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THE WESTERN CAUCASUS
IMPORTED ARMOUR IN THE HELLENISTIC PERIOD

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Abstract

The region of the Western Caucasus comprises the territories along the north-eastern and eastern Black Sea coast - the Bosporan Kingdom, Colchis and the foothills and mountains of the Caucasus as they spread between the two states. The area was keenly affected by the ancient Greeks through colonization and trade from the 7th-6th centuries BC on. These connections have yielded a rich wealth in finds of Greek type, for example pottery, jewellery, and weaponry. The latter is particularly interesting, as it comprises a wealth of Greek style helmets and greaves. All Greek-style armour finds stem from burials, most of which can be dated to the 4th-2nd century BC.

The Greek-style helmet and greave finds from the Western Caucasus are particularly important for the study of Greek armour as a whole, the bulk of which comes from votive contexts in Greece (Olympia). However, none of these finds can be dated later than the mid 5th century BC. The Western Caucasus, however, is home to the highest concentration of Greek-style armour finds (particularly helmets) in the Hellenistic period, and as such are extremely useful in expanding upon existent typologies – which end with the Classical period, as well as examining the distribution and evident popularity of Greek armour outside Greece proper.

The thesis begins by analyzing each individual region in terms of its interaction with the Greek world – colonization and trade contacts. This provides the necessary background for the analytical section, which looks at the defining characteristics of the individual greave and helmet types in order to answer questions of provenance and identify individual workshops. Particularly interesting is the heavy concentration and widespread distribution of the Chalcidian type helmet in the Caucasus foothills, which goes far to answer many questions about the key role played by the Caucasus tribes in the economy and political stability of the Western Caucasus as a whole.

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INTRODUCTION – ARCHAEOLOGY OF THE WESTERN CAUCASUS

This thesis is the product of many years of travel and fieldwork in the north-eastern and eastern Black Sea region, generally known as the Western Caucasus – the Crimea (Ukraine), Russia, Abkhazia and Georgia. My current focus on imported weaponry of the Hellenistic Period goes back to my Master's thesis, 'Early Hellenistic Kurgans in the Bosporan Kingdom,' in which I looked at chamber burials in the kurgans of the region. The burial goods often included offensive and defensive weaponry, much of which was clearly of Greek style. This phenomenon can be followed all along the eastern Black Sea all the way into the kingdom of Colchis.[1] As there have been no comprehensive comparative analyses of the imported weaponry of this area up to this time, I decided to make this the subject of my doctoral thesis, combining my direct experience in this region with a question that has interested me for some years.

The significance of the chosen geographical and chronological framework of this topic goes beyond a simple representation of my personal interests. The Black Sea region, and the Western Caucasus in particular, is home to the largest number of known weapon finds of Greek type, more so than even Greece proper, and thus extremely important for the study of ancient Greek weaponry overall. However, the fact that most of this material has only been published in Russian has made it relatively inaccessible to the majority of Western scholars. Therefore, one of the main goals of this thesis is to present this wealth of material in English for scholars from the West.

The bulk of weapon finds from Greece proper comes in the form of votive offerings (Olympia) which date *no later* than the Archaic and Classical Periods – there is no votive evidence from the Hellenistic Period. The majority of the Black Sea finds, however, comes

[1] This phenomenon can be followed throughout most of the Black Sea region, with the exception of the southern (Turkish) Black Sea littoral, which has not been subject to much excavation or research.

from *Hellenistic* burial contexts, and is therefore key in filling in a missing chronological link in the overall typology of Greek armour. Because of the continuity that can be observed in burials of this region and their assemblages from the early 4th century BC on, I have decided to extend the upper border of the traditional Hellenistic time frame to include the entire 4th century BC.

Therefore, this thesis will look at finds of Greek style armour from the Western Caucasus from contexts of the 4th-1st centuries BC, The bulk of these items is of the defensive type,[2] and amongst these it is Greek helmet types and greaves that dominate. Shield and armour finds are relatively few and far between and will therefore not be examined here. It is important to note that there are practically no examples of Near Eastern weaponry in the burials and other find contexts of the Hellenistic Period. Therefore it is important to trace the direct or indirect contacts between the Western Caucasus and the Greeks.

Ancient sources

In ancient times, the Western Caucasus was home to two political entities, the Bosporan Kingdom of the north-eastern Black Sea region, and the state of Colchis in the south-eastern Black Sea region, nestled between the Greater and Lesser Caucasus Mountains. The area along the eastern coastline and between the two states had no known definite political affiliation and could be termed a 'wild country' of sorts, populated by the many local tribes of the region. The populations of both the Bosporan and Colchian states also consisted of local peoples intermingling, to a greater or lesser extent, with Greeks.[3] Greeks, Bosporans, Colchians, and other local tribes were constantly involved with and influenced by the Scythians of Royal Scythia (to the northwest of the Bosporan Kingdom) and the Sarmatians

[2] Very few examples of Greek-style offensive weaponry are known from this region.

[3] The proportion of locals to Greeks remains unknown for the Bosporan Kingdom, even in approximations. This is even truer for the case of Colchis. Most experts agree on a higher proportion Greeks in the Bosporan Kingdom than in Colchis.

of the Don-Asov steppe (to the northeast of the Bosporan Kingdom). Together, these are the players that defined the politics and economic situation of the entire Western Caucasus.

Ancient Greek and Latin authors of various periods – e.g. Herodotus (5th century BC), Diodorus (1st century BC) and Strabo (1st century AD) – speak of Greeks in this connection mainly as 'colonizers' in this region. It is particularly interesting that Strabo's accounts provide almost a 'first-hand' view of the area, since he himself hailed from the south-eastern Black Sea area.[4] The question of Greek colonization in the Black Sea area has been studied over the years with much intensity. Most researchers agree that while many Bosporan cities were in fact founded by Greeks, the Colchian sites known by Greek name were in fact not colonies, but more likely *emporia*.[5] In any case, both literary and archaeological evidence attest to first Greek contacts in the Western Caucasus during the 7th and 6th centuries BC. This is commonly referred to by experts as the 'period of colonization'.[6] It is from this period that we find the earliest examples of Greek items in this area, including weapons and armour.

Ancient sources clearly attest to direct contacts between Greece and the Western Caucasus during the 5th and 4th centuries BC, especially between Athens and the Bosporan Kingdom as a primary supplier of grain to the Greek capitol.[7] Archaeological material found on Bosporan territory – Attic pottery, toreutics, weapons, etc, all of high quality – also confirms the extent of Attic-Bosporan trade during this time. Similarly, archaeological finds from Colchian territory also indicate contacts and trade connections between the Greek world and Colchis during the Classical Period, even though written sources provide little information on this point. Details will be discussed in the relevant regional chapters.

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[4] Braund/Tsetskhladze 1989, 116.

[5] Avram/Hind/Tsetskhladze (2004, 926) note that there is no written evidence of any diplomatic or political activity in any of the Colchian 'poleis' communities.

[6] This reference is commonly made by Soviet, Russian, Georgian and Abkhazian experts, who also refer to the entire period beginning with Greek colonization of the Black Sea area up into the Roman Period as the *Ancient Period*.

[7] Herodotus 4.17-4.18, 53; Strabo 7.4.6.

A serious decline in trade with Athens, followed by the turmoil caused by attacking Scythians and Sarmatians, led to major economic disruptions in the Bosporan Kingdom during the 3rd century BC. This is noted in various ancient written sources and supported by archaeological material – imported items in this period are generally less frequent and of a lower quality than before. In the case of Greek weapon and armour finds, we see neither an increase nor decrease in the proportion of such finds from Bosporan territory during the Hellenistic Period, nor a decrease in the quality.

In the case of Colchis, it remains difficult to interpret the extent of trade with the Greek world during the Hellenistic Period based on written sources, which remain quite vague and superficial in their descriptions of this area. The frequency and quality of imported goods, however, varies throughout the region.[8] Unlike the Bosporan Kingdom, we can observe an increase in Greek weaponry in Colchis as compared to the Classical Period. These weapon finds are not spread throughout the region but concentrated in particular sites, mainly in the foothill regions, a point that could prove of significance later in this paper.

The stretch of coastal foothills and hinterlands between the Bosporan Kingdom and Colchis is little spoken of by ancient authors, who mainly characterize it and its inhabitants in a negative light. 'Pirates' and 'kidnapping' are often spoken of. Archaeological evidence does support this, at the same time clearly demonstrating that the 'pirates' and 'kidnappers' were also involved with the Bosporans and Colchians on a political level, and that much collaboration was going on.

The archaeological material analyzed in this thesis reflects and even enhances the above reports given by ancient authors, especially those concerning interaction *within* the Western Caucasus as a whole. It is therefore important to keep the local tribes in mind throughout this

[8] Vani, for example, is home to beautiful finds – pottery, toreutics, jewellery etc. – of fine Greek craftsmanship, while coastal sites such as Pichvnari contain only Greek pottery of low quality.

reading.

Archaeological Material

The main problem concerning weapons and armour of the Hellenistic period is the relatively small number of finds from the Western part of the world combined with the serious lack of publication. By the Hellenistic period, votive offerings of weaponry had tapered away in mainland Greece. The few such known finds come from burials in northern Greece/Macedonia (Vergina) and especially Southern Italy (Ruva, Denda). A. Snodgrass notes finds of arms and accoutrements of Hellenistic soldiers do, in fact, exist, but that these remain largely unpublished to our day.[9] This lack of Hellenistic material in the West poses a more acute problem for Western scholars, who very often do not have the physical or linguistic access to publications from Eastern Europe, which reveal a wealth of armour finds of this period.

Amongst published material, a further problem to deal with is the quality of the reproduced images. Helmets and greaves are often shown in the standard frontal and profile views, at best.[10]

It should be noted that practically all weapon finds of the Western Caucasus come from burials, both in the Classical and Hellenistic Periods. Further, while burials often contained weapon offerings of which all were of local Scythian style, there are no known cases where *all* weapons of a single burial were of Greek style. Instead, we find the Greek style weapon finds within a burial intermixed with a sample (often larger) of local style weapons. Note that there are no examples of a complete Greek-style panoply from a single complex of this region.

Amongst the finds from the Western Caucasus, it is particularly significant that the heaviest

[9] Snodgrass 1999, 129.

[10] Kunze (1991, 78) notes the difficulties/impossibility of analyzing Hellenistic greave material when confronted only with standardized photographic or drawn reproductions.

concentration of Greek weapon and armour finds of the Hellenistic Period comes from *outside* the borders of the Bosporan and Colchian states. The 'no-man's land' in the northern foothills of the Caucasus, and the area deep within the Caucasus itself, has produced a large number of such finds. The sites in question remain practically unmentioned in ancient sources, and little archaeological work has been done on them. It is particularly significant that there are no Greek weapon finds from earlier periods in these areas. These finds, together with the Hellenistic Greek weapon finds from Colchis, contribute to an overall increase in the proportion of Greek weaponry finds in the Western Caucasus.

Up till now, I have referred to the weapon imports in question as *Greek*. This is actually quite misleading, for one of the important questions to be reviewed in this paper concerns the general provenance of these items: were they truly of Greek manufacture, or in fact locally made imitations of Greek items? The correct term to use for such weapons would therefore be 'Greek-style'. Subsequently, the question we are looking at is whether the seeming increase in Greek weapon and armour imports is actually just that, an increase in *imports* – during a period which is seeing an overall *decrease* in Greek imports. Or are we in fact looking at an increase in local manufacture imitating Greek production, thus falling in place with the overall decline of Greek imports in this part of the world?[11] We must not forget that the Bosporans were happily imitating Attic pottery ('watercolour' pelikes)[12] and Egyptian glass and faience beads[13] by the 4th century BC. Is it not likely that they might have also begun imitating Greek weapons by this time? The local tribes were skilful fighters with a strong culture of weapons and a long tradition of their manufacture,[14] and skilful imitation of Greek weaponry would have not posed a large challenge to their craftsmen. In fact, it is for this very

[11] See Chapter I, section 'Political arrangements in the Hellenistic period', for details on the declining trade with Greece during this time.

[12] See Längner 2007, 27-29; Kästner 2007, 57.

[13] Alexeeva 1982.

[14] Locally produced weapons are known from this area as far back as the 7th century BC. See Chernenko 2006 for an overview of such items.

reason that the peoples of the Western Caucasus would probably not have required the services of a Greek weapons' craftsman in their own territory.

Whether imported or locally made, it is this *increase* in Greek style weaponry that characterizes the weapon finds of the Hellenistic Period. Particularly significant in this respect is the territorial distribution of such finds in the mountain areas of the Caucasus, where we find considerably high concentrations of Greek style weapons and armour in the northern and southern foothills.[15] While this increase may reflect a change in burial practices taking place in the Hellenistic Period, it is more likely that it simply goes back to the abovementioned political unrest and increased fighting activity with Scythian and Sarmatian tribes that characterize the region from the 3rd century BC on. The more extensive territorial distribution indicates an increase in movement – perhaps trade movement – that followed in the train of the battle dynamic of the period. These possibilities will be discussed in more detail later on.

The significance of a study of weapon finds, in particular the imported/Greek ones, cannot be underestimated for this region. Not only can it give us a better understanding about the nature and movements of Bosporans, Colchians and various tribes of the Western Caucasus, who were all constantly involved in battle during the Hellenistic Period, but it can also provide a closer insight into local producers and their weapons' preferences. Ultimately, it also gives us a chance to better grasp the far-reaching influence of Greek weapons and armour at the edge of the Greek *oikumene*.

THESIS SET-UP

This thesis is subdivided into six chapters. The first three chapters look at the three main regions of the Western Caucasus in detail, the aim being to familiarize the (Western) reader with the general history and archaeology of the region itself as well as to provide a comprehensive listing of the relevant find sites within each region.

[15] I.e. the Sochi region in the northern foothills, and the Eshera region in the southern foothills.

Chapter I - The Bosporan Kingdom, begins with a discussion of the topography of the region, followed by a historical and political overview of the Kingdom from the so-called period of colonization up to the Hellenistic period based on written sources and some archaeological material. This is followed by a close look at the political and economic situation of the region during the Hellenistic period itself. The result is a thorough overview of this region based on both ancient sources and archaeological material, which is also presented here.

The second half of the chapter is a Gazetteer of Sites, which lists all relevant sites the order of their political/historical significance and moving from the European to the Asian Bosporus. The Gazetteer not only describes the find sites and their vicinity in detail, but also gives an overview of the relevant find contexts.

Chapter II - Colchis, is aimed at providing a comprehensive overview of what – in archaeological terms – is a somewhat enigmatic region as compared with the Bosporan Kingdom. Following the topographic overview of the region, the chapter looks at both Greek and Assyrian sources in order to understand the origins of Colchis and its political situation leading up to the Hellenistic period. A discussion of the politics, economics and archaeology of the Hellenistic period follows.

The second half of this chapter is also a Gazetteer of Sites listing all relevant sites the order of their political/historical significance and moving from the Caucasus foothills along the coast to the Pontic foothills and then into the Colchian basin. The Gazetteer not only provides a thorough description of the find sites and their vicinity, but also gives a detailed overview of the find context.

Chapter III - Between Colchis and the Bosporan Kingdom, looks at the topography of the region between the Bosporan and Colchian states. The writings of ancient authors – which are a relatively meagre source of information on this region and its inhabitants – are used to

understand the political and economic infrastructure of this region, the inhabitants of which are typically characterized as fierce, pirates and kidnappers. In spite of the fact that the bulk of all finds from the Western Caucasus were found in this region, it is this region that we know the least about, both in terms of written sources and archaeology.

The second half of this chapter is also a Gazetteer of Sites which lists all relevant sites moving from the northern foothills to the south, into the very heart of the mountains. This listing is particularly significant, as the wealth of finds and find sites in this region serves greatly to supplement the little historical information available.

The second half of the thesis is devoted the analysis of material – in two chapters..

Chapter IV - Helmets, examines each of the Greek helmet types that occur here – Chalcidian helmets, variations on Chalcidian helmets, Phrygian helmets, the Attic helmet type with visor and pilos helmets – in an individual section, moving more-or-less chronologically from the Early Hellenistic period on. In each case, the general history of the helmet type as it is known from original finds or artistic depictions is described, following which the defining features of each helmet type as it occurs in the Western Caucasus is highlighted. Each helmet type and its distribution is also analyzed with the aim of identifying common workshops and eventually even the provenance of a find, as well as understanding what led to the surge of such finds in the Western Caucasus

Chapter V - Greaves and Thigh-Guards, begins with a history of research that has been carried out on greaves so far, identifying the greave types that occur most frequently in the Western Caucasus. It also addresses the difference between Greek greaves and leg protection of local style. The greave finds and their distribution are then analyzed with the aim of identifying a stylistic development for the Hellenistic period – particularly significant in view of the lack of Hellenistic material outside the Black Sea region.

Chapter VI - Interpreting the Evidence, evaluates the find distribution of the greaves and various helmet types throughout the Western Caucasus, tying it in with the history of the region and political or other events that may have led to the appearance of these finds. This discussion also reveals the significance of the foothill-mountain region between the Bosporus and Colchis and discusses in detail the crucial role played by the mountains and local tribes in the economy of the Western Caucasus as a whole. The remaining sections sum up the questions that have been discussed in previous chapters, including that of how the items were procured. Finally, the question of the identity or ethnicity of the deceased from the relevant burials is discussed. The chapter concludes with the question of local identification with Greeks and the greater Hellenic world.

Volume II consists of a **Catalogue of Finds**, which presents all finds analyzed in this thesis in alphabetical order in the form of detailed catalogue entries with images.

CHAPTER I
THE BOSPORAN KINGDOM

Introduction

The Bosporan Kingdom was an ancient state situated in the north-eastern Black Sea region along both sides of the so-called Cimmerian Bosporus (present-day Straits of Kerch) between the Pontos Euxeinos and the Maeotis (present-day Black and Asov Seas) (Figure 1). The Kingdom takes its name from the Greek word *Βόσπορος*, or 'strait', which flows between these two seas and, in ancient times, was considered to have separated Europe from Asia. The result is a geographically based distinction between the *European Bosporus*, referring to the territory on the present-day Kerch Peninsula, and the *Asiatic/Asian Bosporus*, the territory of the opposite Taman Peninsula and the Kuban River delta (ancient *Hypanis* River).

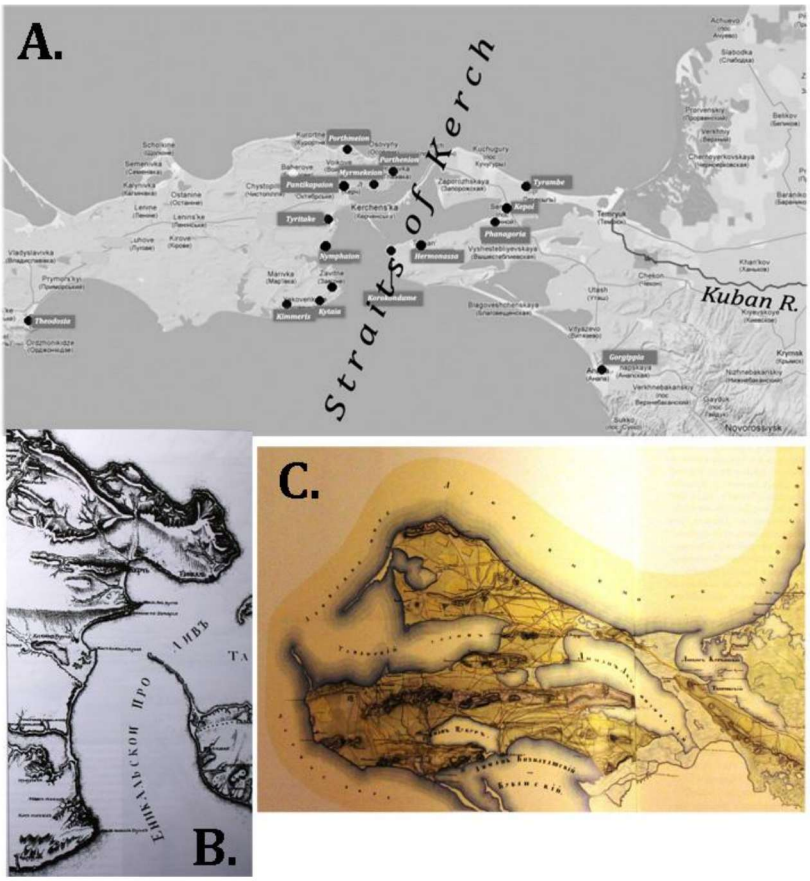


Figure 1: The Territory of the Bosporan Kingdom
A. The cities of the Bosporan Kingdom (S. Chandrasekaran, using Google maps);
B. Topography of the Kerch Peninsula (After Tunkina 2010-b, Fig. 36);
C. Topography of the Taman Peninsula (After Tunkina 2010-a, Fig. 10)

The Bosporan *polis* capital of Pantikapaion (modern-day Kerch) was situated on a

promontory along the eastern Kerch coastline. Other sizeable cities and towns of significance on the European side included Nymphaion to the south and Theodosia to the southwest, both coastal cities with important harbours. The surrounding chora of all three cities were dotted with smaller towns devoted to agriculture and fishing. The 'capital' of the Asian Bosporus was Phanagoria (modern-day Taman), far smaller than its European counterpart and situated in the middle of the Taman peninsula at the edge of the Taman Bay. The entire bay itself was dotted with numerous small towns and settlements, as was the remaining peninsula and the hinterland. Of these, the larger, more notable ones included Hermonassa, further west along the Bay of Taman, and in particular the larger, aforementioned harbour site of Gorgippia, which marked the south-eastern border of the kingdom. In most cases, the borders of the cities and settlements tended to correspond to natural border features such as gullies and ridges.[16]

The great wealth of the Bosporan Kingdom was largely due to the export of its grain crop: the extensive chora in the fertile hinterlands of both the European and Asian Bosporus were farmed for grain by locals, who were also incorporated into the kingdom. The same holds true for the steppes beyond the official borders of the Bosporan state, which were farmed by the agriculturally productive local tribes since the period of colonization, if not earlier.

Topography of the Region

The Kerch Peninsula (Figure 1 B) is characterized by rocky headlands in the northeast and steppe lowland in the south, all interspersed with salt lakes and mud springs. Very few rivers flow through the landscape. The coastlines are marked by numerous natural lakes, inlets and bays. Many of the present lakes were once part of larger estuaries

[16] See Zinko 2007, 289, for an example of this in the case of Nymphaion.

during Antiquity.[17] Particularly prominent are the two east-west ridges in the northern peninsula rising from the hinterland and culminating at the coast. The longer of these terminates in Mt. Mithridates, the highest natural elevation on the peninsula at just over 90m. South of this is the shorter Yuz-Oba range, a series of sometimes rocky hills also running east-west towards the strait and terminating at the cliffs of Ak-Burun. This ridge is of special significance in terms of the archaeology of the Bosporan Kingdom, as it is home to the bulk of known kurgans from the Bosporus.

Geophysical survey has shown that the Taman peninsula (Figure 1 C) originally evolved from a chain of islands formed by the arms of the Kuban delta.[18] It is now a wetter and less rugged place than its European counterpart. The main feature of the peninsula is the elongated Taman Bay, a shallow gulf cutting into the peninsula from the Straits of Kerch and thus forming its characteristic northern and southern spits (the Chushka and Tuzla spits, respectively). The peninsula is characterized by a marshy deltaic plain and fertile steppe land interspersed with numerous salt lakes, limans (estuaries), and lines of mud volcanoes, particularly characteristic of the peninsula. The northern zone is marked by rocky headlands, which represent a geological continuation of those on the opposite peninsula.[19] The same holds true for the low folded ridge in the middle of the peninsula, which, interestingly, corresponds to the higher and hillier Yuz-Oba ridge on the other side. A similar ridge is also found east of the Taman Bay, running towards Akhtanizovsky Liman. We also see a similar continuation of the geological features found on the Kerch Peninsula in the elevations of the Anapa promontory.[20] The Taman

[17] Examples of this are found in the Churubash and Tobichek lakes along Kerch's present eastern coastline (Zinko 2007, 290).

[18] Hind 1994, 476. The archipelago was formed over 2 million years ago. During the colonization period, the peninsula still comprised several islands, which have since been transformed by fluctuating sea levels and sedimentation of the Kuban. See also the DAI website: <http://www.dainst.org/index_679f6b74bb1f14a184730017f0000011_en.html>.

[19] Fouache/Porotov/Müller/Gorlov/Bolokhovskaya/Kaitamba 2005, 11.

[20] Fouache/Porotov/Müller/Gorlov/Bolokhovskaya/Kaitamba 2005, 11.

coastline alternates from relatively straight to winding, producing some inlets and some large bays or lagoons. Particularly prominent are the two long, narrow spits of land in the north and northeast of the peninsula.

Ancient Sources

Early references: The earliest Greek references to the region are made in the 5th and 4th centuries, amongst others by Herodotus, Demosthenes and Strabo. These writers provide the bulk of written information on the Greek colonies and local townships of the Bosporus, as well as important insights into the infrastructure and political organization of the Kingdom. It is mainly through their works that it is possible to piece together the state of affairs leading up to and during the Hellenistic period.

Greek colonization and local inhabitants

The Greek 'colonization' of the Kerch and Taman peninsulas has been studied thoroughly by Russian and Western researchers alike, and there is no need to go into great detail in this paper.[21] Suffice it to say that Greek settlers arriving in the territory of the future Bosporan Kingdom during the 6th century BC would have certainly encountered various groups of natives who inhabited or at least exploited the area, mainly for its pastoral advantages.[22] These natives included the sedentary and nomad Scythians of the neighbouring Ukrainian steppe, the so-called 'Royal Scythians' of Herodotus,[23] and possibly some Cimmerians on the European side.[24] The Asian

[21] See Vinogradov 2008, Fornasier/Böttger 2002, Gaidukevich 1971, and Rostovtsev (1925. *Skifiya i Bosfor*. Leningrad) for detailed studies on the 'period of colonization' and colonies of the Bosporan Kingdom.

[22] Vinogradov 2008, 14: Herodotus (4.28) notes the movements of Scythian groups through the Bosporus.

[23] Herodotus (4.20) uses the term with reference to the specific tribe of Royal Scythians *he* encountered during his travels to the Black Sea region. Archaeology demonstrates that during Herodotus' time the Royal Scythians inhabited the Ukrainian steppe along the lower Bug and Dnepr Rivers as well as the middle Donets River, and also the Crimean steppe (Sulimirski/Taylor 1994, 574-6; See also the distribution maps in Chernenko (2006, Taf. 44, A, B), which show the overall placement of Scythian kurgans). Herodotus himself claims the term *Scythians* to have been coined by the Greeks in reference to the tribe that called themselves the *Skoloti* (4.6). He also uses the term Scythian as a general reference to various nomadic tribes, such as the Scythians in Asia (4.11). In this paper, I use the term

Bosporus was populated by various local tribes dominated by the *Sindi*,[25] whose territory in the Kuban valley and hinterlands is often referred to by ancient authors as *Sindike*.[26] Archaeology proves that the colonization of the Bosporus was not an unhampered process for the Greeks, who definitely encountered some kind of resistance around the mid-6th century BC.[27] At the same time, it also indicates a certain degree of interdependence between Greeks and locals during the initial phase of colonization.[28] Amongst the ensuing Greek *poleis* and *apoikiai* are Pantikapaion, Myrmekeion, Tyritake, Kimmerikon, Portmeion, Parthenion, Nymphaion, Theodosia, Phanagoria, Hermonassa, Kepoi, Tyrambe, Kimmeris, Achilleion, Patreus, all named by ancient authors and many identified archaeologically (Figure 1).[29]

During the 5th century BC, the *apoikiai*, city-states and townships of the European Bosporus had organized themselves under the lead of the Archaeanactid dynasty to counter the aggressiveness of the neighbouring Scythian and Sarmatian tribes.[30] The Archaeanactids were in power from 480-438 BC.[31] The succeeding dynasts, the Spartocids, set forth to expand their territory. The Spartocids themselves were of

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Scythians to refer to both the Royal Scythians as well as all other local tribes of the Ukrainian steppes.

[24] Hind 1994, 1.

[25] Sulimirski/Taylor 1994, 572; Ancient sources, e.g. Herodotus (4.28), Strabo (*Geo*. 11.2, 11.11) and Pliny (*N.H.* 6.5), mention the *Sindi* as inhabitants of the Taman hinterland. Strabo also mentions other local tribes of the region, such as *Dandarii*, *Toreatæ*, and *Aspurgiani* (*Geo*. 11.2.11). In spite of the frequent references by Herodotus and Strabo, it is often difficult to assign a particular geographical area to the specific tribes. However, Strabo does state Gorgippia to have been within Sindic territory. Thus, the *Sindi* can be placed around the lower Kuban valley and Gorgippia hinterland.

[26] Strabo, *Geo*. 11.2.10-12.

[27] Vinogradov 2008, 14.

[28] Hojte (2008, 151-2) stresses a number of factors, amongst them the lack of fortification structures in the area before the 5th century BC.

