arian - 30,000 as their total amount, 9,000 as participants at Gaugamela, 8,000 or 7,000 as partisans of Bessus, 2,500 as fighters against Amyntas' troops - comprise solely the socially privileged warrior-professionals. In my opinion, at least the bulk of these *hippeis/equites* must have been mounted soldiers, who were in peace-time the cultivators in their villages called *vici* by Curtius (VII,4,20), whereas in war-time they were mobilised by the local chiefs-*hyparchoi* to campaign under the supreme command of the *satrap*. The *hyparchoi* seem to have been responsible for training their retainers at their place of residence.

Martial equipment: According to Herodotus (VII,64), the Bactrian foot warriors marching with Xerxes had "on their heads (caps) bearing a great resemblance to the Median ones, native bows of reed (*toxa kalamina epichoria*) and short spears (*aichmai bracheiai*)"; he adds that the Bactrian cavalry were outfitted the same (VII,86). It is interesting to note here that our source directly says that some other nations in Xerxes' army also had this specific Bactrian assemblage of armament - namely the Arians (except for their bows which were of "Median" style), the Parthians, the Khorezmians, the Sogdians, the Gandarians and the Dadicae (VII,66). Attracting our attention is Herodotus' term applied to the Bactrian reed bow - "native" (*epichorion*); he uses it in the same passage in reference to the bows of the Sacae as well, but at the same time, in another place (VII,66) he discerns the Bactrian bows from those of the Median. If for the latter one may suppose segment-shaped bows with the ends bent forwards, which are well known on some Achaemenid works of art as well as on a later actual find from Yrzi (Rausing G, 1967, pp.103-105, 138, Figs 51 and 52; Head D, 1992, Figs 2, 6a,b,f, 9c, 12e-g, 13a, 18a, 21b), then the former, so-called "native" bow might be identified with a comparatively short (usually 60-80 cm long), two-arched shooting weapon with the ends bent forwards (Fig 6h), which was widespread in the middle of the Euro-Asian steppe peoples since around the 7th century BC onwards and is just conditionally denominated "Scythian" by historians of ancient armament (see in detail Chernenko E V, 1981, pp.7-21; Rausing G, 1967, pp.109-110, 140-142). Such bows are frequently met with, both on Greek monuments depicting the European Scythians (Fig 6i,j) and on Eastern works of art belonging to the Achaemenid epoch and showing Central Asian warriors (Fig 3a and 6f,g). As a rule, being asymmetrical -with the arches of different sizes - , they must have been compound, that is their wooden stave was reinforced for greater flexibility by bone or horn tips and animal tendons as well. The "Scythian" bows were very powerful; so, it is reported in one Greek inscription found at Olbia, the ancient trading colony in the Black Sea Northern Coast, that a certain Anaxagoras had shot an arrow to a range of about 521.6 m; his bow seems to have been of the type under review, these weapons being widely used in that region (Chernenko E V, 1981, pp.138-139).

The "Scythian"-style bow was normally carried in a special case (*gorytus*) consisting of two sections - one for the bow and the other for the arrows; such combined bowcase-quivers were usually made of wood and leather, but sometimes those which belonged to the noble warriors, were covered by ornamental facings of precious metals (Chernenko E V, 1981, pp.29-33). Examples of *goryti* storing "Scythian" bows are known on a number of the Achaemenid reliefs at Persepolis, all of them being shown tightly closed by "one-horned" covers (see Bittner S, 1985, pp.208-212, Pls 5,1, 20,2, 22,1, 23, 26,1 and 33 - the author's reconstruction). For the Bactrian area, there is the only depiction of a *gorytus*, which is similar to the Persepolis-type and is closed by a cover provided with a "horn" shaped into a bird's head (Fig 4c). However, in certain cases "Scythian"-style bows could be carried in open quivers too (Fig 6g).

As to arrows, at present there are numerous finds of bronze arrowheads discovered in contexts of the Achaemenid period at Bactrian sites, the overwhelming majority of them being trilobate with both concealed and projecting sockets (Fig 1k-cc).

Much of the information about Bactrian military equipment of the time under review can be taken from representations on works of art. Thus, it is known that amongst the throne-bearers depicted on the royal tombs at Naqsh-i Rustam (near Persepolis) those designated as No. 6 are real portrayals of Bactrian subjects, as a legend that has survived above a corresponding figure of Tomb I runs: "This (is a) Bactrian" (Schmidt E F, 1970, pp.108-109). Two of the figures, in a comparatively good state of preservation (Fig 2c,d), are clearly shown wearing the so-called "Median" dress that consists of a knee-length, belted tunic with long sleeves and tight-fitting trousers tucked into boots, as well as armed with a short sword-*acinaces* suspended from the right side. Incidentally, the Bactrian throne-bearer of Tomb II (Fig 2c) gives a clue to solve a problem of the identification of the Bactrian tributary delegation on the Apadana reliefs at Persepolis. The fact is that he has the hair bunched at the back in a large plain knob, and the same hairstyle is only seen on all the members of Delegation No. XIII (Fig 2a,b), but on none of the other twenty-two national processions depicted. And so, these tributaries, also dressed in "Median" costume, but unarmed, should be identified with the Bactrians (Schmidt E F, 1970, p.148), not with the Parthians, as is sometimes thought (see Walser G, 1966, pp.88-89).

Another group of relevant representations, which may be attributed to the Bactrians, is present on some objects belonging mostly to the Oxus Treasure. On them, the figures on foot are depicted both wearing the "Median" garb (Figs 2e and 4a,b) and encased in full armour (Fig 4c); those on horseback are dressed in what might be a "mounted" version of the "Median" costume - a short, not long, tunic and slightly wider trousers as well (Figs 3a-c and 4d,e). Almost all of these personages, except for Figs 2e and 4c, have headgear that, being made of soft material, covers the whole head like a hood, leaving open solely the face above the chin. It is such a cap that is commonly designated by the Turkish work *bashlyk*, meaning "what belongs to the head"; in ancient times it must have been referred to by the Iranian-speaking population under the term *xauda*) (Widengren G, 1956, pp.234, 264). This headgear, sewn of felt or leather, could be used as a head-protector in combat. Herodotus says that the Bactrians wore caps not unlike those of the Medes (VII,64), calling the latter *tiarai* and describing them as manufactured of thin felt (VII,61). The ordinary Medo-Persian *tiara*, as it may be reconstructed on the grounds of available sources, seems to have been slightly different from the Bactrian *bashlyks*, because its crown was tilted on one side

(see Bittner S, 1985, pp.193-198, Pl 32,1), while those of the latter were shaped in other manners. Nevertheless, one of the personages, namely the rider wearing a richly embroidered tunic (Fig 4d), has a cap of the upright *tiara* type, which is obviously a sign of royal rank (Head D, 1992, pp.21-22). True, it is needful to say that M V Gorelik has recently declared male portrayals on the objects of the Oxus Treasure reflect genuine Persians, for their costumes are purely Achaemenid Persian (in *Khudozhestvennye pamyatniki i problemy kul'tury Vostoka*, ed. by V G Lukonin. Leningrad, 1985, pp.36-46). However, I cannot accept this straightforward argument. The fact is that the so-called "Median" garb (M V Gorelik prefers to name it "Perso-Iranian") which is worn by most of the figures under review was not confined only to the Persians or Medes or any other nation, as it was widely spread during the Achaemenid epoch. These personages should be identified with locals of Bactria, not only because of the place from which the Oxus Treasure came, but also owing to the fact that some of them correspond well by their garments to the real depictions of Bactrians on the above reliefs of the Apadana and of the royal tombs at Persepolis. At any rate, the local, Bactrian manufacturing of such pieces of art as the votive gold plaques representing men (including, of course, those on Fig 4a-c) seems the most probable (see Ghirshman R, *Persia: From the Origins to Alexander the Great*. London, 1964, p.91; Pichikyan I R, 1991, pp.79-80).

Speaking of Bactrian arms, Herodotus mentions short spears (VII,64). Such a spear, measuring the length of the human stature, with a clearly visible point and butt shaped into a small ball, is seen in the hands of the lightly armed soldier on foot (Fig 4b). This weapon, like the other, longer one in Fig 4c, was primarily used in close combat, whereas the shorter spears which are shown with the horsemen (Fig 3b,c and 4e) were used first of all as missiles. In connection with the latter, it is interesting to cite Arrian's passage concerning the insertion of the Bactrians and other Iranians by Alexander the Great into his cavalry after he had arrived at Susa from the Indian campaign: the king armed them with Macedonian lances (*dorata Makedonika*) instead of barbarian javelins provided with a throwing thong (*barbarika mesagkyla*) (*Anab*, VII,6,5). Such a javelin could doubtless be thrown a much longer distance than a missile having no thong; it follows from this that the thonged javelin was no less a terrible offensive weapon of the Bactrian cavalrymen than the bow. It is to be supposed that the thonged javelin continued to be applied in Bactria after Alexander as well; its replacement in the above passage concerned only those Asiatic recruits who were incorporated into the Macedonian heavy cavalry, where the other type of spear, namely the lance, was used.

The next Bactrian offensive weapon to consider is the short sword called an *acinaces*. It is always shown on the right hip, being suspended by means of a strap passing through the scabbard hole and attached to the waist belt. Sometimes its scabbard bottom was additionally secured by a strap enveloping the leg (Figs 2c,d and 4a). It is very important that there are some actual finds of scabbards and hilts belonging to the *acinacae*, which were discovered in the territory of Bactria itself (Fig 5).

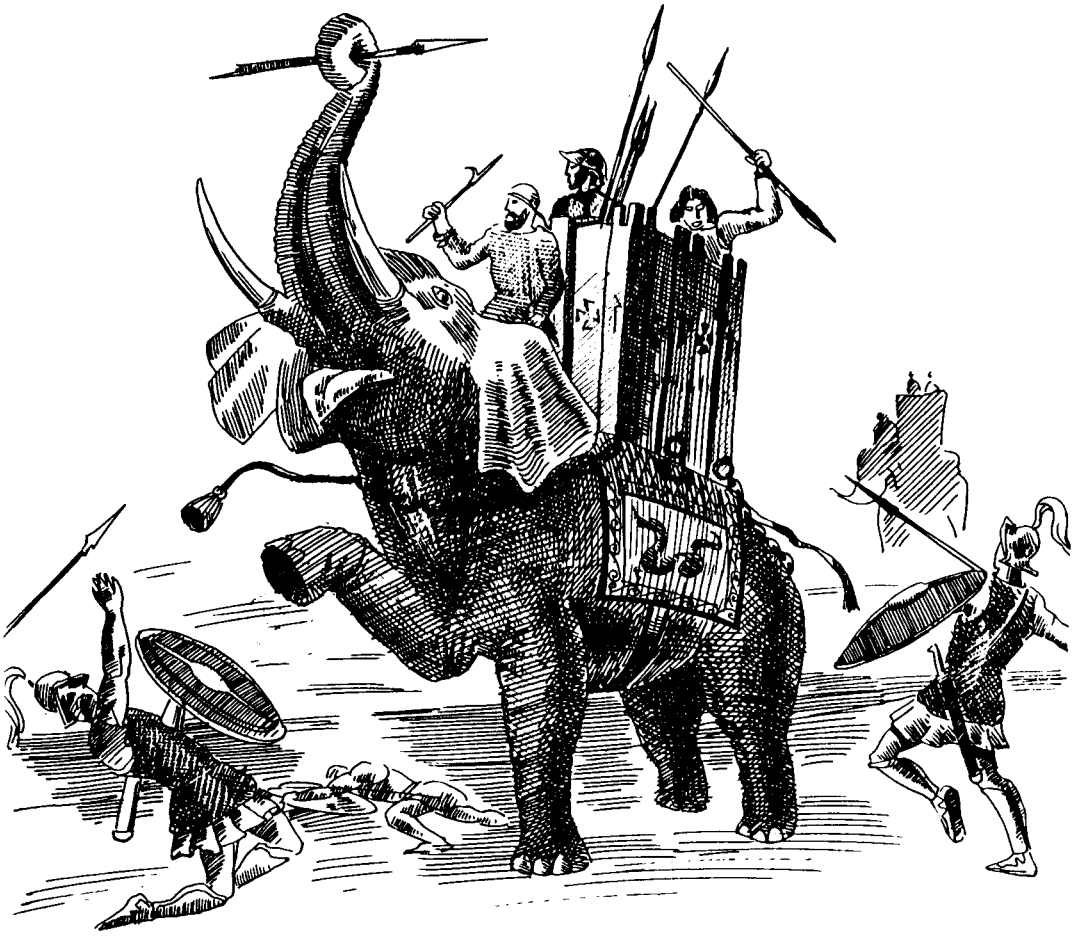
Another offensive arm, in the form of a hammer, is depicted in the right hand of the warrior on Fig 4c. Most likely, it is a stylised picture of the battle-axe called a *chekan* which is characterised by a metal head consisting of a straight pointed blade, round in its cross section, and a shorter but more massive butt (Fig 6b-e).

For Achaemenid times Bactrian heavy armour is known thanks to the only representation where the personage has various devices of defence (Fig 4c and Pl 1D). His helmet seems to go back to cast-bronze tight-fitting headpieces of the "Kuban" type which were in use in the vast steppe area from the Black Sea northern coast to Central Asia during the Early Scythian period (7th to 5th centuries BC) (see Galanina L K in *Kul'turnoe nasledie Vostoka: Problemy, poiski, suzhdeniya*, ed. by Yu V Bromlei and others. Leningrad, 1985, pp.169-183). In particular, an intact helmet of this type was found not far from the Bactrian region - at Samarkand (ancient Maracanda) in Sogdia (Fig 6a). It is thought that one of the centres of manufacturing such headpieces was possibly situated somewhere in the oasis zone of Central Asia. Our picture is indicative of the continuous employment of "Kuban"-type helmets there until at least the 4th century BC.

What may be recognised as the warrior's corselet is a waist-length jacket of thick leather, reinforced with two boomerang-shaped lapels of metal to cover both the chest and shoulders. Additional to this unique corselet is a skirt of strips, manufactured normally of thick leather or fabric (Greek *pteryges*), which protects both the thighs and the groin. Such a protector was obviously of Greek inspiration and must have been borrowed by Eastern Iranians in consequence of the Graeco-Persian wars.

Especially deserving attention are the personage's arm-protectors in the form of flexible tubes of narrow hoops made here perhaps of leather. This contraption appears to be similar, if not identical, to the arm-defence which is referred to by Xenophon (in the first half of the 4th century BC) under the term *cheir* (literally "hand" in Greek) as part of the cavalryman's outfit (Xen. *De re eq*, XII,5) and under the term *peribrachionia* ("brassards") of the charioteer's (Xen. *Cyr*, VI,1,51). As N Sekunda has speculatively supposed (1992, p.27), it was invented and introduced into the Achaemenid forces by Datames, the Persian satrap of Cappadocia, between 372 and 368 BC.

Just a little information may be gleaned about horse harness equipment in Achaemenid Bactria. One can see on the only depiction (Fig 4e) a long bar-like mouthguard (Greek *psalion*). Such devices were attached to the ends of the bit so as to prevent the rein from geting into the horse's mouth. *Psalion*s were a common enough feature of Achaemenid horse-furniture; a bronze bit of three rings, provided with straight cheek-bars, was uncovered at Persepolis (Head D, 1992, Fig 20e). Another article to note is the saddle-blanket which is shown twice. In one case (Fig 3a-c) it is represented as an ornamented piece crenelated at the back and secured with a breast-strap. The other blanket (Fig 4e) is fringed and seems to be thrown over an under-cloth. Made most probably of felt, they are similar as a whole to Achaemenid Persian saddle-blankets (see Goldman B in *Studia Iranica* 13/1, 1984, pp.7-18). Worthy of note is the custom of twisting or braiding the horse's tail and tying it in a bow, which we observe on the pictures under review and which survived in later times.



Graeco-Bactrian War-Elephants (circa 200 BC).

Tentative reconstruction of Euthydemus' forces.
They are engaged in combat against the Seleucids,
during Antiochus III's campaign of 208-206 BC.

CHAPTER 3 - THE HELLENISTIC PERIOD
(LAST QUARTER OF 4th CENTURY TO MID-2nd CENTURY BC)

In the Achaemenid epoch, the methods of warfare of Bactria developed, on the whole, in line with common Iranian traditions. However, within the period now considered Bactrian 'warcraft' was under the strong influence of the military practices and institutions brought and established by the Graeco-Macedonian conquerors and their descendants; although some local conditions did still have a bearing.

In order to strengthen his political control in Bactria and Sogdia, which together, at least in the Early Hellenistic time, formed a single satrapy, Alexander the Great founded various kinds of military settlements there. These were namely: large fortified cities called by our sources *poleis* in Greek and *urbes* in Latin (Arr. *Anab*, IV,1,3-4; 15,3; Strabo, XI,11,4; Diod, XVII, argum. 24; Curt, VII,6,25-26; Justin, XII,5,13); fortresses referred to as *phroyria* and *oppida* (Arr. *Anab*, IV,4; 15,4; Curt, VII,10,15); rural settlements called *coloniae* by Curtius (IX,7,1), a Greek equivalent for which seems to be *katoikiai* (Strabo, XV,2,9; compare Diod, XIX,27,5). As a rule, the Macedonian king installed, in the places he founded, retired warriors, mercenaries, attendants and so on, as well as some numbers of the aborigines. Whom of the newcomers did Alexander prefer to leave in Bactria and Sogdia? Justinus asserts that they were those who were thought by the king to be insurgents in his army (XII,5,13). As such, one should consider first of all the Greeks, many of whom were dissatisfied with Alexander's colonisation policy. And furthermore, when in the winter-time of 329/8 BC the Macedonian king received at Bactra large reinforcements of Greek mercenaries, including 8,000 sent by Antipater, his general of Macedonia (Curt, VII,10,11-12; Arr *Anab*, IV,7,2), at least some part of this last contingent may have previously participated in anti-Macedonian campaigns conducted by Darius III for Persia and by Agis of Sparta (see Holt F L, 1989, pp.79-80). And so, it seems quite reasonable to suppose that such unreliable soldiers could have been left to colonise and secure the conquered territory. However, it was at the same time a mistake on Alexander's part, for the Greeks, forming the bulk of the alien population of Bactria and Sogdia, always craved to free themselves from Macedonian supreme domination.

Their dissatisfaction finally took the form of two rebellions. The first one was undertaken in 325 BC by 3,000 Greek settlers in alliance with some natives; its centre was in colonies near the Bactrian capital, Bactra. The rebels desired to return home to Greece, and they seem to have achieved their aim (Curt, IX,7,1-11 and Diod, XVII,99,5-6, but the latter source speaks of the destruction of the revolted Greeks by the Macedonians). The second uprising, described in detail by Diodorus (XVIII,7), took place two years later and it concerned the Greek colonists of the Upper satrapies, that is, it probably centred again on Bactria and Sogdia as well, because namely these regions are designated in particular under the geographical terms "Upper satrapies" and "Upper country", which Diodorus uses in his writing (see Holt FL, 1989, p.94, note 29). This time the Greeks demanded for themselves their habitual "Hellenic mode of life" and they were able to assemble a big army consisting of 20,000 infantry and 3,000 cavalry. The first *Diadoch* (successor to the departed Alexander), Perdiccas, had sent against them strong Macedonian forces headed by Pithon, who annihilated the insurgents. These revolts inflicted, of course, great losses upon the Greeks settled in Bactria and Sogdia, some of whom were killed, whilst the others, although

not all, retired. And so, in order to retain these far eastern territories, the Diadochs hired mercenaries to serve there. The testimony of this is contained in the *Samia*, a play written by the famous Greek comedian Menander (342-291 BC), which had first been staged between 320 and 310 (see Bernard P, 1985, p.130). In one of its passages (vv. 627-629), ed. by F H Sandbach, Oxonii, 1976) the main male character, named Moschion speaks of, as quite practicable for him, the possibility of going to Bactria to fight as a voluntary soldier. In other words, Bactria is clearly mentioned here as a considerable centre for recruiting mercenaries from Greece. An impetuous growth of Greek colonisation in Bactria and Sogdia took place after their subdual by Seleucus I in the very late 4th century BC, especially during his son Antiochus' rule over the eastern provinces of the Seleucid empire (292-281), when the latter conducted there a very vigorous city-building policy. To all appearances, it was at this period that a large new group of colonists from the Meander valley in Caria (in the south-west of Asia Minor) arrived in the Oxus valley; the influx of people from there continued later on because the third Graeco-Bactrian king, Euthydemus I, is reported to have been from Magnesia on the Meander (see Bernard P, 1985, pp.131-132 and in *Studia Iranica* 16/1, 1987, pp.103-110). It is relevant to notice that Caria had old traditions of providing the East with mercenaries (Griffith G T, 1935, pp.236,255).

It is to be thought that the Seleucids, like Alexander, preferred to employ for colonising Bactria and Sogdia mostly Greeks, whilst Macedonians, as the most efficient and reliable soldiers, appear to have been concentrated by them in the chief dynastic domains, in Syria and thereabouts. True, in order to attract the Greeks to emigrate to the east of their empire, the first Seleucid monarchs had to change Alexander's colonisation policy. He did not give the rights of Greek *polis* autonomy to his foundations in the east and, what is more, he tried to mix in them together both the newcomers and natives as his new subjects, ignoring any ethnic differences; but these Seleucids began to bestow the *polis* status on all the cities founded both earlier and now, without, apparently, including the Orientals in their civic communities (see Koshelenko G A, 1979, pp.212-221). However, this attempt of the Seleucids to use the Greeks as their support in Central Asia failed because it could not solve another problem, namely the Graeco-Macedonian power struggle. The fact is that the predominant position in the Seleucid empire belonged, as all the available texts show, to the Macedonians, who occupied all the main state and military posts. Therefore, the leaders of the Greeks populating Bactria and neighbouring lands, being removed from any real power, desired to seize it. They were finally able to achieve this objective in around 250 BC, taking advantage of the serious weakness of the Seleucid empire by that time.

It is known that Alexander the Great retained the post of *satrap* as the highest administrative and military official of Bactria. A Persian named Artabazus had first been so assigned in 329 (Arr. *Anab*, III,29,1). True, very soon the Macedonian general Clitus had to replace this very old person, but after the former's death the satrapal duties were handed over by the king to a Macedonian, Amyntas by name (Curt, VII,1,19; 2,14; Arr. *Anab*, IV,17,3; 22,3). Amyntas continued to be the *satrap* of Bactria until at least the regency of Perdiccas, when, under the first division of the former empire of Alexander in 323, he was left at his post according to some reports (Curt, X,10,4; Justin, XIII,4,19; 23), whereas Diodorus (XVII,3,3) speaks of a certain Philip sent to be in charge of Bactria and Sogdia. Under the new divisions of the provinces in 321 these regions were passed to a Greek named Stasanor of Soli (Diod, XVIII,39,6). Judging from appearances, the far eastern satraps were, in this troubled time, actually semi-independent of the central authorities. So,

although the governors of Bactria-Sogdia had to send auxiliary troops on the order of their supreme sovereigns, their personal participation in the field campaigns of the latter was not obligatory. For instance, in 317 a contingent from Bactria was added to an army of one of the *Diadochs*, Eumenes of Cardia, however, it was in the composition of levies of Stasander, the satrap of Aria and Drangiana (Diod, XIX,14,7). The situation was then generally favourable to such self-dependency; when the *Diadoch* Antigonus One-Eyed, in the course of the struggle for Alexander's heritage, captured Babylon (in 316), he was forced to maintain some former provincial rulers of the east, including Stasanor, in their positions of duty because their deposition would have needed both a long time and strong forces (Diod, XIX,48,1-3).

For a period after 316 up to the coming of Seleucus I in around 305, textual sources give no information about Bactria at all, but numismatic evidence speaks in favour of the existence at that time of two rulers who might be connected with the Bactrian region, or rather with some parts of it, somewhere in the Oxus valley. One of them is a certain Sophytes who issued coins bearing only his personal name in Greek, without any title and depicting his head in an Attic-type helmet (Fig 7c) (Bernard P, 1985, pp.21,27-28). F L Holt has even supposed, on the basis of examining iconographic features of Sophytes' coins, that he "could possibly have been a Carian mercenary captain who . . . became his own master as Macedonian power declined" (1989, p.97, n.41). Indeed, his Carian origin seems quite possible because the colonists from Caria, as we have seen above, were among those who went to Bactria in answer to the calls of the *Diadochs*. Another governor may have been an enigmatic figure - Vakhshurvar, who also issued coins, on some of which he is pictured wearing a *bashlyk*-type cap (on the obverse) and riding a four-horse chariot (on the reverse) (Fig 7f,g). His personal name in Aramaic script, solely existing on the coin legends, includes a word "*Vakhshu*" meaning in Old Iranian both the Iranian deity of water and the Oxus/Amudarya river. True, I M Diakonov and E V Zeimal' have recently suggested (in *Vestnik Drevnei Istorii* 1988, no. 4, pp.4-19) that Vakhshuvar was a pre-Arsacid governor of Parthia identical with Andragoras who was active in the mid-3rd century BC; however, proceeding from a historical context, he appears to have been a pre-Seleucid ruler of native origin, controlling some territory of Bactria.

The Seleucids, having put an end to the actual independence of the previous Bactrian governors, ruled over the country through their own satraps, two of whom are met with in written sources. In one passage of an astronomical tablet in cuneiform, found at Babylon and dated to 274-273 BC, mentioned are 20 elephants which had been sent to the king Antiochus I by his governor of Bactria termed an (*amelu*)*muma'ir*, literally *hyparchos* or *satrapes* in Greek (Smith S. *Babylonian Historical Texts relating to the Capture and Downfall of Babylon*. London, 1924, pp.155-157). Further, Justinus speaks of the last Seleucid satrap of Bactria (and the first Graeco-Bactrian monarch) Theodotus (Diodotus) I, he calling the latter in Latin a *praefectus* (XLI,4,5), that is "chief" or "general".

Of other persons of military command in Early Hellenistic Bactria we hear only of a *phroyrarchos* who was the commandant of a fortress or fortified outpost called a *phroyrion*, and who had at his disposal a garrison (*phylake*) (Arr. *Anab*, IV,16,4-5). According to the same source (III,29,1), such garrisons were also left in the large Bactrian cities captured by Alexander, as for instance at the citadel (*akra*) of Aornus, where a commandant was assigned from among Alexander's Companions.

Intending to go to India, the Macedonian king left in Bactria in 327, under the command of the *satrap* Amyntas, a big force consisting of 10,000 infantry and 3,500 cavalry (Arr. *Anab*, IV,22,3). It seems to have been a properly satrapal standing army, destined to control the region just subdued, and to have been composed mostly of the Greek mercenaries who were quartered in both the cities and fortresses. It is to be thought that they were not the total of all newcomers left in this country. Apart from them there must have been military colonists populating the rural settlements (*coloniae/katoikiai*) founded by Alexander. Each such colonist had a land allotment (*kleros*) that was granted to him by the king (who was the supreme owner of all agricultural lands of his empire, which were sure to be converted to the royal domains, or *chora basilike*) for performing military service in wartime. This duty was handed down from generation to generation, from father to son. These military allotment-holders, called normally *cleruchs* (*kleroychoi*), seem to have exploited the common native population as a labour force to till their plots; such a practice probably took place in Bactria for the duration of the whole Hellenistic Epoch (see Holt F L, 1989, pp.63-64). On the satrap's order the *cleruchs* had to join the regular provincial troops intending to take the field. One may suppose, with sufficient certainty, that the same military-cleruch system was probably in existence in the cities established there by Alexander (their number in the area of Bactria-Sogdia is reported to have been 8 or 12: Strabo, IX,11,4; Justin, XII,5,13), at least since the Seleucid period. Grounds to think so are provided by documents from Mesopotamia and south-western Iran; these clearly show that under the Seleucids the civic communities of the cities-*poleis* situated there were provided by the king with territories of agricultural lands which were divided amongst the citizens into plots-*kleroi*, and in return for the last they were to serve in the royal army (Koshelenko G A, 1979, pp.227-239). If so, it seems hardly possible that the Seleucid sovereigns could set up in the eastern part of their empire, including Bactria, some other system of military conscription in the local *poleis*, although there must have been one distinction, namely that the far eastern *cleruch*-soldiers were mainly intended to defend their provinces, but not to join the royal troops for campaigning in the west.

Of course, this picture of military settlement patterns in Hellenistic Bactria, based on the known synchronous models established in the West, is just speculative in view of the absence of any direct evidence. However that might be, it seems undoubted that the bulk of the foreign military manpower in Bactria-Sogdia was made up of Greeks - those settled by Alexander and those arriving later under the *Diadochs*. These Greeks were able to assemble large forces, numbering, for example as in the anti-Macedonian revolt of 323 BC, 23,000 warriors (true, the Bactrian and Sogdian Greeks were most likely supported then by their fellow-countrymen from surrounding satrapies). As for the Macedonians proper, some amount of them were in this area too, but they fulfilled, as a rule, the duties of commanders of various ranks. It should be noted that Diodorus' text contains a piece of evidence concerning one or more national groups of the newcomers settled in Bactria-Sogdia. We are informed that in 317 a contingent from Bactria was allotted to levies of Stasander, the *satrap* of Aria and Drangiana, comprising 1,500 infantry and 1,000 horse in total, brought to Susiana to join Eumenes of Cardia against Antigonus One-Eyed (XIX,14,7). However, then describing Eumenes' army just before the battle at Paraetacene (in the same year), he mentions only 950 horsemen of Stasander stationed on the left wing, our source calling them "his (of Stasander) own" (XIX,27,3), that is they were probably the Arians and Drangians, subjects of this satrap. On the other hand, Diodorus speaks too of 500 Thracian riders from the colonies (*katoikiai*) of the "Upper country" (under which name, as we have

seen, one may understand the Bactro-Sogdian province), who were placed by Eumenes not so far from Stasander's cavalrymen, but not together with them (27,5). Therefore, the Thracians could also have been settled in the area under review. Incidentally, the same author refers to 800 cavalry from the "Upper country" on the left wing of Antigonus' army (29,2); that is warriors from Bactria-Sogdia fought at this battle on both sides. True, proceeding from the listed numbers of cavalry, namely the 950 Arians and Drangians of Stasander and the 1,300 total from the "Upper country", the latter could not have been originally allotted to the levies of Stasander. And what is more, it remains vague, where and why did Stasander's Bactrian contingent, which by subtracting his own 950 riders from the above total strength had to number 1,500 infantrymen and 50 cavalrymen, disappear on the march from Susiana to Paraetacene?