[29] The colonization of the northern Black Sea region has been subject to intensive study elsewhere, and a detailed discussion of the Bosporan colonies and their colonizers certainly goes beyond the scope of this thesis. Most of these colonies are attributed to the Milesians, with the exception of Phanagoria (Teans) and Hermonassa (possibly a Mytilenean foundation). For more detailed accounts of Greek colonies and emporia named by ancient sources see especially Avram/Hind/Tsetskhladze 2004; See also Hind 1994, 481-8; Gaidukevich 1971, 15-64.

[30] Vinogradov 2008, 15.

[31] *Lib.* 12.31.1.

Thracian origin, from the dynasty of the Odryssians[32] and styled themselves as *archons*, not kings. They were to rule until 109 BC.[33]

It was the earliest Spartocids, in particular Leukon I, who set about to expand the reaches of Bosporan territory. In the early 4th century, Leukon I managed to extend the boundaries of the European Bosporus all the way to the important harbour city of Theodosia in the southwest.[34] He also annexed the Sindian territories on the Taman Peninsula and across the Kuban delta, all the way up to the Sindian capital itself, Sindikos Limen, renamed Gorgippia (modern Anapa), thus effectively creating the Asian Bosporus.[35] Therefore, it is Leukon who created the Bosporan Kingdom as it was known henceforth and throughout the Hellenistic period.

Political arrangements in the Hellenistic period

The Bosporan Kingdom had come far since the days of Greek colonization of the vast and fertile steppes along the north-eastern Black Sea coast in the 7th and 6th centuries BC. By the 4th century BC, its cities were home to a thriving intermixed society of Greeks (i.e. those of Greek ancestry) and locals (Scythians and other tribes), all grown wealthy through the fruits of its fertile steppes and plentiful seas – grain and fish – which it traded with many parts of the Greek world, in particular Athens,[36] whither it exported masses of grain desperately needed by the Athenians following the disaster of the Peloponnesian War. The Bosporan Kingdom was also a major manufacturing centre and home to many craftsmen, producing a wealth of everyday and luxury goods – from

[32] Hind 1994, 491; Gaidukevic 1971, E 241.

[33] Archibald 2004, 4; Hind 1994, 496.

[34] See Hind 1994, 479, 483, 497-8: Theodosia was originally founded as an independent Milesian colony (Hind 1994, 83), but annexed by Leukon sometime after 390 BC – perhaps around 370BC, after he had successfully defeated Theodosia and Memnon of Rhodos – (479) and developed it into an emporion by 350 BC.

[35] Vinogradov 2008, 16; Hind (1994, 496 -7) places the annexation of Sindike around 370 BC.

[36] Written sources show that Mytilene was also importing Bosporan grain (Hind 1994, 499).

beads and pottery to jewellery and toreutics – for internal use as well as export. Thus did the Bosporan Kingdom enter the Hellenistic period as a prosperous and wealthy state. The grain farmed in the interior of the Kerch peninsula and *Sindike* was exported with great success and large monetary gain to Athens during the Classical Period and all the way into the 3rd century BC.[37]

Ancient sources report on the troubles – direct and indirect – upsetting the economic peace and stability in the Bosporan Kingdom during this period.[38] While it was able to retain its role as a major supplier for the Greek world during the Hellenistic period, the actual trade process was often disrupted by conflict near and even within the Bosporan borders. During the second half of the 4th century BC, the Bosporan ruler Pairisades I fought a war against the Scythians, which resulted in difficulties in trade.[39] Later, in 310/09 BC a major conflict erupted between Pairisades' sons, Satyrus II, Pritanis and Eumelus BC.[40] The sons sought military backing amongst the neighbouring tribes - Satyrus and Pritanis from the Scythians and Eumelus from the Sarmatians – thus involving them in their own internal conflicts.

While the Bosporans were involved in their own conflicts, there was also plenty of unrest at their own doorstep, as the Scythians were constantly at battle. The neighbouring Scythian king Ateas involved himself in a battle with Philip of Macedon in the mid-4th century BC.[41] Later on, Alexander the Great sent his vice-regent Zopyrion to invade Scythia in 331.[42]

In addition to military conflicts, Bosporan trade began to suffer around the beginning of

[37] Saprykin 2006, 278.

[38] Vinogradov 2008, 16-18.

[39] Demosthenes 34.8; Vinogradov 2008, 16.

[40] Diod. 20. 22-24; Vinogradov 2008; Erlikh (1996, 179).

[41] Ashley 2004, 148-9; Gabriel 2010, 199-203.

[42] *Justin*, 12.1.4; Melyukova 1995, 29.

the 3rd century BC, when cheap grain from Ptolemaic Egypt began flooding the Mediterranean markets.[43] For the next half a century, the Kingdom was caught up in a period of relative instability leading to a monetary crisis, with the power of its biggest trade partner, Athens, failing, and their own nomadic neighbours on the move.[44] During the second half of the 3rd century BC, trade picked up again and the economic situation was stabilized. However, the overall situation was becoming tougher, as the neighbouring Scythians and Sarmatians – a new tribe to be reckoned with in the Don and Kuban steppes – continued growing stronger and more active in their dealings with or attacks on the Bosporan Kingdom,[45] resulting in the extensive construction of fortifications throughout the Kingdom. This, in turn, led to new pressure on the Bosporan economy, with the Scythians extracting ever rising amounts of tribute extracted from the Bosporans.[46]

This situation would only continue to worsen in the 2nd century BC. As trade connections and production grew increasingly unreliable – the Bosporans were forced to periodically *import* grain, previously their main *export*[47] – the Bosporans were no longer able to effectively fend off pirate attacks or meet their increasing tribute commitments.[48] Internally, the kingdom was struggling with uprisings and rebellions. Therefore, the Bosporan King Pairisades V willingly turned the Kingdom over to the Pontic King Mithridates VI in 107 BC, thus ending the rule of the Spartocid Dynasty.[49]

Things did not settle down under Mithridates: the kingdom was continuously facing

[43] Hind 1994, 503-4. Maslennikov (2005, 164) also discusses a (grain) crisis in 270 BC.

[44] Hind 1994, 504-5.

[45] See Vinogradov (2008, 17-18) for alliances made with the Scythians (and tribute payments to them) to assist with the Sarmatian problem.

[46] Gaidukevich 1971, 310.

[47] Hind (1994. 504) correctly interprets Polybius' statement about grain being both imported and exported in and out of the Black Sea as the need arises (*Hist.* 4.38) to be indicative of instability in production.

[48] See Vingoradov (2008, 19-20).

[49] Hind 1994, 480.

attacks from neighbouring tribes, while Mithridates' stubborn campaigning against Rome only served to upset the already instable Bosporan economy and its sea-trade in particular.[50] The troubles led to a war between Mithridates and the Bosporans in 83 BC,[51] which Mithridates was only able to win following the end of 2nd Mithridatic War in 81 BC. The constant state of turbulence between Mithridates and Rome wrecked havoc on the Bosporan economy, with the Bosporans fighting various trade blockades and forced enlistment in Mithridates' army. The situation was only worsened by a powerful earthquake, bringing great destruction to many cities in the Crimea. Revolts against Mithridates resulted in a transfer of power to his son, Pharnaces, in 63 BC, who eventually killed his father, entered into an agreement with Rome and slowly began to return some semblance of stability to the Kingdom.

Piracy and slavery

Throughout its history, piracy dealt constant blows to the Bosporan economy. Piracy in the Black Sea is attested to by ancient authors.[52] However, there are few written accounts of the direct, specific effects of this phenomenon on the Bosporan Kingdom. Pirates were both sought-after allies and a menace to the ancient states. Strabo notes that the Heniochi – a tribe of the eastern Black Sea region south of Sindike – were engaged in piracy, i.e. sailing against merchant ships or even countries and cities, often with the support of the Bosporan rulers themselves.[53] Ancient sources speak of attacks on and interceptions of various grain transports from the Bosporus to Athens between 362-338 BC, the perpetrators being city-states such as Byzantium, Chalcedon, and even the

[50] Gaidukevich 1971, 318.

[51] Gaidukevich 1971, 318.

[52] Xenophon, *An*a. 7.3.16.

[53] *Geo*. 12.2.12.

forces of Philip II in the Aegean.[54] It is easy to surmise that the respective rulers would have enlisted pirates to carry out these attacks. On the other hand, piracy on the Black Sea was also a real menace to the Bosporan Kingdom, causing its ruler Eumelus to take drastic action during the last decade of the 4th century BC.[55]

Amongst the commodities of interest to pirates were slaves.[56] The slave trade is generally given a major role in the overall economy of the Black Sea.[57] However, while it is certain that the Bosporan Kingdom was home to many slaves, the actual slave trade and slave markets appears to have been controlled by native tribes outside its borders.[58] Certainly there are no known references to slave markets within the official borders of the Bosporus. The closest such market would have been Tanais,[59] just north of the Taman Peninsula, described by Strabo as a great market for both the European and Asian nomads trading furs and slaves, amongst other items.[60]

Archaeological material from the Bosporan Kingdom

The archaeological sites of the Bosporan Kingdom are, understandably, concentrated outside the territory of the ancient cities and townships, most of which is still populated to this day and can therefore not be excavated. Excavation in the area of ancient cities has revealed only sections of the architectural infrastructure. Much better results are had

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[54] Hind 1994, 500.

[55] Diodorus, *Lib*. 20.25.2-3.

[56] See the discussion of piracy in the Introduction of this thesis.

[57] See Polybius (*Hist*. 4.38).

[58] Herodotus (4.1-3) describes the Scythians' treatment of slaves in some detail, clearly stating that these are prisoners whom they have taken (4.2). Taylor (2001, 37) correctly notes that the capture and trade of slaves by Herodotus' Scythians is the result of the endemic warfare in the region, which is attested to by archaeology. Further, he suggests that the Scythian practice of enslavement must have had a long tradition, probably pre-dating Greek colonization in the area (2001, 38). I suggest this to be true for other native tribes of the Western Caucasus.

[59] See Vinogradov (2008, 18) for the importance of Tanais and its predecessor – Elizavetovskoe – for the Bosporans and the Don region.

[60] *Geo*. 11.2.3. Other markets of the Western Caucasus will be discussed in the respective chapters of this thesis.

in the territory of the ancient necropoleis, in particular the flat-grave cemeteries within the boundaries of ancient Pantikapaion, and in the kurgan necropoleis outside said boundaries. Of particular significance for this study are the kurgan burials on both sides of the Bosporus, as the armour finds in this study are found solely in them.

History of Research

Archaeological excavations and surveys on Bosporan territory have been carried out with regular frequency and extensiveness since the mid-19th century, mainly by Russian and Ukrainian teams, and have resulted in a good array of publications, practically all of which are in Russian. While much has been done to ascertain the plan of the ancient cities and settlements, it must be noted that greater parts of these – which were mainly coastal – are now often submerged due to a rise in the sea level since Antiquity.[61] On the other hand, it has proven somewhat easier to ascertain the lines of the Bosporan defences – ditches and walls – and a number of necropoleis.

On the Kerch Peninsula, the capital of Pantikapaion has only been partially excavated due to the modern city of Kerch lying on top of it. Nonetheless, much has been uncovered, mainly in the acropolis on top of Mt. Mithridat. A number of other European settlements have also been excavated to a greater or lesser degree. On the Taman Peninsula, the Asian capital of Phanagoria has been easier to excavate, since there is no modern town covering its ruins. Archaeologists have thus been able to reveal the general extent of the fortified settlement (65 hectares). On the other hand, at least one third of the ancient city lies underwater, making further investigation difficult and more expensive. Much the same can be said of the other Asian settlements, and, as on the Kerch Peninsula, it has not always been possible to ascertain the extent of the respective territories and recover more than general foundations. Unlike the site of Pantikapaion,

[61] Fouache/Porotov/Müller/Gorlov/Bolokhovskaya/Kaitamba 2005.

however, most of the other Bosporan settlement sites profit from the fact that they have not or only partially been affected by modern urbanization.

Ever since the 19th century, archaeologists (and treasure hunters) have concentrated their efforts *mainly* on the extensive necropoleis surrounding both the capitals and the remaining towns. This is understandable, for burials, whether flat-graves or kurgan tombs, have always yielded the quickest *and* richest results with a minimal commitment of time and finances. The most significant material finds of the Bosporus stem from its many and sometimes vast necropoleis, and it is from their respective burials that the weapon finds in question also come.

Practically all burials of middle or higher status contain some amount of weaponry, even if the inventory is otherwise 'typically Greek'. In most cases, we see at least an obligatory set of arrowheads, perhaps with a sword or dagger. The more elite burials contain a fuller selection of weapons, including multiple swords/daggers, and also defensive gear: coverings for head, arms, chest, and legs, either of metal or organic materials. Very little survives of the latter. However, much more has survived of the metal defensive gear, and much of this is of the Greek type.

GAZETTEER OF SITES

The following is a gazetteer of the Bosporan find sites containing weapon and armour finds of Greek type. The gazetteer is divided into two sections, for the European and Asian Bosporus, respectively. The sites are listed according to their main settlement centres, beginning with the European Bosporus and Pantikapaion area and moving outside its boundaries and towards Nymphaion before continuing onto the Asian Bosporus and Phanagoreia area, then moving along the peninsula and then southeast towards Gorgippia. The site name and catalogue abbreviation are followed by information on the geographic location, then by a description of the topography and the site itself, then by a description of the most important finds, and finally a brief, basic description of the 'Greek' weapons and armour in question.

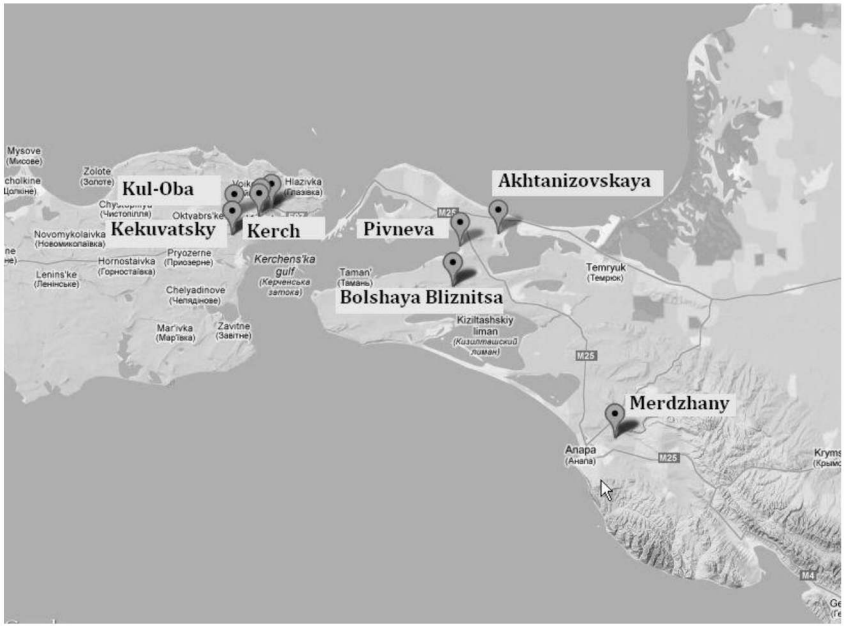


Figure 2. Find sites of the Bosporan Kingdom.
(S. Chandrasekaran – using Google Maps.)

Full descriptions of the items and the respective literature, together with other known parallels, are not given here, but under their respective catalogue entry. I have, however, included literary references here about the general find contexts, if known.

All the sites can be followed on the corresponding map (Figure 2).

EUROPEAN BOSPORUS

Pantikapaion and vicinity

The best and largest known burial grounds are those of the Bosporan capital Pantikapaion,[62] a city established by Greek colonists from Miletus in the late 7th to early 6th centuries BC on the site of an earlier settlement named Panti Kapa.[63] The site of the ancient city (Figure 3) is characterized by an acropolis spread out over the highest hilltop, Mount Mithridat. Along and at the foot of the hill and throughout the ancient city districts it has been possible to recognize four major burial areas in and around the ancient city. The 'city necropolis,' consisting mainly of flat graves, was centrally situated along the northern and southern slopes of Mount Mithridat itself, and extended westward and northward into the flatter reaches of the city.[64] Three further major burial areas can be distinguished around the city: in the north, mainly along the coast and the road to Mymerkion, in the west along the offshoots

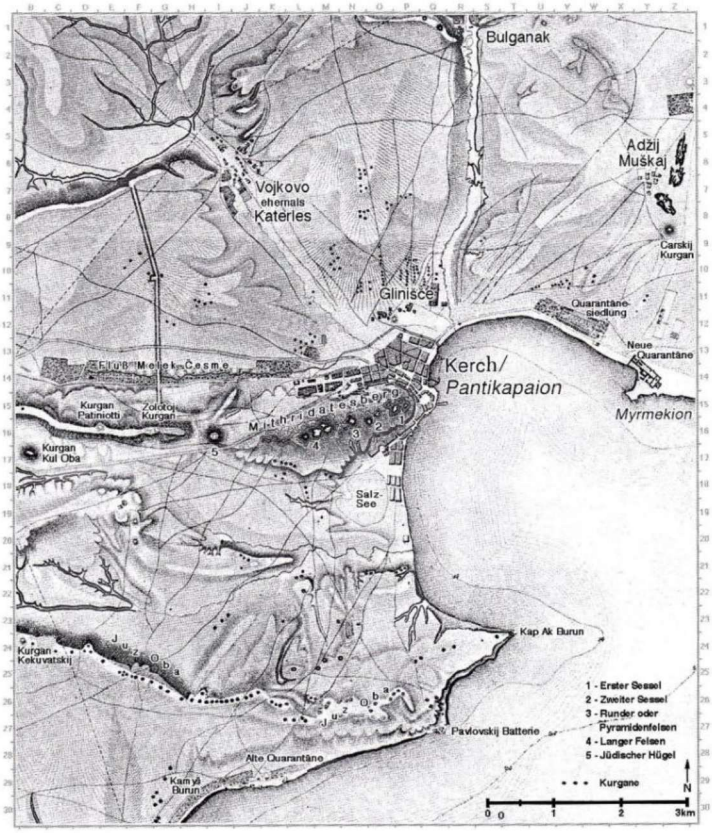


Figure 3. Map of Pantikapaion and vicinity.
(After Fless/Lorenz 2003, Pl. 1.1).

[62] See Fless/Lorenz 2005 for details on the various necropoleis of Pantikapaion.

[63] Treister/Vinogradov 1993, 544. The name *Panti Kapa* appears to be of Iranian origin and translates as 'fish path'.

[64] Fless/Lorenz 2005, 18. This area is now covered by the modern city quarter of Glinishche.

of Mount Mithridat, and in the south along the Yuz-Oba ridge. The outer necropoleis consist mainly of mound burials, so-called *kurgans*, usually situated upon the available natural elevations or on flatter ground along main roads. The Yuz-Oba ridge is the longest of these, reaching from city's southwest all the way to Cape Ak-Burun on the coast. All three kurgan necropoleis contain burials dating from the Classical Period on into the Roman Period.

It must be noted that the full extent of these necropoleis is unknown, and the known necropolis areals have yet to be excavated in full.

Particularly noteworthy is the discovery of a weapons manufacture in Pantikapaion by I. Marchenko.[65]

The road leading to the Quarantine - 'Karantinnoye Shosse'

The so-called 'Karantinnoye Shosse' is a road north of Kerch leading to a large 19th century quarantine area – the 'Karantin'. It is notable for a number of kurgans and flat-grave burials in the vicinity. A number of these were excavated by G. Kareisha from 1832-1841 for the Imperial Archaeological Commission (IAK). Further burials were excavated by G. Ashik during the same period.

At least two of the kurgans have produced Greek-style weapon finds of the Hellenistic period.

[65] Chernenko 2006, 137.

Kerch 1834[66]

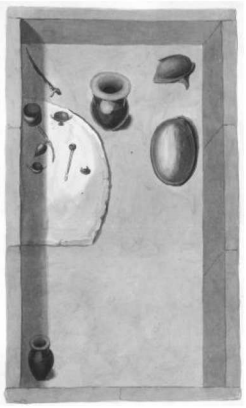


Figure 4. Kerch 1834, burial plan by A. Stefansky after Ashik, Zhilyu.
(After Tunkina 2010, Fig. 722)

The first of these is a small kurgan located near the road leading to the Karantinnoye Shosse and excavated by A. B. Ashik in December 1834.[67] Ashik discovered a burial chamber constructed of limestone slabs within the kurgan. It contained the remains of an extremely wealthy 'male' and 'female' burial, complete with golden wreaths and gold jewellery, silver vessels, glazed pottery, three coins (two gold, one bronze) and three pieces of defensive weaponry. The burial can be dated to the 1st half of the 3rd century BC based on the golden stater of Lysimachos and a black-glazed pelike.[68]

The weapon finds from the kurgan included an iron helmet with silver fittings,[69] fragments of a bronze shield and an iron sword, of which the former two are of interest to this study.

The well-preserved crested helmet (Ker/H-01) is of the Attic type with visor. Particularly significant is its material, as it is the only helmet in this study made of iron. The helmet is decorated with silver-plated reliefs – an Athena figure at the forehead, volutes at the sides, and Gorgon and Scylla figures on the cheekpieces. The only damage is to be found at the bottom of the left cheekpiece, which seems to have been torn off. The remains of a wooden core survive inside the helmet crest.[70]

The helmet, together with the shield and sword, was originally sent to the Kerch

[66] See DBK I, CXLVIII, for a general description of the tomb and its finds.

[67] Aleksinsky 2008,

[68] Lysimachos carried the royal title found on the stater's reverse from 306-281 BC - Waurick 1988, 171; Rabinovich 1941, 154.

[69] See the section 'Phrygian Helmets' in Part III-A of this thesis. 'Thracian' type and other types are defined and described in full detail here.

[70] Aleksinsky 2007, no. 61; Rabinovich 1941, 154.

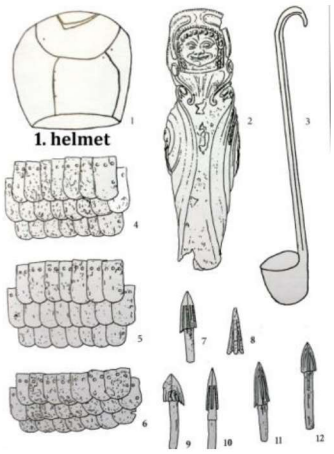


Figure 5. Some of the burial goods from the Kerch 1838 kurgan. (After Tunkina 2010, Fig. 590)

Museum, but then moved to the Arsenal in Tsarskoe Tselo a few years later and, finally, to the State Hermitage Museum in St. Petersburg at some time between 1852 and 1861.

Kerch 1838[71]

The kurgan known as Kerch 1838 is located in the northern Kerch area, close to the aforementioned Quarantine Chaussee and was excavated by G. Ashik. It contained a burial chamber and in it the remains of a warrior burial (Figure 5). The burial goods included two amphoras with inscriptions, as well as a selection of weapons: a sword, a helmet, armour scales, greaves and varying types of arrowheads. The 4th century BC dating of the complex is based on the pottery finds.

Of interest to this discussion are the defensive items, particularly the 'makeshift' bronze helmet and the pair of bronze greaves. The helmet (Figure 5.1) is a unique product of reworking, as it consists of fragments of metal sheeting taken at least in part from other helmets and stapled together to form a head-covering that bears no resemblance to the known helmet types discussed in this paper, for which reason it is not included in this study.

The well-preserved greaves (Ker/G-01) are of the full-length kind and highly decorative, with moulded Medusa heads embellishing the knees and hammered ornamental lines emphasizing the calf muscles on either side. The ornamental techniques used here place this greave pair amongst Greek examples of the 5th century BC.[72]

[71] See DBK (vol. I, 182) for a general description of the tomb and its finds.

[72] See the discussion on greave ornamentation in Part III-B of this thesis.

All finds from the Kerch 1838 site are part of the State Hermitage collection.

Kerch – exact location unknown

From an unknown location in the Kerch vicinity comes a heavily damaged pair of full-length bronze greaves (Ker/G-02), which – like most ancient bronze – were originally polished to a golden colour. Perforations along the upper edges indicate an inner lining. Particularly striking is the damage to the greaves, which was clearly deliberate: the knees, together with parts of the shinbone section and rear edges, were removed (probably torn), while the large calf muscles were *cut* out, leaving behind a serrated edge. Repair work is indicated by random holes on the greaves.

Kekuvatsky[73]

The Kekuvatsky kurgan is located near the village of Kekuvatsky in the westernmost part of the Yuz-Oba ridge and was excavated in 1839 by A. B. Ashik (Figure 3).[74] Inside this large kurgan was a stone chamber tomb consisting of a dromos and burial chamber – the exact architectural details of this tomb remain unpublished. The tomb was home to one of the area's richest elite burials. Inside the tomb, the excavator discovered a wooden double-sarcophagus with gold-plated wooden applications. This held the buried remains of a noble male – a warrior or a man of status, judging by the rich finds. These included a wealth of solid gold jewellery, a variety of weapons, a Thasian amphora and a red-figure pelike. The tomb is dated to the 4th century BC based on the various finds, especially the pottery.[75]

The weapons included a Chalcidian helmet, a pair of greaves, a sword with a golden hilt

[73] See Rostovcev 1914, 107, Gaidukevic 1970, 277 and Savostina 1986, 98, no.32 for descriptions of the tomb and finds therein.

[74] Butyagin 2010, 12.

[75] Different authors place the tomb in different periods of the 4th century BC. Rostovcev (1914, 107) gives a dating of 340-330 BC based on the pelike. Savostina (1986, 98) prefers the 'traditional' dating given by her predecessors of the beginning of the 4th century BC.

and ca. 300 gold-tipped bronze arrowheads.[76] The two first items are generally considered to be Greek imports. The bronze helmet (Kek/H-01) is well preserved, with the exception of the lost right cheekpiece. The left cheekpiece is attached by a hinge. The full-length bronze greaves are also in excellent condition and show no sign of deliberate damage. Anatomical details are rendered rather softly, with some hammered lines for extra emphasis of the longer leg muscles. The edges are lined with perforations for the attachment of a lining.

Kul-Oba[77]

The Kul-Oba kurgan is located ca. six kilometres southwest of Kerch on the eastern elevation of the Kul-Oba hill, the westernmost of the chain of hills leading from Mt. Mithridat (Figure 3).[78] Excavations of the kurgan were carried out in 1830 and by P. du Brux, A. Ashik and D. Kareisha.[79] The excavators discovered an intact stone tomb consisting of a dromos and a rectangular burial chamber with corbelled vault.[80] The chamber contained three burials, two males and a female.[81] Two of the deceased, a male and a female, were interred in coffins (Figure 6). The burials can be interpreted as the consecutive interments of an elite nobleman, his wife or concubine and a servant.[82] The

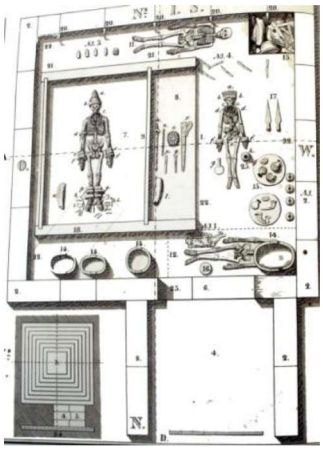


Figure 6. Tomb from Kul-Oba.

[76] Gaidukevich 1971, 276-277.

[77] Kul-Oba translates into 'Ash-Mound.' See Gaidukevic 1970, 283-287 and Artamonov 1970, 69-73 for overall descriptions of the tomb and its finds.

[78] See Vlasova 2006 for a detailed description of the kurgan and its excavation history, Vlasova 2011 for a discussion of the Kul-Oba finds. See also Butyagin (2010, 12), who identifies this barrow as one of the earliest belonging to the *Bosporan* aristocracy.

[79] These were followed up in 1872 by A. Lyutsenko.

[80] Butyagin 2010, 12.

[81] The remains of an additional burial were discovered beneath the chamber floor (Butyagin 2008, 12; Gaidukevich 1971, 284).

[82] Vlasova 2006.

wealth of the nobleman is indicated by the rich burial goods accompanying him and the female, including a wealth of solid gold jewellery and ornaments, metal and ceramic vessels, a wooden quiver and a rich assortment of weapons. The latter included a pair of greaves,[83] a whip, armour remains, a golden plaque in the shape of a deer (probably a shield application), a quiver (a Scythian type *gorytos*), a whip, seven knives/daggers and numerous spearheads and arrowheads.[84] The individual burials are generally dated to various periods of the 4th century BC or to the turn of the 4th-3rd centuries BC, based on the different finds in the kurgan.[85]

Of interest to this study are the greaves. The Greek style, full-length bronze greaves (KO/G-01) were originally found together with the fragments of a supposed helmet[86] in a small pit deposit in the inside the tomb.[87] Signs of deliberate damage are only visible at the knees, which have been partially removed. Since their original discovery, the right greave has gone missing. A photograph of the left greave was recently published for the first time in 2011 by E. Vlasova.[88]

The abovementioned finds are now preserved in the State Hermitage Museum.

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[83] Vlasova (2011, 122) notes that Kareisha's original 1831 report lists *two* pairs of greaves in the tomb, of which only one pair can be tracked, while no traces of the other's whereabouts survive.