As regards the natives in the composition of Bactrian forces during the Early Hellenistic period, we should remember that the best of those to have survived after the war of liberation in 329-327 BC and which submitted to Alexander the Great were introduced by him into his army to be used outside Bactria itself. These warriors had to be armed, trained and organised after the Macedonian fashion, for this was the usual practice of the Macedonian king with respect to the Asiatics involved in his regiments (Arr. *Anab*, VII,6; 8,2; 11,3; Curt, X,3,10; 13; Plut *Alex*, 47; Justin, XII,12,4; compare Diod, XVII,110,1-2). In order to image what this means, let us consider shortly the Macedonian army proper. In spite of some contradictions and lack of convergence of thought amongst scholars investigating its organisation and equipment (see, of the latest summarising works: Brunt P A, *Arrian in Two Volumes. Vol I: Anabasis Alexandri, Books I-IV.* Cambridge (Mass); London, 1976, pp.LXIX-LXXXII; Markle MM, 1982; Sekunda N, 1984; Ferrill A, *The Origins of War : From the Stone Age to Alexander the Great.* New York, 1988, pp.175-215; Devine A in *Warfare in the Ancient World*, ed. by Sir John Hackett. New York, 1989, pp.104-127; Hammond N G L *The Macedonian State: Origins, Institutions and History.* Oxford, 1992, pp.100-136), one may conclude that Philip II and his son Alexander had created in Macedonia, in consequence of their military reforms, very mighty and efficient forces capable of defeating any enemy. Their principal forces were the heavy cavalry and the foot phalanx. The former, being the decisive battle arm, consisted first of all of riders of aristocratic origin called the Companions (*hetairoi*) who were organised in some squadrons (*ilai*), including the Royal one as their vanguard (*agema*). They wore a helmet and body-corselet and were armed with a lance (*xyston* or *dory*) as the main offensive weapon plus a curved slashing sword (*kopis* or *machaera*). in action on the field of battle, the Companion cavalry attacked the enemy in a wedge-shaped formation (*embolon*). As another regiment of the Macedonian heavy-armed cavalry one should consider the mounted lancers (*sarissophori*) mentioned only a few times in the army of Alexander (Arr *Anab*, I,14,1; Curt, IV,15,13), but identical, to all appearances,, with his *prodromoi* referred to much more often (Arr *Anab*, I,12,7; 14,6; II,9,2; III,7,7; 12,3; 18,2; 20,1; 21,2; Diod, XVII,17,4). The *sarissophori/prodromoi* are usually thought to have been lightly equipped and are sometimes assumed to have been the Thracians. However, they were most likely Macedonians; their Thracian origin is solely implied by Diodorus' corrupted passage just cited. As to their equipment, judging by their principal weapon, namely the very long lance called a *sarissa* (in different appraisals, from 2.75 to 4.5 m in length, see below), intended like those of the Companions (which were presumably somewhat shorter) for striking in shock direct charge, these mounted lancers were sure to have needed defensive armour similar to that of the Companion horsemen. Otherwise, taking into account the fact that the

riders had to hold the *sarissa* by the one hand and the reins by the other, circumstances dictating against the use of a shield, the absence of any head- or especially body-protectors would have made them open to injury from hostile missile troops and would have reduced their capacity for close combat as well. Another commonplace concerning the *prodromoi*, which stands in need of some correction, is their usual interpretation as "scouts". The fact is that the Greek term *prodromos* means literally "running or going in advance"; in our case, proceeding from the passages adduced above, under *prodromoi* one should understand the advance-guard operating, along with other regiments of the Macedonian army (including the Companion cavalry units), both in the first line of the order-of-battle and in forced marches. Furthermore, they performed the functions of the real scouts (*skopoi*) too, supported sometimes by the Companion squadrons again (Arr *Anab*, I,12,7; III,7,7), however, this role certainly was not the main one for the *prodromoi* (to say nothing of the Companions). Incidentally, *prodromoi* as namely soldiers of the advanced forces are mentioned in the composition of the Seleucid army of the 2nd century BC (Joseph Ant. *Jud*, XII,314;372). The fact that the *sarissophori/prodromoi* are referred to for the last time in 329 BC, when they fought against the Central Asian Scythians on the bank of the Tanais (Syrdarya) river, seems to hint at their incorporation with the Companion cavalry soon after this event. It should be noted that this quite long discussion about the Macedonian mounted lancers is necessary here because of the presence of similarly equipped horsemen amongst the host of the Graeco-Bactrian king Eucratides the Great (see below).

The Macedonian foot phalanx consisted of the *pezhetairoi* ("Foot Companions") organised into battalions or brigades (*taxeis*) which acted in close order in files of 16 men deep or in double files of 8 men deep. Each *pezhetairos* had a pike (*sarissa*) which was longer (up to 5.5 m) and heavier than the cavalry ones; it was wielded in both hands. He was protected with a bronze helmet, greaves and a small circular shield (average 60 cm across) suspended by a strap from his neck or shoulder in order to set free the hands for carrying the sarissa. Some of the phalangites, the front-rankers, could have worn body-corselets. Another regiment of the Macedonian infantry was the king's corps d'elite composed of the *hypaspistai* ("shield-bearers") who were organised into three battalions (*chiliarchiai*), including one as the Royal foot-guard (*agema*). Their name implies that they may have had the shields larger and heavier than those of the *pezhetairoi*; if so, then their pikes could not have been as long as the infantry *sarissae*, since the last would have required the use of both free hands. Along with the phalangites, the *hypaspistai* formed a "first-line" infantry of the order-of-battle and they were sometimes included in the phalanx itself. The application of tactical co-operation between the heavy cavalry lancers and the pike-armed infantry formation made an assault by the Macedonian army especially formidable.

Alexander's Oriental recruits, including the Bactrians, would have been armed and trained in the Macedonian manner just described. Speaking of those local soldiers who were left in Bactria, let us suggest that they, preserving their own particular characteristics of warfare, were probably employed in satrapal service. Nevertheless, the large-scale employment of native contingents there appears to have begun since the Graeco-Bactrian period (see below).

The Greek levies of the Bactrian satraps consisted of infantry and cavalry forces. In order to get some information about their armament, completely lacking in our sources at all, it is necessary once again to draw upon indirect evidence. Thus, it is known that the Greek contingents of Alexander's army conquering the Persian empire comprised both allied horse and infantry from the member states of the Corinthian League, as well as both mercenary horse and infantry. We have also to keep in mind the Thracian cavalrymen of the Macedonian king because some of them, as said above, were perhaps settled in the area of Bactria-Sogdia apart from the Greeks. All these troops were undoubtedly outfitted and drilled after their own styles. According to some speculative observations presumed by N Sekunda (1984, pp.19-23, 32-34), Alexander's Greek allied cavalry and infantry would have been heavily armed contingents, that is provided with, besides other defensive arms, body-armour (such as the "muscle"-cuirass attested in pictorial evidences); Greek mercenaries and the Thracian horsemen would have fought in lighter equipment, wearing helmets and tunics but no body-corselets and carried spears and swords; the Greek foot mercenaries would have been armed like the hoplites of Spartan style, who had large bronze shields (average 80-90 cm in diameter) and helmets as protective armour and fought with normal infantry spears (average 25 m in length) and short swords as offensive weapons. Indeed, Arrian (*Anab*, III,18,1-2; compare IV,25,5-6) is inclined to assume that the Greek mercenaries of Alexander, or at least some part of them, may have had heavier armour than did his Macedonian phalangites. True, another type of armament is thought likely to have been used by the Greek mercenary infantrymen of Alexander's army, namely by peltasts, widespread by then in the Greek world, which normally consisted of a small light shield (*pelta*), a javelin that could also be held as a thrusting spear, and a sword as well. Sometimes the peltasts are believed to have been armed with very long pikes and long swords, but probably just occasionally, and not as a rule.

In general, the Greek mercenaries in Alexander's service must have performed two principal functions - the participation in detached expeditions and the duties of garrison troops, whereas in his battle tactics they were probably employed as a "second-line" foot force behind the main phalanx (Griffith G T, 1935, pp.17, 30-32). The other national contingents under review seem to have played similar roles in the strategical and tactical plans of the Macedonian king; in particular, their mounted forces performed in his great battles an auxiliary function of guarding the flanks of more valuable troops, such as, for instance, the Thessalian cavalry.

Considerable changes in Greek warfare under the Macedonian impact started soon after the death of Alexander. His successors, the *Diadochs*, who struggled to replenish their armies with recruits from Macedonia proper these being the most proficient soldiers at performing the required mode of battle tactics, were forced to introduce some foreigners, including Greek mercenaries, into the phalanx formations. This adoption of Macedonian warfare by the Greeks, having been begun amongst the mercenary soldiers serving in the East under the *Diadochs'* leadership, was eventually disseminated to mainland Greece, where in the 3rd and 2nd centuries BC citizen and national infantry forces were converted to the Macedonian-phalanx style of fighting, with the use of related equipment, above all the pike-*sarissa*. On the other hand, rather different was the case of heavy cavalry of the Companion style which seems never to have been attractive to the Greek mercenaries for the reason of its expensive equipment; in addition, this mode of fighting demanded such a high a degree of training that it could only be attained by the real Macedonians of noble

origin in the course of long-term,, special exercises (see Griffith G T, 1935, pp.49-53, esp 317-318). A similar process of the "Macedonianization" of warfare could have taken place in Early Hellenistic Bactria too, but it had rather to affect the local Greeks, while the natives must have continued to use their own style of fighting on horseback and seem never to have been involved in the foot phalanx. To all appearances, the phalanx was not the only Macedonian military innovation there because we meet in Bactria, at least in the first half of the 2nd century BC, with mounted lancers equipped like the Macedonian Companions/*sarissophori* (see below). Though the real initiators of these reforms could have been the Seleucid kings Seleucus I and Antiochus I who wanted ways to strengthen their far eastern frontier, the Bactrian Greeks, in turn, had to be at least as interested in them, for after their defeat in the revolt of 323 BC which had demonstrated the military superiority of the Macedonians they understood that in order to achieve independence they needed to have an army as strong as that of the Seleucids.

The third fighting arm in Early Hellenistic Bactria, besides the infantry and cavalry, must have been the war-elephants that seem to have appeared there under the Seleucids. The elephants mentioned in the above Babylonian cuneiform document as sent by the Bactrian governor to Antiochus I to reinforce his army during the First Syrian War (275-273) provide testimony in favour of such an assumption. True, Bactria is usually thought to have been solely a transit point through which the elephants were simply passed on from India to Syria (Bar-Kochva B, 1976, pp.76-79 and also Tarn W W in *The Journal of Hellenic Studies* 46/2, 1927, p.157). Nevertheless, it seems quite plausible that there was a special station for breeding and maintaining war-elephants in Seleucid Bactria, similar to the famous elephant-stable of the Seleucid monarchs at Apamea in Syria (Strabo, XVI,2,10). If so, it would have been situated probably somewhere in the south-eastern portion of the Bactrian region, where the climatic conditions were suitable for breeding these animals, primarily supplied from India, in order to use them and their offspring in both the royal and satrapal forces. My grounds for assuming such are not just the cited Babylonian document and, additionally, the fact of the presence of war-elephants in the Graeco-Bactrian army of the late 3rd century (see below). One more argument concerns the transfer of 500 elephants by the Indian king Sandrocottus (Chandragupta Maurya) to Seleucus I as part of the terms of their peace treaty signed after the latter's Indian campaign between 305 and 303 BC (Strabo, XV,2,9; Plut *Alex*, 62). Seleucus could have left some of the obtained animals in Bactria, his most important eastern province, to strengthen local forces; and thirty years later some of their descendants may have been allotted to an elephant regiment sent to the west on the order of Seleucus' son Antiochus I. (It is thought that an elephant would be ready for battle use at the age of 12 and to reach the zenith of its physical strength at 20-25, but to live in captivity only for 20-30 years, instead of the natural span of 60 years; see Bar-Kochva B, 1976, pp.78-79).

All of the above discourse applies to military matters in Bactria within a period from Alexander the Great up to the end of Seleucid rule. As to the subsequent Graeco-Bactrian period, we have much more information, mainly iconographic and material data, enabling us to elucidate more fully upon the main theme of this current work, Graeco-Bactrian warfare as well as Indo-Greek aspects closely associated with the former:

Armed Forces: Unfortunately, our sources point directly at only two forces in the composition of the Graeco-Bactrian army - cavalry and war-elephants. However, at the same time the Indian Buddhist treatise *Milindapanha*, in which one of the two main personages is the Indo-Greek king Milinda, that is Menander I Saviour (about 155-130) who is widely known from both numismatic and literary evidence, frequently mentions his four-fold army composed of war-elephants, cavalry, war-chariots and infantry (Paribok A V, 1989, pp.66,86,88-90). This testimony is very important to us, if here, of course, we are not just being regaled with the mere repetition of a standard four-fold division (*caturangabala*) of ancient Indian armies known as early as from epic times and beyond (see Majumdar B K, 1960, pp28, 54-55, 75, compare 88). In such a case these mentions in the *Milindapanha* may be purely didactic examples to illustrate some reasonings of Milinda/Menander's philosophical opponent, a Buddhist monk, Nagasena. True, the information pertaining to Menander's host seems on the whole quite probable, perhaps except for some dubious details concerning his war-chariots (see below). Some words should be said about the treatise itself. The *Milindaphanha* ("Milinda's Questions") has survived as a whole in a Pali (the language of ancient Ceylon) version (apart from a much shorter Chinese one of the 4th century AD) and may be divided into two parts. The earliest part, comprising mostly Books I and II and displaying some marked vestiges of Greek cultural presence, must have been written in hybrid Sanskrit before the commencement of our era in north-western India where Menander reigned and could meet Nagasena. On the other hand, the rest, containing Books III-VI, must have been finished much later, Books IV-VI having been written in Ceylon (see Paribok A V, 1989, pp.11-12, 48-50). Thus, Books I and II are of primary historical value on Menander's actual institutions, including those of a military nature, and all the data from the *Milindapanha* cited in the present work belong to this earliest section.

Although nothing is definitely known about the Graeco-Bactrian infantry, the fact of its existence can hardly be called into question. The pike-armed foot phalanx was the mainstay of all the armies of the Hellenistic states, and the army of Greek Bactria would not be an exception. Lack of textual evidence is solely to be explained by the general paucity of information surviving in the ancient narrative tradition on Hellenistic Bactria. Equipped and drilled most likely after the Macedonian/Seleucid model, the Graeco-Bactrian phalanx would normally have been recruited from amongst the Greek colonists-*cleruchs*, whilst mercenaries might have been hired chiefly to serve as lightly armed auxiliary troops, like their colleagues in the west are thought to have been for the most part, especially in later Hellenistic times (see Griffith G T, 1935, pp.318-320). If so, some of the mercenaries fighting on foot could be used in armies of the Graeco-Bactrian and Indo-Greek rulers as *peltast*-type combatants (on their equipment see above) with the function to defend the flanks of the main phalanx and to compose a "second-line" formation behind it; the other mercenary infantrymen could be skirmishers (archers, slingers, javelin-throwers) acting in front of the phalanx. There are few representations of Graeco-Bactrian and Indo-Greek foot warriors. Some of them are shown in full armour (Figs 23q and 24a,e,f), and this inclines one to believe that those so uniformed may have belonged either to elite infantry units or are army officers. One depiction appears to show an ordinary soldier wearing a long tunic and holding a large oval shield of Italic provenance called in Greek a *thyreos* ("door") (Fig 24b); he is, of course, not a Macedonian-style phalangite, since his huge shield does not allow him to operate with so long a pike as the infantry *sarissa* which required two free hands. Incidentally, another *thyreos* is seen borne by a warrior on Fig 24a; its surface is decorated with a massive relievo device which seems to be shaped into a lizard or even

rather a *varan*, but at any rate hardly into the well-known Hellenistic "winged bundle of lightnings" (see Fig 17) or Roman "winged thunderbolt" devices which it only superficially resembles. Fortunately, some distinct remains enabling us to make a full restoration of an actual Graeco-Bactrian shield of the *thyreos* type with very big dimensions (1.30 x 0.64 m) have been found at Ai Khanum; its facing seems to have originally been painted with a standing human figure (Fig 8m). All these pieces of data might incline us to suppose that the bearers of such shields (*thyreophoroi*) may have formed infantry units in the service of the Greek rulers of Bactria and Paropamisadae. If so, their soldiers may have worn some body-armour at least (Fig 24b), and their officers would have worn a full defensive set (Fig 24a and Pl 3A); the former would have fought with a spear or not very long pike, the latter with a sword. Developing this speculation further, one might suggest that the above shield devices could have served as blazons of different *thyreophoroi* units. They could have played the same battle role as the Macedonian *hypaspistai* who, as said above, though not being a part of the phalanx, were normally drawn up along with the phalangites in the first line of an infantry array.