[84] Vlasova 2011, 121.

[85] Vlasova 2006; While this is the general opinion of the majority of scholars, others date the kurgan burials or the entire complex from anywhere between the 5th and 2nd centuries BC. See Vlasova 2006. See also Schwarzmaier (1996, 115), who notes an example of a uniform dating of 322/321 BC for the entire complex based on I. Brashinsky's dating of the amphora stamps from the tomb.

[86] Dubrux (2010, vol. I, 185) also identifies a number of fragments as belonging to a bronze helmet. Vlasova (2011, 122) clarifies that no such fragments ever made it to the Hermitage.

[87] The 'other' greave pair was reported to have been located alongside the main 'male' burial.

[88] Vlasova 2011, 122-123, Fig. 1.1. The right greave went missing from the Kerch Museum during the Second World War.

ASIAN BOSPORUS

The most important of the ancient towns and settlements of the Asian Bosporus is, of course, Phanagoria, the Asian capital, founded by the Teians in the 6th century BC[89] along the south-eastern edge of the Taman Bay near the present-day town of Sennaya (Figure 1). The city was annexed into the Bosporan Kingdom by Leukon I.[90] While part of the ancient town is presently submerged in the Bay, much of it has been excavated, revealing its size (ca. 50 hectares),[91] general infrastructure, and, most importantly, the location of its various necropoleis, for this is where a number of ancient weapon finds from the Taman Peninsula come from.

Phanagoria was also surrounded by burial grounds on all sides, and excavations of recent decades have concentrated on the eastern and western necropoleis of the city. Particularly significant is the line of kurgans to the south of the city, situated along the aforementioned east-west folded ridge in the centre of the Taman Peninsula.[92]

This side of the Bosporus has produced even fewer examples of Greek-style armour than its European counterpart.

Bolshaya Bliznitsa[93] (BB)

Probably the most famous of the kurgans on the Asian Bosporus, the Bolshaya Bliznitsa barrow (Figure 7) is part of the southern Phanagorian necropolis. It was constructed on an elevation of the low folded ridge mentioned earlier that runs along the middle of the Taman Peninsula (Figure 1 C). It stands ca. 9 km to the southwest of the modern-day

[89] Avram/Hind/Tsetskhladze 2004, 950.

[90] See here FN 34.

[91] Kuznetsov 2010, 444. Kuznetsov also notes that some 15-17 hectares now lie under water in the Bay of Taman.

[92] This ridge is the geophysical continuation of the Yuz-Oba ridge on the Kerch Peninsula.

[93] The name translates to 'Great Twin.' See Rostovtsev 1914, 10-29 for detailed information on the tomb construction and decoration and general inventory of the finds.



Figure 7. Excavations of the Bolshaya Bliznitsa – drawing by F. Gross.
(After Tunkina 2010, Fig. 32)

town of Stanitsa Sennaya, situated along the dip of the Bay of Taman. The barrow was excavated by A. Lyutsenko, V. Tiesenhausen and S. Verebryusov from 1864-1868.[94] While the best known of the kurgan's six graves[95] is the so-called 'Priestess' burial, known for its famous 'Demeter fresco', it is the so-called 'warrior burial', tomb 3, which is of interest to this discussion.

Of interest to this discussion is tomb 3, uncovered in 1865. It contained the remains of a 'warrior' burial – a male skeleton interred in a wooden coffin together with numerous and wealthy burial goods – a golden wreath, solid gold jewellery, golden clothing applications and various weapons and armour. The burial is dated to ca. 300 or the early decades of the 3rd century BC based on the style of the sarcophagus fragments and golden clothing applications.[96]

The weapons included a Phrygian style helmet, a pair of bronze greaves, bronze scale armour, a long iron sword, a short dagger, seven spearheads and numerous arrowheads. Of these items, it is the first two that require study as possible imports.

The well preserved ornamented helmet (BB/H-01) was of golden-coloured bronze with and is the sole known example of a 'Phrygo-Chalcidian' helmet – the rounded helmet bowl narrows into a softly rounded peak which folds forward as on a Phrygian helmet, while the eye and ear cut-outs lend it the 'Chalcidian' touch. Originally kept in the

[94] Trofimova, Cat. Malibu, 270.

[95] The Bolshaya Bliznitsa graves consist of three stone chamber tombs with stepped vaults and dromoi (two with wall frescoes), two small, square, stone chamber graves and a cremation.

[96] Schwarzmaier 1996, 115.

Kerch Museum, it was lost during WWII, and only two drawings have survived. The greaves were also of golden-coloured bronze, but were only fragmentarily preserved, and are now also lost.[97] Originally kept at the former Kerch Museum of History, they went missing during the Second World War and have remained lost. No pictures or illustrations of them have been published.[98]

Khutor Pivneva

The former village of Pivneva was located along the eastern edge of the Bay of Taman, just above the town of Sennaya. In 1870, G. Tizengausen investigated a kurgan in the vicinity. He discovered a pair of bronze greaves, which have, unfortunately, since gone missing. No drawings or photographs of the greaves exist,[99] therefore the greaves are only included here for purposes of assessing greave distribution in the Bosporan Kingdom.

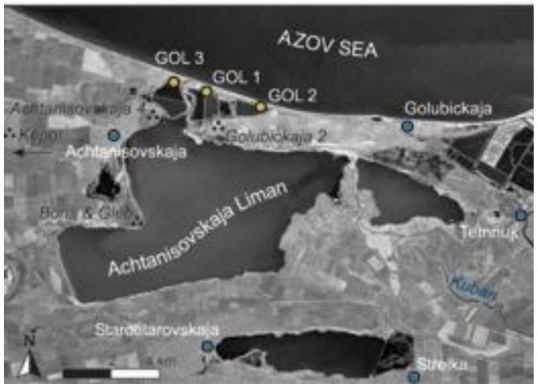


Figure 8. Traces of ancient settlements near Akhtanizovskaya.
(After Fig. 11. Map of vibracore profiles of 2007 (Kelterbaum 2008) © DAI. 17.02.12. <http://www.dainst.org/de/project/taman-halbinsel?ft=all>.

Akhtanizovskaya

Archaeological fieldwork of the past few years has vastly improved our knowledge of this area, situated to the north of the Taman peninsula on the Asov coast (Figure 8), and provided archaeological insights on the Bosporus during the 'Period of Colonization'. The area outside the modern town was dotted with ancient settlements which have brought forth material from the Late Archaic period all the way up to the 1st century BC. Particularly interesting is the placement of

[97] Rabinovich dated them to the mid-4th century BC. Galanina 1965, no.7.

[98] Note that Galanina (1965, no. 7) and Chernenko (2006, no. 686) have published descriptions of the greaves.

[99] Galanina 1965, no. 8.

two of these settlements – Akhtanizovskaya 4 and Golubitskaya 2 – along the northern edge of the Akhtanizovsky Liman just south of the Asov Sea and opposite the ancient Greek town-*polis* of Kepoi.

Geomorphological investigation has shown that both these Greek settlements – dated to the Late Archaic period – stood flanking a narrow yet navigable water strait (up to 2.5km wide) leading from the Asov Sea into the Black Sea (Figure 8),[100] thus demonstrating early Greek control of an important waterway which has now disappeared.

Probably the best-known archaeological discovery from the vicinity of Akhtanizovskaya is the so-called Akhtanizovsky hoard, actually a cist grave discovered in 1900. It contained a wealth of goods, including plenty of golden and silver jewellery and other metal wares, details of a horse harness and a helmet.[101] The complex is dated to the turn of the 2nd-1st century BC.[102]

The bronze, pilos helmet demonstrates the typical high crown, short forehead brim and large volute ornament at the sides found amongst helmets of this type. It is the best preserved example of a pilos from the Western Caucasus, and the only one with (both) cheekpieces still preserved. The helmet, together with the other items from the 'hoard', is now kept in the State Hermitage Museum.

[100] The strait flowed from the Asov into what is presently the Akhtanizovsky Liman, but in ancient times the Black Sea. Zhuravlev/Lomtadze/Schlotzhauer 2010, 558; See also the website of the German Archaeological Institute: http://www.dainst.org/en/project/taman-peninsula?ft=all.

[101] Vlasova 2009.

[102] Vlasova 2009, 78.

Gorgippia

The ancient site of Gorgippia (Sindike Liman)[103] is now covered by the sprawl of modern-day Anapa, which makes the archaeological excavation of the site difficult (Figure 9). The earliest survey work of this area was undertaken in 1949 by V. Blavatsky. A permanent expedition was established in 1960 under the direction of I. Kruglikova, with the goal of setting up an archaeological park. However, much of the fieldwork in Anapa has been in the form of accelerated survey and digging accompanying the extensive construction projects undertaken by the city to reorganize its touristic infrastructure as a spa-town. It is this extensive fieldwork that enabled archaeologists to determine the full size of the ancient city, which covered an area of ca. 40 hectares.[104] While up to 80 housing units of varying periods have been excavated, nothing is known of the actual ancient city centre.[105]

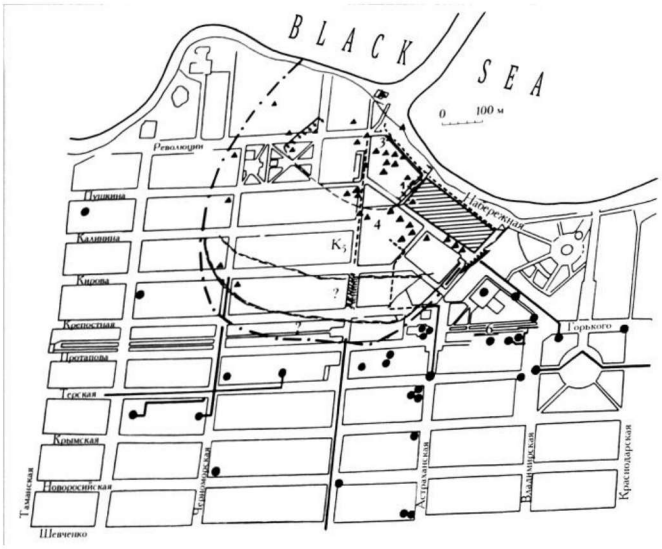


Figure 9. The site of Gorgippia and its necropolis within modern Anapa.
(After Alekseeva 2010, Fig. 1)

The territory of the ancient necropolis has been excavated since 1970, revealing it to have an area almost three times as large as that of the ancient city itself. However, the exact boundaries of the necropolis remain unclear, as much of it is also covered by the

[103] Zavoykin (1998) has convincingly demonstrated that Gorgippia was founded on the site of Sindike Liman.

[104] Alekseeva 2010, 471.

[105] Alekseeva 2010, 484.

modern city.[106]

Merdzhany

The kurgan burial near Merdzhany (by Anapa) was illicitly excavated in 1876. The 'excavators' reported that they had uncovered the remains of two persons, together with many pieces of golden jewellery and two identical helmets of bronze. All items, including the helmets (Mer/H-01, Mer/H-02), were turned over to the Archaeological Commission and sent on to the State Hermitage Museum in 1877, where they are still kept today.

Both helmets are of the conic pilos type with high, pointed crown, decorative forehead gable and large volutes at the side. With the exception of the missing forehead brim, they are quite well-preserved: the brow brim is missing on both, and the helmet tip of Mer/H-02 damaged. None of the cheekpieces have survived. Not only are the Merdzhany piloi practically identical, but they closely resemble the pilos from Akhtanizovskaya, suggesting a common workshop for all three. The Merdzhany piloi are dated to the 2nd-1st centuries BC and kept in the State Hermitage Museum.[107]

[106] Alekseeva 2010, 471.

[107] See Chapter IV-E of this thesis, 'Hellenistic Pilos Helmets'.

CHAPTER II - COLCHIS

Introduction/Topography

The territory of ancient Colchis is to be found in the area of modern-day Western Georgia and Abkhazia. It constitutes the triangular valley/depression, the so-called 'Colchian Depression', nestled in between the Greater and Lesser Caucasus ranges, lined by the Black Sea in the west and hemmed in by foothills from the north and south (Figure 10). From the coast it extends ca. 100 km eastwards, where it narrows towards the Surami Ridge[108] that opens up into the territory of ancient Iberia, or present-day Eastern Georgia. The abovementioned physical boundaries of ancient Colchis are described in some detail by Strabo and have defined the territory since at least his time.[109] Other authors such as Xenophon extend these boundaries beyond the Lesser Caucasus ridge to include the small stretch of the south-eastern Black Sea coast leading up to ancient Trebizond (present-day Trabzon),[110] i.e. the territory of the Laz in Turkey.[111]

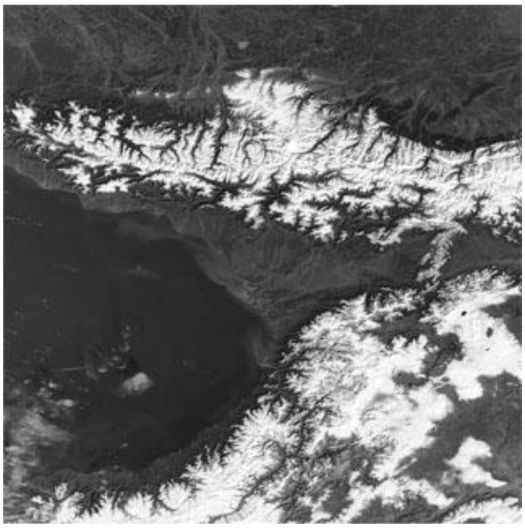


Figure 10. Topographic map of Western Georgia/Colchis,
showing the ranges of the Greater and Lesser Caucasus framing the Colchian Depression. (Image: Earth Snapshot – generated by Chelys. <http://www.eosnap.com/tag/colchis-plain >)

The entire Colchian valley is interspersed by a multitude of various rivers stemming from the mountains, and is heavily marked with river sedimentation that has collected

[108] Braund 1994, 40; also known as the Likhi Range.

[109] Strabo 11.2.14.

[110] Xenephon, *Anab*. 4.8.22

[111] Lordkipanidze 1991, 1; Hind 1992, 135. Note, however, that Strabo (7.4.3) places Trebizond 'in the neighborhood of Colchis'.

over the many millennia.[112] The foothills are lush and green, and run straight into the sea at the coastline, making docking particularly difficult. The climate is sub-tropical. The Colchian plain is however mainly marshy wetland – the result of generous rainfall compiled with an abundance of rivers – and requires heavy draining even to this day.[113] This affects not only modern agriculture and construction in Western Georgia, but also archaeological fieldwork, and the excavation of many a site is seriously hindered by the extremely high water table.

It is questionable to what extent the fertile yet swampy ground would have enabled the ancients to cultivate crops.[114] In Soviet times, the area was highly cultivated for tobacco and tea, a practice which often proved damaging to the upper stratigraphic layers of some archaeological sites.

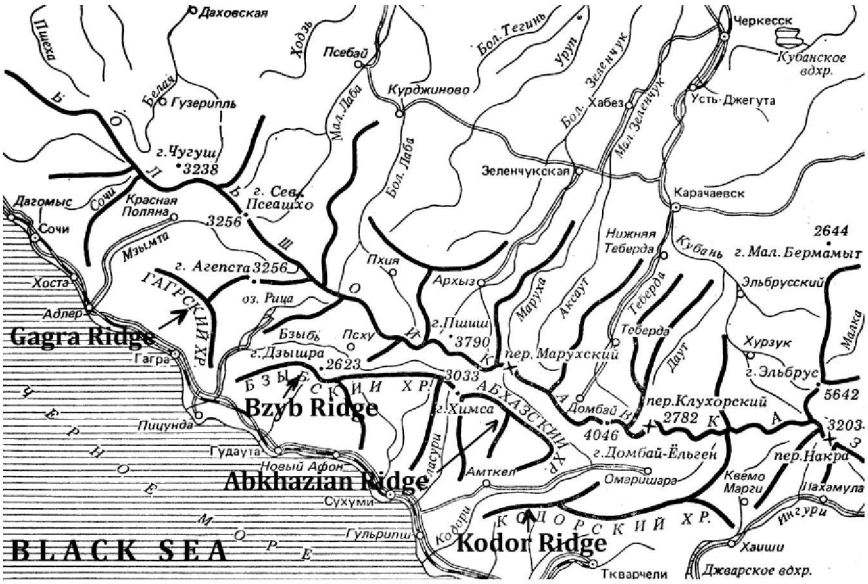


Figure 11. Colchis - the main ridges of the Greater Caucasus foothills.
(After <http://mapy.mk.cvut.cz/show/data/Kavkaz-Caucasus/nb_zapad.gif>)

The relatively 'flat' swampy valleys of the Colchian Depression are surrounded by ranges of hills – the foothills of the Greater Caucasus in the north, and those of the

[112] Lordkipanidse 1991, 1.

[113] Braund 1994, 55-56.

[114] Tsetskhladze (1998, 61), for example, notes that these extremely wet natural conditions would not have allowed for the cultivation of grain, and that in fact grain (as well as salt) had to be imported to Colchis from the northern Black Sea littoral.

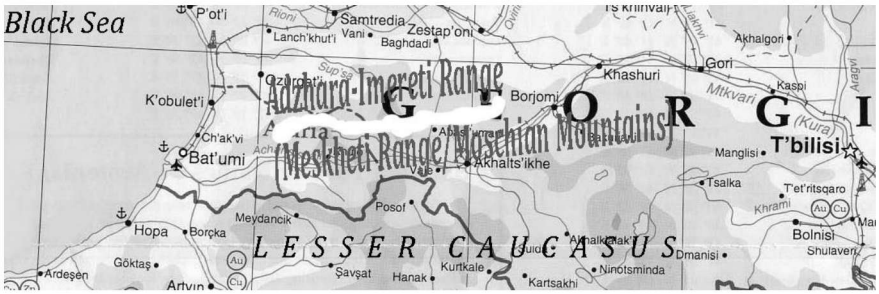


Figure 12. The Adzhara-Imereti Range of the Lesser Caucasus foothills.
(After: CIA - Map of the Caucasus region in 1994, University of Texas Library.
Wikimedia Commons:
<http://en.wikipedia.org/wiki/File:Caucasus_region_1994.jpg>)

Lesser Caucasus in the south. The Greater Caucasus foothills are dominated by four prominent ridges (Figure 11): the Gagra, the Bzyb, the Abkhazian and the Kodor ridges. These ridges themselves are heavily interspersed with rivers, and the valleys in between form passes from one ridge to the other. The Lesser Caucasus ranges run more-or-less parallel to and south of the Greater Caucasus and form the natural topographic border of Colchis in the south. The area closest to the Black Sea – present-day south-western Georgia - is marked by the Adzhara-Imereti Range, also known as the Meskheti Range, the 'Moschian Mountains' of Strabo (Figure 12).[115] This area is characterized by extremely high precipitation and humidity. Both Caucasus ranges are characterized by lush vegetation, as well as heavy snowfalls during the winter. The latter feature is also described by Strabo.[116]

Ancient Sources

Any practical information on ancient Colchis must be pieced together from a variety of accounts, beginning with Assyrian and Urartian sources from the 2nd millennium BC and continuing with Greek and Latin sources on into the Roman era. The latter sources tend to place extensive emphasis on the mythological significance of Colchis as the 'Land of the Golden Fleece', through which it is necessary to filter information of a more pragmatic/useful nature.

[115] Strabo 11.2.1.
[116] Strabo 11.5.

Earliest sources

Oriental sources on Colchis are few and do little more than simply provide a phonetic naming or mention of Colchis, with no additional description. The renowned Georgian assyriologist Grigory Melikishvili suggests the earliest possible such mention to be as early as the 12th century BC, in an Assyrian inscription commissioned by Tiglath-Pilesar I to commemorate his campaign of 1112 BC against the Nairi.[117] The inscribed stele, erected near Yoncalı in Eastern Anatolia, names Tiglath-Pileser as the conqueror of *Hahbi*, which Melikishvili reads as *quilhi* (Kilchi) and takes as a phonetic reference to the Colchians. While this interpretation remains debated,[118] it cannot be overlooked that Urartian inscriptions from the 8th century BC make similar mentions. These are the so-called Annals of Sarduri II (763-734 BC), a series of rock-cut inscriptions from the area of Van in Eastern Turkey.[119] These not only name a people known as the 'Kulkhai' or 'Qulkhai', but also make references to the actual territory of the Colchians, stating that *Qulha* was attacked by the Urartian in two campaigns of Sarduri II in the mid-8th century BC and finally destroyed in the 720s by the Cimmerians attacking from the north,[120] which can certainly be associated with *Kolkhida* of later Greek and Latin sources.[121] Following the events of the 8th century BC, it seems that Oriental sources grow rather silent about Colchis,[122] and it is the Greek sources which now begin to pick

[117] Melekishvili 1959, 184-185. Lordkipanidse 1995, 129.

[118] H. Russell (1984, 186), for example, reads the relevant part of the inscription as Hahbi.

[119] Barnett 1982, 248: The *Annals* are incomplete. The bulk is found inscribed on a stele hewn into the Rock of Van. This is supplemented by further inscribed fragments from Van and Izollu (near Adiyaman, Eastern Turkey).

[120] Lordkipanidse 1991, 110; On mentions of Colchis or Colchians in the Annals of Sarduri II see Lordkipanidse 1991, 109-110; Barnett 1982, 336, 348-9; Melikishvili 1959, 184. Smith (2004) notes that the *Annals* also report the Urartian ruler to have destroyed 22 cities in *Qulkhai* (*Qulha)*.

Note that this sparse literary situation stands in stark contrast to the Bosporan Kingdom, which as a formation of the Early Classical period receives no mention in earlier periods.

[121] The reference 'Κολχίδα' occurs, for example, in Herodotus (1.2, 7.193, 7.197), Apollonius of Rhodes (*Argonautica* 4.731), in Latin as '*Colchida'* in the *Argonauticon* of C. Valerius Flaccus (5.505).

[122] Lordkipanidse 1991, 110.

it up.

Land of the Golden Fleece

The earliest Greek mentions of Colchis pick up just after the Oriental ones leave off. Eumelos of Corinth gives us our first mention of Colchis as 'Kolchida' in his *Korinthiaka* somewhere between the 8th and 7th centuries BC.[123] This reference is given in its most popular sense, as the mythological 'Land of the Golden Fleece' of argonautical fame, also known as Aia, or Aea.[124] The 7th century BC Greek poet Mimnermus of Colophon describes Aia as "the city of Aeëtes, where swift Helios shines in golden strength, lies at the edge of the ocean."[125] This popular tale was propagated in the Ancient World mainly by various Greek authors - Homer, Euripides and Apollodorus, to name a few – all the way into the Hellenistic period.[126] These accounts they place Colchis under the rule of King Aeetes, thus indicating an organized kingdom-state. The reality and extent of this organization, however, remains to be examined in other sources.

Looking to Herodotus/Strabo and others: practical information

Following this, it is Herodotus, and later Strabo, who make a clear attempt to provide more substantial and practical information about Colchis, as they do with the remainder of the Black Sea region. In particular Strabo provides numerous details on the geography and culture of Colchis from the so-called time of Greek colonization on. Not only does he define geographical boundaries and make an effort to identify and describe

[123] *Korinthiaka* (fr. 3); Dräger 2001, 16; Lordkipanidse 1991, 110.

[124] Dräger 2002: Eumelos of Corinth (*fr.* 3) and later Herodotus (2,2) equate Colchis with Aia. Note, however, that Herodotus (7.193, 7.197) also places Aea "in Colchis", perhaps indicating a city within Aia/Colchis of the same name.

[125] Mimnermus of Colophon (fr. 11 West); Dräger 2002; Graf 1997, 32.

[126] See Dräger 2006 for a comprehensive discussion of the literary sources for this myth.

physical features of the Colchian landscape,[127] but, together with Herodotus, also provides insights on the culture and customs of the Colchian peoples which will be discussed in the remainder of this chapter. The information from Herodotus and Strabo must be supplemented with the works of other Greek and Latin authors from contemporary or later periods – e.g. Xenophon, Arrian and Pliny – in order to gain a coherent picture of the region and its inhabitants.[128]

In terms of warfare during the Hellenistic period, Xenophon's writings (*Anabasis*) are particularly important as a contemporary source.[129]

Political boundaries and structure

With the exception of Strabo, ancient accounts have in common that they do not indicate any clear or official boundaries of what could be considered 'Colchian' territory, but instead name various cities and settlements located in Colchis, identifying them either as Greek foundations or local townships.

While most sources agree upon a region or territory inhabited by one particular group, the Colchians,[130] the socio-cultural identity of the region remains unclear,[131] as does the extent of its political organization,[132] until the time of Strabo (1st century BC-1st century AD), who is the first to clearly state that Colchis was a land 'divided into skeptoukhiai' from the mythical time of King Aeetes.[133] Whether this was the case as far back as the mythological king, it would most likely have been true by the 5th century BC, when

[127] In particular Strabo, 11.2, 11.3.

[128] See Braund 1994 for a comprehensive study of Greek and Roman sources on ancient Georgia.

[129] Gamkrelidze 2008, 148-149.

[130] Pseudo-Scylax refers to the community of the Kolchoi (Periplous, 81).

[131] Smith 2004.

[132] David Braund notes that such references to Colchians do not mention 'any united Colchian kingdom' and that similar 'identifications themselves are by no means beyond doubt.' (Braund 1994, 91)

[133] Strabo 11.2.18. See Braund 1994, 129, 154.

Colchis was already under the influence of the Persian Empire. To which extent this influence affected Colchis remains unclear. Herodotus mentions 'contributions' made to Persia.[134] According to Herodotus,[135] Colchian infantry was part of Xerxes' army when he invaded Greece, fighting under Persian command.[136] Archaeologically, Persian influence is especially apparent in the elite burials of the period, which are filled with prestigious Achaemenid goods – silverware and jewellery in particular.[137]

While Strabo states that Colchis was sub-divided into units which were administered by the 'sceptre-bearers', he does not deny the existence of a central authority, i.e. a king.[138] He mentions that elsewhere in Transcaucasia the skeptouchoi were subject to the four kings of the Heniochi,[139] thus not only reaffirming that the Heniochi had kings, but that skeptouchoi in Colchis would have also had to answer to a higher authority.[140]

It is not clear exactly when Persian authority in Colchis came to an end. Judging by Arrian,[141] however, the Persians no longer held any political influence over the Colchians by the time of Alexander the Great.[142] Most likely, the local chieftain, who had always been the real exercisers of power on Colchian territory, simply went on ruling as before, without the burden of tribute payments to Persian overlords of afar.

The Colchian chiefdoms were once again brought together under the rule of a single

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[134] Herodotus' contributions (Hdt. 3. 97) consist of 100 young men and 100 young women (collected not only from Colchis but also from neighboring tribes) sent to Persia. Braund (1994, 123) assumes these to have been slaves.

[135] Hdt. 7.79.

[136] Braund 1994, 123.

[137] Braund 1994, 124; Braund considers this the most eloquent expression of the potency of Persian influence upon the rulers of Colchis.

[138] Braund 1994, 154.

[139] Strabo 11.2,13.

[140] Braund 1994, 154.

[141] *Anab.* 4.15.4.

[142] Smith 1854.

leader around 100 BC, when Mithridates VI Eupator annexed Colchis into his Pontic kingdom.[143] Strabo also notes at least four local kings in power during Mithridates' reign.[144] It was from Colchis that the powerful ruler of the Pontus 'received most aid in the equipment of his naval forces' from Colchis.[145] This is not to say that the Colchians were happy with the administration of Mithridates. Between 83 and 80 BC, Mithridates was dealing with revolts in Colchis as well as the rest of his empire.[146] The constant fighting, both against internal revolts and external enemies, put a heavy strain upon the Colchian economy. The amount of destruction during this period is attested to by archaeological finds from various sites, in particular the fortifications of Eshera and Vani, which were both destroyed by fire and ceased to exist during this time. Political unrest and fighting continued even after Mithridates' death in 63 BC. It was only in the 1st century AD, when Colchis was annexed and fortified by the Roman Empire that the economy began to mend.

Greek colonization and local inhabitants

While the Greeks clearly founded colonies in the northern Black Sea, there is relatively little written evidence for a similar colonization of Colchis.[147] Ancient authors name a number of cities or settlements in Colchis, and identify many of them as Greek foundations or Greek cities (*polis hellenis*).[148] The wealth of Greek archaeological material from this territory – pottery and small finds – indicates a strong Greek presence

[143] Strabo11.2.18; See v. Bredow 2003, 527.

[144] Strabo 11.2.13. More specifically in 63 BC, when Mithridates had to flee from Pompey through Colchis. Strabo notes these to be kings of the *Heniochi* tribe, one of the main of the tribes attributed to Colchis.

[145] Strabo11.2.18. See Braund 1994, 154.

[146] Hind CAH Mithr, 163.

[147] Braund 1994, 74.