Let us turn now to the cavalry: According to Polybius (X,49), 10,000 horse of the Graeco-Bactrian king Euthydemus I stood up to an army of the Seleucid Antiochus III at the battle of the Arius (Herirud) river in 208 BC. Euthydemus' force was composed of riders of Bactrian origin (*ton Baktrianon hippeis*) and, being possibly a large tactical unit called a *myrias* (that is properly 10,000), it was organised in three squadrons - *hipparchiai*; this mounted contingent entered into battle alone, without any support from the other troops headed by the king himself, which stayed at some long distance from the battlefield. Although arms of the Bactrian horsemen are not spoken of at all, however, judging by an account that they charged in a loose order (*ataktos*) one may conclude that they must have been light-armed missile troopers, using mainly bows and javelins at a distance, but not being suitable enough for face-to-face combat. Some additional, although indirect, information about their weapons is contained in Book 8 (*Karnaparva*) of the great Indian epic *Mahabharata*, where the mounted warriors called Bahlikas, that is most likely Bactrians (see Tarn W W, 1985, pp. 125, 136, 169), are mentioned as outfitted with spears, javelins and quivers as well as with some armour (?) (Vasil'kov Ya V, Neveleva S L, 1990, p.54).

It is to be thought that not later than in the first half of the 2nd century BC the Graeco-Bactrian rulers began, probably after the lesson of the defeat at the Arius, to use heavily armoured mounted warriors (*cataphracti*), fighting in close formation, and in strict co-operation with light horsemen. The existence of such heavy cavalry units in the forces of the Bactrian Greeks is well confirmed by the finding at Ai Khanum of iron armour elements of not Greek but Eastern Iranian appearance, intended for both soldier and horse (Fig 13b-e; compare 11m-p). The *cataphracti* were sure to have appeared in Graeco-Bactrian service under the direct inspiration from the Central Asian steppes (see above, Chapter 2).

It should be said that the fact that Polybius speaks of Euthydemus' horsemen at the Arius as purely "Bactrians" by origin is usually thought to testify in favour of important parts being played by the native nobles and their soldiery in the Graeco-Bactrian kingdom. So, W W Tarn wrote about the last as "a double state: a state in which the Bactrian landowners, while continuing to manage their estates, also came to the Court and had their share of the administrative posts and prospered considerably, for that 10,000 horse means a

considerable increase in the number of their retainers" (1985, p.125). This theory is shared by some other scholars who insist moreover, that native Bactrian cavalrymen not only formed the core of the Graeco-Bactrian army but also played a much more considerable military role than even the local Greeks did themselves (Wolski J in *Klio* 38, 1960, pp.110-121; Leriche P in *Schriften zur Geschichte und Kultur der Antike* 25, 1985, pp.65-79). For certain, the mounted natives constituted a substantial portion of Bactrian Greek armies, and their participation in the anti-Seleucid struggle must have been very important, if not decisive. However, they were not, doubtless, the principal and only efficient armed branch, otherwise the Greek hold in Bactria would have always been under serious threat from the local Iranians. It seems very doubtful too, that the native aristocracy had any high administrative positions under the Greeks; two onomastic instances adduced by W W Tarn (1985, pp.125, 422) in supporting his theory have no strong proofs. At the same time, the available onomastic data connected directly with the Greek presence in Bactria and India testify to the political and social dominance of the newcomers there. Not to mention the fact that all the known names of Graeco-Bactrian and Indo-Greek kings are of the Balkan (mostly Greek) origin, we have at our disposal a number of personal names revealed in the course of the excavations at Ai Khanum, of which the overwhelming majority are Greek (plus some Northern Greek and Macedonian), while just a few (seven or eight) are Iranian (Bactrian). It should be noted that most of the latter belonged to persons serving in the Treasure-House, they being referred to in documents as functionaries of a second, lower rank, but never of a first rank which was occupied by the Greeks only (see Rapin C, pp.315-372, esp. 360 and Grenet F, pp373-381, both in *Bulletin de Correspondance Hellenique* 107/1, 1983). In addition, there is one indication of the dominant position of the Greeks in the social hierarchy of Indo-Greek society, namely a passage from the *Milindapanha*, where Greek (Yonaka) women are listed before women representing such traditional Indian classes as the *Kshatriyas* (warriors), *Brahmans* (priests) and *Vaishyu* (husbandmen); in other words, it may be considered as evidence that the Greeks (and their descendants from mixed marriages as well) were the most privileged class in the conquered lands of north-western India (Paribok A V, 1989, pp48-49, 108, 393). The social situation in Bactria had to be the same.

Unfortunately, we do not know whether the native nobles kept any military roles in Hellenistic Bactria. One may merely suppose that at least some of them, manifesting loyalty to the conquerors, could have continued to rule over the territories populated by the aborigines, and to recruit from among their retainers cavalry contingents for the royal army and to lead them on campaign in person. Apparently, some of the native troops were quartered at the largest cities of the region as parts of their garrisons. On the acropolis of Ai Khanum there have been discovered very modest and small dwellings as well as a typical Iranian sanctuary in the form of a stepped podium in the open air, which might have been intended for the indigenous soldiers of a local garrison (see Bernard P in *Problemy antichnoi kul'tury*, ed. by G A Koshelenko. Moskva, 1986, pp.251, 257).

Reverting to the cavalry force again, it is needful to say that our sources mention , apart from the Bactrian horsemen, other horsemen of Greek origin. Some references to the Greek (Yavana) mounted warriors, alongside with the Kambojas (some Eastern Iranians), the Shakas (Indo-Scythians/Sacae) and the Tukharas (Yüeh-chih/Kushans), are met with in the *Mahabharata*; in one of its passages we even hear of 3,000 Yavana riders armed with spears, swords and javelins, who are called "highly honoured among the heroes", that is

believed to be the first-class cavalrymen (Vasil'kov Ya V, Neveleva S L, 1990, pp. 131,145, 178, 217, 256, note 199). Cavalry regiments of the Indo-Greek kings figure too in other Indian textual sources, such as the *Milindapanha* (see above) and the *Malavika* and *Agnimitra*, a drama of the outstanding ancient Indian dramatist Kalidasa. Act 5 of the latter preserves the memory of a battle between a certain Yavana king (usually thought to be the great Indo-Greek monarch Menander I) and Vasumitra from the Indian Sunga dynasty, which had taken place of the banks of the Sindhu (Indus?) river in about 150 BC. According to the text, the Yavana had at his disposal mounted soldiery, whereas his other forces are not referred to at all (Narain A K *The Indo-Greeks*. Oxford, 1957, p.82 with note 5). Of course, this speaks of the importance of the cavalry units in the armies of the Indo-Greek kings - well con{irmed also by frequent depictions of cavalrymen on their coins (Figs 19d, 21c, 22b,e), where we see the kings themselves wearing the uniforms of officers of the highest ranks, which consisted of various articles of protective armour as well as spears and bows.

As regards the Graeco-Bactrian cavalry, apart from the native riders there must have been a regiment composed of Greek mounted warriors equipped after the Macedonian style of the heavily armed Companions/*sarissophori*. As representations of such warriors one must consider the heavenly twins Dioscuri, charging on horseback with with very long lances couched in one hand, who are shown on coins of Eucratides I the Great (Fig 19b and Pl 3B). It seems quite possible to me that it was this type of armament that was used by Eucratides' 300 picked troopers who are mentioned in Justinus' story (XLI,6,4) about his war against the Indo-Greek king Demetrius (II): at that time, being besieged by a 60,000-strong hostile army for five months, Eucratides was finally able, by virtue of his continual sallies with those 300 combatants, to gain the victory. These elite troopers might have constituted the king's squadron of bodyguards. Interestingly, the *Milindapanha* repeatedly mentions 500 Greeks (Yonakas) surrounding King Menander and continually escorting him on all his journeys (Paribok A V, 1989, pp.66, 76-78, 80, 82). They are believed by W W Tarn (1985, pp.267, esp. 418) to be Menander's Council like that of other Hellenistic monarchs, however, they seem rather to be his bodyguards. At best, only four of them, namely those who are called, unlike all the others, by their personal names - Devamantiya (Demetrius?), Anantakaya (Antiochus?), Mankura and Sabbadinno (Paribok A V, 1989, pp. 78, 79, 83, 84; Tarn W W, 1985, pp.422-423), could be genuine counsellors of the king. True, neither Justinus nor the *Milindapanha* specify whether the retainers of Eucratides and Menander were on foot or on horseback. However that might be, it is to be supposed that every one of the Greek kings of Bactria and India had at his disposal both mounted and foot bodyguards. As members of the latter I tentatively suggest warriors pictured on gold clasps from the Tillya-tepe necropolis (Fig 24e,f and Pl 3C), who appear to be outfitted like the Macedonian-style *hypaspistai* from the Royal Guards or *agema*.

Speaking of the infantry and cavalry forces, it is needful to broach a problem concerning the hiring of mercenaries from the West to serve in Bactria and India. We have no grounds to deny the continuation of this practice there after the collapse of Seleucid rule, although it seems probable that the Seleucids could lay obstacles to prevent the penetration of mercenaries into the far eastern regions, hoping so to weaken the local Greeks in order to restore control over them. Apparently, though, some of the most desperate "soldiers of fortune" from the Greek Mediterranean still managed to reach Bactria. Al N Oikonomides has recently even attempted to reconstruct, on the basis of interpreting legends and

representations on some very rare coins of probable Central Asian provenances, a picture of activities in the Bactrian region of various mercenary armies which would have arrived in the 2nd century BC from Syria, Egypt and Susiana (in *The Ancient World* 15/1-2, 1987, pp.17-19). However, his reconstruction, though very entertaining, is much too speculative and resembles fiction rather than history. For the Indian region, of interest is a passage from the *Miles Gloriosus*, a play written between 205 and 200 BC, by the famous Roman comedian Plautus, wherein its main character, a Greek warrior from Ephesus in Asia Minor, Pyrgopolinices by name, asserts that he would have wounded an elephant while campaigning in India (vv. 24-30, ed by A Fleckeisen. Lipsiae, 1876). This seems to hint, in spite of the fact that the personage is portrayed by the author as a boaster, at the actual practice of hiring (by Graeco-Bactrian rulers?) Greek soldiers, from Asia Minor in particular, to serve in the far East, and share in the participation in conquering opulent lands lying south of the Hindukush. For later times, ancient Tamil literary tradition of the early 1st millennium AD preserves mentions of Greeks (Yavanas) as being distinguished by their formidable look, who were employed in Southern India as kings' bodyguards and palace-guards (see Meile P in *Journal Asiatique* 232/1, 1940, pp.106-113; Vickers M in *American Journal of Archaeology* 98/2, 1994, p.243; Ray H P in *Journal of the Economic and Social History of the Orient* 31/3, 1988, pp.313-314). These late Yavanas are usually thought to have arrived from the Roman East, but some part of them may quite well have come to apply for a mercenary job from the former Greek North-Western India.

Graeco-Bactrian warriors, in turn, could occasionally be employed far west of their own region. So, Justinus (XXXVI, 1,4) reports that in 141 BC the Seleucid, Demetrius II, in his struggle against the Parthians had formed a coalition consisting of Persian, Elymaean and Bactrian troops, which helped him gain a number of victories. Our source denominates these national contingents as *auxilia*, so we can not know with any certainty whether they were hired as mercenaries or in some other way.

The third fighting force in the composition of the Graeco-Bactrian army was the elephants which, as I have already argued, may have appeared in Bactria under Seleucid rule. War-elephants were definitely possessed by Euthydemus I, for elephants are referred to by Polybius (XI, 34,10) as being transferred by this king to the Seleucid, Antiochus III, according to terms of their peace treaty concluded in 206 BC after the latter's two year siege of the Bactrian capital Bactra/Zariaspa. In this connection, especially worthy of note are two silver *phalerae*, now kept in the Hermitage collection and convincingly identified by K V Trever (1940, pp. 45-48) as pieces of Graeco-Bactrian workmanship, which depict war-elephants, each carrying a mahout and a tower (*thorakion*) with two soldiers inside (Fig 16a,b and Pl 2). After Euthydemus' son, Demetrius I, began to conquer lands lying in north-western India, the military employment of elephants by the Greeks settled on either side of the Hindukush was bound to increase. It must be more than mere chance that Demetrius portrayed himself as crowned with elephant-scalp headgear (Fig 16c,d). The Milindapanha mentions war-elephants in the army of Menander. In addition, iron hook-like goads, by means of which the mahouts drove the animals, were found at Ai Khanum and in an Indo-Greek (?) deposit of Bhir Mound at Taxila (Fig 14c,d).

As stated earlier, a chariot force is featured in the *Milindapanha* as part of Menander's army. Did this Indo-Greek king use war-chariots in reality, as for instance did some of his Seleucid colleagues (see Bar-Kochva B, 1976, pp. 83-84; Sekunda N, 1994, p. 26)? It is very difficult to answer this question with any certainty. Of course, we know that chariots always constituted one of the basic army components of armies in ancient India , from Vedic times through to at least the Gupta period (Majumdar B K, 1960, pp. 16, 28, 49-52, 54-55, 75, 88). It therefore seems reasonable to suggest that an author of the *Milindapanha* could just be reflecting this traditional whole army composition, well known to him, by the adding of chariots to Menander's cavalry, infantry and elephants, the existence of which cannot be called into question. As to the Bactrian region, there are two representations of chariots on coins of local Hellenistic rulers, namely of a certain Vakhshuvar (Fig 7g) and of Plato (Fig 19g). They are both four-horse chariots (*quadrigae*), each carrying only a driver; the box-shaped body of the specimen on Plato's coin is adorned with cross-like patterns. In addition, a chariot of the Graeco-Bactrian king is mentioned in an interesting and simultaneously tragic context by Justinus in his history of Eucratides the Great. According to our source (XLI, 6,5), when this monarch was returning from the campaign in India, he was killed by his son, whom he had earlier appointed as his co-ruler, and who, even "not dissembling the patricide as if he had killed an enemy, not his father, drove his chariot (*currus*) through his (Eucratides') blood and ordered to cast out his body unburied". We might hypothesise that this un-named son of Eucratides was Plato, the only one of the Greek kings of Bactria and India to issue coins bearing with the depiction of a chariot. Whatever the result of our hypothesis, all the aforementioned chariots were undoubtedly not for use in battle, but intended for persons of the highest rank as means of locomotion and at the same time as their additional prestige symbols. It should be noted in this connection that in the *Milindapanha* Menander is usually riding a beautiful chariot whilst travelling; moreover, the king himself asserts that he never moves afoot. In one passage there is even the description of the elements used in to chariot construction, namely the pole, axle, wheels, body, handrails, yoke, reins, goad (see Paribok A V, 1989, pp. 66, 76, 78, 81).

The presence of one other force in the Graeco-Bactrian army is hinted at by the finding of a number of massive stone balls within the citadel fortifications of Ai Khanum. Their diameter and weight vary correspondingly from 12.3 to 25.8 cm and from 2.2 to 20.5 kg (Fig 14a,b). They must have been used against people or light installations, but hardly against ramparts (Leriche P, 1986, pp. 114-115). To cast such balls would almost certainly have required the application of special throwing-machines, so one may assume the existence of some kind of artillery at the Bactrian Greeks' disposal.

Just a few words about total strengths of forces: According to a tentative estimation of A M Simonetta, based on Polybius' account of the number of Bactrian horse at the Arius (X, 49,1) and on presumable numbers of other Hellenistic armies as well, the Graeco-Bactrian troops in the time of Euthydemus I could be reckoned to constitute ,as a whole, about 22,000, namely 10,000 Bactrian horsemen, not more than the same number of Greek infantry and about 2,000 Greek cavalry (1960, pp. 59-60). However, only the figure for the Bactrians can really be accepted with real confidence. Justinus speaks of an Indo-Greek army of Demetrius II as numbering 60,000 warriors (XLI, 6,4). Even if by chance this figure is not exaggerated, we must understand that its Greek portion could hardly have been more than half, the other had to be formed by natives.

Battle Tactics: As far as battle tactics are concerned we should be aware that unique testimony of Graeco-Bactrian tactical methods is given in the description of the battle of the Arius (Polyb., X,49), already mentioned. We are informed that Euthydemus, preparing to meet Antiochus III going from Parthia, disposed his army in Tapuria situated somewhere in the Arius/Herud oasis, while his advance force, comprising 10,000 Bactrian cavalry, occupied positions by the river fords to guard them at daytime; at night time they retired to a town lying not far away. Antiochus, knowing this, had moved all through the night and begun to cross the Arius at daybreak; he could cross with most of his troops. However, the Bactrians had time to reach the bank when the Seleucid army was drawing up in order of battle. Their vanguard, the first *hipparchia* charged Antiochus with his 2,000-strong advance detachment. The king was able to defeat it, but then the second and third *hipparchiai* joined the battle one after another, and the enemy wavered; (it is, perhaps, interesting here, for comparison, to cite Justinus' evidence (XLI, 6,4) of a tactical method used by Eucratides the Great, who, when he was besieged by Demetrius II, made his not numerous regiment perform continuous sallies). Some time later, when the whole Seleucid army, having at last formed into its normal battle array, succeeded in pressing on the Bactrians in hand-to-hand combat, the latter, lacking sufficient weapons and training for such a mode of fighting, were put to flight. Pursued by the enemy cavalry, they were mostly killed or captured. Only a small number of them were able to reach Euthydemus, who did not continue the action, but withdrew his depleted forces eastward to Bactra/Zariaspa. Nevertheless, this victory was won by Antiochus at a high price; in particular, he was wounded himself, and his horse was slain.

Naturally enough, a question is raised here; why did the king Euthydemus commit at the Arius solely his Bactrian cavalry, not the whole army? In an opinion of W W Tarn, the Graeco-Bactrian ruler was afraid of the unreliability of his Greek soldiers who might refuse to fight against so legitimate a monarch as the Seleucid Antiochus III, and even desert to him (1985, p.124). Deserving attention is also another explanation, proposed by A M Simonetta, which seems more preferable, since it is grounded upon considerations of a military nature. He writes: "As a matter of fact, an infantry force, including the phalanx, was an easy prey to the cavalry at the river crossings, where it might be attacked before it could form ranks (cp. various passages in Xenophon), but once a regular bridgehead had been secured, only a superior infantry force could force back the phalanx. It is therefore evident that Euthydemus could not oppose Antiochus who had an equal force of Greek infantry, while his militia could effectively man the walls of Bactra and his light troops could prevent its complete blockade and ensure supplies" (1960, pp. 59-60). All the above considerations could have been taken into account by Euthydemus; at the same time, he had to be aware of the military might of Antiochus and, most likely, did not undertake the task of completely defeating the Seleucid troops at the Arius, but only tried to inflict as many losses upon them as possible by using the opportunity of charging the vulnerable enemy, unformed after crossing the river. For this purpose Euthydemus sent his Bactrian horse, saving his other troops, mostly foot, for defending the capital city of the kingdom. Taking into account the fact that Antiochus failed to capture Bactra/Zariaspa and was forced to make a peace treaty with the Graeco-Bactrian king, leaving him on the throne, one should recognise the latter's plan of waging the war to have been correct.

Owing to the sparsity of direct evidence, we may only attempt to sketch a picture of military methods: In spite of the basic fact that both Graeco-Bactrian and Indo-Greek military methods naturally followed those of Hellenistic warfare in general, there was at least one serious distinction. This manifested itself in the much greater deployment of cavalry contingents on the battlefield, especially in Bactria, as opposed to the Hellenistic West where the importance of cavalry after Alexander and his earliest successors continually declined. This characteristic was conditioned, firstly, by the presence in Bactria itself of numerous and well-drilled native horse existing as a traditional local arm and, secondly, by the strong necessity for the Graeco-Bactrian rulers to deter in their northern frontier a permanent onslaught of the Central Asian nomads, whose hordes were mounted and hence demanded equivalent forces for their effective repulsion. Moreover, within the last phase of the period under consideration the heavily armoured *cataphracti* and associated tactics requiring their strict co-operation with lightly armed horsemen began to be used in the Bactrian region. To all appearances, it was not difficult to introduce these innovations, inspired by the nomads, into Bactrian warfare practice, indeed Bactrian light cavalry could have made their first acquaintance of co-operating with heavily armed horsemen, those of the Central Asian Scythians, as early as at Gaugamela in 331 BC (see Chapter 2). It is true, though, that the widespread employment of the *cataphracti* in Bactria seems to have started only in the following period, that of the Yüeh-chih.

Nevertheless, such features of Graeco-Bactrian warfare as the employment of the infantry phalanx formed of Greek settlers, heavily armed mounted lancers-*sarissophori*, and war elephants as well, made it doubtless related with Hellenistic military practices. Such Macedonian-inspired types of cavalry and infantry forces would have been outfitted and trained to act in the standard Hellenistic manner on the battlefield. As far as elephants are concerned, let us quote one authority speaking of the tactical use of war-elephants during the Hellenistic age, as his passage seems relevant to Graeco-Bactrian warfare too: "The normal position was a single line of elephants in front of either part or the whole of the main battle line, and not too near the front line in order that they might have some room to retreat if necessary and to give the infantry time to open up the line to let them through . . . Terror was their primary weapon, and its effect runs like a red thread through the history of elephant-warfare, terror inflicted on men and horses; elephants were especially useful against men who faced them for the first time and against horses untrained to meet them" (Scullard H H *The Elephant in the Greek and Roman World.* Cambridge, 1974, pp. 246-247).

Since some aspects of the structure of military organisation in Greek Bactria and North-Western India have already been broached, I will now consider just military command and administration. Our literary sources testify that the Graeco-Bactrian and Indo-Greek kings were usually the commanders-in-chief of their armies. So, Euthydemus I was in person at the head of the campaign against Antiochus III, although seemingly he did not himself take part in the action of battle . We hear that Menander I died when he was campaigning (Plut. *Mor.*, 821D-E). Eucratides the Great is reported to have personally partaken in sallies carried out by his picked regiment against Demetrius' army (Justin., XLI, 6,4).

It is known that the territory of Greek Bactria was divided into satrapies (Strabo, XII,11,2). Most probably, these satrapies were administrative units similar to but smaller in size than those of the Achaemenids (under the Achaemenids, Bactria was a separate satrapy). In charge of such a satrapy was the governor bearing the title of satrap or *strategos* (in Greek; *stratega* in Indian). True, both the titles are not fixed for the Hellenistic period, but they are met with later on Indo-Scythian coins and inscriptions; it seems more than probable that they were borrowed by Indo-Scythian provincial governors from the Bactrian and Indian Greeks (Tarn W W, 1985, pp. 241-242). In turn, the Bactrian and Indian satrapies must have been divided into smaller subsections. Each subsection, probably called *meris* in Greek, was headed by an official bearing the title of *meridarches*. This title is attested twice in inscriptions found in North-Western India and dating from the 1st century BC, that is belonging to the later phase of Greek hold there. One of these *meridarchs* was a Greek named Theodorus (or Thodotus), the other may have been an Indian (Tarn W W, 1985, pp.242,358). If so, this may be considered as testimony that, unlike in earlier times, in the later Indo-Greek kingdoms some important administrative posts could have been occupied by the native nobility (however, it remains unknown exactly whether this *meridarch* was in Indo-Greek or in Indo-Scythian service). It is likely that the *satraps*, *strategoi* and *meridarchs* were not only administrators but were at the same time military chiefs of their units, and as such had to be responsible to higher authorities for training and recruiting levies from their areas. Their function as field commander in campaigns seems quite possible.

Arms: An assemblage of offensive armament in Graeco-Bactria is characterised by the presence of a number of manifestly Greek and Macedonian specimens. Above all, there is a large collection, unprecedented in its quantity in the whole Hellenistic world, of ivory details (tops, hilts and chapes) belonging to scabbards of two typical Greek sword types, the *machaera* (or *kopis*) and the *xiphos*, most of which came from Takht-i Sangin (Figs 8c,d,12). Seemingly, the overwhelming majority of them have to be dated to the Graeco-Bactrian age. The *xiphos*, a short thrusting weapon with a straight double-edged blade, used by the infantryman in close combat, is carried by the personage on Fig 24a; see also Fig 12p, an actual find.

The *machaerae*, slashing swords with one-edged and curved blades, intended for both the infantryman and cavalryman to be used for an overhand stroke (see Snodgrass A M, *Arms and Armour of the Greeks*. London, 1967, pp. 84-85, 97, pls. 50-52), seem to be depicted sheathed on Figs 23q,s-y and 24e,f; in vague cases of Fig 24e,f the swords are provided with hilt-covers shaped into the griffin's head, which, in turn, are the most suitable to encase the normal curvature of hilts for *machaerae*, unlike straight hilt-tangs of *xiphoi*.

Different kinds of spears were used. The charging Dioscuri on Eucratides I's coins carry very long lances, couching them in one hand (Fig 19b). Most likely, these are the famous Macedonian-style cavalry *sarissae* rather than the other lances employed by the mounted Companions of Alexander, which are referred to in textual sources under the names *dorata* and *xysta*, and which appear to have been shorter than the former (at least, the identity between the *sarissa*, on the one hand, and the *dory* and *xyston*, on the other hand, is not supported definitely by any literary evidence). The *sarissa* had a cornel wood shaft and was provided with iron weapon-heads at both ends (Figs 8a,b,h-l, 231). The aft portion of the lance could be used as a thrusting spear owing to the presence of the rear-point or butt

spike when its shaft was broken and the fore-point was lost. The shaft had a strap intended for shouldering the lance on the march and for being wrapped around the shaft to form a hand-grip and wrist-loop in combat. The total length and weight of the cavalry *sarissa* has been determined by scholars differently: respectively 9ft (2.75m) and 4.2lbs (1.9kg) (Manti PA, 1983, pp. 73-80), 15ft (4.5m) and 5.5kg (Markle MM, 1982, pp. 91,104); and lastly, A M Simonetta supposed that it was about 20ft (6.1m) long (1960, P.59). To my mind, the first estimation of its length seems to be too short, the last too long. At any rate, the double-pointed cavalry *sarissa* was doubtless a very effective weapon, indispensable for a successful shock charge. Characterising this arm as a whole, P A Manti has written (1983, p. 80): "understanding the great effectiveness of even a single-pointed lance, I believe that the Macedonian lance with its second head aft is superior to anything realised later. Understanding the great skill needed to wield even a single-pointed lance, I believe that the Hellenistic lancer, with his greater range of strokes and tactics, which required greater skill and training, was superior to any subsequent lance troops".

The visual sources show personages on foot armed with the spears corresponding in length to the human stature or slightly longer (Figs 18b, 23o,p, 24d-f). Shorter spears or javelins intended mainly for distance throwing are seen on Figs 16a,b, 19c, 20d,e, 21b,e, 22a,b, 23n. In addition to these pieces of representational evidence there are a number of finds of iron heads which belonged to lances, normal spears and javelins (Figs 10c-h, 11j-l,z,aa,cc).

Of the bows used, three main types may be distinguished on the basis of iconographic data. The first one is the "Scythian"-style bow shown in some instances carried in open bow cases (*goryti*) or in quivers (Figs 22b and 23b,e,z-cc), already described in detail earlier (Chapter 2). The second type is a short segment-shaped weapon represented on Figs 18d, 19e, 23a and perhaps Fig 22c. The third style of bow is shown on Fig 22d: it is a large weapon with long and straight ears and probably with the double-arched stave; if so, it could be considered as one of the earliest depictions of the so-called "Sasanian"-type bow, which was brought to the Middle East by the northern nomads (covered in a later chapter). Its depiction here, on the coin of Apollodotus II (around 80-65 BC), does not seem so strange, because this later Indo-Greek king reigned after the coming of the Indo-Scythians and, therefore, the Indo-Greeks could have adopted such bows.

Arrows are also pictured on coins, in some instances their heads and flights being well visible (Figs 18d, 19e, 22d, 23c,d). In the course of excavations a lot of arrowheads made of iron and bronze as well as of bone and flint (both the latter were intended mainly for hunting use), have been discovered (Figs 9, 10i-k,m, 11a-i,q-t,w-y,bb). It was following the Graeco-Bactrian period that iron arrow-heads became widespread in the Bactrian region, gradually supplanting those of bronze, which however, continued to be used later too.

We have some depictions and an actual find of pole-axes (Figs 23dd-gg and 25b), although these could be not only for battle, but also for economic application. Another weapon is a trident (Figs 11u and 23k,m) that was, in Greek and Roman iconography, an attribute of the sea god Poseidon; it is usually thought to be an instrument of fishing and hunting (Rapin C, 1992, p. 258, note 1016). Its use in battle cannot be excluded but in the Kushan epoch, the trident became a badge of royal power (Figs 39c,d, 40a-c, 41w-z), so its function was probably just symbolic.

One more arm was the sling. This device would have been required for those small bullets of stone (with diameter from 9.2 to 10.7 cm and corresponding weight from 0.7 to 1.5 kg) which have been found at Ai Khanum (Leriche P, 1986, p. 114) (Fig 14b).

Armour: The visual sources give various types to headpieces work in Greek Bactria and India. Among them there are such rare (for that time) helmets as one of "topi" style (Fig 7d) and casques, both plumed and spiked (Figs 23hh and 24a), while all the known others belong to the purely Graeco-Macedonian tradition. Here we can see the *kausia* (Fig 7e), *pilos* (Figs 8g and 19b) and "Attic"-type head-protectors (Fig 18c, compare 17; possibly Fig 24e,f); however, the most popular Greek helmet was the "Boeotian" that (see Waurick G, 1988, pp. 163-169) was recommended as early as Xenophon (*De re eq*, XII,3) to be used in cavalry as the best headpiece to give good protection and visibility. True, Bactrian and Indo-Greek specimens must be considered as late forms of the typical "Boeotian" helmet; their distinctive feature is the variously shaped topping (Figs 8e,f, 16a,b, 18b, 19a,c,f, 20a-c,e, 21, 22a,b,e, 23q,ii,kk-oo, 24c,d). As fighting headpieces one may also consider *bashlyk*-style caps which are present in the portraits of Bactrians (Fig 7b,f,g).