[148] See Kacharava 2005 for a comprehensive study of *poleis helleneis* in Colchis and the remaining Black Sea area.

throughout Colchis from the 6th century BC on, especially along the coastline. Yet this presence is more likely to be attributed to trade *emporia* and the like established by the Greeks and not colonies as such.[149] As discussed above, a strong political structure already existed in the region, indicating a well-developed economy, based, among other things, upon the advanced metallurgical skills already attested to the Colchian culture during the Bronze Age.[150] Therefore, Greeks arriving on the Colchian coast in the 7th and 6th centuries BC would have found a fully organized territory with a developed economy. This, together with the abovementioned Persian influence over the region, would have hampered Greek colonization strategies, yet these factors lent themselves to the establishment of trading centres or *emporia*.[151]

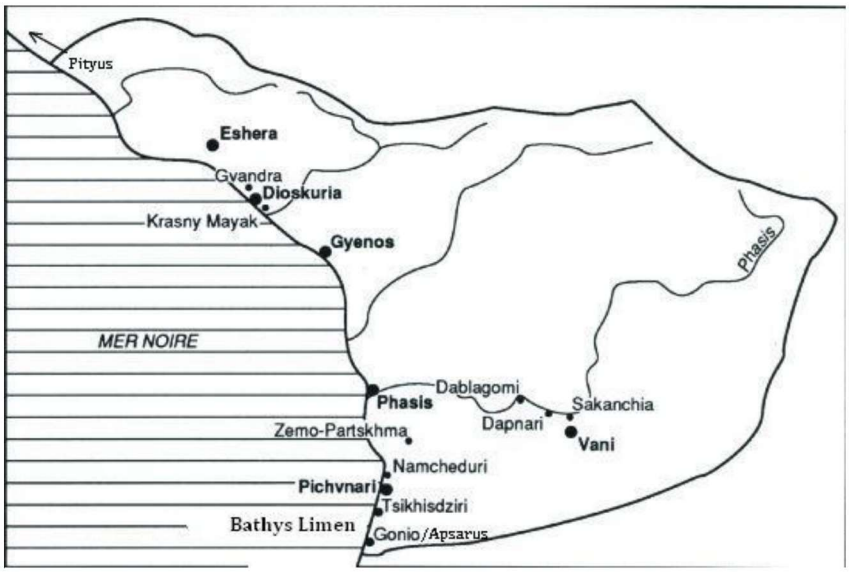


Figure 13. Cities and settlements of ancient Colchis.
(After Map of Colchis in Tsetskhladze 1992, 225)

Of the cities identified as Greek foundations by ancient authors, one, in particular, is often described as a trading centre – Dioscurias.[152] The city appears to have played an

[149] Braund (1994, 74) rightly notes that the written sources on Greek colonization are inadequate, 'the product of local histories hungry for antiquity and for a reinforcing simplification of the establishment of Greek culture in Barbary'.

[150] The latter is especially demonstrated by a wealth of relevant archaeological finds.

[151] In view of this, the use of 'colony' in reference to Greek foundations in Colchis appears to require some reconsideration.

[152] Arrian (*PPE*, 12) and Anon. (*PPE* 9.22, 9.23), for example, identifies Dioscurias and Phasis as Milesian colonies, while Ammanianus (*R.G.* 22.8) identifies Dioscurias as a foundation of the Spartans. Lordkipanidze 2002, 40; Kacharava 2005, 9, 11 FN 4.

extremely important role as a marketplace for traders from all regions, as will be discussed in following, even minting its own coins during the 3rd century B.C.[153]

Other towns in Colchis named by ancient authors include Phasis (modern Poti),[154] Pityus (modern Pitsunda),[155] Gyenos (modern Ochamchire),[156] Bathys Limen (modern Batumi),[157] Surium (modern Vani),[158] Cerasus,[159] Sarapana (modern Shorapani)[160] and Cytaeis (modern Kutaisi)[161].[162] (Figure 13) It should be noted that not all of these cities have been found, and further clarification of the nature of those settlements known to archaeologists is mainly dependent on study of the sites and their material.

Archaeology has also revealed a number of interesting settlements to have been of local type, i.e. predominantly hilltop settlements with wooden structures.[163] Similar settlements were also situated in the swampy valleys of Colchis. The geophysical conditions of these sites – erosion (hilltops) or water-logging and poor drainage (swamplands)[164] - render their excavation difficult. Nonetheless, much material has been recovered which sheds new light on local culture and the extent of Colchian

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[153] E.g. the Hellenistic coins of the Colchian ruler Saulakos.

[154] Phasis is identified as a Milesian colony by Heracl. Pont. XVIII, Anon (*PPE*, 9.9). Kacharava 2005, 11 FN 4.

[155] Strabo (11.2, 13.1), Pliny (*N.H.* 6.5), Ammanianus Marcellinus (*R.G.* 22.8).

[156] Ps.-Skylax (*PPE* 81). Kacharava 2005, 9.

[157] Strabo 9.8.

[158] Pliny (*N.H.* 6.4) also notes the mention by Cl. Ptol. (*Geogr.* 9,6).

[159] Xenephon (*Anab.* 5.3.2) and Diodorus Sicilus (*Lib.* 14.30.5) name Cerasus as a Sinopean colony in Colchis (Kacharava 2005, 11 FN 4). Strabo (12.3.17) locates Cerasus as a Greek city in the vicinity of Hermonassa (Bosporan Kingdom).

[160] Strabo 11.3.

[161] Val.Fl. 6. 693. Procopius, *B.G.* 4.13.14, Schol. ad ARh 2.399.

[162] Xenophon also places Trebizond (modern Trabzon) as another Sinopean colony in the territory of Colchis (*Anab.* 4.8.22).

[163] Braund 1994, 50-1; Tsetskhladze 1999, 34-35, 81, 85, 101. The wooden structures often had a defensive function. Tsetskhladze discusses a number of such sites in the Pichvnari area, including Pichvnari itself, Namcheduri, Batumis Tsikhe along the coast and Kvashta in the mountains. See also Kvirkvelia 2005 for a study of Colchian sites throughout the region.

[164] A prime example of this is the settlement at Pichvnari in southern Colchis (near Batumi).

relationship with the Greeks. This new material, together with what can be considered an 'inadequacy' of written sources on Greek colonization in general,[165] have moved scholars to steadily review the question of Greek colonization in Colchis.

The Greeks arriving on Colchian territory would have encountered various tribes, such as the the Colchi, Heniochi,[166] Moschi and Phasianoi.[167]

Trade, slaves and piracy

While much is said by ancient authors about Colchis during the Achaemenid, Roman and Byzantine periods, little is mentioned as relating specifically to the Classical or Hellenistic periods. Therefore, much about the lifestyle and culture in Colchis during Hellenistic period must be surmised from accounts referring to earlier or later times.

Trade with Colchis was certainly a part of the Graeco-Roman world, as attested to by a number of ancient sources, the best known Colchian commodities being precious metals and slaves.[168] The literary tradition naming Colchis as a source of gold goes back to the myth of the Golden Fleece, yet the question of the region as a realistic source of precious metals remains debated.[169] Slaves, on the other hand, appear to have been a popular Colchian commodity, if only one of many wares to be procured there.

Herodotus addresses the question of Colchian slaves in form of tribute sent annually to the Persians.[170] Herodotus, Xenephon and Strabo both mention Colchis as a producer

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[165] Braund 1994, 74.

[166] Commonly assigned to the southwest of Colchis (Trebizond?) or the northwest (Dioscurias). Only Aristotle places them in Phasis. Braund 1994, 76.

[167] Colchi - Ps. Scylax (*PPE* 81), Herodotus (1.104), Tacitus (Ann. 6.34), Heniochi –Aristotle (*Constitution of the Phasians*), Moschi – Pliny (*N.H.* 6.4), Phasionoi (*Airs Waters Places* 15). A discussion of some of these tribes can be found in Braund 1994 (75-7, 96).

[168] Other 'well known' yet unusual commodities include the black Colchian drugs of Horatius Flaccus (*Odes* 2.13) or herbs of Sextus Propertius (*Eleg.* 1.12), both rather obvious references to the myth of the sorceress Medea.

[169] See Tsetskhladze 2007 for a detailed study of this topic.

[170] Herodotus 3.97.4.

and exporter of quality textiles (e.g. linen, flax) during the 5th and 4th centuries BC.[171] Other items of value from the Black Sea area in general are listed by Polybius and include hides, slaves of the best description, honey, wax, and salt-fish.[172] Procopius writes of skins and hides, in addition to slaves, as the only 'valuable' trade items of the Colchians in the 6th century AD.[173]

The locals, for their part, received much in return – wine of every kind and olive oil, according to Polybius.[174] These wares are attested to by the rich finds of Greek amphorae and drinking vessels.[175] The archaeological record is also rich on other kinds of fine Greek tableware. According to Strabo,[176] the locals also gathered at the markets to procure salt, which Procopius claims they did not even have.[177]

It is worth noting that trade with the lands of the ancient East picked up during the Hellenistic period with the Transcaucasian trade route connecting the Black Sea region with India through Colchis.[178] This is attested to by the many finds of eastern provenance from the Hellenistic burials at Pichvnari.[179]

While most ancient references to slaves are in reference to the Black Sea in general, D. Braund and G. Tsetskhladze convincingly argue that many of these slaves are actually coming from Colchis.[180] Slaves could have been procured in the hinterland of the

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[171] Herodotus (2.104-2.105), Xenephon (*Cyn.* 2.4) and Strabo (11.2, 11.17). See Braund/Tsetskhladze 1989, 115.

[172] Polybius 4.38. According to Athenaeus (3.116), the pickled fish of the Euxine was famous.

[173] Procopius (*De Bell.* 2.15.5).

[174] Polybius (*Hist.* 4.38).

[175] Braund/Tsetskhladze 1989, 115; Braund and Tsetskhladze also note that wine from the Aegean would have been a luxury import meant to supplement local production, which would have been plentiful.

[176] Strabo (11.5.6).

[177] Procopius (*De Bell* 2.15.5).

[178] Kakhidze/Vashakhidze (2010, 177) note that this route moved through the Rioni, Qvirlia and Mtkvari Rivers, the Caspian Sea and Central Asia.

[179] See Kakhidze/Vashahhidze 2010.

[180] Braund/Tsetskhladze 1989.

northern Caucasus, as discussed earlier, and led down through the mountain passes into Colchis via Dioscurias. The other possibility was kidnapping by sea - piracy. Strabo notes that the Heniochi, amongst others, would man their fleets to sail against merchant ships or even countries or cities.[181] A fragment from Aristotle (*Constitution of the Phasians*) indicates shipwreck and ransom of the survivors by the Heniochi. D. Braund has even suggested the series of Roman forts along the Colchian coastline to be indicative of the continuation of the piracy problem into the Roman period.[182] The phenomenon of piracy, common to all of the Black Sea and already mentioned earlier in this study as a great problem for the Bosporan Kingdom and a phenomenon of the eastern Black Sea coastline,[183] was also an essential part of Colchian life.

Archaeological material from Colchis

As already mentioned above, the sites of the pre-colonization period include Colchian hilltop settlements, the archaeological remains of which reveal wattle-daub or, later, log structures. These are scattered throughout the Colchian depression and the foothills, but not very well studied.[184] The so-called 'period of colonization' (6^{th}-4^{th} centuries BC) is attested to by various burials, either individual ones discovered by chance or burials that are part of a necropolis. These burials bring forth both local and imported Greek pottery, plenty of Colchian or Achaemenid style jewellery, and a multitude of weapons – mainly offensive. The Hellenistic period is attested to by architectural remains in the fortified sites of Eshera in the north and Vani in the south, the wealth of burial finds from the Pichvnari necropolis, and material from the Hellenistic layers of a range of smaller

[181] Strabo 11.2.12.

[182] Braund 1994, 171-7, 186, 191. This is similar to the series of fortified structures along the coast just south of the Bosporan Kingdom between modern Anapa and Novorossiysk.

[183] See Chapter I, *Political arrangements in the Hellenistic period.*

[184] See, for example, Apakidze 2005 for a comprehensive overview of Colchian settlements of the Bronze and Early Iron ages.

sites.[185]

[185] I would like to thank Professor Vakhtang Licheli for sharing his observations on a range of smaller sites with such layers.

GAZETTEER OF SITES

The gazetteer lists the find sites of Greek-style defensive weaponry geographically, moving from the northern Colchian border in the Greater Caucasus foothills along the coastline to the southern border in the foothills of the Lesser Caucasus, after which sites are listed moving further inland towards the eastern border and Iberia (Figure 14).

Northern Colchis

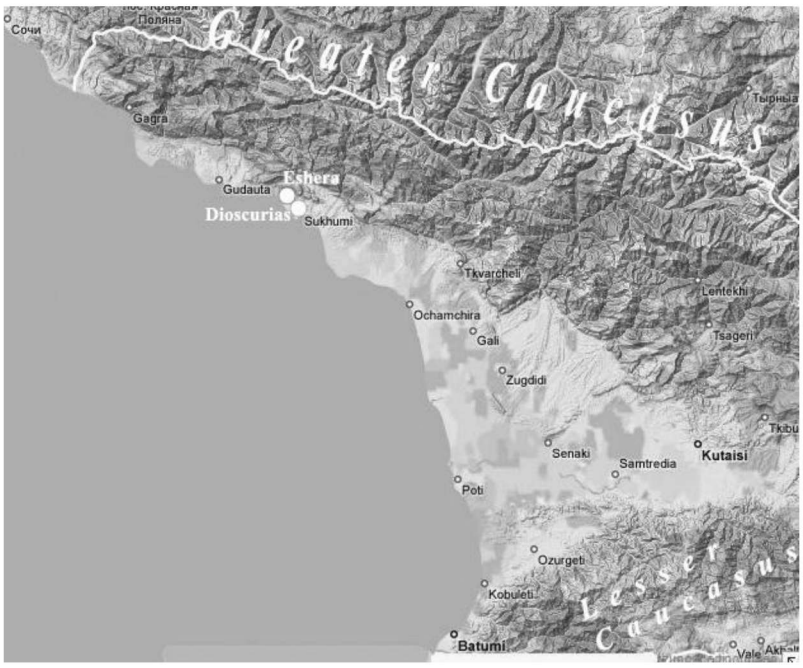


Figure 14. Sites of Colchis in the foothills of the Greater Caucasus.
(S. Chandrasekaran – using Google Maps)

Dioscurias

One of the ancient Colchian cities most frequently mentioned by ancient writers is Dioscurias, later Roman Sebastopolis and today the site of the present Abkhazian capital Sukhum. Appian suggests that it was named after the Dioscuri.[186] The city's claim to fame amongst ancient authors is as a huge trading centre, where representatives of 300 tribes gathered to do business.[187] The diversity of Dioscurias was emphasized by the

[186] Appian (*Mith*. 15.101).

[187] Timosthenes of Rhodes (Pliny, *N.H.* 6.5) and Strabo (11.2.16, 11.5.6), amongst others.

necessity of interpreters to translate from a variety of up to 130 languages.[188]

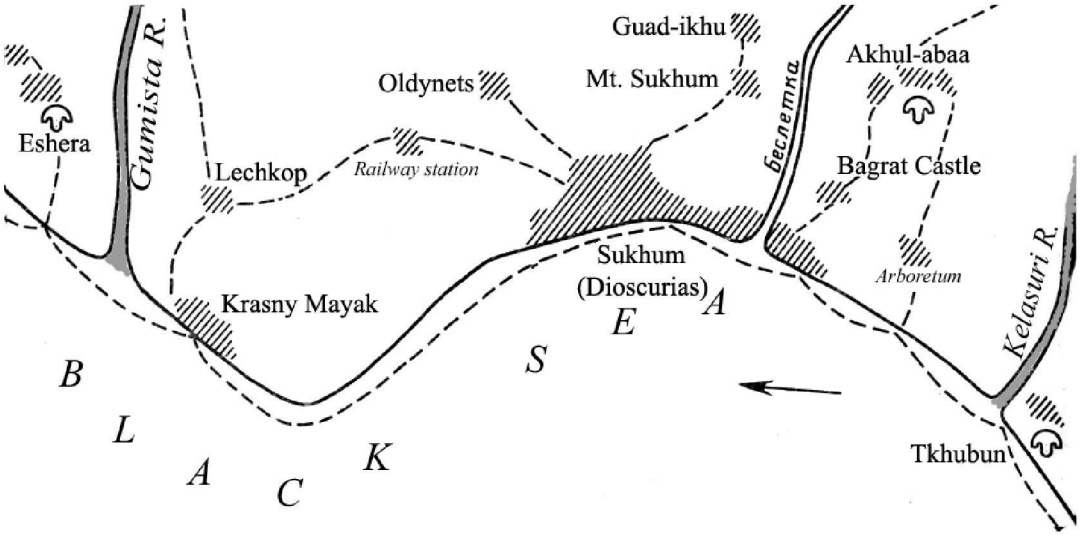


Figure 15. Archaeological sites in and around Sukhum-Dioscurias.
(After Voronov 1991, Fig. 1.)

The city is situated along a promontory extending from the Caucasus foothills, in the valley between the Gumista and Kelasuri rivers (Figure 15). Both Strabo and Pliny note that the area knew Colchian settlement as far back as the 2nd millennium BC and claim that the city was then founded by the Milesians.[189] It should be noted that the archaeological situation in Dioscurias is rather unsatisfactory – ancient sources name it, and a number of finds from the *outskirts* of the modern city confirm its identity as ancient Dioscurias. However, little is known at this time about ancient city or its infrastructure. This is not because the major portion of the ancient city lies submerged in the Bay of Sukhumi, as has long been believed.[190] Studies of the bay do show that the sea level here was at least 10m lower in ancient times.[191] However, a recently discovered and published article by Yu. Voronov, written in 1988, convincingly

[188] Pliny, *N.H.*, 6.5.

[189] Strabo 9.2.16,17; Pliny, *N.H.* 6.5.

[190] Voronov 2010, 6.

[191] Gabelia 2003, 1222.

demonstrates that only part of the Byzantine fortifications are actually submerged, while the Greek and Roman town remains buried under the sprawl of the modern city, yet to be studied.[192]

The archaeological material from Sukhumi and its bay points to permanent Hellenistic settlement with a necropolis close by. Interestingly, no material has been found from the 6th century period of Greek colonization.[193] Perhaps the most famous find from here is the marble funeral stele – apparently Attic, of the 5th century BC found in the Bay of Sukhumi in 1953.[194] With the exception of the Bay area, the ancient sites of modern Sukhum consist mainly of burial grounds and are situated in its outer districts (Figure 15.): Mt. Guadikhu, Krasny Mayak, Bagrat Castle, Mt. Sukhum, Akhul-Abaa, the Kelasuri River mouth in the south, and the town of Eshera in the north, just beyond the Gumista River.[195]

The Kelasuri River

The Kelasuri River has brought forth a certain amount of archaeological material, mainly from the burial grounds around the river mouth along its right bank. This material is almost always without any proper context, being washed up from the many burials along the river.

The Kelasuri finds include the fragments of yet another three bronze helmets. All fragments were discovered sometime before 1939 in the remains of the ancient fortification structures beneath the Kelasuri wall in what was then the village of Kelasuri (now a district of Sukhum).[196] All three helmets are of the Chalcidian type V.

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[192] Voronov 2010.

[193] Erlikh 2006, 92.

[194] Lordkipanidze 1968; Tsetskhladze 1999, 45, FN5.

[195] Gabelia 2003, 1232.

[196] Rabinovich 1941, 145.

Only the left half has survived of the first Kelasuri helmet, Kel/H-01. The only published images consist of two drawings, both showing only the left profile of the helmet. As it was not possible to study the actual piece in Abkhazia due to renovation work being carried out at the Abkhazian State Museum, it is impossible to determine just how much of the front or right sections have actually survived or to what extent the helmet has been conserved and restored. The drawings by Voronov and Chernenko reveal a severely damaged rounded dome set upon a short lower section from which it is offset. The short, curved neck guard builds short, rounded lappets at the side and finishes with a slight outward flare. The horizontal helmet body has rounded aural recesses. Form and details of the front section remain unclear. The cheekpieces are missing, but the form of the damaged helmet rim may indicate the presence of rivets which have not survived.

Only three fragments are preserved of the second Kelasuri helmet (Kel/H-02), of which it was only possible to photograph one - the damaged forehead section. This fragment displays ocular cutouts and a rounded, diamond-shaped nose guard. The other two fragments are only available as drawings. These show that the left side of the helmet is preserved from the offset dome to the vertical helmet body and partially preserved cheekpiece. The surviving cheekpiece fragment is still attached to the body by a riveted hinge, which is surprisingly well-preserved. The neck guard is curved in the back, finishing with a slight outward flare. The lappets at the sides are damaged. The most interesting and peculiar element is the 5:4 hinge tooth ratio of the hinge component, which is unique amongst all the helmet finds catalogued here.[197]

[197] While the drawings of this helmet shown in Voronov's and Chernenko's publications have been reproduced faithfully over a number of years, a possible mistake in the rendering of the hinge teeth should not be ruled out. This can only be examined against the original fragment or a decent photograph thereof.

The third Kelasuri helmet (Kel/H-03) also consists of three surviving fragments. One fragment shows the rounded upper section of the helmet dome with a perforation in the middle, suggesting some kind of decorative attachment. A further fragment consists of a small section of the helmet front, showing the brow, the nose guard and a part of the eye cutouts. The final fragment comes from the right side of the helmet, revealing part of the offset dome and the short, vertical lower section up to the upper hinge component. Neither of the cheekpieces has survived.

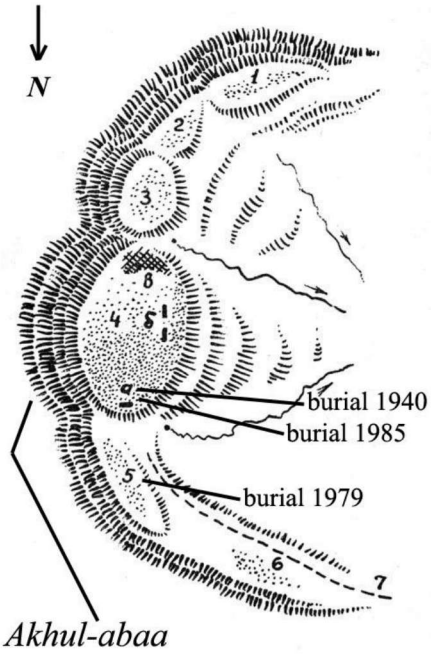


Figure 16. The find sites of Akhul-abaa
(After Voronov 1979, Fig. 1)

The execution of the eye cutouts and nose guard is very similar on the latter two Kelasuri helmets, and reminiscent of the helmets from Kurdzhips (Kur/H-01, Kur/H-02, Kur/H-03) and the helmet from Kekuvatsky (Kek/H-01).

The fragments of all three Kelasuri helmets are part of the Abkhazian State Museum collection in Sukhum. All the helmets are dated to the 4th century BC based on their resemblance to other dated helmets of the same kind, both in the Western Caucasus (see the Kurdzhips and Kekuvatsky helmets) as well as elsewhere.[198]

Akhul-abaa

The Akhul-abaa hill, Akhvil-aba in Abkhazian, is part of a small ridge running between Sukhum's Besletka and Dzeguta rivers in the Alekseevskoe Valley, a district of Sukhum to the east of the city. The highest elevation of the range is marked by a small conglomerate of hills, of which the Akhul-abaa stands highest. Together with the surrounding hills, Akhul-abaa was the site of a large settlement in ancient times.

[198] This will be discussed in detail in Chapter IV.

The hilltop is now used for tobacco cultivation, and the upper archaeological layers of the site have suffered as a result of years of ploughing and agricultural activity. Study of the site has consisted of survey of the upper layers, together with the excavation of a number of sondages and the full excavation of a number of burials. The material recovered from these layers indicates the earliest phase of the settlement in the 6th-5th centuries BC, and that its next phase, from the 4th-3rd centuries BC, was marked by a large selection of Greek imports (pottery).

Three of the burials investigated on Akhul-abaa and the surrounding hills have revealed finds of Greek-style armor – two Chalcidian helmets, two sets of greaves and one round shield.[199] Of these, I will concentrate on the two burials containing helmets and greaves (Figure 16).

Akhul-abaa 1979

The second Akhul-abaa burial was discovered in 1979 when plough-work damaged a burial and brought its finds to the surface.[200] The burial and its finds were examined by B. A. Yushin, a local historian. The finds included a helmet and greaves of bronze, a selection of metal and ceramic vessels as well as many weapons and further items of iron: 12 spearheads, two daggers, a sword, a *makhaira* and a knife, a ring and a pair of tweezers. A further wooden knife showed traces of rust. The burial is dated to the 4th-3rd centuries BC based on the burial goods.

The bronze helmet (AA/H-01) is of the Chalcidian type V. Only two pieces of the entire helmet have survived – a large portion of the helmet front and left side, and a small fragment of the neck guard rim. The helmet had a rounded, semi-circular dome which

[199] Yu. Voronov (1991, 225; 1969, no.154) notes that some information has (supposedly) survived on the discovery of at least two burials during the 1950s and 60s, the inventory of which included additional 'Attic' bronze helmets. No information is given on the current whereabouts of these helmets; The shield comes from the first of the Akhul-abaa burials, uncovered in 1940.

[200] Voronov 1991, 227.

was heavily offset from the short helmet body. The front was marked by a rather shallow yet curved gable, small, narrow eye cutouts and a thin, elongated nose guard. The side section reveals the contours of a small ear cutout. The neck guard was vertical, with a slight outward flare of the rim. The cheekpieces have not survived. However, a line of rivet holes along the helmet side indicate their attachment.

Particularly interesting is the evenly horizontal rim below the rivet line. It is unclear if this was the original form of the side rim or if there was once a proper hinge component, the teeth of which were then cut off.

Also noteworthy is the extreme shortness of the helmet body, the narrowness of the eye cutouts and the rather shallow, curved gable. These details distinguish this helmet from the other Chalcidian type V finds in this study. The very short brow rises to form a high gable at the forehead.

The pair of bronze greaves (AA/G-01) was preserved in fragments, which have since been partially reconstructed. Of the two pieces, the left is the much better preserved, and only its image has been published as a drawing by Yuri Voronov[201] – the original pieces have never been exhibited and are currently not accessible[202] – and it is only on the basis of this single drawing that the greaves can be analyzed.

The left greave survives in its full length. It consists of a fully rounded kneecap section which flows into a somewhat wider calf section, which in turn narrows slightly to form an almost straight lower leg with only minor tapering towards the bottom, where it ends just above the ankle. Moulded anatomical details include the lower bulge of the knee, the large bulge of the calf, and a hint of the elongated inner *soleus*. Note that the bulges of the lower *vastus* do not appear to have been shown.

[201] Voronov 1991, Fig. 3,2.

[202] The greaves are currently in storage at the Abkhazian State Museum in Sukhum, which is inaccessible for the duration of renovation work being carried out in the building.

All surviving edges of the greave are lined with an ornamental border consisting of what appears to be either three engraved lines or two moulded ridges. Particularly noteworthy are the perforations along the ornamental border marking top, bottom, and corners of the greave. These were probably part of the original make and used for the attachment of an inner lining or fastenings for adjusting the fit of the greaves.

Akhul-abaa 1985

The third of the Akhul-abaa burials to bring up Greek style armour finds was discovered in 1985 along the northern slope of the Akhul-abaa hill, close to the 1940 burial.[203] This 'warrior' burial contained a bronze helmet and a pair of bronze greaves, together with massive golden jewellery, black-glazed pottery, weapons of iron – an axe and five spearheads, and bridle gear parts. The 1985 burial is dated to the 4th-3rd centuries BC based on the similarity with that of 1979.

The bronze helmet from this burial (AA/H-02) is somewhat better preserved than that of 1979 (AA/H-01). Four pieces of the helmet survive, revealing the base of an ellipsoidal helmet dome set upon a vertical lower body. The dome is gabled in the front, and the forehead section marked with arched cutouts (partially damaged). The neck guard slants sharply outward and flares off horizontally at the rim. The neck guard builds a lappet at the right side that droops below the nape. A high, well-rounded aural cutout is preserved. The nose guard is broken off at the nose bridge, and therefore the original form remains uncertain. Both cheekpieces are preserved. These were attached to the helmet by means of hinges, of which the full right component – including hinge teeth, rivets and hinge pin – is still preserved. Each cheekpiece also has a small hole at the bottom, which was probably threaded with a chinstrap to adjust the helmet and provide a tighter fit.

[203] Voronov 1991, 227.

The hammered bronze greaves from the 1985 burial (AA/G-02) are both in good condition, with only occasional minor damage. They are typical examples of Classical full-length greaves, with rounded kneecap section, wider calf section and narrow lower leg which runs up to just above the ankle. Particularly interesting is the steady taper of the lower leg section all the way to the bottom, which stands in contrast to the greaves from the 1979 burial (AA/G-01). Moulded anatomical details include the particularly pronounced knee and upper shinbone protrusion, the small bulges of the lower *vastus* muscles just above the knee, and a single soft, elongated bulge on either side of each greave denoting both the single inner and double outer *soleus* muscles. The greave edges are framed by an ornamental border. At least two perforations can be seen on the outer edges of these greaves, suggesting the attachment of an inner lining or fittings by which to adjust the greave tightness.