Just two main types of corselets, namely of what we might call either Greek type or Oriental type can be picked out. The first main type was a Greek cuirass (*thorax*) which consisted of two large entire plates covering respectively the breast and back; the plates were made of metal (iron or bronze) or thick leather and were jointed together by fastenings at the shoulders and sides. Graeco-Bactrian 'Greek' cuirasses subdivide, essentially, into two kinds: a "muscle", that is with the plates skilfully shaped into the muscles of the man's body (Fig 24e,f), and a "plain", with the surface devoid of such relief outlines of the body (Figs 23q and 24a). Apart from these, there are some other representations, on which the presence of the *thorax* may be supposed (Figs 19d, 21a,c,d, 22b,e). Very interesting is a fragment of a bronze breast-plate with the edge with a hole for the bearer's left arm, which has been discovered at Kampyr-tepe (Fig 13a). It seems to have been composed of two (or more?) overlapping parts fastened together by iron rivets. This piece looks as though it has been repaired, most probably, after combat or long use. It may, therefore, have belonged to a repaired cuirass. The second of the main two types of corselet, usual for Oriental defensive equipment, was constructed of metal scale-shaped plates. A portion of such an iron body-armour has been found at Ai Khanum, a pair of shoulder-pieces seeming to belong to it (Fig 13c,e). Scaled corselets are clearly visible on the coins of some Indo-Greek monarchs (Figs 20a,b,d, 21b,e, 22a).

Two types of thigh-protectors are also known. The first device is typical Greek *pteryges* consisting of narrow strips of leather or thick fabric, attached at the waist, being made up in one or two rows (Figs 19d and 24a). The other type, which goes back not to Greek but rather to Oriental tradition, is a lining-skirt of fabric or thin leather armoured by virtue of metal plates sewn on, normally in two rows (Figs 22e, 23q, 24e,f).

As regards leg-protectors, the warrior on Fig 24a seems to utilise plates which narrow from top to bottom, and cover his shins. Apparently, here we are encountering the stylised depiction of typical Greek greaves (*knemides*) in the shape of bronze plates following the line of the leg from knee to foot. Another leg defence, intended for the *cataphractus*, is known to us from an actual discovery from Ai Khanum; it is made of iron and consists of a hooped tube-like device supplemented with pieces to protect the thigh and foot (Fig 13d).

Amongst the shields represented pictorially, we can see one made of a soft material, presumably, like leather, shaped into a human guise (Figs 18a and 23i), and more basin-shaped ones of a rigid construction with variously formed outer surfaces (Figs 18b,c, 20b, 23f-h,j, 24d-f). Two pictures show large shields belonging to the well-known *thyreos* type (Fig 24a,b). In addition, there are some material finds providing evidence for Graeco-Bactrian shields. It is reported that from the Oxus Temple at Takht-i Sangin came an intact round (about 60 cm across) shield of the Attic style, provided with a round bronze boss (*umbo*), but it is still unpublished (see Pichikyan I R, 1991, p. 105). An iron shield-boss has been found at Kampyr-tepe (Fig 25a). Two decorative garnitures of shields, which have survived only as painted plaster pellicles, were uncovered at the Arsenal of Ai Khanum. One of them reveals a large round shield (1.15 m in diameter) with the surface decorated by concentric black, yellow and red bands (Bernard P and others, 1980, p. 59, pl. XXXVIc). The other bears a configuration of a large oval shield (1.30 m in length and 0.64 m in width) (Fig 8m), probably of the *thyreos* type.

Horse armour and furniture: As an item of protective equipment for the horse of a *cataphractus* one may consider a find from Ai Khanum. It is an iron piece (58 x 58 cm) composed of narrow lamellae joined along their length and maintained by three rigid bands, one in the centre and two others on each side (Fig 13b). It could have been either a plastron or a flank-protector. Iron plates discovered at the Palace Treasure House of Ai Khanum (Fig 11m-p) might have belonged to the horse's trapper. In addition, Ai Khanum still supplies us with the only Bactrian collection of horse-furniture, comprising metal bits, mouth-guards (*psalia*) and *phalerae* (Fig 15).

For equipment of the Graeco-Bactrian war-elephant see Figs 14c,d, 16a,b and especially our Pl 2.

Just a few words about the production and keeping of weaponry in Greek Bactria. A building that functioned as an arsenal has been discovered at Ai Khanum. It was a big rectangular yard, with the longer side 150 m in length, surrounded by depots to keep military equipment. There was a large heap of waste material containing a lot of metallurgical slag in the middle of the yard, which testifies to the existence of arms workshops right in this building (see in detail in Bernard P and others, 1980, pp. 51-63). It is to be thought that similar complexes combining both arms workshops and arsenal were situated in all large Bactrian cities.

In conclusion to this chapter it is necessary to say that the aggression of the nomadic coalition in the second half of the 2nd century BC coincided with a serious weakness of the Graeco-Bactrian military organisation. This is confirmed by the Chinese annals which affirm that by the moment of the Yüeh-chih invasion the troops of Ta-hsia (Bactria) were weak and fearful of war (Zürcher E, 1968, pp. 361, 365). Although this report seems to be somewhat exaggerated, it may, nevertheless, still serve as one of the principal explanations of the fall of the Greek power in Bactria.

CHAPTER 4 - THE YÜEH-CHIH PERIOD
(SECOND HALF OF 2nd CENTURY BC TO MID-1st CENTURY AD)

After subduing the Bactrian region the Yüeh-chih divided it into five principalities, each called by the Chinese chronicles a *hsi-hou* or *yabgu* and headed by a prince bearing the same title as his territorial denomination (Zürcher E, 1968, pp. 365, 367). Such a territorial division seems to correspond to a tribal one, that of the Yüeh-chih, who arrived at the Oxus valley probably as an amalgamation of five tribes or clans. The prince-*yabgu* (this title, literally a "chief", may be etymologised from Iranian) combined not only the highest political and administrative, but also military functions, acting as the commander-in-chief in his principality, and ruling over both the tribesmen and locals with the assistance of his clan relatives following the normal nomadic practice. Therefore, this territorial and administrative system in Yüeh-chih Bactria had to differ cardinally from that established in North-Western India by the Central Asian Sacae, who, having been in part the allies of the Yüeh-chih, passed further southwards and finally created their own, so-called Indo-Saca/Scythian kingdom, but succeeded to the Indo-Greek system of provincial government, with high-ranking officials bearing the titles of *satraps*, *strategoi* and, perhaps, *meridarchs* (see Chapter 3). Unlike the Indo-Sacae, the Yüeh-chih preferred to destroy the Greek administrative system that had taken shape in Bactria before their invasion.

The earliest of the Chinese sources dealing with the Yüeh-chih, the *Shih-chi* speaks of them as just occupying Bactria and points out that they had about 100,000 or 200,000 archers; other annals compiled later, the *Han-shu* and the *Hou-Han shu* affirm that the Yüeh-chih disposed of 100,000 excellent soldiers; the latest relevant source, the *Nan-Chou (I-Wu) chih* describing the Yüeh-chih and their country as they were in the Kushan epoch imparts the following: "The riding horses which in this kingdom are (used for warfare) number several hundred thousands . . . The people . . . are skilled in the (use of) bows and horses" (Zürcher E, 1968, pp. 360, 364, 367, 372). Hence, it seems doubtless that the bulk of the Yüeh-chih army were light horse-archers, whose pictures are at our disposal (Figs 27, 29, 37a). The Yüeh-chih, these newcomers from Inner Asia, may originally have possessed no cataphract cavalry. Nevertheless, they would have been certain to make the acquaintance of Saca *cataphracti* in the course of their movement across Central Asia, and introduced them as allies into their forces to fight against the Bactrian Greeks. The existence of Saca armoured cavalry at that time is well attested by the depictions on coins issued by the Indo-Saca rulers of Central Asian origin (Fig 26a,c,d). Seemingly, sculptural fragments from Khalchayan, representing *cataphracti* and their defensive equipment, the latter (helmets, corselets and arm-protectors) bearing strong resemblance to that on the Indo-Saca coins (Figs 28c,d, 30; compare Fig 31a,b and Pl 4C), may be connected with Saca warriors employed in the service of the Yüeh-chih. Of course, it is also possible that the Yüeh-chih, being inspired by the Sacae, raised their own armoured cavalry from among the tribal aristocracy and outfitted it after the Saca model.

As J Rosenfield rightly noted, on the basis of examining depictions of military character on Indo-Saca coins, namely of both unarmoured bowmen on horseback and *cataphracti*, that these Sacae tactically employed, like the Parthians and Sarmatians, a method of cavalry attack utilising a combination of mobile, light-armed archers (*hippotoxotai*) and armoured lancers (1967, p. 125). Certainly, the same tactical employment of lightly and heavily armed

mounted troops was normal for the Yüeh-chih conquerors of Bactria. This combined charge seems to have been represented on the aforementioned sculptural frieze at the Khalchayan palace (see Fig 31a for a version of its reconstruction). The *cataphracti* attacked in a close formation, being the real "armoured ram" to break the enemy array. The light horse-archers joined battle in a loose order, showering arrows on their foes. The main point of such tactics was the strict co-operation between both these cavalry forces. Neither numerous *hippotoxatai* nor non numerous *cataphracti* could hope to win victory alone. The fact is that the former fought efficiently only at a distance, since they had not sufficient armour and weapons for hand-to-hand combat whereas, on the other hand, the latter were not only not numerous, but also capable of little manoeuvre - therefore, the absence of assistance from the light horse when the course of battle was unfavourable might threaten to become a disaster for them. The best account of these combined tactics is given by Plutarch in his description of the battle at Carrhae between the Parthian and Roman armies in 53 BC. It was then that the Parthian light and cataphract cavalry, headed by Surenas, demonstrated their superiority over the famous Roman legionary infantry, commanded on this occasion by Marcus Crassus. Thanks to our source (Plut. *Crass*., 23-27), we can see the following peculiarities of the tactical use of cataphracts acting in a close co-operation with light mounted bowmen: (1) the principal efforts of the Parthians' armoured lancers were directed to break the Roman order-of-battle by frontal charges; (2) when needed, they held in check the enemy counter-attacks intended for driving off the Parthian horse-archers; (3) they made a final charge against the Roman soldiers, already demoralised by that time by the well-aimed arrow shooting. It is thought, with sufficient certainty, that the tactical methods used by the Yüeh-chih and Saca *hippotoxatai* and *cataphracti* while overwhelming the Graeco-Bactrian troops were very similar to those of the Parthians of Surenas.
In speaking of cavalry, it is relevant to point out that the *Mahabbarata* mentions both the Shaka (Sacae) and Tukhara (Tochari/Yüeh-chih) as exclusively formidable warriors on horseback (Vasil'kov Ya V, Neveleva SL, 1990, pp. 145, 178, 217).

As to the infantry in Yüeh-chih Bactria, some kind of foot soldiery could have been in existence there, consisting mainly of native recruits, but their employment in campaigns was most likely limited to the functions of transport service and siege operations.

During the period in question, the structure of military organisation in Bactria changed. The quondam nomads, now the masters of the region, replaced the Greeks both as the ruling class and leading order of warriors. Apparently, no later than the end of the period, when all five principalities were united into a single kingdom, a professional order of "horsemen-chevaliers" may have come into existence. Such "horsemen", like those of Parthian Iran (see Chapter 2), had to consist of descendants of the Yüeh-chih conquerors of Bactria, who had to serve as armoured *cataphracti* (composed of petty noblemen) and light *hippotoxatai* (composed of ordinary tribesmen) and to receive for their service land allotments from the sovereign. Of course, this is only a speculation founded on the Parthian and Sasanian models, however, its confirmation may be found in a gem-seal (true, belonging to around the mid-4th century AD) from the Bactrian area, bearing a title of ACBAPOBIDO - literally a "chief of cavalry" (Fig 47a) which seems to designate not the cavalry commander, but the chief of the order of "horsemen". If so, this order would have sprung up much earlier, not long after the nomadic subdual of Bactria, as its structure had to be based on the former tribal organisation of the newcomers, theYüeh-chih.

The Yüeh-chih and their allies introduced new specimens of arms and armour into Bactrian warfare. The Saca *cataphracti* brought with them the heavy lance (*contus*) as their principal weapon. We see such lances on Indo-Saca coins, where they are shown with a long thick shaft, massive leaf-like point and, sometimes, a butt shaped into a small ball (Fig 26a,c). Another important offensive weapon of the *cataphracti* was the long sword intended for both slashing and thrusting from the horse in hand-to-hand combat; some such swords, more than 80 cm in total length, with double-edged blades, were found in the nomadic cemeteries of Northern Bactria (Figs 33a,b, 34m). Normally they were worn in wooden painted scabbards on the left side, suspended from the waistbelt by means of a special device in the form of a "staple" made usually of jade or other similar material, which is called the "scabbard-slide" (see Figs 34q and 44l). As W Trousdale has supposed (*The Long Sword and Scabbard Slide in Asia*. Washington, 1975, pp. 70-71, 110-119), the scabbard-slide as an important device to suspend the long equestrian sword had been invented in the Southern Ural steppe area during the 7th and 6th centuries BC, and then it reached the Inner Asian Yüeh-chih who acquainted China with it and brought it to Bactria and further to North-Western India. Whatever the true origin of the scabbard-slide in general, its introduction into Bactria by the Yüeh-chih seems highly probable. Very likely, the earliest representation of the scabbard-slide from the Bactrian region is on a gold clasp from Grave no. 3 of the Tillya-tepe necropolis (Fig 24f), which therefore should be dated to the time of the Yüeh-chih invasion of Bactria.

The short sword is also attested as being a part of Yüeh-chih armament, it seeming to be of Greek origin or inspiration (Fig 12p). Other bladed weapons were daggers and knives. The former were double-edged and can be divided into various types by the shapes of their metal pommels or by the absence of them (Figs 33c-i, 34j-l, 25f, 32a). They were carried in sheaths, which as a rule must have been attached not to the waist-belt but to the right thigh by means of narrow leather straps passing through the sheath projections (Fig 32h; compare 25d). The knives (Figs 25e, 32b) seem to have been carried in a similar way, but on the left thigh.

As regards the bow, the most formidable weapon of the warriors of the steppes, the conquerors of the former Greek domains in Bactria and North-Western India used at least two of different types. The first one was of the "Scythian" style, already known to us, carried in the combined quiver and bowcase known as a *gorytus* (Fig 26b). Bows of the second type were of the "Sasanian" style, as conventionally and just conditionally called. They are doubly convex shooting weapons with very long, straight or slightly curved ends-ears (Fig 44m-o), their denomination being conditioned by their frequent depictions on Sasanian-style silver vessels (see Maenchen-Helfen O J. *The World of the Huns: Studies on Their History and Culture*. Berkeley; Los Angeles, 1973, pp. 228-232, Figs 7-9). These long and powerful composite bows, with both the handle and ears stiffened by bone and horn laps to increase their flexible strength, had developed on the basis of the "Scythian" type to facilitate the piercing of armour. The employment of this new form of bow especially increased towards the commencement of the Christian Era (see Rausing G, 1967, pp. 105-106, 142; Khazanov AM, 1971, p. 34). The original homeland of the "Sasanian" bow should be sought in the vast steppe areas of Southern Siberia and Inner Asia, where a large number of details from bows with the long-eared doubly convex shape of the stave have been found (see Khudyakov Yu S in *Voennoe delo naseleniya yuga Sibiri i Dal'nego Vostoka*, eds. by V Ye Medvedev and Yu S Khudyakov. Novosibirsk, 1993, pp. 109-118). It

was from there that such bows were brought by the Yüeh-chih to Bactria and further. Their earliest representations in the Middle East are to be seen on Fig 27 and, maybe Fig 22d. The "Sasanian" bows were normally carried in two positions - marching (unstrung in order to retain its elasticity) and battle (strung, ready to shoot). For the first position there was a narrow closed case of leather (Figs 37a, 43c, 46a,c), for the second a wider opened case (Fig 43a,b); in all these instances the bow-cases are combined with the quivers for arrows. It is interesting, incidentally, to note that the Caucasian Alans of Early Medieval times, who used "Sasanian"-style bows, had at their disposal, according to archaeological data, both the narrow case for the unstrung bow and the *gorytus* for the strung weapon and arrows as well (see Kaminskii V N, 1982, p. 50).

One more type of bow may be tentatively added to those just discussed, namely those brought by the steppe conquerors of Bactria, of the so-called "Hun" type. Also going back to the "Scythian" prototypes, such long composite bows had developed for strengthening the weapon as a whole, not like in the manner of the "Sasanian" by a method to elongate their stiffened ends, but by a method to make their elastic arched arms longer (Khazanov A M, 1971, pp. 30-33) (Fig 44p). Both the origin and means of arrival in the Bactrian region of these bows must have been the same as in the case of the "Sasanian" bow. True, for Bactria itself the "Hun" bows are not yet fixed by any direct evidence, however, they at least certainly reached the Central Asian regions lying not so far to the north of Bactria (Fig 44q).

Serving the purpose of piercing armour much better, were also iron arrowheads with variously shaped points, which became the prevailing type of arrowheads during the period under review and onwards (Figs 33j-p, 34a-i). Arrows with three-sided and bullet-shaped heads were especially suited for armour piercing(Figs 33n-p, 34a,c,e).

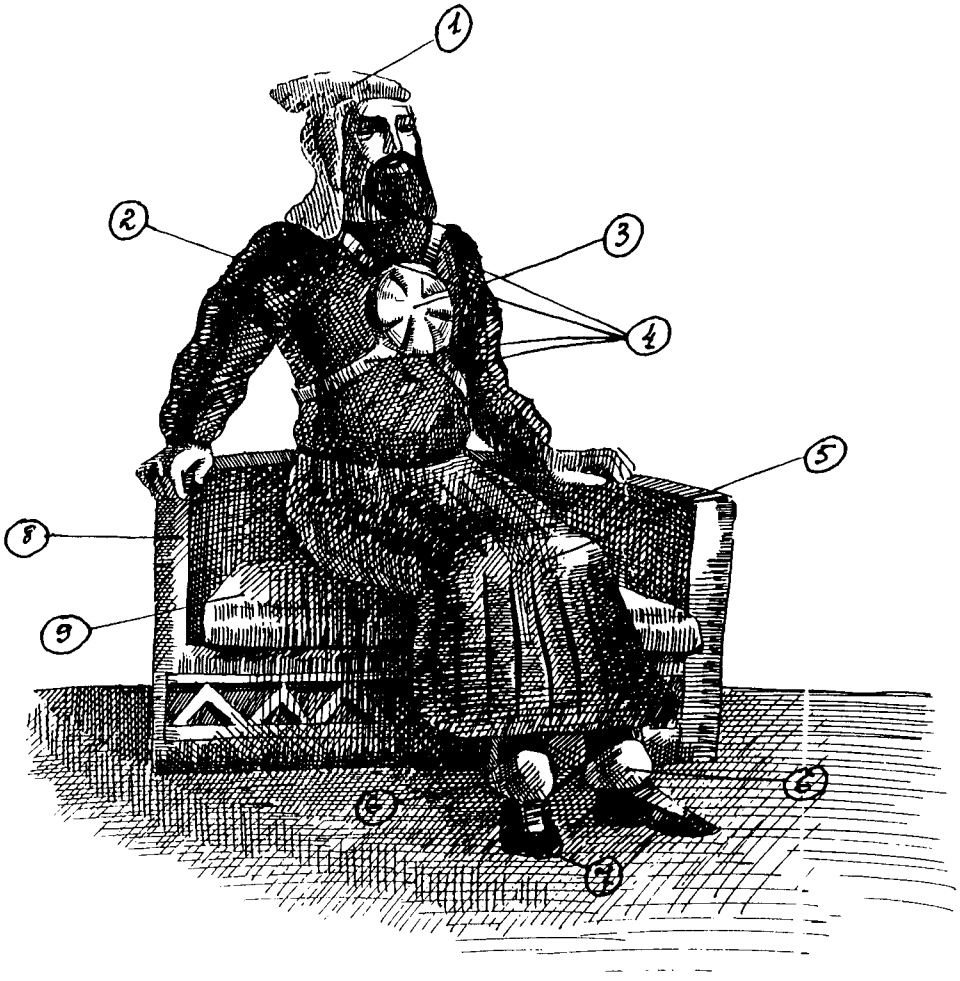
Different types of axe-like weapons were in use in Yüeh-chih Bactria. The first one is the so-called *klevets* , a battle-axe with a turned down, "beak"-like blade, intended for piercing armour, and with an obtuse butt (Figs 26b, 37d; compare 25c). A similar weapon was the *chekan*, with a straight blade. We can see an example on a seal dating to Great Kushan times (Fig 37e). It seems to have got into Kushan armament from the previous period having been brought, like the *klevets*, by the steppe conquerors of Bactria, and not later. Both the *klevets* and *chekan* were honoured among the Sacae and the Yüeh-chih as badges of the chief's power, and as ceremonial objects they could be provided with blades decorated in mannered forms, made of precious metals (Fig 25c). Nevertheless, the utilisation of ordinary, iron *klevetses* and *chekans* in combat continued too, as pictorial evidence from Sogdia demonstrates (Fig 43a, in the upper right corner). Another axe-like type of weapon, a small pick-like axe of iron, has come to us as an actual find from a noblewoman's grave discovered in Southern Bactria (Fig 32i).

Although amongst the assemblage of armour used in the period in question, one can observe some articles known earlier in Bactria, namely helmets of the "Boeotian" style (Fig 37c; compare 28e) and tube-like arm-guards composed of "hoops" (Figs 26a,c,d, 28c, 30b,f,g; compare 35a,b), the overwhelming majority of defensive arms was new for the Bactrian region, being first brought there by the newcomers. As such we must list a laminar casque and long quilted coat (Fig 28a; compare 28b), as well as a metal chest-disc (Fig 36a). But especially deserving attention are one particular style of helmet and one particular style of

corselet. The former is constructed of two metal half-bowls held together by a continuous fore-and-aft strip or ridge, this helmet also being supplemented with a peak and cheek-pieces (Figs 28d, 30a). To judge by its construction, such a headpiece may be considered as a prototype for the well-known Late Roman "ridge" helmets which are thought to have appeared in Roman armament after the emperor Diocletian's reign and to have been of Oriental origin (see James S, 1986, pp. 109-134). The type of corselet in question is a long coat armoured with big square-shaped plates of metal; it is provided with an annular collar and is always supplemented with the hooped tube-like arm-guards (Figs 26a,c,d, 28c, 30b,g; see also Pl 4C; compare Fig 43a,b). In addition, it is necessary to point out such other important innovations as the *cataphractus*' leg-guard and the horse's protective armour (Fig 30d,e and Pl 4C).

When considering horse equipment under the Yüeh-chih, one should note the introduction of a new type of saddle, formed of a rigid wooden framework, with front and rear arches (Fig 29g,h and Pl 4B). Another innovation was the appearance, and dissemination, as the materials from Taxila show (Fig 35m-o), of horn and bone cheek pieces (*psalia*) which were already long in use by then amongst the Central Asian steppe peoples (see Moshkova M G, 1992, pp. 42, 59, 69, 134, Pls 4,12, 9,61,62, 23,50,51, 52,59).

It was during the Yüeh-chih age that a new style of men's garb suitable for riding had appeared in Bactria and subsequently continued to be worn there at least during Kushan times. It consisted firstly of a long-sleeved caftan falling below the waist, belted and provided with a front slit, and secondly, of wide trousers called *sharovary* (Figs 27, 32h, 36b,d,e). This garb seems to have been of Central Asian steppe origin again, and it penetrated not only into Bactria but also into the Arsacid Parthian empire, the famous statue of a prince found at Shami (in South-Western Iran) being dressed in such garments (see Widengren G, 1956, p. 244, Figs 9-11; Ghirshman R, 1962, pp. 87, 89, Fig 99). As the painted clay sculpture from Khalchayan enables one to imagine, the men's *sharovary* were normally made of white cotton fabric, whereas their caftans were of wool, coloured mostly in red. True, in one case, on the portrait of a ruler, both his caftan and *sharovary* were coloured a greenish aquamarine and decorated with gold embroidery. However, this is an exception due to this person's high rank. The usual colours of the garments for men in Yüeh-chih and Kushan Bactria, as the painted plaster sculpture from Dal'verzin-tepe demonstrates, were white and red (Pugachenkova G A, 1979, pp. 84-85).



Yüeh-chih Ruler of Amu Darya Region (1st cent. BC).

1. Hood-like *bashlyk* cap.
2. Long-sleeved woollen caftan
3. Bronze disc.
4. Leather supporting straps.
5. Lengthwise tucks in caftan.
6. Fabric trousers.
7. Leather boots.
8. Wooden throne.
9. Soft cushion.

CHAPTER 5 - THE GREAT KUSHAN PERIOD
(SECOND HALF OF 1st CENTURY AD TO MID-3rd CENTURY)

Methods of warfare in the Great Kushan period were, on the whole a continuation of those of the Yüeh-chih period, although as the Kushan expansion was spreading outside the limits of Bactria, above all towards North-Western India, it absorbed some of the military features of the peoples resisting the Kushans there. Almost without doubt the bulk of the Kushan army consisted of light horse-archers, for the Chinese sources cited in the previous chapter use the ethnic term "Yüeh-chih" to describe both the Yüeh-chih proper and the later Kushans. Importantly, some iconographic materials confirm the existence also of heavy, cataphract cavalry in the Kushan army (Figs 38a-c, 42b). And so, one may conclude that the main tactical method at the period in question was the same as that of the Yüeh-chih, namely the combined co-operation of light and armoured cavalry forces.

We have testimonies that the Kushan emperors introduced war-elephants into their armies; this happened, doubtless, after the conquests in the North-Western Indian region, where elephant warfare had long traditions. So, one Chinese Buddhist text speaks of a campaign launched by Chan-t'an Chi-ni-cha (Kanishka I), when this great Kushan monarch "sent out barbarians (*hu*) with the white elephants as a vanguard to lead the way, and the king advanced with (his troops) from behind" (Zürcher E, 1968, p. 385). From this passage two main conclusions can be drawn: (1) in Kushan service both the elephants and their crews were of native, that is Indian, origin; (2) the war-elephants could be used not only as a shock force on the field of battle, but also as an advance guard in a marching order. An extremely interesting picture of a war-elephant, dating from the Great Kushan period, has come to us from Pakistan; the animal is covered by an armoured trapper and carries both a *mahout* and a tower with warriors inside (Fig 42a). It is to be supposed that it is no mere chance that the king Huvishka is shown on some of his coins riding an elephant (Fig 41hh); like his predecessor Kanishka I, he seems to have employed these animals in warfare.

Unfortunately, there is no reliable evidence concerning a Kushan foot force; nevertheless, its existence should not be called into question, and, what is more, its role in Kushan times, although ever significant, may have increased in comparison with the Yüeh-chih period.

Let us now turn to the structure of military organisation. The supreme command belonged to the Great Kushan sovereigns, who preserved the warlike spirit of the Yüeh-chih chiefs-*yabgus* and usually headed the principal military campaigns in person. So, the Buddhist sources report that Kanishka I himself led troops against Eastern India and Parthia (Zürcher E, 1968, pp. 384-387). Sometimes, important campaigns conducted prohibitively far from the imperial borders could be headed, not by the monarchs themselves, but by their high-ranking retainers. For instance, in around 90AD, a large Kushan army, numbering 70,000 soldiers and led by the viceroy named Hsieh in Chinese, was sent to Eastern Turkestan to fight against the Chinese general Pan Ch'ao (Zürcher E, 1968, p. 370).

Previously, I have already discussed the possibility of the existence in Bactria from Late Yüeh-chih through to Late Kushan times, of a professional order of "horsemen" who formed a military class serving as light and heavily armed mounted troopers in the royal army; this order was headed by a high dignitary entitled the "chief of cavalry". Another

high ranking official, but connected with the system of military administration in Bactria, is mentioned in the famous Great Bactrian-language inscription of the 2nd century AD, written in a Greek-letter script, from the temple-acropolis at Surkh-Kotal. Here figured is Nokonzok, whose title is given in the form of ΚΑΡΑΑΡΑΓΓΟ, meaning something like a "Lord of the Marches" (see Gershevitch I in *Afghan Studies* 2, 1979, pp. 64-65). This title is thought to be the same as a New Persian term *kanarang* that was borne in Early Medieval times by the vicegerent of the north-eastern borderlands of Iran and which denotes literally a "frontier-holder (or-reinforcer)"; its bearer's principal function was therefore to defend the governed territory (see Henning W B in 1) *Bulletin of the School of Oriental and African Studies* 23/1, 1960, pp. 50-51, and 2) *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 115/1, 1965, pp. 77-78). Another possible literal interpretation of the ΚΑΡΑΑΡΑΓΓΟ is a "troop commander", if one considers the first portion of the word as going back to an Old Persian one *kara*, meaning "troops" (see Frye R N in *K R Cama Oriental Institute Platinum Jubilee Volume*. Bombay, 1991, p.97, note 10); in this case the term would well correspond to the Greek *strategos* which meant in the Indo-Greek and Indo-Saca administrative nomenclature the governor of a large territorial unit, who was allocated broad military tasks (see Chapter 3). However that may be, an official bearing the title of ΚΑΡΑΑΡΑΓΓΟ seems to have been the military governor of some large frontier part of the Bactrian region, responsible first of all for its defence.

Most probably, the system of administrative government was established in Bactria after the acquaintance of the Kushans with that existing in North-Western India before their invasion. They preserved it, as we hear from two Indian Brahmi inscriptions, discovered at Sarnath (near Benares), of two high dignitaries, namely the *satrap* (*kshatrapa*) named Vanaspara and the Great *satrap* (*mahakshatrapa*) named Kharapallana. They both occupied their posts in the early reign of Kanishka I and were, judging by their personal names, Iranians or even Bactrians by origin (see Livshits V A in *Ellinisticheskii Blizhnii Vostok, Vizantiya i Iran*, eds by V V Struve and others. Moskva, 1967, pp. 169-170). Also, together with the satrapal post the Kushans could have retained that of the *strategos* as a military vicegerent, to which the Bactrian term ΚΑΡΑΑΡΑΓΓΟ is one of the possible interpretations.