An interesting detail of the greaves' condition is the darkened, slightly rounded line just running the width of each greave just below the protrusion of the upper shinbone. This darkening of the metal could indicate some kind of tie or binding once wrapped around the greaves.[204]

Another noteworthy detail is the present state of the left greave, with its missing kneecap section – apparently cut out quite cleanly. Note that most of the kneecap section of the right greave was also broken off or damaged in a single fragment. It is worth considering whether this damage to the kneecap section of both greaves was intentional.

All helmets and greaves from Akhul-Abaa are now kept in the collections of the Abkhazian State Museum in Sukhum.

[204] Voronov 1991, 227.

Eshera

The town of Eshera (Abkhaz. '*Eshyra'*) is located some 10km to the northwest of present-day Sukhum, to the north of the Gumysta River and along the coastline. It is actually divided up into two settlements – Lower Eshera along the coastline, and Upper Eshera along the upper slopes – and thus demonstrates the defining characteristic of the mountainous eastern Black Sea region, where the foothills are extremely close to the actual shoreline and slope down straight into the water.

The archaeological site referred to as 'Eshera' actually refers to an ancient fortified complex of the Hellenistic period. The fortifications consist of a fortifying wall and a line of towers constructed along the northern slope of a hill just along the shoreline,[205] in Lower Eshera's Amzhasara district. Excavations at the site were initiated in the late 1960s under Georgi Shamba. These revealed not only the Hellenistic fortifications, but also traces of an ancient settlement covering an area of ca. four hectares and dating back to the 6th century BC.[206] Following the settlement's demise at the beginning of the 5th century, it was used as a necropolis. Both settlement and fortifications were finally destroyed in a great fire in the 1st century BC.

A Chalcidian type V helmet (Esh/H-01) comes from the Eshera fortifications itself (Esh/H-01). Only a small bit of the side survives from the well-offset high dome. The unusual brow forms a high arch. The long, vertical neck guard ends in a slight flare. Small aural recesses on the sides exposed the ears, and very high, rounded arches were formed over the eyes, joining to form a short nose guard. Small holes line the rim where the cheekpieces, now lost, were once attached.[207] Unlike the other Chalcidian helmets,

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[205] Shamba 1980.

[206] Some signs of even earlier habitation in the vicinity were also revealed.

[207] According to Chernenko (2006, 88), the original hinges were removed and the six holes made afterward. However, traces of this cannot be distinguished in the illustration; Voronov (1975, 221, fig.

this helmet is decorated with small engraved curls of hair along the underside of the arched brow down to the ears. Most researchers also give it the usual generic 4th century BC dating,[208] although Voronov does date it somewhat earlier, to the turn of the 5th century BC.[209]



Figure 17. Eshera fortification site and Vereshchagin Hill.
(Photograph courtesy of V. Erlikh)

To the north of the fortified hilltop is a necropolis containing both inhumations and cremation burials.[210] One of these burials brought forth yet another Chalcidian helmet (Esh/H-02), discovered in the 1960s. Close examination of the fragments revealed it to differ from the Chalcidian type V helmet in that the helmet is formed as a single 'bowl', does not contain cutout recesses for the ears, and that the cheekpieces (missing) were fastened to the helmet rim via a line of threadable perforations – i.e. *without* hinges. This helmet marks the first find of a new type of Chalcidian helmet, which can be defined as the 'Eshera' type.

Vereshchagin Hill

Another two isolated hills are found in the Amzhasara district of Lower Eshera, both touching upon the coast and stand parallel to the shoreline, forming a small valley of

6.6-11) also describes fragments of a bronze helmet found in a burial to the north of the Esherskoye Gorodishche, which he ascribes to a Corinthian type helmet. M. V. Gorelik (1985) notes that holes along the neck guard rim and the eyes were part of the local re-working of the original helmet.

[208] Chernenko 2006, 88; Erlikh 2008, 82.

[209] Voronov1975, 221.

[210] Voronov 1972.

approximately 0.5km between them (Figure 17). The northwest hill, just north of the Eshera archaeological site, is known as Vereshchagin Hill (Abkhaz. '*Yuardan-ikhuy'*), named after the famed Russian artist who once lived there.[211] It peaks at a height of ca. 200m above sea level and distinguishes itself with long slopes on all sides.

Vereshchagin Hill is also the site of a fortified settlement of the 'Colchian period', i.e. of the 8th -7th centuries BC.[212] The first excavations of the hilltop were conducted during the 1930s under M. Ivashchenko. Further investigations were conducted in the 1940s by I. Meshchaninov and B. Kuftin, and in the late 1970s by G. Shamba. Archaeological investigation of the hill was renewed in 2000-2002 by A. Dzhopua and N. Shenkao of the Abkhazian Institute for the Humanities. Work during this period concentrated on the southern-south-western slopes of the hill and demonstrated that the settlement continued to function all the way into the 5th-4th centuries BC.

Particularly interesting are the three Chalcidian helmets of the 'Eshera' type that have come to light during work at the hill, complementing the aforementioned 'prototype' of the 1960s from Eshera itself (Esh/H-02). The first such find was made in 1971 (Ver/H-01) and published by G. Shamba.[213] It comes from a destroyed flat-grave burial along the eastern slope of the hill. The complex also contained a dagger/short sword (*akinakes*) and a knife/short dagger, both of iron, and a bronze bracelet. Shamba dates this helmet to the 5th – 4th centuries BC.

A second 'Eshera' type helmet find was made in 1978 (Ver/H-02) at the southern foot of the hill, when excavations were undertaken by G. Shamba on the Markosyan

[211] Dzhopua/Shenkao 2003.

[212] According to L. Solov'yev. Dzhopua/Shenkao 2003, 4.

[213] Erlikh (2008, 80) provides an illustration and summarizes the details of this helmet, which was published by G. Shamba *in Abkhazian* in the following: *Archaeological Sites of Abkhazia* (1988) and *Abkhazia during the First Millenium BC* (2000).

property.[214] The bronze helmet was discovered in a damaged burial, together with a number of iron weapons – three axes and two *akinakes*.

The most recent 'Eshera' type Chalcidian helmet (Ver/H-03) was discovered in 2000 in a damaged burial excavated by A. Dzhopua and K. Shenkao along the western end of the hill. The burial, which is termed 'Hellenistic' by its excavators,[215] was dated to the 5th-4th centuries BC based on its finds. The Ver/H-03 helmet is kept at the Department of Archaeology of the Abkhazian Institute for the Humanities.

Southern and Central Colchis

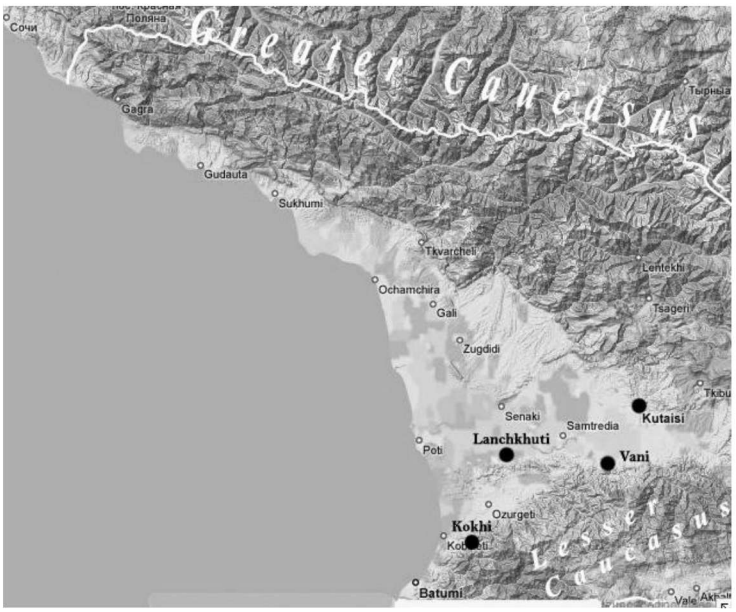


Figure 18. Foothill sites in South and Central Colchis.
(S. Chandrasekaran)

Historical references to the southern coastal area of Colchis are dominated by the names of ancient centres such as Phasis, a city known to have stood at the mouth of the River Phasis (now the modern-day city of Poti on the Rioni River) Bathys Limen (modern Batumi),[216] and Gonio/Apsarus.[217] However, archaeological evidence from both these sites is extremely limited due to the difficulties

[214] Erlikh (2008, 80) provides an illustration and summarizes the details of this helmet, which was published by G. Shamba *in Abkhazian* in the following: *Ancient Eshera* (1980), *Archaeological Sites of Abkhazia* (1988) and *Abkhazia during the First Millenium BC* (2000).

[215] The term 'Hellenistic' is used quite freely by archaeologists working in the Caucasus, and often simply refers to a 'post-Colchian' period or even the Classical period.

[216] Vickers/Kakhidze 2001, 65; Lordkipanidze 2000.

[217] Mentioned by a number of ancient authors including Pliny (*N.H.* 6.11), and Arrian (*PPE,* 6). Mainly known as a Roman fortress, even though material of the 8th-7th centuries BC and the Hellenistic period have been found.
Kakhidze/Mamuladze/Iniashvili/Tavamaishvili/Khalvashi/Kakhidze/Ebralidze/Varshalomidze 2002, 251.

of excavation within modern city limits. The greatest amount of archaeological material along the southern coast comes from sites in and around the Lesser Caucasus foothills of the Kobuleti district, from sites that know no ancient names (Figure 18).

Predominant amongst the sites of this area is Pichvnari, the site of a Colchian settlement and surrounding an ancient necropolis, both situated just along the coast, at the confluence of the Choloki and Ochkamuri Rivers,[218] some 10km north of the modern bathing resort of Kobuleti. Particularly interesting is the extensive necropolis, which is spread out directly along the present coastline and contains large cemeteries with burials dating from the 5th-4th centuries BC, as well as re-used burials of the Late Roman period. The necropolis, the full extent of which has yet to be determined, is generally related to the settlement on Namcheduri Hill,[219] just a little further inland on the other side of the Ochkhamuri River. The hill site reveals various settlement phases, from the Middle Bronze Age all the way into the Hellenistic period. Archaeological evidence from this period is scant and consists of mainly wooden foundations and misshapen remains of wattle-daub walls. Excavation of the settlement area is extremely difficult due to the heavy rains and an extremely high water-table and the resulting problems of drainage[220] – a phenomenon common to most Colchian settlement-sites of the wet Meskheti (Moschian) region. The necropolis can also be related to the line of dune settlements that cropped up along the coastline to the west of the hill in the 8th-7th centuries BC.[221]

The Pichvnari necropolis is the only known example of a Hellenistic cemetery in all of ancient Colchis. The burials of the necropolis range from wealthy elite burials of the

[218] Vickers/Kakhidze 2001, 65.

[219] Kvirkvelia 2005, 36; Vickers/Kakhidze 2001, 65; Tsetskhladze 1999, 31.

[220] The author visited the site in 2008 and was able to view the difficulties of this particular area.

[221] Vickers/Kakhidze 2001, 65, Fig.2.

Classical period to more humble rites of the Hellenistic period. Particularly significant is the complete (!) lack of weapon finds throughout the entire site, a phenomenon that still searches for a reasonable explanation, especially in view of the fact that other cemetery sites in the vicinity often include items of offensive weaponry.

As far as defensive weaponry is concerned, armor finds from southern and central Colchis are far less abundant than those in the north. While the Pichvnari necropolis itself has not produced any weapons, defensive or offensive, the foothills of the Kobuleti district have brought forth two of the defensive weaponry finds from Colchian territory.

Kokhi

Some 20km east of Pichvnari, about 14km from the coast,[222] lies the town of Kokhi, nestled within the foothills of the Lesser Caucasus on the Kintrishi River. Archaeologists have observed cultural layers indicative of a settlement in the area known as 'Nadzhikhurali', but no proper excavations of the settlement have ever been carried out. It was road repair work in 1958 led to the discovery of a burial datable to the 4th century BC. The small assemblage of finds included a Colchian amphora, an iron dagger and a hammered, bronze helmet of the Chalcidian type V. The complex is dated to the end of the 4th century BC based on the amphora.[223]

The severely damaged helmet dome (Kok/H-01) is of special interest. In its present state, the base of the dome rises high and slightly outwards, with a gaping hole at the top, as if having once covered an enormous, bloated head. Judging by the visible dents and bent areas, however, it would appear that the dome 'walls' have simply bent out of their original shape. The heavily damaged helmet bowl is offset from the body. Two

[222] Tsetskhladze 1999, 73.

[223] Tsetskhladze 1999, 73.

holes at the base of the bowl testify to repair work once done. The brow carries a high gable. In the back the steep neck guard ends with a small flare and drops to rounded lappets on both sides. Rounded recesses in the helmet sides leave the ears open. Elongated, shallow arches are cut out for the eyes. These are embellished with a thin moulded ridge which frames their contour a few millimetres above. The arches join in the centre to form a short nose guard with a pointed end. The cheekpieces and their hinges have not survived. However, two of the original rivet holes are visible on the right side.

Close examination of the helmet form and details reveals it to be an almost exact replica of the helmet from Temnolesskaya (Tem/H-01).[224]

Particularly interesting are the various signs of re-use/re-working on this helmet, most significantly along the helmet rim at the sides, where the original hinged edges were apparently cut to form an even, horizontal edge. A row of large, evenly spaced perforations can be seen on each side, just above the line of the original rivet holes. A further two perforations at the base of the helmet bowl testify to repair work once done.

The finds from Kokhi are now exhibited in the Adjara State Museum in Batumi, Georgia.

Lanchkhuti

The town of Lanchkhuti is located some 25km east of Poti (ancient Phasis) and the Black Sea coastline in the foothills of the Sayrao Range, the northernmost ridge of the Lesser Caucasus foothills. Little information is available on the circumstances that led to the find of a bronze Chalcidian helmet in the area.[225]

The helmet from Lanchkhuti (Lan/H-01) belongs to the category of Chalcidian helmets

[224] Chandrasekaran 2010.

[225] Gamkrelidze 2008, 147, Pl. III,3.

of the 'Sochi' type. The helmet dome is damaged at the top. However, the remaining sides reveal an egg-shaped dome that would have ended in a soft peaked edge at the crest. Characteristic for the 'Sochi' type is the heavy offsetting of various elements, as can be seen on this example. The dome is heavily offset from the helmet body, which falls with a slight outward slant. The helmet is marked by the characteristic large and heavily rounded cutouts for the eyes and ears. The eye cutouts are framed by a heavily offset ornamental edge, which further emphasize the bulging appearance of the eyes. The cheekpieces are not preserved. Nonetheless, the upper part of the hinge components survives, attesting to the mobility of the missing cheekpieces.

Central Colchis

Ancient references to Central Colchis include Aea, Surium. The former, while often equated by archaeologists with Kutaisi, cannot be archaeologically localized with any certainty. The latter is often equated with the site of Vani, an assumption that will be discussed presently.

Vani

The archaeological site of Vani is situated in the foothills of the Lesser Caucasus, some 60km from the coastline.[226] It lies at the confluence of the Rioni River with its tributary, the Sulori. The former is the main east-west river of Georgia, known in antiquity as the Phasis River. The town of Vani is home to what is probably the best known archaeological site of Georgia today, a site which is often equated with ancient Surium mentioned by Pliny,[227] who refers to a place which is 'The only town on the Phasis…'.[228]

[226] N. Lordkipanidze 2007, 21.

[227] Pliny, *N.H.* 6.13.

[228] Vickers 2008, 34-5.

The archaeological site of Vani consists of a fortified hilltop settlement flanked on two sides by deep ravines serving as natural defences. It is spread out over three terraces of the 200-meter-high Akhvlediani Hill, which was settled by a wealthy family of the same name in the 17th century.[229] Since this time, inhabitants had been reporting frequent finds of beautiful gold objects that were being washed up along the hill by the heavy rainfall common to the region. It was such reports that led to the first proper investigations of the site conducted in 1896. A number of surveys were then conducted until the Vani Archaeological Expedition was established in 1947. This marked the beginning of what became a more-or-less long-term campaign at the site.[230]

In the 1970s, the famous Georgian archaeologist, Otar Lordkipanidze, was able to identify four main habitation phases at the hill going back as far as the 8th century BC.[231]

The scant finds from the earliest phase (8th-7th centuries BC) consist of numerous clay votives attesting to some kind of cultic ritual.[232] Material from the subsequent phases is much richer and more informative. Particularly significant are the finds from the many elite burials of the 2nd phase (6th – mid-fourth centuries BC), which are found all around the site. These include a vast array of valuable gold and silver jewellery,[233] lending some credibility to accounts by ancient writers about the riches of Colchis.[234] Architectural remains from this phase include features from a wooden temple and bedrock-cut altars,[235] once again indicating a certain cultic significance of the site.

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[229] Kacharava/Kvirkvelia 2008, 51.

[230] Vickers 2008, 29-31.

[231] Kacharava/Kvirkvelia 2008, 55-6.

[232] Kacharava/Kvirkvelia 2008, 54; N. Lordkipanidze 2007, 21.

[233] Vickers 2008, 42.

[234] N. Lordkipanidze 2007, 19. See e.g. Strabo, I.2.39, Pseudo-Aristotle, *Peplos* 49.

[235] N. Lordkipanidze 2007, 22.

Perhaps the most prominent phase – in terms of archaeological material – is the third, Hellenistic phase (mid-fourth - 3rd century BC).[236] This phase is characterized by a wealth of stone architectural remains around the site, including those of the large defensive wall and a number of building features, many of which are interpreted as temples. Finds from this phase – imported pottery, coins, weaponry and numerous inscriptions – pour forth from the site and its many elite burials and attest to the 'Hellenized' character of the site during this time. [237] A particularly interesting burial rite is the interment human-shaped bronze and iron figurines.[238]

The final, Late Hellenistic phase (mid-3rd-century – mid-1st-century BC) of the site continues to see massive architectural features of stone, including the city gate, ramparts and towers[239] and a number of structures along the central terrace, many of which are interpreted as temples or altars.[240]

Another indication of the Hellenized character of the settlement is provided by the bronze sculptural remains from the site,[241] as well as the discovery of a bronze manufacture from this phase at Sakanchia, just north of the main Vani site.[242] The seemingly ritual character of the structural finds from this phase has induced many scholars to view as a temple city during this period. The find of an inscribed bronze tablet containing the text of a sacred law in Greek is generally seen as the main evidence for this interpretation.[243]

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[236] N. Lordkipanidze 2007, 23.

[237] N. Lordkipanidze 2007, 23.

[238] N. Lordkipanidze 2007, 24.

[239] Vickers 2008, 35.

[240] N. Lordkipanidze 2007, 25.

[241] Kacharava/Kvirkvelia 2008, 67-74; Vickers 2008, 43.

[242] Tsetskhladze 2007, 317.

[243] Vickers 2008, 35; It should be noted that the only other such inscription – on a similar bronze tablet - comes from the Eshera fortifications in northern Colchis.



Figure 19. Vani, central terrace, 'warrior' burial 9. The greave-covered legs can be seen in the lower half of the burial. (After Kacharava/Kvirkvelia 2008, Fig. 6)

Of particular significance to this study is burial 9, uncovered in 1969 on the central terrace of the site. This elite burial consisted of a pit-grave divided into two parts – a central grave and a raised platform along one of the walls. The grave contained the remains of three persons (together with a dog) – the main deceased, a 'male warrior', in the central part, and his two 'servants' on the platform (Figure 19).

The main deceased was apparently interred on a wooden couch or in a coffin. The body was adorned with a mass of golden and silver ornaments and accompanied by a number of amphorae and other ceramic vessels and a wealth of weapons, including 53 spearheads, two daggers, and a multitude of bronze and iron arrowheads. Particularly interesting amongst the jewellery finds is the golden signet ring with the inscribed name of Δεδατος, perhaps the deceased's own name.[244] However, the most surprising find would have to be the bronze greaves and thigh-guards adorning the legs of the 'warrior'.[245] Of these, the latter is unique amongst the armor finds of the Western Caucasus.

The hammered greaves (Van/G-01) from burial 9 are of full-length, originally covering

[244] Kacharava/Kvirkvelia 2008, 165

[245] Kacharava/Kvirkvelia 2008, 165-6.

the leg from kneecap to just above the ankle. Originally preserved in a very corroded and fragmentary state, the greaves have now been restored to reveal a large portion of their complete shape. In this case, the knees are severely damaged, with only part of the knee preserved on the left greave and the entire right knee completely missing. The greaves are characterized by a central, marked protrusion along the length of the shinbone. To the sides, the fragments reveal at two soft protrusions of the long, outer *soleus* muscles, as well as the single one of the inner *soleus*. The inner calf muscles, only partially preserved, are shaped as distinct bulges. The horizontal and vertical edges of the greaves are all only partially preserved. All edges were lined with a wide border. Random, uneven perforations mark various sections of both greaves. It is unclear whether these were part of the original fabrication or are indicative of possible repair work.

Kutaisi

The city of Kutaisi is located some 40km northeast of Vani, in the Colchian depression close the foothills of the Lesser Caucasus. It is situated along both banks of the Rioni River. The city commonly equated with the mythical city of Aia, the capitol of King Aeetes' Colchis, based on references by Pseudo-Scylax (81) to a πόλις μεγάλη βάρβαρος and naming of Κυταιίς or Κυταία by later authors.[246] However, there is absolutely no archaeological evidence to support this assumption. Archaeological investigations within the modern city limits have revealed traces of a settlement dating to the 8th-5th centuries BC. However, there is no evidence of a large cultural and/or economical centre.[247] The same is true of the material from similar settlements of the 8th-5th centuries BC that have been surveyed in recent years in the vicinity of Kutaisi.[248]

[246] Kvirkvelia 2005, 34.

[247] Kvirkvelia 2005, 35.

[248] Kvirkvelia 2005, 34.

It should be noted that no full-scale excavations of any of these settlements have taken place.

Of interest to this study is one of the chance finds of the region – a bronze Chalcidian helmet found by chance in the Rioni River valley near Kutaisi. No detailed information is available about the find circumstances.

The Kutaisi helmet (Kut/H-01) is of the Chalcidian type V and consists of a large dome with narrowing sides and a soft upper edge set upon a vertical helmet body, from which it is distinctly offset. Characteristic features of the helmet include the wide, high, curved gable in the front, together with almond-shaped cutouts for the eyes. The helmet sides area marked by roughly rounded aural recesses. The prominent neck guard falls with a slight outward slant, finishing off with a short, horizontal flared 'step'. Its sides droop into short, rounded lappets. Both cheekpieces and hinge components are missing.

Particularly noteworthy are the helmet sides. The edges are lined with a series of unevenly spaced or staggered perforations which are quite uniform in size. The lower holes are often only partially preserved due to the cut of the edge. It is therefore clear that the helmet sides were levelled off just below or at the line of original holes, following which a new set of perforations was punched in. Note the punch mark from a perforation that was not punched through in the middle of the right edge. The lower holes were most likely rivet holes, indicating the presence of hinge components and moveable cheekpieces.

The overall form of the helmet and the execution of many details - offsetting, eye cutouts, neck guard - as well as the levelled-off sides of the helmet are especially reminiscent of the helmet from Temnolesskaya (Tem/H-01).

CHAPTER III – BETWEEN COLCHIS AND THE BOSPORAN KINGDOM

TOPOGRAPHY

The Eastern Black Sea region between the Bosporan Kingdom and Colchis remains somewhat enigmatic when compared to the two states themselves (Figure 20). While a good deal of written and archaeological information is available for the Bosporus and Colchis of the Hellenistic period, the area in between remains by far more poorly explored, both by ancient authors and modern archaeology, even though the latter is gaining momentum.



Figure 20. The geography between the Bosporus and Colchis.
(S. Chandrasekaran – using Google Maps)

The topography of this area is very different from the fertile steppes and indented coastlines of the Bosporus, or the swampy valleys of Colchis. The territory *in between* – both coastal and hinterland – is dominated by the Caucasus foothills, beginning just south of Gorgippia (modern Anapa) and gaining height further down the coastline towards modern Sochi. The hills and mountains run right into the sea, making it difficult to navigate the coastline either by land or by sea. Further, the eastern coastline provides only few natural harbours, which are also far between. The mountainous hinterland could only be traversed by means of its many passes.

ANCIENT SOURCES

Ancient authors are not particularly generous with their references to this part of the world. However, together with archaeological material, they clearly tell us that the Eastern Black Sea region was populated by numerous tribes encountered by the Greeks – the Sindi, Kerketai, Toreti, Zygi and Heniochi – to name a few. Amongst the ancient authors to name these tribes are Herodotus, Pseudo-Scylax, Polybius, Strabo and Diodorus. While the exact locality of these tribes cannot always be determined using the rather vague written references, they are clearly placed by ancient authors somewhere in the foothills and mountain steppes beyond the territory of the Bosporan Kingdom. Only the Sindi can be fixed in *Sindike*, the territory in and around Gorgippia.

All local tribes of this region are generally given negative attributes in the ancient sources – as warlike, menacing pirates, and slave traders. Strabo appears particularly taken by the tribes inhabiting the harborless and mountainous coast beyond Sindike and Gorgippia. These are the Achaeans, Zygi and Heniochi, who supposedly earned their livelihood by kidnapping by land and robbery at sea.[249] Such a nuisance were they that the Bosporan King Eumelus, according to Diodorus, fought against the Heniochi, Taurians and Achaeans at the end of 4th century BC and rid the seas of pirates, for which he (the king) was highly praised, both in and outside his kingdom.[250]

Despite their supposed aversion, however, the Greeks certainly cooperated with the so-called pirates and slave-traders when necessary. Strabo even records the Heniochi to have been assisted by the Bosporan state, which supplied the former with good

[249] Strabo 11.2.12.

[250] Diodorus, *Lib*. 20.25. 2-3.

mooring, markets and customers for their goods.[251] Polybius goes further to note one of the valuable commodities provided by the Black Sea markets, namely slaves.[252]

The negative image of the fierce and inhospitable locals transmitted by ancient sources may be correct, and the archaeological evidence from the region often supports it. At the same time, however, ancient sources and archaeological evidence demonstrate some collaboration between Greeks and locals.

ORGANIZATION - CITIES, SETTLEMENTS AND FORTIFICATIONS

Little is told by ancient authors of the political structure and organization of the abovementioned tribes. Archaeology, however, has done much to give us an insight to at least some of the territory between the Bosporus and Colchis. This is particularly true of the area around Sindike (Figure 21), which was clearly affected by the events and political turmoil of the neighbouring Bosporan Kingdom.

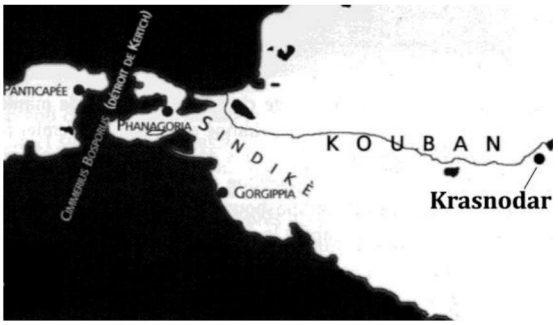


Figure 21. Sindike.
(After Cat. Paris, Fig. p. 36)

Ancient sources name two cities or poleis located south of Sindike Liman (renamed Gorgippia by the Bosporans – modern Anapa) – Bata and Toricus. These ancient cities were identified by N. A. Onayko on the territory of the modern-day cities Novorossiysk and Gelendzhik, respectively.[253] Together with Gorgippia and Dioscurias, Bata and Toricus are mentioned by ancient authors – Strabo and Ptolemy, among others – as port

[251] Strabo11.2.12.

[252] Polybius, *Hist*. 4.38.4-6.

[253] Onayko 1984, 91.

cities of the eastern Black Sea.[254] Archaeological evidence from these cities is scarce, as much of the ancient remains are covered by modern urban development, while the remainder are submerged in the respective bays of Novorossiysk and Gelendzhik. Nonetheless, remains of the ancient cities and their necropoleis show them to date back

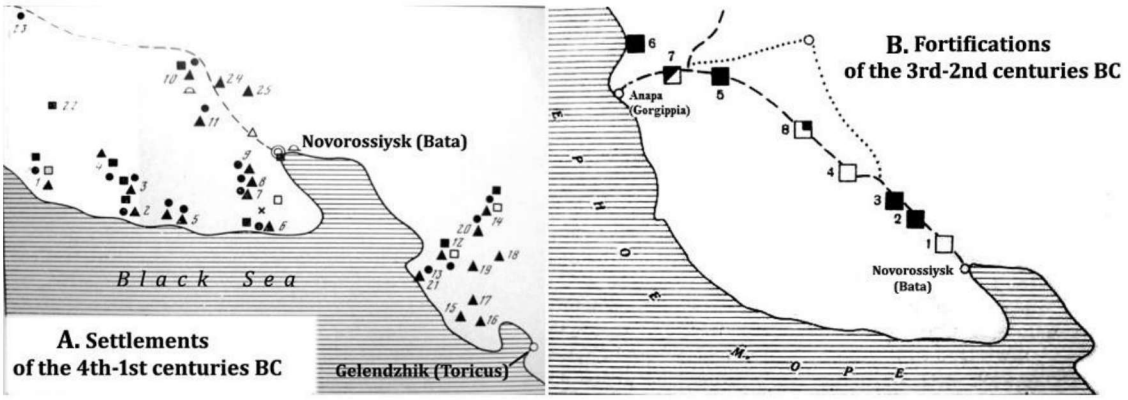


Figure 22. A. Settlements around ancient Bata and Toricus.
B. Fortifications between ancient Gorgippia and Bata.
(A: After Onayko 1984, Fig. XLIX,II; B: After Onayko/Dmitriyev 1982, Fig. 4)

to the 6th century BC, with evidence for occupation well into the Hellenistic period.

More yielding is the situation outside the major modern cities. Much work has been carried out along the coastline between modern Anapa and Novorossiysk since the 1960s. This has revealed a number of settlements and, more significantly, a line of fortified structures between the two (Figure 22).[255] While some of the settlements are dated from the 6th-5th centuries BC, many are from the Hellenistic period. In contrast, the fortifications were all of the mid-late Hellenistic period – some constructed at the end of the 3rd century BC, and many towards the end of the 2nd century BC.[256] These

[254] Strabo (*Geo*. 11.2.14), Ptolemy (*Geo*. 5.9.8), Pseudo Scylax (73), ; Onayko 1984, 91.

[255] Onayko 1984, 91-93.

[256] See Onayko 1984, Onayko and Dmitriyev 1982 and V. Dolgorukov 1984 for detailed descriptions on the respective fortified structures. Brief overviews of each structure can also be found in Chandrasekaran 2011

generally consisted of one-two rooms – some with towers – with outer walls well over a metre thick[257] and were mainly part of farming estates.[258] Onayko and Dmitriyev note that the majority were constructed around the same time, suggesting government involvement.[259] Their construction could easily coincide with a number of events that affected the Asian Bosporus and its hinterland in Sindike, such as the civil war that broke out between Eumelus and his two brothers in 311-310 BC, or perhaps later, during the tumultuous period which led Pairisades V to turn his kingdom over to Mithridates VI at the end of the 1st century BC.[260] Diodorus Siculus actually mentions such a fortified residence with high towers belonging to Aripharnes, ruler of one of the local Kuban tribes towards the end of the 4th century BC.[261] Interestingly, all these fortified structures ceased to exist towards the end of the 1st century BC, during the troublesome reign of the Bosporan ruler Asander and his son Aspurgus.[262]

In spite of the degree to which Sindike and the surrounding territory were affected by the military action, none of the burials in the area have yet revealed armour finds of imported style.

In and around the mountains

The Caucasus Mountains are, of course, a significant factor in the archaeological study of the Eastern Black Sea region. Their physical presence would seem to pose an imposing barrier to travellers moving between the Bosporan Kingdom and Colchis, or from the coastal region to the interior. However, there are many signs indicating that

[257] See Chandrasekaran 2011, 59-64.

[258] Onayko and Dmitriyev 1982, 111.

[259] Onayko and Dmitriyev 1982, 116

[260] Gaidukevich 1971, 303-332.

[261] Diodorus, *Lib*. 20.23.

[262] Gaidukevich 1971, 334-339.

people (and items) were in fact making their way through these mountains using certain routes and mountain passes. Appian even makes a reference to the 'Scythian gates, which had never been passed by anyone before'.[263]

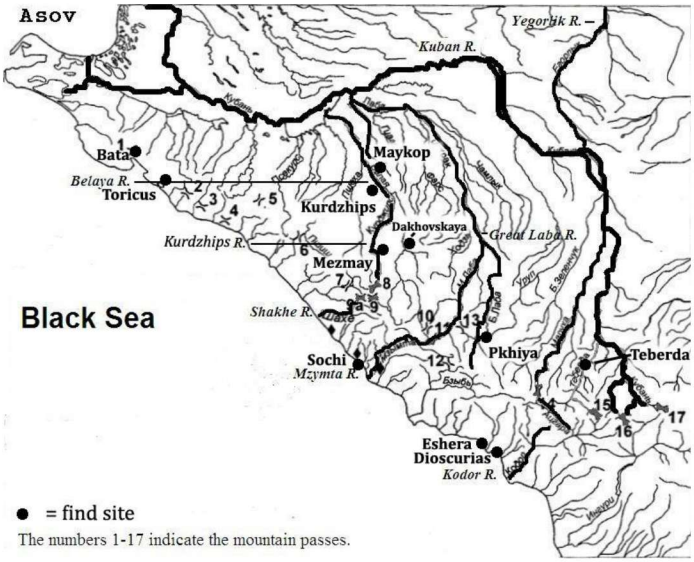


Figure 23. Mountain routes, passes and find sites.
(After Raev 2006, Fig. 1)

Lately, archaeologists have started paying more attention to the mountain routes and their passes, most of which were already in use during the Early Iron Age from the 8th-6th centuries BC, and still in use today.[264] B. Raev provides us with a clear picture of the major routes and passes of the Western Caucasus used in antiquity.[265]

As shown in Figure 23, the routes followed the major rivers, and it is along these that the majority of the foothill and mountain find sites in this study are situated. While finds are often sporadic and meagre, there are many cases of burials containing weapons, which are often recognizable as part of a greater burial complex. This is particularly relevant, for such complexes are indicative of settlements, demonstrating that the foothills and mountains were well populated in ancient times. The settlements, which probably served to control the major travel routes and passes, also demonstrate a certain infrastructure within the Caucasus themselves.

Particularly significant in this respect are the necropoleis and respective settlements

[263] Appian, *Rhom*. 12.15.102.

[264] Skakov 2006.

[265] Raev 2006.

situated at the foothill entrances to these mountain routes and passes. Concentrations of such finds can be seen at the accesses to the mountain passes especially in three places: along the coast and in the foothills of the Sochi area, in the northern foothills near Maykop and in the southern foothills close to Eshera and ancient Dioscurias.

In general, the finds come from destroyed kurgans and burials, many of which were uncovered illicitly and therefore lacking information on their find context. The same holds true for a few items which are chance finds. In following, I will go through the sites in question according to their topographic region, listing the respective finds and giving a detailed description of the relevant metal finds.

GAZETTEER OF SITES

The Greater Sochi area

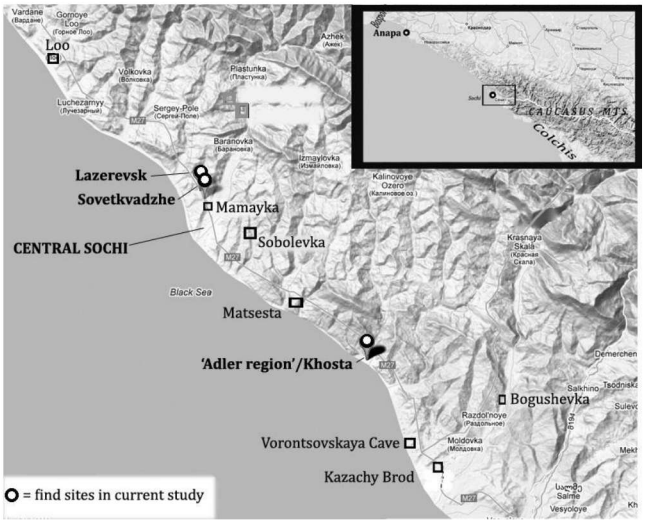


Figure 24: Find sites of the Sochi area.
(S. Chandrasekaran – using Google Maps)

The coastal stretch between the kingdoms has not been studied nearly as intensively as the kingdoms themselves. In spite of this, archaeology does reveal lively activity here. The greatest amount of information along the eastern coastline comes from the area of present-day Sochi. Some settlement activity in the area, ranging from the 6th – 1st centuries BC, has been documented in recent decades, mostly surfacing during construction work. The evidence includes statue and pottery finds at the site of Mamaika, as well as small, sporadic burials in Bogushevka, Sobolevka, Matsesta and Loo, and even the remains of a shrine in Kazachy Brod (Figure 24).[266] Particularly interesting are the small finds that discovered in the Vorontsovskaya cave – perhaps evidence of a refuge for travellers or even pirates.[267] Even more evidence of small settlements – including structural remains on a small scale – has been turning up near the Psou River over the last few years due to increased construction work for the 2014 Olympic Games in Sochi.[268]

[266] For Mamaika, Bogushevka, Sobolevka and other sites with chance finds see Voronov (1979, 64-66); for Kazachy Brod see Raev (2006, 304); for Matsesta and Loo see Mordvintseva/Treister (2007, nos. B20.1-2, B22.1). See also Chandrasekaran 2011 for a summary of these sites and the respective finds

[267] Voronov 1979, 64. A 'hideout' would certainly support the piratical reputation of the locals as recorded by Strabo (*Geo*. 11.2.12).

[268] I would like to thank Dr Vladimir Erlikh for informing me about ongoing archaeological survey and rescue excavations around the village of Psou. Most of this work is being carried out in the *Iremetinskaya Nizmennost*, near the newly constructed Sochi airport

The find sites and settlements of the Adler region (Figure 24) are all located along the coastline and watered by various rivers.[269] The varying imported items found here include both pottery and metal goods. The finds usually come from destroyed burials and cultural layers. Such sites may be indicative of trading posts along the coast itself.[270] In this respect, it is worth noting that the largest modern market of the Caucasus region is exactly in this region, in the village of Psou just south of Kazachy Brod (Figure 24).

The most extensive and abundant find sites, however, are those that have been excavated illegally in the area. Illicit excavations in the Sochi area have produced large numbers of high-quality metal finds – especially weaponry – that has been appearing in auctions over the past decade.

Of these sites, the most relevant to this study is the burial grounds at Khosta, formerly a village, but now a local district in the south Sochi city (Figure 25).



Figure 25.The Khosta district.
(After the website 'Otdykh v Sochi' - <http://www.v-sochi.ru/turbaza_catalog/10091624/>)

Khosta

The southern district of modern Sochi is Khosta, a former village set directly in the coastal foothills. It is also known as the site of many ancient burials – probably a whole burial complex or necropolis – which has yet to be officially studied by archaeologists. However, it has periodically attracted looters and illicit excavation teams, particularly over the last decade. It is from this burial complex

[269] These are the Kudepsta, Mzymta and Psou Rivers.

[270] Note that this stretch of coast is lined with small inlets. While relatively unprotected, they would certainly offer sufficient loading docks serving the local settlements and their markets.

nestled in the foothills that the graves of eight 'warriors' complete with weapons was discovered in the first years of the new millennium. The weapon finds were quickly distributed amongst 'collectors' and the like.[271] It is in these years that a number of Chalcidian helmets began to appear on the archaeological scene. While some went straight to the auction block, others were actually brought to local museums.

Four such helmets were brought to the Sochi Historical Museum in 2002 (Soc/H-02, Soc/H-03, Soc/H-04, Soc/H-05). All were very well-preserved helmets and practically identical in form. They belong to the category of Chalcidian type V helmets of the 'Sochi' type and are characterized by their short, dome with sharp crest, square-shaped forehead gable, large ocular and aural cutouts and wide, diamond-tipped nose guard. Particularly striking is the 'bulging' appearance of the eyes (and ears) due to the large, heavily offset orders framing the respective cutouts, and the horizontal neck guard brim at the back. Close examination demonstrates that they were most likely manufactured in the same workshop (the Sochi workshop in the following). All helmets show clear signs of tinning for deliberate hardening of the surface.[272] Cheekpieces have only survived on two of these helmets.

These four helmets served to complement a Chalcidian helmet of the 'Sochi' type already on display at the museum – Soc/H-01 – supposedly from a burial in Bogushevka (now part of the Khosta district – Figure 24). This helmet shares the same characteristics – including surface tinning – with those discussed above and similarly attributed the Sochi workshop. It entered the museum collection sometime before 1979, and is undoubtedly from the same complex.

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[271] This information was provided by colleagues at the Sochi Historical Museum and one of the 'collectors'.

[272] This is discussed in more detail in Chapter IV A, 'Treatment of the helmet surface on type V helmets'.

A further bronze helmet of the Sochi workshop – NBS/H-01 – was presented to the Pushkin Museum in Moscow in 2005 as part of the Karakovsky Collection.[273] Nothing is recorded about the find context, and the general geographic find area is defined as 'Northern Black Sea' region. However, the helmet is clearly of the same type as the helmets from the Sochi Museum, with the same short, crested dome, bulging facial features and surface tinning. Judging by the history of the helmet's acquisition, it could have also easily come from the Khosta burial complex, perhaps as one of the illicitly uncovered helmets of the early 2000s.

Nothing can be said about the dating of the respective find contexts of these helmets, which must therefore be dated based on comparisons with other similar helmets from datable contexts.

Lazerevsk

The ancient burial at Lazerevsk was discovered in 1916 during railroad construction along the coastline near the village of Lazerevsk, a few kilometres to the north of Sochi (Figure 24).[274] The burial contained a silver cup decorated with embossed reliefs, some golden jewellery, an iron spear and a bronze Chalcidian type V helmet.

The bronze helmet (Nov/H-01) is heavily bent out of shape. However, it is equipped with hinges and even the cheekpieces have survived. While clearly of the 'Sochi' type, it is of a different style than the helmets of the Sochi workshop in the Sochi Historical Museum. Its original form would have been narrower and more elongated, with more carefully executed form and facial features. Characteristic of this helmet is the punched, circular ornament along the elongated, narrow nose guard, and the offset yet not bulging

[273] See Cat. Karakovsky 3, Fig. p. 6.

[274] Farmakovsky 1921, 193.

borders of the eye cutouts. The helmet is kept in the Novorossiysk Museum and has yet to be restored.

Sovetkvadzhe

Another helmet find was discovered by chance in 1963 on the territory of a coastal resort in the village of Sovetkvadzhe, just south of Lazerevsk (Figure 24). No find context or accompanying material was recorded, and as such the helmet must be dated based on comparisons from elsewhere. The bronze helmet (Ros/H-01), in decent shape is clearly of the 'Sochi' type, with a slightly elongated dome and offset bordering of the ocular cutouts. The helmet is characterized by the execution of certain features in a style resembling that of the standard Chalcidian helmets, such as small, rounded aural cutouts without offset borders, and a short, narrow nose guard. While hinged, the cheekpieces of this helmet have not survived. The helmet is now part of the Rostov Museum collection.

Pshada

The village of Pshada, some kilometres to the southeast of Gelendzhik (Figure 26.), brought forth a damaged burial in what appears to have been an ancient burial ground. Only a bronze Chalcidian helmet (Gel/H-01) – apparently a chance find – has been recorded from this burial, and was brought to the Gelendzhik Museum of History and Regional Studies in 1984 without any accompanying documentation. It is also of the 'Sochi' type, with a sharp crest and offset ocular borders. The aural cutouts are without offset borders, similar to the helmet Ros/H-01 from Pshada. Unlike the latter, however, the helmet from Pshada has preserved cheekpieces. The silver-coloured surface of the helmet attests to surface treatment (tinning). As the find context is unknown, the helmet can only be dated using comparisons from dated contexts.

The foothills steppes of the Kuban region

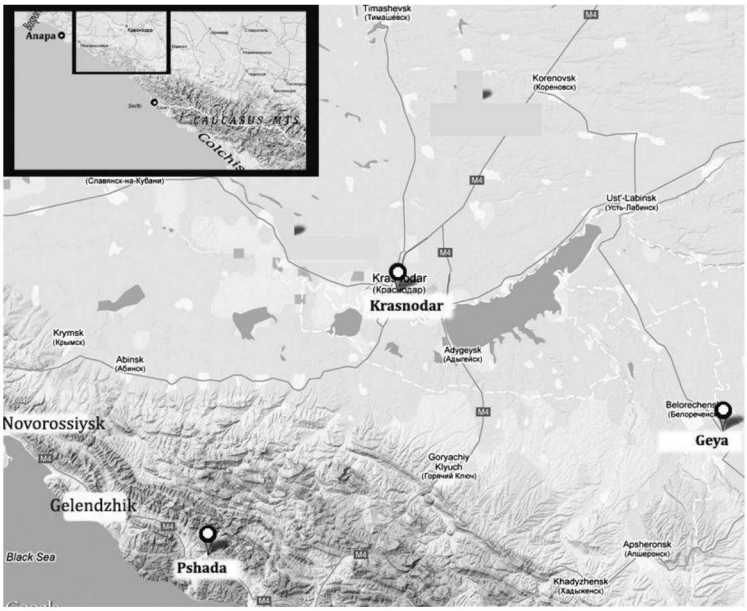


Figure 26. Find sites near the Kuban.
(S. Chandrasekaran – using Google Maps)

The steppes around modern Krasnodar (Figure 26) have been home to many chance discoveries of ancient burials, usually damaged by ploughing and other agricultural work. Quite often, these burials have yielded a number of weapon finds, including helmets. Unfortunately, many of the finds made in this region are also illicit discoveries and as such without any proper find context.

'Krasnodar Region' - Unknown provenance

Three further items of defensive weaponry in the Krasnodar State Museum of History and Archaeology are defined vaguely as coming 'from the Krasnodar Region'. These unprovenanced items include a Chalcidian helmet (UP/H-01), a helmet of Attic type with visor (UP/H-02), and a greave (UP/G-01) – all of bronze.

The Chalcidian helmet UP/H-01 is very similar to the standard Chalcidian types – rounded, offset helmet bowl, gabling forehead, eye and ear cutouts and hinged cheekpieces. The singular difference is the lack of a nose guard. Instead, the nose bridge is simply marked with a sharp pointed tip. The helmet was originally severely damaged, but has now been restored.

The Attic type helmet with visor UP/H-02 is another chance find of unknown provenance from the Krasnodar Region. Only the left half of the helmet is preserved, enough to make out the overall helmet form, which consists of a rounded body which grows into a protruding forehead visor in the front and a slanting neck guard in the back. The forehead is marked with the typical 'pediment' formed by two offset ridges that join at the sides to curl into spiralling volutes. The helmet was clearly hammered of one piece of metal and therefore belongs to the Attic-with-visor constructions of the simplified type. It can be dated to the 3rd-2nd centuries BC based on comparisons with other finds.

The greave find UP/G-01 of unknown provenance entered the Krasnodar Museum collection some decades ago, with no information about its find context. It is a Classical full-length greave of golden colour, with a reduced depiction of anatomical features. In spite of the missing knee, it is clear that the greave belongs to the right leg. Interestingly, the greave edges are without any ornamental border.

Geya

A bronze helmet of the pilos type (Ge/H-01) from the Krasnodar Museum collection is said to come from Geya, an agricultural firm in the Krasnodar Region near the city of Krasnodar. No further information is available on this helmet or its find context. The helmet is a typical pilos, with conical body, forehead visor and short neck guard with slight flare. The forehead is marked by the typical, slightly offset gable found on most piloi of the region, which curves to the helmet sides and finishes in round volutes. The helmet is almost identical to the other pilos finds of the Western Caucasus from Akhtanizovskaya and Merdzhany, on Bosporan territory.

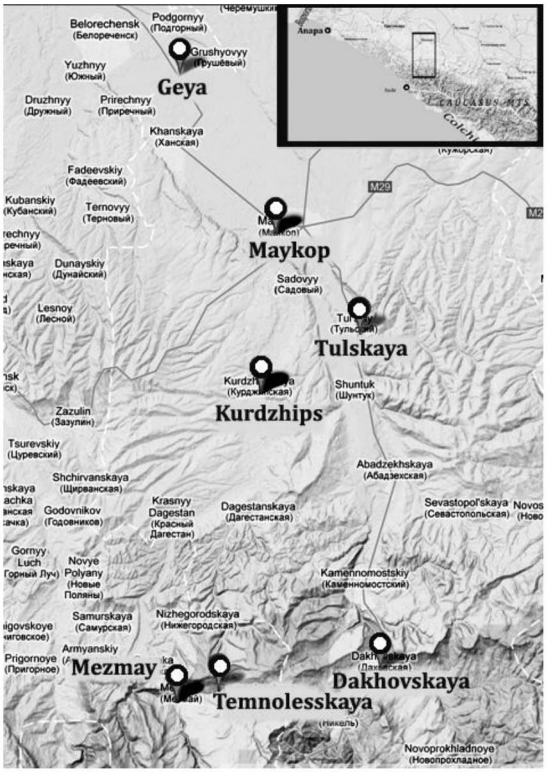


Figure 27. Find sites in the foothills.
(S. Chandrasekaran – using Google Maps)

The northern foothills

Let us now turn to the more mountainous hinterlands of Kuban region. Chance finds and excavation work – mostly illicit – over the years indicate plenty of activity in the foothills, for example at Tulskaya, Kurdzhips, Dakhovskaya, Temnolesskaya and Mezmay (Figure 27). It is interesting to note the quantity of helmet finds, which will be discussed in detail in the analysis. In the following, I will move through the find sites in more-or-less geographic order from north to south, i.e. continuing deeper and higher into the mountains.

Maykop

The small city of Maykop is the regional capital of the Republic of Adygeya (Figure 27). It is in the vicinity of the city that a small kurgan known as the Apostolidi Tumulus was investigated in 1988. Nothing is known of the exact find context or burial assemblage. However, this kurgan yielded a bronze helmet Attic type helmet with visor of simplified construction. It consists of a rounded helmet body, the crest of which is marked with an offset, angular ridge. A protruding visor defines the forehead, and a short neck guard – partially damaged – the helmet rear. Helmet body and visor are separated by the typical 'pediment' ornament that grows into spiralling volutes at the helmet sides. Perforations from the cheekpiece hinges remain, but the cheekpieces themselves were not found. The helmet can only be dated based on similar comparisons

from datable contexts, and probably belongs in the 4th-2nd centuries BC. It is now part of the collection of the National Museum of Adygeya in Maykop.

Maykop is also 'home' to two purchases made in 1906.[275] These include a Chalcidian style helmet and a greave.

The bronze, hammered Chalcidian type V helmet (May/H-01) is of the 'Sochi' type. It belongs to the more elaborate helmet finds of the Western Caucasus. The form consists of a short helmet dome with sharp crest, offset from and set atop a high-set helmet body. Upper and lower sections are separated by the typical square gable that marks most helmets of this type. Eye and eye cutouts are moderate in size, similar to standard Chalcidian helmets, but the eyes are framed by a distinctly offset border. The nose guard is elongated, the neck guard vertical and slightly flared. The cheekpiece hinges are still preserved, but the cheekpieces themselves were not found.

Most striking about this helmet is the silver colour and the elaborate, chased ornament chain ornament marking the nose guard, eye borders and helmet sides.

No information is available about the helmet's find context, leaving its dating to comparison with similar finds. The helmet is kept in the State Hermitage in St. Petersburg.

The second Maykop purchase is a single, hammered left greave (May/G-01). It is well-preserved, and of the Classical full-length type. Some damage due to reworking is seen at the lower leg and along the inner edge. The surviving edges display secondary perforations – also the result of reworking. The greave borders were lined with a simple, incised ornament. As with the helmet purchase of 1906, no information is available

[275] Both purchases have been recorded in various publications as (separate) purchases made in Anapa. However, Hermitage museum records clearly show the purchases to have been made in Maykop, perhaps even together.

about the greave's find context. The greave is also kept in the State Hermitage in St. Petersburg.

Tulskaya

A few kilometres southeast of Maykop is the small town of Tulskaya, near which a kurgan known as Zolotaya gorka (the Golden Hill) was discovered by factory workers on the right bank of the Belaya River in 1935. The kurgan had apparently been investigated by treasure hunters at some point before the First World War, which inevitably damaged the contents and context of the burial.[276] Nonetheless, it was possible to identify a number of artefacts from the burial: bridle parts, two stamped plaques, a pendant, a golden stater of Alexander the Great and a bronze helmet of the Chalcidian type V. The burial is dated by its assemblage to the 4th century BC. The helmet was kept on factory territory and was subsequently lost, with only a single published photograph remaining, which shows it in profile.

Its shape is of the standard Chalcidian type and consists of a rounded, slightly offset bowl over a lower helmet section, with high eye cutouts, a short nasal and a flared, vertical neck guard in the back. Its shape is very similar to the Chalcidian helmet from Mezmay, with a medium-sized, slightly offset bowl. The illustration leaves it unclear whether the brow is gabled or simply horizontal. The helmet was heavily damaged, perhaps intentionally, with the sides torn away at the ears. Neither of the cheekpieces has survived.

Kurdzhips

The best-known of the foothill sites is the Kurdzhips kurgan, situated along the

[276] Lunin 1939, 215.

Kurdzhips River a few kilometres southwest of Tulskaya (Figure 27) and the sole subject of a detailed publication of 1980 by L. Galanina. The kurgan was first excavated illicitly in 1895. While the main burial was seriously disturbed by the grave robbers, it was possible for scholars to make out the remains of at least three elite 'warriors', a noblewoman and a servant maid.[277] This brought forth not only a wealth of golden jewellery and clothing appliqués, but also fragments of weaponry, including arrowheads, spearheads, swords, knives, a shield, and, most importantly, Chalcidian helmets and Greek-style greaves. The kurgan was then turned over to a local archaeologist, who studied the kurgan in more detail in the years following.

The numerous helmet fragments belong to at least three Chalcidian type V helmets of the standard type, i.e. with features comparable to Chalcidian type V helmet finds from Greece. The best preserved of these is Kur/H-01, consisting of a rounded helmet bowl that is distinctly offset from the lower, high brow section by a high-peaking, curved forehead gable. The eyes are marked by almond-shaped cutouts, the ears with small rounded ones. The former are framed by a simple border, quite unobtrusive when compared with the eye borders of the 'Sochi' type helmets. A narrow, elegant nose guard with pointed tip marks the face, while a long neck guard with short flare marks the helmet rear.

The severely damaged second helmet, Kur/H-02, preserves only the right side and back of the original form, which is similar to that of Kur/H-01. Of the third helmet, Kur/H-03, only the neck guard – which appears to have been torn off – survives.

None of the cheekpieces has survived. However, the original rivet perforations survive on Kur/H-01, indicating the attachment of hinged cheekpieces. It is unclear whether the

[277] Galanina 1980, 26.

helmet surface was tinned or otherwise treated for hardening the metal.

The greave fragments yielded four greaves belonging to three separate pairs of Greek-style greaves (Kur/G-01, Kur/G-02, Kur/G-03). All four greaves were heavily damaged, but clearly of the Classical, full-length type as found in Olympia.

Kur/G-01 consists of a single greave, probably the left one, with the kneecap section removed/torn off. Its edges were lined with an ornamental border. Kur/G-02 consists of a single right greave, severely bent, but with the kneecap still in place. The outer and lower edges are torn away. Interestingly, there is no ornamental border along the surviving edges.

Both the Kur/G-01 and Kur/G-02 greaves display traces of their original golden colouring.

Kur/G-03 is the only surviving greave *pair*. The reworked greaves are without kneecaps, which were both cut away. The original metal surface colour cannot be determined due to severe corrosion. The surviving edges show them to have been lined with an ornamental border that differs somewhat from that of Kur/G-01.

All greaves were reworked with added perforations set at various places along the edges.

The entire complex, together with the greave and helmet finds, is dated to the 4th century BC. All items from the Kurdzhips kurgan are now part of the State Hermitage collections in St. Petersburg.

Mezmay

Some 30 kilometres southwest of Kurdzhips and deep in the Caucasus foothills we find the village of Mezmay also situated along Kurdzhips River in the northern slopes of the

Central Caucasus (Figure 27), at an elevation of approximately 800m above sea level.[278] It is known as the site of ancient finds as early as 1937, when construction work led to the chance discovery of a kurgan burial containing a silver vessel, two ear spoons, some pottery, two Roman swords and a Chalcidian helmet of the 'Sochi' type (Mez/H-04). The helmet itself has gone missing.[279] However, published drawings of its profile show it to be characterized by the heavily offset borders of the eye and ear cutouts so typical of 'Sochi' type helmets. One of the hinged cheekpieces had also survived. The dating of the burial is unclear, and the helmet itself must be dated based on comparisons with other similar finds.

Mezmay is also home to the large flat grave necropolis Mezmay I, ca. one hectare in area.[280] Official excavation of the necropolis only began in 2004, after reports of illicit digging at the site reached the Krasnodar Museum. The excavators discovered that over 100 trenches had been 'excavated' by looters, who had left many an item behind strewn about in the excavated soil material. Nonetheless, it was possible to identify and investigate six separate burials, three of which had been looted in modern times and one of which – no. 3 – turned out to be completely undisturbed. This burial consisted of a 3.8 x 4.3x 2.6m earthen burial pit which contained a stone coffin with the remains of an interred 'warrior'. Above the coffin were the skeletons of three horses and a cow. The 'warrior' had been placed in the coffin together with a wealth of burial goods, including massive gold jewellery, large ceramic and metal vessels and numerous weapons. The weapon finds included three iron swords, an iron axe, two iron spearheads, a bone knife and an arrowhead. The defensive weaponry consisted of two helmets, one Chalcidian

[278] Shevchenko, Zaytsev, Mordvintseva 2011, 115.

[279] Rabinovich (1941, 147) reports it to have been kept in the Maykop Museum, while Chernenko (2006, no. 576) states that it was in the Krasnodar Museum.

[280] Shevchenko, Zaytsev, Mordvintseva 2011, 115.

type V (Mez/H-03) and one of the Attic type with visor (Mez/H-05). The burial assemblage is dated to the 3rd-2nd centuries BC.