To make the picture complete, it seems relevant here to cite a list of Saca-Kushan military nomenclature known on Indian-language inscriptions from North-Western India, collected by B K Majumdar (1960, p. 80). Listed are high-rank officials with the titles of *mahasanapati* and *dandanayaka*, as well as subordinate officers like *senagopas*, *gaulmikas* (captains), *arakshadhikrtas* (guards), *asvavarakas* (troopers), *bhatamanushyas* (mercenaries).

Turning to offensive weapons, attention should be paid to the widespread use in the period under review of long swords, especially necessary in equestrian combat, many of them being distinctly shown on the available representations as suspended by means of scabbard-slides (Figs 38c-f, 39c, 40, 41,p,q,s,t, 42b,d,f). Bows of both "Scythian" (Fig 37b) and "Sasanian" (Fig 43d) styles may be seen. The *cataphr̥actus*' lance (Fig 38c) and shorter infantry spears (Figs 38d, 39a,b, 41u,v, 42c?) are represented in art as well. As to the tridents frequently depicted with royal personages at arms (Figs 39c, 40a-c, 41w-z; compare 39d), they must have served at that time not as real arms but as a badge of power.

Among the represented assemblage of Great Kushan armour there are some articles of evident Hellenistic provenance, namely helmets of the "Boeotian" type and "muscle" cuirasses (Figs 39a,b, 36c,f, 42d). Of course, a question is raised here of whether they were actually in use then, or were just reproduced by artists in imitation of much earlier specimens known to them on still surviving works of Graeco-Bactrian and Indo-Greek art. However, the first alternative seems quite possible, especially with concern to the "muscle" cuirasses.

In considering the Great Kushan defensive equipment as a whole, one may judge, on the basis of the available iconographic evidences, that it was gradually developing to its most complete form. The early kings, including the famous Kanishka I, are normally shown without any body-armour (Figs 38d,e,g, 37f), whereas the later monarchs, like Kanishka II and Vasudeva, on their coins, are encased from head to foot in full armour (Figs 39c, 40 and Pl 6). As far as it is possible to determine, the most popular type of corselets were those constructed of scale-shaped plates; apart from some pictorial testimonies (Figs 40b-d, 42c), 11 such iron plates of various dimensions were found at Dil'berjin (Kruglikova IT, 1986, p. 74, Fig 52,12-22). Thigh-protectors in the shape of an armoured skirt also became widespread at that time (Figs 36c,f, 40a,b,d, 42b?,d-f). Especially worthy of note are two new types of helmet, the depictions of which are unknown for earlier times. The former appears on coins of Huvishka (Fig 41f-i) and is characterised by the semi-spherical form, richly decorated surface and, sometimes, the presence of cheek-pieces. Such helmets are frequently represented on coins of the Parthian Arsacid kings (see Sellwood D. *An Introduction to the Coinage of Parthia*. London, 1971, *passim*). Therefore, the headpieces could have been brought into the Kushan empire either from Parthian Iran, where their appearance dates to as early as the last quarter of the 2nd century BC (by the coins of Mithridates II), or from a common source, namely from the Central Asian nomads, by whom the helmets may have been invented. From their construction these head-protectors seem to have been similar to one found at Taxila, a bowl of which was made of one piece of iron (Fig 35c). The best pictorial evidence for helmets of the second type is on a medallion representing the king Huvishka (Fig 37f): the conical body of his headpiece is composed of several vertical strips of metal. Such construction bears a strong resemblance to helmets of the "Spangenhelm" type which were introduced into the panoply of Roman armour from about the second half of the 3rd century AD (see James S, 1986, pp. 113-134). Does this evidence point to the Kushan or at least Oriental origin of these headpieces? Perhaps. Of the same construction are helmets with variously covered surfaces which we can see on coins of Kanishka II and Vasudeva (Figs 39c, 40, 41l,n), although however, some of them might alternatively have cone-shaped bodies made up of horizontal bands riveted to a framework, like the helmet on Fig 38a.

As regards important salient characteristics of Great Kushan horse-equipment, one should point out the existence, firstly, of articles of armour, including a head mask (Fig 38b) and, secondly, of a hook-like proto-stirrup (Fig 37e; see also Littauer M A in *Antiquity* 55, 1981, p. 102).

Sasanian governor, Hormizd *Kushanshah* (4th cent. AD).

1. Bronze helmet with flower-like plume.
2. Bronze "muscle" cuirass.
3. High collar.
4. Royal insignia.
5. Thigh protection of four rows of bronze plates.
6. Tubular arm-guard of bronze hoops.
7. Leather fastening device for arm armour.
8. The same device as above - for the leg armour.
9. Leg armour.
10. Leather boots.
11. Trident with iron blade and wooden shaft.
12. Long sword and leather-faced wooden scabbard.
13. Leather waist belt.
14. Leather scabbard belt.
15. Jade scabbard-slide.

CHAPTER 6 - LATE KUSHAN PERIOD
(KUSHANO-SASANIAN AND KIDARITE)
(SECOND HALF OF 3rd CENTURY AD TO 450)

Under Sasanian hold, the lands of the former Great Kushan empire, including Bactria, were ruled by the Persian vicegerent bearing the title of *Kushanshah*, whose depictions in full armament can be seen on their coins (Fig 39d). It is interesting to note that they are shown wearing almost the same martial outfit (except for helmets, corselets and royal insignia) and posed in a similar manner to the coin portraits of the later Great Kushan monarchs (Figs 39c and 40). The Sasanian administration in the Bactrian region itself was also represented by *satraps* (called *shaurabo* in Bactrian and *shtrp* in Middle Persian inscriptions), who governed over the large cities, such as the capital of Balkh/Bactria and over all the territories adjoining them as well (see Nikitin A B in *Ancient Civilizations from Scythia to Siberia* 1/3, 1994, pp. 365-368). The Sasanian kings could have employed contingents from the former Kushan empire to campaign, even in the far west. So, if we accept the well-grounded correction of a corrupt passage XIX,2,3 in the text of the *Res Gestae* by Ammianus Marcellinus, which is given in the latest edition by W Seyfarth (Vol I, p. 157, Leipzig, 1978; see also de Jonge P *Philological and Historical Commentary on Ammianus Marcellinus* XXI. Groningen, 1982, p. 29), the Cuseni (that is Kushans, many if not the majority of whom were, to all appearances, from the Bactrian region) took part in 359 AD in the siege of Amida, a Roman fortress in Syria, undertaken by Shapur II. This ethnic name, the Cuseni, was first inserted into Ammianus' narrative by J Marquart (*Eransahr nach der Geographie des Ps Moses Xorenac'i*. Berlin, 1901, p. 36, note 5), who substituted it for the enigmatic one of the Euseni, said to have fought together with the Chionitae against Shapur II in the far eastern Persian domains in 346/7 AD (Amm. Marc., XVI, 9,3-4).

As an interesting aside, one more Far Eastern people participating in the action at Amida were the just mentioned Chionitae, the future masters of Bactria and neighbouring territories. These alien nomads of Central Asian (?) origin were also named, by later Greek sources, the Kidarite Huns. Ammianus Marcellinus relates that the Chionitae, having concluded a peace treaty with Shapur II, then took the field together with his army against Roman Syria. They were headed by the king named Grumbates, who occupied a very honourable place in the Persian king's marching retinue. He rode not only beside Shapur himself, but also as the first person from the left side, in front of other generals. This fact no doubt points to the privileged position of the whole Chionitae contingent in the Persian army; they were the king's allies, not his subjects. The very high rank of Grumbates in Shapur's estimation is confirmed too by two more facts. Firstly it was he who was sent to parley with the garrison of Amida, and secondly, it was he who gave the signal, by casting a spear stained in blood, to storm the fortress. This last could be connected with the fact that, in the course of the parley, Grumbates' young son had been killed by a shot from a Roman ballista; it is noteworthy that his dead body was cremated. In the order-of-battle of the siege, the Chionitae occupied a position near the eastern wall of Amida, where the son of their king had fallen, while the Cuseni/Kushans occupied a position near the southern wall (Amm. Marc, XVII, 5,1; XVIII, 6,22; XIX, 1,7-2,6).

Unfortunately, we do not know with certainty from our sources whether the Chionitae/Kidarites, who, like all the other nomadic peoples of Central Asia, were mostly warriors on horseback, had an armoured cavalry force at their disposal or not. The fact that Grumbates' son is reported to have worn a corselet (*thorax*) (Amm. Marc, XIX, 1,7) is not proof, of course, of the presence of *cataphracti* in the Chionitan army; there are not fewer, but rather more, grounds for thinking that the wearing of body-armour may have been exclusive to solely the noblest of the Chionitae. At any rate, the bulk of their host was undoubtedly composed of lightly armed riders. To all appearances, the Chionitae inherited, after the subdual of Bactria, the order of "horsemen" which I have already proposed as tentatively existing there from Late Yüeh-chih times. At least, the gem-seal inscription referring to its chief with the title of ACBAPOBIDO (Fig 47a) appears to belong to the period of Chionitan/Kidarite dominance. As in former times, the order that comprised mounted soldiers serving for pay in the form of allotment-holding had to be the principal source of raising an army. We hear that the kings of the Chionitae had their own picked troops: so, a "perfectly ready for action" detachment of bodyguards (*manus promptissima stipatorum*) escorted Grumbates at Amida (Amm. Marc, XIX, 1,7).

Arms and armour of the period in question are known from various categories of sources. There are some actual finds from Bactrian sites (Fig 44a-l). They are substantially supplemented by visual pieces of evidence (Figs 39d, 45-47), amongst which is to be found one group featuring items of Hellenistic origin such as "muscle" cuirasses and "Boeotian"-style helmets (Fig 45, compare 39d). Their actual usage in Bactria at this late period would seem to be much more questionable than during the Great Kushan epoch, for which we have similar pictures (see previous chapter). Perhaps, except for the Kushanshah's cuirass (Fig 39d), all of these protective arms were reproduced by Late Kushan artists in imitation of those represented on earlier works of art. As for textual sources, apart from the corselet belonging to the son of Grumbates, Ammianus Marcellinus mentions the Chionitan king's spear (*hasta*) as well (XIX, 2,6).

Two particular extant articles of martial equipment are especially deserving of attention from the point of view of revealing to us evidence of any foreign armament brought to Bactria during this period. The first is an iron double-edged dagger provided with no metal cross-guard and pommel, which was found in Barrow 1/48 of the Tulkhar cemetery, in a grave containing some vestiges of human cremation (Fig 44a). Since this funeral rite was peculiar to the Chionitae, as we hear from Ammianus' account of the internment of Grumbates' son at Amida (XIX, 2,1), this weapon must have belonged to one of them, buried in Northern Bactria (see Mandel'shatam A M in *Kratkie soobshcheniya Instituta arkheologii Akademii Nauk SSSR* 94, 1963, pp. 88-93). The second latter article deserving attention is the "severe" curb bit, a new type of bitting which is attested for the Bactrian region by the depictions of the Hephthalite invaders (Fig 47b,d and Pl 8D). However, this device could have appeared there earlier - with the Sasanian Persians, for it had been introduced into the horse-harness of Iran not later than the early 3rd century AD, as G Herrmann has recently shown (see Fig 44r-u on this style bitting). The Hephthalites seem to have adopted the curb bit while conquering Bactria and neighbouring countries - from their precursors, the Chionitae/Kidarite Huns, who in turn had to borrow it from the Persians themselves.

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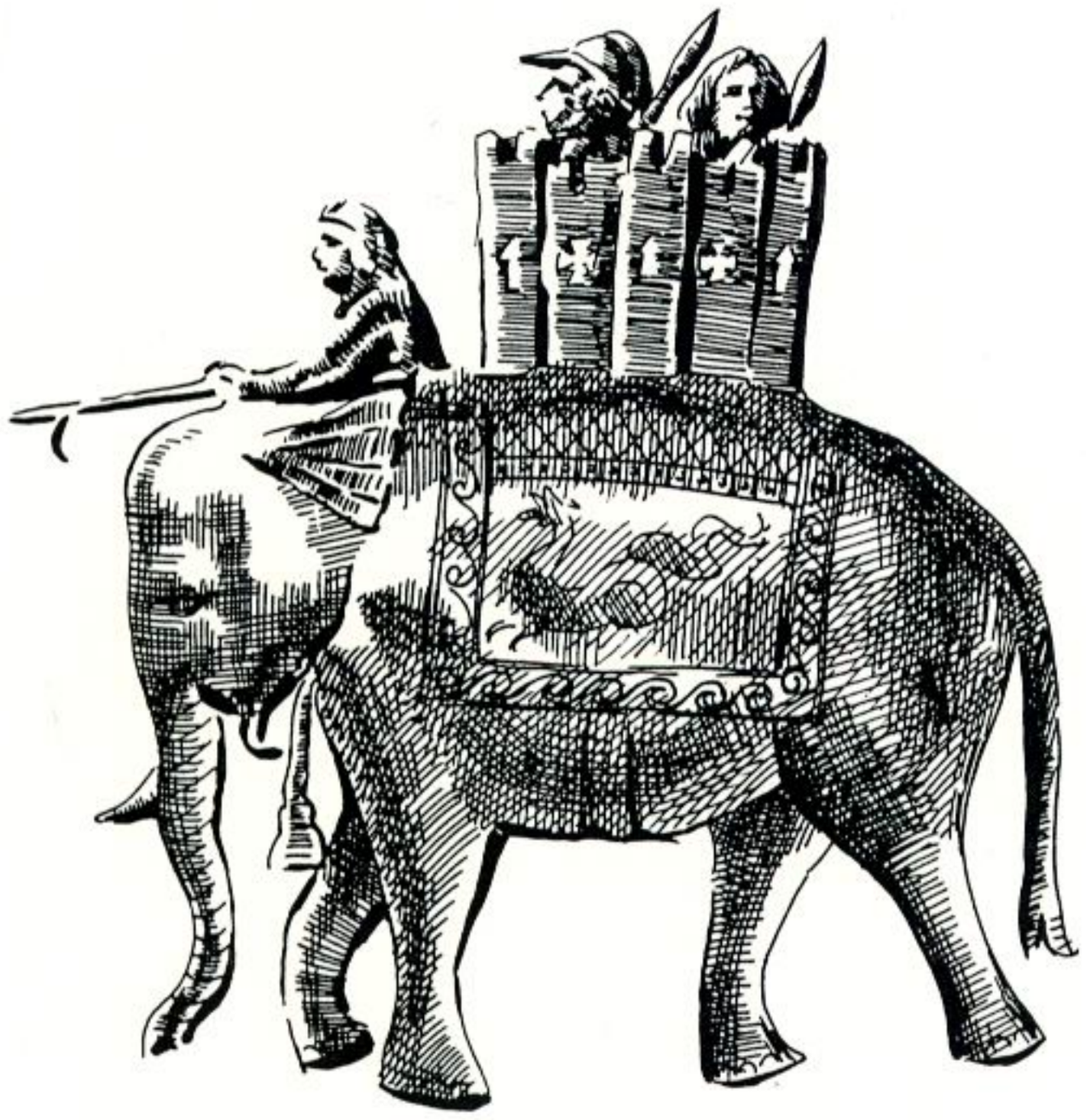
Bactrian warfare within the chronological limits proposed has never been comprehensively examined as a whole. The ambition of this two-volume work is to fill this gap by using all of the available source material to reconstruct the history and development of such fundamental components of warfare as martial equipment and costume, armed forces, battle tactics and the structure of military organisation, which took place in Bactria from the Early Iron Age up to the commencement of what might be called Early Medieval times. Major periods covered are the Ancient, the Achaemenid, the Hellenistic, the Yüeh-chih, the Great Kushan and the Late Kushan or Kushano-Sasanian and Kidarite.



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