The first of these bronze helmets is Mez/H-03, discovered in a very fragmented state, is of the standard Chalcidian type V type, with rounded, offset dome, curved forehead gable, almond-shaped eye cutouts and small, rounded ear cutouts. The nasal guard is of medium length, narrow and teardrop-shaped with a pointed tip. The neckguard is short and, interestingly, without lateral lappets. The original colour of the metal is unclear.

The second helmet Mez/H-05 is also of bronze and was discovered in somewhat better condition. It belongs to the Attic-with-visor helmets of simplified construction, i.e. is not assembled of multiple parts but hammered in full from a single sheet of metal. It consists of a rounded helmet dome slightly offset from its shorter lower section. The front is marked by a rounded 'visor' that does not protrude from the forehead. Helmet dome and body are separated by the typical 'pediment' ornament that ends in disc-shaped volutes at the sides. The back is formed to a neck guard of Chalcidian type with extremely reduced, rounded lateral lappets. The sides are marked by small, rounded ear cutouts. The metal surface was originally polished to a golden colour.

Two further helmets were found outside the burial, more exactly, in the 'excavated'/disturbed soil material from the burial (Mez/H-01, Mez/H-02), together with fragments of from at least two other helmets.

The first of these is the helmet Mez/H-01 is of bronze polished to a golden colour, traces of which were clearly visible upon discovery. It belongs to the local variations on Chalcidian helmets which were manufactured of two symmetrical hammered halves joined together along the helmet crest by a riveted seam running from nose to nape. The form consists of a short, rounded dome and lower helmet section separated from one

another by an offset, horizontal double-ridge ornament which gables at the forehead. Eye cutouts and a short, pointed nose guard mark the facial features, while the rear is embellished with a short neck guard without lateral lappets. The helmet sides were set with wide, hinged cheek flaps. Particularly striking about this helmet – besides the obvious golden colour – is its ornamentation. The helmet seam is masked by an offset, triple-ridge ornament from which similar triple-ridge ornaments radiate from the peak, covering the entire dome. Below the horizontal partition runs a zigzag ornament around its entirety. The cheekpieces were decorated with offset ridges and lined along the edges with perforations.

The second helmet from the excavated soil is Mez/H-02. Like Mez/H-01, it also belongs to the group of local variations on Chalcidian helmets and is similarly constructed of two symmetrical halves joined together along the middle seam. Originally quite damaged, it has now been restored to its former shape, which is similar to that of Mez/H-01: a rounded helmet body, the face marked with eye cutouts and a short, pointed nose guard. The sides were also fitted with wide, hinged cheek flaps which were lined with perforations along the edges. Unlike helmet Mez/H-01, helmet Mez/H-02 shows a double-ridge separation of helmet dome from body only in the rear. Further discrepancies include the lack of a neck guard and the very different decoration. The helmet bowl is decorated with two thickly offset rams-horns, which grow from the brow and curl into thick spirals at the sides. Further horizontal ridges along the horns lend them a more natural appearance. The rims of both cheekpieces are lined with punched holes. Like helmet Mez/H-01, the helmet surface was also of a golden colour.

The helmet Mez/H-02 is practically identical to a second helmet from Dakhovskaya (see below) and is therefore attributed to the Dakhovskaya workshop. Based on its

similar construction, the helmet Mez/H-01 can probably also be attributed to the same workshop.

The remaining fragments from the excavated soil clearly came from two very different helmets.[281] The first set was also of a golden colour bronze and decorated with a ridge and zigzag ornament - similar to what we find in helmet Mez/H-01 – and probably belongs to a helmet of this type. The second set was of iron which was bronze coated and tinned. Together they form part of an anthropomorphic mask shaped like an ear and part of a cheekpiece. These minimal helmet fragments are mentioned here for strictly informational purposes, but not included in the actual study as a whole.

All four helmets from the Mezmay I necropolis, together with the additional helmet fragments, are kept in the Krasnodar State Museum of History and Archaeology.

Temnolesskaya

Slightly northeast of Mezmay lies the town of Temnolesskaya, also along the Kurdzhips River (Figure 27). Along the surrounding terraces of the mountain slopes are a number of kurgans and an ancient flat-grave cemetery.[282] One of the flat-grave burials yielded a bronze helmet. Nothing is known about the actual find context or burial assemblage. The hammered helmet is of the standard Chalcidian type V and was extremely well-preserved upon discovery. It consists of the typical rounded, offset helmet bowl, a high-set lower helmet section, aural and ocular cutouts and a vertical, slightly-flared neck guard. The nose guard is broken at the nose bridge. Nothing remains of the cheekpieces or their hinges, but the rivet perforations survive. The helmet can only be dated based on comparisons with similar examples, but probably belongs in the 4th-3rd centuries BC.

[281] Shevchenko, Zaytsev, Mordvintseva 2011,136-137, Figs. 7.2, 7.5, 16.4.

[282] Ditler 1964, 315; Chernenko 2006, no. 575.

The helmet is kept at the National Museum of Adygeya.

Dakhovskaya

A few kilometres east of Temnolesskaya is the town of Dakhovskaya, on the Belaya River (Figure 27). Work (gold-washing) or illicit excavations yielded two bronze Chalcidian helmets in 1934-35. No information is available on their respective find contexts. Only one of the helmets was ever published, and both have gone missing since their original discovery.

The published helmet is Dkh/H-01, a well-preserved example of a local variation on Chalcidian helmets and the name-giver of the so-called Dakhovskaya workshop in this thesis. It is practically identical to the helmet from Mezmay Mez/H-02 in both form and construction. It was assembled from two symmetrical sections joined together along a central seam. The resulting shape consists of a rounded helmet body, the facial side marked with eye cutouts and a broken nose guard, the rear with a short, perpendicular neck guard without lateral lappets. No cheekpieces or cheek flaps were found. However, perforations are visible along the helmet sides. The decoration consists of heavily offset rams horns rising from the forehead and curling at the helmet sides. The forehead is additionally decorated with a stamped pair of volutes.

Particularly interesting is the extremely light weight of this helmet, reported to have been 612g.[283]

The helmet was originally kept in the Rostov Office for the Preservation of Historic Monuments. It can be dated to the 3rd century BC or later based on its manufacture technique.

[283] Rabinovich 1941, 130.

A second helmet of similar construction was reported to have been discovered along with this helmet.[284] It was supposedly embellished with a stamped ornament of a horse's head. Originally said to have been kept in the Maykop Museum, it is now missing, with nothing known of its whereabouts and no images ever having been made. It is therefore only mentioned here and not included in the actual helmet study.

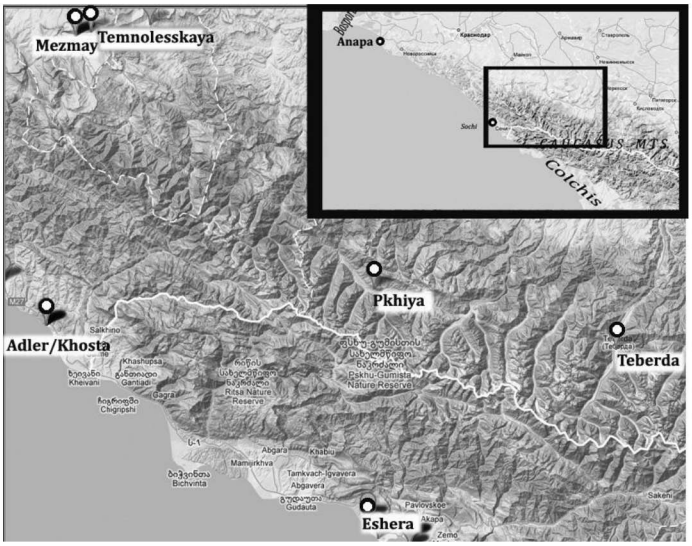


Figure 28. Find sites in the mountains.
(S. Chandrasekaran – using Google Maps)

The Caucasus Mountains

The mountains of the Caucasus are not particularly conducive to archaeological investigation, and very little excavation has been carried out in the mountain valleys themselves. Nonetheless, kurgans and other ancient burials serve as proof of ancient settlements and necropoleis in these areas. The relatively meagre archaeological evidence from the region, however, tends to be the result of chance or illicit discovery.

Pkhiya

The town of Pkhiya (Karachayevo-Cherkesiya) is located along the Pkhiya River, just north of the Great Caucasian Ridge (Figure 28). Two bronze Chalcidian helmets were found in a damaged kurgan near the river, of which only one has survived. The helmet (Pkh/H-01) was hammered of bronze sheet and belongs to the standard category of Chalcidian type V helmets. Thus it consists of a high, offset dome with defined crest set

[284] Chernenko 2006, no. 613.

atop a lower brow section. The forehead is marked with the typical curved Chalcidian gable. The helmet is set with eye and ear cutouts, an elegant, teardrop nose guard and a long, curved neck guard. The preserved cheekpieces were attached to the helmet by means of riveted hinges. The helmet surface was originally of a golden colour.

The helmet is now part of the Krasnodar Museum collection and has been fully restored. No information is available on the second helmet find, except that it was also of the Chalcidian type.

Teberda – Dombay valley

Further east from Pkhiya, along the Teberda River near the main Caucasian Ridge, is the town of Teberda (Figure 28), from where we have yet another chance find of a bronze Chalcidian helmet (Teb/H-01). The helmet was uncovered from a burial damaged during construction work carried out in the Mukhu Gorge near the resort town of Dombay. The burial was clearly for a person of status, as it contained bronze jewellery, iron spears, a short iron sword and some pottery.[285] Unfortunately, only one image of this heavily damaged helmet has ever been published – a drawing showing it from the front – and the helmet itself has apparently disappeared. It consisted of a high offset dome with peaking crest set atop a short brow section. The forehead was marked with the typical curved gable of standard Chalcidian helmets. The face was marked with almond-shaped cutouts and a long nose guard with diamond-shaped tip. The right cheekpiece (no illustration available) was severely damaged, the left was lost, as, in the meantime, is the helmet itself.

Another chance find from Teberda consists of a set of greave fragments, discovered ‘by

[285] Alekseyeva 1992, no. 81.

chance' in 1954 somewhere in the region.[286] No other information about the find context is available, and the whereabouts of the greave itself remain unknown. This greave is only mentioned here for informative purposes and is not included in the actual study.

[286] Chernenko 2006, 692.

CHAPTER IV - HELMETS

Introduction – Greek and local forms in the Western Caucasus

Amongst defensive weapon finds of the Hellenistic period, it is helmets that dominate the archaeological record of the Western Caucasus.

The metal helmet as a form of head protection had a long tradition in the Black Sea region and the Western Caucasus, with many local helmet forms in production going back as far as the 8th century BC,[287] i.e. to a time before the advent of Greek imports or Greek-style forms.



Figure 29. A Kuban helmet from the Kelermes kurgan. (After Rabinovich 1941, Pl. 3.1)

Local forms include the so-called Kuban helmet, scale helmets and riveted helmets.

The Kuban helmet defines a heavy, cast bowl-shaped helmet of bronze, usually with a seam or ridge defining its length from front to back and shallow cutouts marking the eyes.[288] It takes its name from the Kuban region, where we have the largest concentration of such helmet finds.[289] The oldest known examples come from the well-known Kelermes kurgan (Figure 29), which contained a wealthy burial complex of the 8th-7th centuries BC. Kuban helmets were in circulation mainly during the 7th-6th centuries BC,[290] predominantly along the Kuban River all the way to the Caspian Sea, but also in the northern Black Sea region,[291] in the Volga region

[287] Chernenko 2006, 83. Chernenko refers to the Kuban helmets from the burial complex of the Kelermes kurgan, which is dated to the 8th-7th centuries BC (see Figure 29).

[288] See Chernenko 2006, 81-82 for a detailed description of the Kuban-type helmet and stylistic variations; Note that later examples of the Kuban helmet were hammered.

[289] The term was coined by B. Rabinovich (1941, 105-106).

[290] Chernenko 2006, 82.

[291] Chernenko 2006, 83.

and as far east as modern Kazakhstan.[292] Most Kuban helmets are marked by large perforations along the base. These were used the attachment of various items: an inner lining of softer material, separate cheek flaps and/or a separate neckguard. The latter two were flexible, usually consisting of leather or felt, and often strengthened by a covering of metal scales.[293]



Figure 30. The scale helmet from Novorozanovka. (After Chernenko 2006, Taf. 30, no. 618)

Scale helmets (Figure 30) were manufactured exclusively of small bronze or iron plaques – 'scales' – equipped with individual or multiple perforations and joined together. The resulting helmet form was quite simple – a small, conical helmet body completed by flexible cheek flaps and neckguard, whereby the latter two were often composed of larger scales. Scale helmets were in use mainly during the 6th and 5th centuries BC.[294]

A new local helmet form – the riveted helmet – makes its appearance in the Kuban region in the 3rd century BC (Figure 31).[295] The riveted helmet is a bowl-shaped helmet manufactured of two separate yet symmetrical, hammered halves and joined together along a central seam running from forehead to nape. Cheekpieces were attached at the sides using the perforations along the helmet base. This helmet type was not

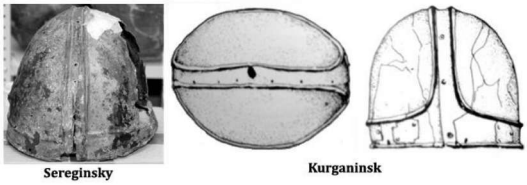


Figure 31. Riveted helmets. (Sereginsky: S. Chandrasekaran - courtesy of E. Beglova; Kurganinsk: After Raev/Simonenko/Treister 1991, Fig. 16.2-3)

[292] Chernenko 2006, 83, Taf. 44A. See also Chernenko 1968, Fig. 42 for Kuban helmets from Central Asia.

[293] Chernenko 2006, 82. Chernenko notes examples of separate cheek flap and neckguard scales found in the kurgan burial of Krymskaya Stanitsa; Flexible cheek flaps and neckguards can also be found on scale helmets (see here Figure 30).

[294] Chernenko 2006, 96-97.

[295] See Erlikh 1996 for a detailed discussion of riveted helmets from complexes of the 3rd-2nd centuries BC in the Kuban region.

particularly widespread, and all known finds come from the Kuban region.[296]

Greek forms: Greek helmet forms began to appear in the northern and eastern Black Sea areas during the 6th century BC, during the so-called 'period of colonization'. The Corinthian helmet, a form quite popular in Archaic and Early Classical Greece both in originals as well as in art, appears to have found little resonance in the Western Caucasus, and only one heavily reworked example from Maikop attests to its presence.[297] Another popular Greek helmet type, the Chalcidian helmet, makes its appearance in both the northern and eastern Black Sea regions around the beginning of the 5th century BC, growing extremely popular during the 4th century BC. The latter is particularly true of the Western Caucasus, which has produced the largest number of Chalcidian helmet finds throughout the regions of the Ancient World. Helmets of the Phrygian type – a type popular in Greece and the Western Black Sea region of Thrace – also show their influence in this region the 4th and 3rd centuries BC, as do Attic-type helmets with visors. In the 2nd century BC, new imported helmet types begin to appear in the Western Caucasus. These include a small number of pilos type helmet finds from the vicinity of ancient Gorgippia (modern Anapa), and a somewhat more substantial number of Montefortino-type helmets throughout the Western Caucasus.

Of all Greek helmet types appearing in the Western Caucasus before and during the Hellenistic period, none achieve the popularity of the Chalcidian type in the 4th century BC. At the same time, it is clear that the various Greek helmet forms in this region – with the exception of the Corinthian – remained popular *throughout* the Hellenistic

[296] Erlikh (1996) discusses the three known finds: one from Kurganinsk (Figure 31), one from Chetuk, and one from Sereginsky (Figure 31).

[297] Sudarev 1990, 101, Fig. 1.2; Another *possible* example of a reworked Corinthian helmet comes from Colchian territory, from a burial just north of the Eshera fortified settlement (Sudarev 1990, 104; Voronov 1975, 224-225, Fig. 6.6-11). However, it would be necessary to study the helmet fragments closely in order to verify this for certain; it is interesting to note that Corinthian helmets are equally rare in the northern Black Sea area, from where only one find (from Romeykovka) is known (Chernenko 2006, 85-86, no. 559).

period.

It is also important to note that all helmet types described above were well known in Greece proper – both as original pieces as well as in art – as well as Southern Italy / Magna Graecia and the remaining Black Sea region.

History of Research

Comprehensive studies of ancient helmets are rather limited in both Western and Eastern (i.e. former East-block) literature. Of these, only some examine the Greek helmet types and periods addressed in this study.[298] The earliest such study, *Shlemy skifskogo perioda*, was compiled by B. Rabinovich in 1941. Rabinovich's work looks at all original helmet finds of Greek and local type known at the time of the so-called Scythian period in the northern and eastern Black Sea region. The next comprehensive study is found in P. Dintsis' 1986 work on Hellenistic helmets, which analyzes and categorizes various helmet types of the period based on depictions in ancient artwork as well as original helmet finds. Dintsis' work is complemented by another excellent work which appeared two years later in 1988, *Antike Helme*, based on the extensive collections in the Berlin museums, in particular the Lipperheide collection. This work contains individual, detailed contributions by various experts on the range of helmet categories, from helmets of the Geometric period all the way to the various Roman types.[299] It also includes information on a number of helmet finds from outside Olympia and maps showing the distribution of various helmet types throughout the Ancient World. The most recent broad study of ancient helmets is found in E. Chernenko's 2006 work, *Die Schutzwaffen der Skythen*, a revised and more comprehensive version of his

[298] Amongst the comprehensive studies addressing other helmet types or helmets of a different period are Anthony Snodgrass' 1964 work, as well as the recent 2011 publication by Heide Frielinghaus. See Snodgrass 1964; Frielinghaus 2011.

[299] Of particular interest to this thesis are the helmet studies by H. Pflug (Chalcidian helmets) and G. Waurick (Hellenistic helmet types), as will become apparent in the following chapters.

1968 work *Skifsky dospekh*. Chernenko's study looks at all known defensive weapon finds in the northern and eastern Black Sea region up to the 2nd century BC. The main virtue of his work is the full catalogue of all known finds with the respective literature, the numerous drawings of finds, some of which are now lost, and maps showing the distribution of the respective armour types.[300]

In all cases, it is clear that the author(s) had only limited access to the museum collections and the publications of their western or eastern colleagues, respectively. Therefore, it is necessary to use these four sources, together with a number of smaller publications and articles on individual helmet finds, in order to derive a full picture of the Greek-style helmets in the Western Caucasus.

In what follows, I will look at the individual Greek helmet types in what is more-or-less their chronological order of appearance in the Western Caucasus during the Hellenistic period, examining each in terms of form and manufacturing technique, type variations, possible provenance and distribution throughout the regions of the Western Caucasus. The analysis will first look at the helmet types of the Early Hellenistic period, followed by those of the Late Hellenistic period.

[300] It is also worth noting Frielinghaus 2011, a comprehensive study of all known helmet finds from Olympia. It is extremely informative on helmet types of the Classical period and earlier, and as such is a valuable resource for the study of earlier helmet types and helmets in general. It is less informative, however, concerning helmets of the Late Classical or Hellenistic periods.

Early Hellenistic Period

The Greek helmet forms of the Early Hellenistic period found in the Western Caucasus include the Chalcidian type, the Attic-with-visor type, and the Phrygian helmet type. Of these, the Chalcidian helmet form that clearly dominates the field.

A. Chalcidian Helmets



Figure 32. Detail of a Chalcidian psykter, Berlin Antikensammlung, F. 3153. (After Pflug 1988, Abb. 1)

The 'Chalcidian helmet' denotes a hammered helmet with distinct helmet bowl and brow sections, cheekpieces, neckguard, nose guard, and recesses for ears and eyes. The term 'Chalcidian' was first used by A. Furtwängler in reference to this helmet type based on the earliest depictions of it on Chalcidian black-figure pottery of the third quarter of the 6th century BC (Figure 32).[301] The term should not be misunderstood to imply the birthplace of the helmet type to have been in Chalcis or on the island of Euboea, for which there is no archaeological evidence. However misleading the term might be, it is less so than the term 'Attic' or 'Attic-type', by which the helmet type was more commonly referred to by scholars up till very recently, as it was the type most often depicted on Attic vases.[302]

The Chalcidian helmet form consisting of a rounded helmet bowl was set upon a vertical lower or brow section from which it is distinctly offset. The offset dome is almost always formed into a gable at the forehead. The brow section is characterized by cutouts for both the eyes and ears. A nose guard offers protection for the nose. Between eye and ear cutouts are long cheekpieces, usually rounded. The back of the head is protected by a neckguard which falls vertically or with a slight slant, and usually

[301] The pottery itself was named 'Chalcidian' by Andreas Rumpf based on the occasional occurrences of inscriptions using the Chalcidian alphabet (Beazley 1928, 330). See Rumpf, A. 1927.

[302] Erlikh 2008, 81. It is important to note that the denotation 'Attic' was also *not* taken to imply the origins of the helmet type in Attica.



Figure 33. Section of the tondo depiction on the Berlin Foundry Cup. (After Mattusch 1980, Fig. 1)

finishes with a short, outward flare.

The Chalcidian helmet was always hammered from a single sheet of metal, thus resulting in a lighter and more practical headgear as compared to the heavier Corinthian helmet (Figure 33). Once the basic helmet form was ready, additional ornamental details were either worked from within using repoussé technique (for plastic-relief details on the helmet) and/or chased on the surface side for additional emphasis.[303] Once the helmet was completed, with details, the surface would have been treated and polished to produce either a golden or silvery surface.[304] This step will be discussed in more detail in the section '*Treatment of the helmet surface on type V helmets'*.

The earliest examples of Chalcidian helmets are found in the second half of the 6th century BC,[305] demonstrating that the helmet type was in circulation at the same time as the Corinthian helmet. Amongst the helmet finds from Olympia are over 50 Chalcidian examples that can be dated up to the mid-fourth century BC (Figure 34).[306] In the Western Caucasus, the earliest example of a Chalcidian helmet is from the Classical period, from a kurgan in Nymphaion (Figure 34).[307]

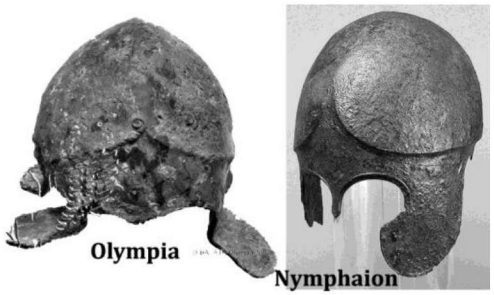


Figure 34. Helmet B5605 from Olympia; Helmet from Nymphaion. (Olympia: After the ARACHNE website, no. 204004; Nymphaion: State Hermitage website)

[303] I am grateful to Uwe Peltz of the Staatliche Museen in Berlin, who talked me through the process of hammering helmets from a single metal sheet by hammering it around a rounded stake, i.e. 'raising' the helmet form from the metal sheet.

[304] This procedure will be discussed in more detail later on in this chapter.

[305] The earliest example is a helmet from a well in Olympia (Pflug 1988, 137).

[306] See the ARACHNE website for images and details of all 52 examples found in Olympia. The website also includes a further 16 Chalcidian helmets of unknown provenance.

[307] The helmet is part of the kurgan burial no. 16 excavated in 1876 by A. Lyutsenko. The burial is dated

Kunze and Pflug (ref?) distinguish up to seven sub-categories or types of the Chalcidian helmet (Figure 35).[308] Its main characteristics from the very beginning were its lighter weight (as opposed to Corinthian helmets), the distinct decorative separation of the helmet dome from the lower brow section, an almost vertical neckguard, a thin nose guard, cutouts for the ears and the sickle-shaped cheekpieces. In the latest phase (type V), the latter were worked separately and attached to the helmet rim using hinges.

Chalcidian helmets in the Western Caucasus

Overall, the number of Chalcidian helmet finds from Hellenistic contexts is extensive. Nonetheless, closer analysis quickly reveals a number of Chalcidian groups in the region, which share the same characteristics and sometimes even the same workshop. The overwhelming majority of the Chalcidian helmet finds from Hellenistic contexts in the Western Caucasus corresponds to type V of Pflug's categorization (Kunze's type VII), i.e. the helmets are equipped with hinged cheekpieces (Figure 35). In the following, I will introduce the Chalcidian type V helmet as a whole before commencing with an analysis and discussion of the type V finds from find spots in the Western Caucasus, which can be divided into two distinct groups.

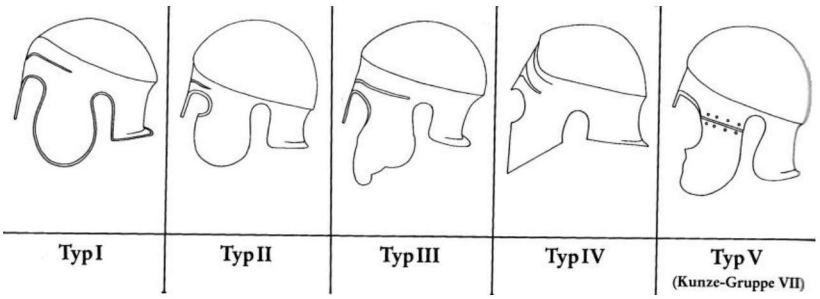


Figure 35. Chalcidian helmet types after Pflug (and Kunze).
(After Pflug 1988, Abb. 2)

to the first half of the 5th century BC (Silanteva 1989, 87), while the helmet itself can be dated to the early 5th century BC (Rabinovich 1941, 139).

[308] Pflug 1988, 138,-145, Abb. 2.

CHALCIDIAN TYPE V HELMETS

Introduction

The bulk of the Hellenistic helmet finds from the Western Caucasus are of the Chalcidian type V according to the classification by H. Pflug. This helmet type preserves the general form and features of Chalcidian helmets as already discussed. The defining feature here, however, is a new attribute: the cheekpieces are no longer a solid part of the overall helmet, but are now separately crafted and attached to the helmet sides using hinges.



Figure 36. Attic red-figure kylix of the Sosias Painter.
(After: University of Texas website: <http://www.utexas.edu/courses/larrymyth/images/trojanwar/BK-Achilles-Patroclus.jpg >)

Chalcidian type V helmets were frequently portrayed in Attic vase painting and sculpture from the early 5th century BC.[309] In particular vase depictions demonstrate the advantages of the new, hinged cheekpieces. These could now be moved up or down on their hinges, allowing the warrior in question freedom of choice in how the helmet was worn – with cheekpieces down for battle, yet folded up during peaceful activities, as shown on the cup of the Sosias Painter, now in Berlin, showing Achilles bandaging the wounds of his friend Patroclus (Figuer 36). This was clearly a more comfortable way to wear the cheekpieces, which left the ears free and allowed for air circulation and cooling.[310]

Original finds of Chalcidian type V helmets have been discovered throughout the Ancient World, in Greece, Italy, and the Black Sea region, albeit with an unequal

[309] Pflug 1988, 143.

[310] Note, however, that vase paintings often show the cheekpieces flipped upwards even though battle is taking place, obviously not emphasizing the logical advantages of the new innovation but simply illustrating the innovation itself. See, for example, the red-figure kylix by Duris in the Berlin Antiquities Collection (Pflug 1988, Abb. 10).

distribution (Figure 37). Very few examples have been found in Greece itself.[311] Italy, in particular Southern Italy and Etruria, has produced a greater amount of such helmets.[312] The bulk of Chalcidian type V helmets, however, come from the Black Sea region and the Western Caucasus in particular. The reasons for such unequal distribution will be discussed at the end of this section/chapter.

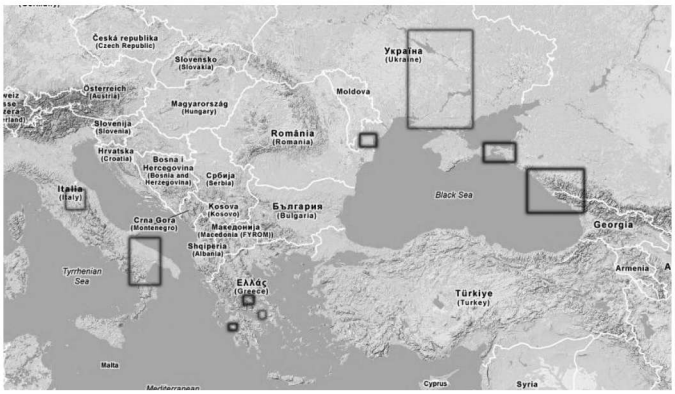


Figure 37. General distribution of Chalcidian type V finds in the Ancient World.
(Map: S. Chandrasekaran – using Google Maps)

Helmets of the Chalcidian type V display certain uniform variations on the overall form described above: Unlike earlier Chalcidian types, the dome of the type V helmet tends towards a sharper separation or distinction between helmet dome and lower helmet section by distinct offsetting the former from the latter (see Figure 38). Thus, the dome is of a larger diameter than the lower section. However, the truly defining feature of this Chalcidian type is the addition of separately crafted cheekpieces attached to the helmet body using *hinges*. Since the hinge itself can serve as an identifying factor of Chalcidian type V helmets, even when the cheekpieces have gone missing, it is necessary to understand



Figure 38. Chalcidian type V helmet with hinged cheekpieces. Provenance unknown. Walters Art Gallery.
(After Mary Harrsch. Greek Chalcidian style helmet bronze 500 BCE. 17 May 2007 via Flickr, Creative Commons Attribution)

[311] Kunze 1994, 71, 73. The Olympia finds include only two helmets of the Chalcidian type V – one with an inventory number (B7080), one without – as well as two cheekpieces (B 305, B 7742). Another hinged cheekpiece comes from Dodona. A further hinged cheekpiece of anthropomorphic form is known from Kalapodi (see the website of the German Archaeological Institute).

[312] While the Lucanian and Etrurian helmets share all the basic characteristics of the Chalcidian type V helmets, they display certain features – mainly ornamental – which allows us to view them as local variations of the Chalcidian type V helmet as known in Greece. See Pflug 1988, 145-150 for more details on these variations.

the actual construction of hinge components by looking at them more closely.

Cheekpieces are not always preserved on Chalcidian type V helmets. Those that survive are generally long, with a rounded end. However, they demonstrate great variety in terms of their exact shape and decorative qualities. For this reason, all surviving cheekpieces studied here will be discussed as a group at the end of this section.

Hinge construction of Chalcidian type V helmets

The hinge component of a Chalcidian helmet consists of a top and bottom section. The top section was constructed by *loosely* folding under the lower rim of the helmet side between ear and eye cutouts. The upper edge of the resulting tubular fold or flap was then fastened to the helmet body with rivets – usually three to four rivets (Figure 39).[313] In some cases, the upper hinge flap was simply hammered tight to the inner helmet

[Image removed due to copyright restrictions]

The image originally presented here cannot be made available in this copy due to the sensitivity of the material.

Figure 39. Details of the left hinge component on the helmet Gel/H-01.
(Photograph: S. Chandrasekaran)

Figure 40. Details of the left hinge component on the helmet Kho/H-01.
(Photographs: S. Chandrasekaran)

surface, without the use of rivets for additional fastening (Figure 40).[314] The upper hinge flap was simply hammered tight to the inner helmet body. The space within the fold would later serve for the hinge pin. Before the pin's insertion, a number of small quadratic sections were cut out from the fold in certain spatial intervals, resulting in a remaining set of square loops or 'teeth'. These were more or less uniform in shape and size. Note that the outer edges of the fold were *always* left intact.

[313] Some helmets used five or even more rivets in their original (not reworked) form.

[314] This is the case of all the 'Sochi' type helmets with the exceptions of helmets Gel/H-01 and Ros/H-01.

The lower section of the hinge component is formed of the upper edge of the cheekpiece to be fastened. The upper edge was folded under, as in the case of the upper hinge section, to form a tubular inner fold, fastened along its edge to the cheekpiece by rivets. Like the upper hinge component, the lower hinge flap was sometimes only hammered close and left unriveted, as shown in Figure 40.

Once the hinge flap is closed, either through riveting or hammering, quadratic sections of the same size as above were cut out at intervals alternating with those of the upper component. Note that the outer edges of the lower hinge flap are *always* cut out (see Figures 39, 40). The result is hinge 'teeth' similar to those above in form and fitting perfectly into the spaces between those of the upper component.

Once the upper and lower hinge teeth were fitted, a hinge pin - usually of iron – was inserted through the loops to secure the fitted components. The hinge pin is clearly shown in Figure 39.

The ratio of upper to lower 'teeth' generally varied from 4:3 to 3:2. In very few cases do we have a different ratio. It is important to note these ratios, as they might be indicative of a particular workshop or craftsman. These ratios will be discussed in more detail at the end of this section.

Note that the full hinge component is not always preserved on Chalcidian type V helmet finds. In cases of missing cheekpieces and damaged hinge components, it is usually the upper component that survives, at least partially. Partial remains of original rivets still set in their respective original perforations, as well as remains of the hinge 'teeth', can easily be used to calculate the original hinge tooth ratio.

Two groups of Chalcidian type V helmets

Helmets of the Chalcidian type V can quickly be divided into two separate groups. The first of these comprises a number of helmets (eighteen in this study) which share a number of features with Chalcidian type V helmets from other parts of the Ancient World. For the sake of simplicity, they will be referred to as 'standard' type V helmets in the following discussion. The catalogue entries, however, note the helmets simply as 'Chalcidian type V'. The second group – the 'Sochi' type – contains thirteen type V helmets with a distinctive execution of certain details found almost exclusively in the Western Caucasus. In order to get a more general idea of the type V helmet as it occurs both within and outside the Black Sea region, I shall begin with the helmets of the 'standard' group.

The 'standard' Chalcidian type V helmets

The helmets from the Kekuvatsky and Kurdzhips kurgans

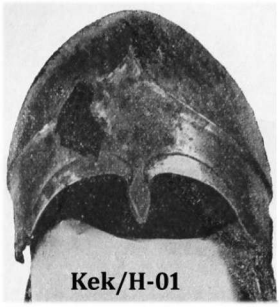
Kekuvatsky: The 'standard' Chalcidian type V helmet is best described here using the example of what is probably the best-known helmet find of the Western Caucasus to western scholars: the helmet from the Kekuvatsky kurgan, on the Asiatic side of the Bosporan Kingdom (Kek/H-01). Not only was it discovered in a good state of preservation, but it has been meticulously restored by the State Hermitage in St. Petersburg, and as such is best suited to demonstrate all the qualities of the 'standard' Chalcidian type V helmet.

The Kekuvatsky helmet preserves the overall form and proportions mentioned above for Chalcidian type V helmets in general. The defining element for this group is found in the execution of certain features, including the forehead gable, recesses for eyes and ears, the ornamental border framing the eye cutouts, nose guard and neckguard with lateral lappets.[315]

The offset gable is wide and curved, peaking high at the forehead. The eye recesses are almond shaped, the aural recesses rounded. The ornamental edge lining the eye cutouts was created by turning the metal of the rim over and then hammering it flat. In the case of the Kekuvatsky helmet, the resulting border is *not* offset from the body, and the border edge almost resembles an incised line.[316] The short nose guard is of slightly rounded diamond shape. It is also lined with a thin ornamental border created in the same manner as the eye border. The rounded ear cutouts flare outward slightly. The neckguard is rather long and curves outward in the back while drooping forward at the side to form rounded lappets, which fall past the nape. The neckguard rim finishes with

[315] Note that cheekpieces and hinge components are not defining elements as such and will be discussed towards the end of this section.

[316] This is not the case for all helmets, as shall be shown later.



[Kur/H-01: Image removed due to copyright restrictions]

Figure 41. Helmets of the 'Kekuvatsky' type. (Kek/H-01: After Rabinovich 1941, Pl. XIV,2; Photograph Kur/H-01: S. Chandrasekaran)

a slight horizontal flare at the back and a slighter outward flare at the sides. When viewed from the rear, the neckguard forms a wide, shallow arch.

Kurdzhips: A group of three practically identical helmets comes from the Kurdzhips kurgan in the northern foothills of the Caucasus (Figure 41). While these helmets are heavily damaged, their basic features and the direct parallels to the Kekuvatsky helmet are clearly evident. The best preserved of these is the helmet Kur/H-01, and it is here that these parallels are best observed: the offset gable at the forehead, the form of eye and ear cutouts, the flat-pressed ornamental border lining the eye cutouts, and the form of the neckguard with lappets, all of which are identical to the Kekuvatsky helmet. Only the nose guard deviates ever so slightly (in form, not size), with its teardrop shape and pointed tip. The other two Kurdzhips helmets (Kur/H-02, Kur/H-03) are only preserved from the back, allowing only for a comparison of the neckguard form, which is also identical to Kur/H-01 and the Kekuvatsky helmet.

A further helmet from the Western Caucasus can be tentatively attributed to the above helmets – the damaged helmet from Akhul-abaa AA/H-02. Note that any details can only be gathered from the single available drawing of the helmet, showing it in profile. Judging by this drawing, it would appear that all surviving details – offset helmet dome, the shape of the eye and ear cutouts, the flat-pressed ornamental eye border, and the form of the neckguard and lappets – are identical to those of the Kekuvatsky helmet.

While the Kekuvatsky and Kurdzhips helmets clearly constitute a solid stylistic group, the missing details on the Kurdzhips helmets prevent us from making the final judgment about a single workshop for all four helmets. Additionally, the discovery of practically



Figure 42. The helmet from Tithorea. (After Andrieomenou 1976, Taf. 70,1)

identical finds as far away as in Tithorea in Greece (Figure 42) demonstrates that this style of Chalcidian helmet execution was simply widespread throughout the Ancient World and evidently manufactured in many workshops.[317]

The Temnolesskaya workshop

Of the remaining fourteen 'standard' helmet finds, two can clearly be attributed to a single workshop. Both helmets bear much resemblance to the Kekuvatsky and Kurdzhips helmets (Figure 43). Their identical form is especially surprising in view of the large distance between their respective find sites.

The better preserved of the two is the helmet from Temnolesskaya (Tem/H-01) in the foothills of the Northern Caucasus. It is, in fact, the best preserved of the helmets in this group. While the overall helmet form and features here are the same as on the Kekuvatsky and Kurdzhips helmets, it is characterized by the shortness of the helmet bowl and distinctly *tall* lower helmet body. The result is a high-set, wide gable which curves to peak very high on the helmet. Most of the facial features – eye and ear – also correspond to those of the 'Kekuvatsky' type. The defining element here is the execution of the ornamental border framing the ocular recesses. The border, once it was hammered flat to the helmet body, was pressed inward, resulting in a clear, inward slant of the border towards the face.

In spite of the damage to the helmet's sides, which were cut off in a clean line just below the upper line of hinge rivets, the remaining inner hinge flaps testify to a 3:2 hinge component, unlike the Kekuvatsky helmet. The nose guard, however, is broken at the nose bridge. No comparison of the cheekpieces can be made with the latter helmet,

[317] While the evidence is scant, it is even possible to suggest the manufacture of Kurdzhips and Kekuvatsky helmets in one of the Greek workshops outside the Black Sea area.

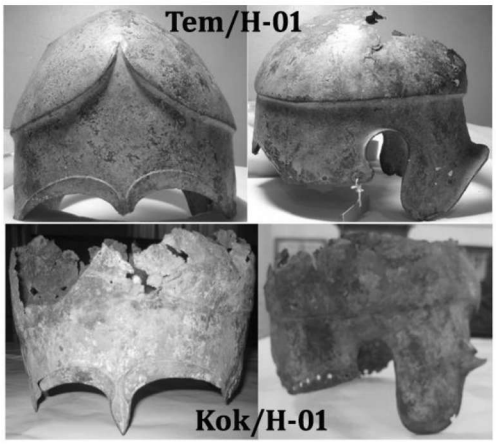


Figure 43. The helmets of the Temnolesskaya workshop.
(Photographs: S. Chandrasekaran)

as these have not survived.

The second helmet in question is Kok/H-01, from a burial assemblage discovered in the southern part of ancient Colchis, in the village of Kokhi in the foothills of the Lesser Caucasus. This poorly preserved helmet, in particular its severely damaged helmet dome, is of special interest.[318] In its present state, the base of the dome rises high and slightly outwards, with a gaping hole at the top, as if having once covered an enormous, bloated head. Judging by the visible dents and bent areas, however, it would appear that the dome 'walls' have simply bent out of their original shape – the result of natural circumstances or intentional hammering and bending. Repair holes visible at the base of the helmet bowl are indicative of the wear-and-tear experienced by the helmet before it was buried, which also might account for its general poor state.

A closer look at the helmet allows us to reconstruct it as follows:

The helmet form consists of the base and sides only of a helmet bowl which is offset from the tall lower body. The lower contours of what must be a high gable are discernible. The long neckguard with flaring end and rounded lateral lappets is partially preserved, as are the rounded aural recesses. Elongated, shallow arches were cut out over the eyes, and these were marked by an ornamental border. They join to form a short nose guard of teardrop shape with a pointed tip. The helmet sides are marked by rounded ear cutouts similar to those of the helmet from Temnolesskaya.

[318] See Chandrasekaran 2010 for a detailed description of this helmet, its damage, and parallels to the helmet from Temnolesskaya. Note that the description of the Kokhi helmet given below contains details not mentioned in the 2010 article.

The damage to the helmet sides is similar to what we observe on the Temnolesskaya helmet. The sides were removed – apparently torn or cut roughly – along or just below the line of the original upper hinge rivets. In this case, however, all remaining traces of the hinge component were removed, including the inner flap. Therefore, nothing can be said about the original hinge tooth ratio.[319]

Close comparison of the Kokhi helmet with the helmet from Temnolesskaya (Figure 43) shows both to be of the exact *same* type. Form and features are identical on both. Particularly striking parallels include the helmet proportions – a *short* helmet bowl set atop a *tall* lower helmet body – and the inward slant of the ornamental border around the eyes. Judging by these parallels, it is logical to assume an identical form for both helmets and complete the missing sections of both using the existing sections on their respective counterparts. The identical form of both indicates their manufacture in a single, common workshop.

The remaining 'standard' type helmets

The remaining helmets of the 'standard' type show only minor deviations or variations of the features on the Kekuvatsky and/or Kurdzhips helmets, and are therefore best described using the better-preserved Kekuvatsky helmet as a comparison. The Akhul-abaa helmet AA/H-01 displays a shorter lower helmet body and longer nasal guard of teardrop shape, similar to that of the helmet from Kutaisi Kut/H-01. Compared to the Kekuvatsky helmet, the latter has a higher dome with slightly more conical tendency. Particularly interesting is the execution of the eye borders, which have been 'pressed' into the helmet body, resulting in a proper furrow defining the edges.

The three helmets from Kelasuri are quite difficult to assess in their extremely fragmented state, especially considering that the fragments have only been published as

[319] See the relevant catalogue entry for more details of damage to this helmet.

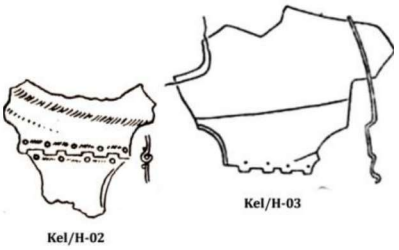


Figure 44. The Kelasuri hinge components.
(Kel/H-02: After Chernenko 2006, Taf. 28, no. 582; Kel/H-03: After Voronov 1975, Fig. 6.15)

drawings. However, the few surviving details clearly place the fragments in the group of 'standard' Chalcidian type V helmets. Deviations from the Kekuvatsky and Kurdzhips include a somewhat shorter neckguard on helmet Kel/H-01, the teardrop shape of the nasal guard on helmets Kel/H-02 and Kel/H-03 (similar to helmet Kur/H-01), and the shorter lower helmet section of Kel/H-02. Particularly interesting is the hinge tooth ratio of 5:4 on this helmet (Figure 44), unique amongst all helmet finds from the Western Caucasus.

The helmet from Pkhiya (Pkh/H-01), in the Caucasus Mountains, displays a slightly more elongated dome – similar to that of the Kutaisi helmet Kut/H-01 – and a different cheekpiece shape from the Kekuvatsky helmet. The helmet from Mezmay Mez/H-03, on the other hand, has cheekpieces practically identical with that of the Kekuvatsky helmet. However, it deviates sharply from the latter with the shape of its neckguard, which is shorter, with a stronger outward curve, and, most significantly, *without* lateral lappets. Note also its nose guard of teardrop shape similar to the Kurdzhips and Kelasuri helmets named above.

The damaged helmet from Tulskaya (Tu/H-01), now missing, is known to scholars only through a photograph showing it in profile.[320] The image shows that this helmet is also of the 'standard' Chalcidian type V, with little apparent deviation from the Kekuvatsky helmet. Deviations include a more vertical neckguard and a thinner eye border.

A particularly interesting variation on the 'standard' type is the helmet of unknown provenance from the Krasnodar region (UP/H-01). Upon first glance, it appears

[320] The photograph is published in Lunin 1939, Fig. 4). A subsequent drawing was made from the photographic image by E. Chernenko (Chernenko 2006, no. 577).

completely different from the Kekuvatsky helmet. This is in fact due to its non-existent nose guard. Instead, we observe here that the eye cutouts join in the middle, just above the nose bridge, to form a pointed tip, similar to a 'widow's peak'. With the exception of this, and the cheekpiece form, the other features of this helmet are, in fact, identical to those of the Kekuvatsky helmet. A similar helmet is also known from a burial mound of the 4th-3rd centuries BC in Bulgaria.[321]

One very different helmet of the 'standard' type is the helmet from Eshera Esh/H-01, from a burial of the 5th-4th centuries BC. The helmet fragments itself remain inaccessible and no photographs of it have been published. It is only possible to judge its form by the drawings provided by Chernenko.[322] While the overall helmet form is the same as on other helmets of this type, deviations from the Kekuvatsky helmet – in fact, from all other helmets discussed in this group – include the high-arched, rounded eye cutouts, the thin, simple nasalguard, and the rounded triangular gable shape. Unique amongst all helmets of this type – or any type in this study – is the intricate ornamentation running just below the gable line. This consists of a hammered line of curls rising from both outer edges of the gable towards the central peak. The curls face the centre and grow in size towards the centre. The individual strands of hair have been chased into each curl. This ornament of forehead curls is reminiscent of what we find on the well-known Conversano-type helmet from Bari in Southern Italy,[323] or, closer to home, on a helmet in Maykop (May/H-01).[324]

[321] The burial mound near Dolna Koznitsa, Kyustendil Region, Bulgaria. See details on the helmet, found together with a pair of greaves, on the Kyustendil Museum website: www.kyustendilmuseum.primasoft.bg. Note: I was unable to find any published material on these items.

[322] See catalogue entry Esh/H-01 for bibliographical details.

[323] See Pflug 1988, Abb. 14.

[324] The Maykop helmet belongs to the group of 'Sochi' type helmets to be discussed in the next section.

Hinge components on 'standard' helmets

The construction of Chalcidian type V hinge components has already been discussed earlier in this section (Figures 39-40). One of the problems inherent to the analysis of these in this study is the fact that so many of the above helmets are damaged at the sides, often as a result of deliberate reworking.

A total of eighteen helmets were analyzed in 'standard' group of helmets. Ten of these show clear signs of deliberate damage – almost always affecting the hinge components and probably associated with their reworking.[325] Nonetheless, it is possible to determine the hinge tooth ratio on six helmets with clear certainty. Four of the helmets have a 4:3 ratio (Kek/H-01, Pkh/H-01, Mez/H-03, AA/H-02 – see Figure 45), one displays a 3:2 ratio (Tem/H-01, see Figure 43), and one a 5:4 ratio (Kel/H-02, see Figure 45). In the case of the Kelasuri helmet (Kel/H-02), the hinge tooth ratio could only be ascertained using drawings of the items, as no photographs are available.

Another helmet with a possible 5:4 ratio is a further example from Kelasuri (Kel/H-03). Also available only as a drawing, this clearly shows four upper hinge teeth, one of these marking the outer right edge of the component. This clearly suggests a further such tooth at the left edge, which is apparently missing. Since all upper hinge components of this helmet type begin with hinge teeth at the outer edges, it is logical to suggest a fifth hinge tooth marking the outer left edge of this helmet, similar to Kel/H-02.

Note that both upper and lower hinge components of all helmets in this group are riveted.

[325] Only two helmets were not subject to deliberate damage. Of the other six analyzed, five are too fragmentarily preserved for a proper assessment of original damage. These are also only available as drawings (the Akhul-abaa and Kelasuri helmets). As for the sixth helmet (Pkh/H-01), no pre-restoration images are available of the sixth.

Cheekpieces on 'standard' type helmets

Cheekpieces are preserved to varying degrees on only seven of the eighteen 'standard' type helmets in this study. Note that one of these, belonging to the helmet from Teberda (Teb/H-01), cannot be studied here, as no images of it were ever published and the helmet itself is now missing. The remaining six (Figure 45) are of an elongated form with rounded lower edge and. The form of the inner edge varies.

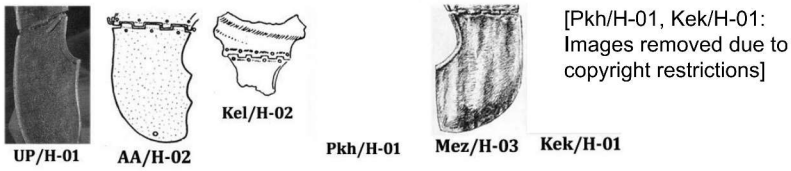


Figure 45. Cheekpieces on 'standard' type helmets.
(UP/H-01: After Khachaturova 2002, no. 626;
AA-H-02: After Voronov 1991, Fig. 2.3;
Kel/H-02: After Chernenko 2006, Taf. 28, no. 582;
Pkh/H-01: Courtesy of E. A. Khachaturova;
Mez/H-03: After Shevchenko/Zaitsev/Mordvintseva 2011, Fig. 6.2;
Kek/H-01: Courtesy of D. Aleksinsky)

The only clearly related forms are those of the Kek/H-01 and Mez/H-03 cheekpieces, which are of an identical sickle shape. Of the Kel/H-02 cheekpiece, too little is preserved by which to fully assess the form. The remaining three vary in the form of the inner edge, which displays a varied wave ornament – from one (UP/H-01) to two (Pkh/H-01)[326] to three waves (AA/H-02) marking the curved edge.

Note that only two of the cheekpieces – AA/H-02 and Pkh/H-01 – are marked by a perforation at the lower edge, indicating the attachment of chinstraps.

Summary of the 'standard' group

As demonstrated above, the 'standard' Chalcidian type V helmets of the Western Caucasus all share similar a form and features, with slight variations. Hinge components with a 4:3 hinge tooth ratio dominate this group. The elongated cheekpiece form with rounded lower edge is characteristic of all Chalcidian type V helmets; only the form of the curved inner edge was varied.

[326] The double-wave here is comparable to that on two of the 'Sochi' type helmets (Soc/H-03, Mez/H-04), which will be discussed in the next section.

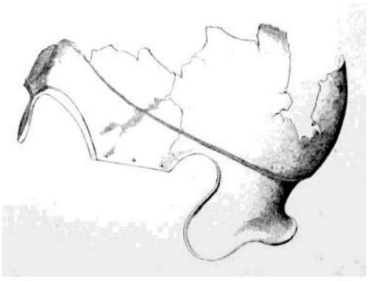


Figure 46. Chalcidian type V helmet from Olympia.
(After Furtwängler 1870, Taf. 63. no. 1025)

With the exception of the two helmets of the Temnolesskaya workshop, it is practically impossible to identify a single manufacture for the various helmets in this group. The form and features of the 'standard' type are also found in other areas of the Black Sea as well as Greece and Italy, but in far fewer numbers. This, of course, simply reflects the lack of finds from these areas, and not necessarily the real distribution of such items in Antiquity. In addition to the above-mentioned helmet from Tithorea (Figure 42), Chalcidian type V finds from Greece proper include a cheekpiece from Megara[327] and a helmet from Olympia (Figure 46).[328] From Southern Italy, we have finds from Western Lucania.[329] In the northern and western Black Sea region, we also find only a few Chalcidian helmets which may also fall in this category. These include one of the helmets from the Oloneshty hoard, as well as two from the Ukraine – one from the Pastyrskoe kurgan and another from Olbia in the Ukraine.[330] Note, however, that an equal number of unprovenanced 'standard' type helmets are found in various museum collections or on the auction circuit.[331]

Within the Western Caucasus, approximately half of the helmet finds (nine) are

[327] Pflug 1988, 145, Abb. 13.

[328] The small number of known Chalcidian type V finds from Greece probably does not reflect the real amount of material. Dr. Maria Stamatopoulou (Oxford University) kindly discussed the matter with me and noted that more material of this kind does exist, especially from Northern Greece, but that it remains unpublished and difficult to access.

[329] Pflug 1988, 145-146. An example of such helmets is the example from the province of Salerno (Pflug 1988, Abb. 15-16).

[330] See Sergeev (1966, Fig. 9) and Chernenko (2006, no. 563) for the helmet from Oloneshty. Note that this is one of two Chalcidian helmets that were found, but that the other (Sergeev 1966, Fig. 8, Chernenko 2006, no. 562) is clearly of a different type. For the helmet from the Pastyrskoe kurgan see Chernenko (2006, no. 564). For the helmet from Olbia see Chernenko (2006, no. 586). Note that closer examination of all three helmets is required in order to verify just how similar they are to those of the 'standard' category discussed here.

[331] Museum examples include the helmet in the Walters Art Museum shown above in Figure…and a further one from the bequest of B. Blass, now in the Metropolitan Museum in New York. Examples of auctioned 'standard' type helmets include one at Sotheby's (Sotheby's Catalogue of 6th July 1995, no.139) and another at Christie's (Christie's NY Catalogue of 16 June 2006, no.131).

distributed about the mountains and foothills of the Northern Caucasus, while the other half (eight) can be found in Colchis (Figure 47). Of the Colchian finds, six were discovered in the foothills of the Southern Caucasus. It is quite interesting that only one example of this helmet type comes from the Bosporan Kingdom – the helmet from Kekuvatsky (Kek/H-01), especially in view of the close ties with the Greeks enjoyed during the Classical period.

The bulk of the 'standard' Chalcidian type V helmets are from complexes of the 4th and 3rd centuries BC.

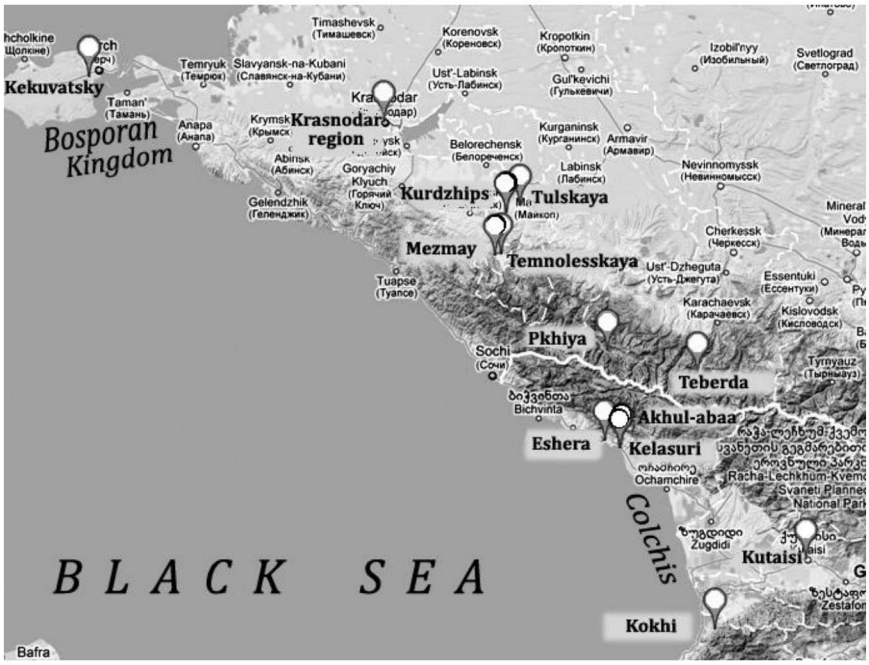


Figure 47. Distribution of 'standard' Chalcidian type V helmets in the Western Caucasus.
(S. Chandrasekaran – using Google Maps)

Chalcidian type V helmets of the 'Sochi' type

The second set of Chalcidian type V helmet finds from the Western Caucasus are grouped together here based on their distinct form and features, which are not found in finds from anywhere outside the Black Sea region. The group takes its label of *'Sochi' type* from the helmets of identical manufacture designated as the *Sochi workshop*, which will be discussed in following.

[Images removed due to copyright restrictions]

Soc/H-01 Soc/H-02 Soc/-03 Soc/H-04 Soc/H-05

Figure 48. Chalcidian helmets of the 'Sochi' type from the Sochi Historical Museum
(Photographs: S. Chandrasekaran)

The Sochi workshop

The 'Sochi' series of helmets takes its name from a group of five helmets with identical features in the collection of the Sochi Historical Museum (Figure 48). Most of these helmets are recent, 'chance' finds of the last decade which were brought to the museum. However, the earliest discovery of the 'Sochi' group – a helmet from Bogushevka (Soc/H-01) – entered the collection sometime before 1979, and it is the only one of these helmets with documentation about its find context.[332] As for the other helmets in this group (Soc/H-02, Soc/H-03, Soc/H-04, Soc/H-05), there is little information on their find contexts, as they were handed over to the museum without any accompanying documentation.

The helmets from the Sochi Museum are hammered of bronze sheet and belong to Pflug's type V category, i.e. with an offset upper dome set upon a lower section of a

[332] I.e. before it was published for the first time by Voronov.

smaller diameter, vertical brow, a strictly vertical neckguard finishing in a horizontal brim *without* lappets at the sides, and cutouts for eyes and ears and the remains of hinges where cheekpieces were attached. Cheekpieces have survived only on two of these helmets (Soc/H-03, Soc/H-05).[333]

Characteristic for these helmets is the singular and identical execution of the above-mentioned features. The helmet dome is rather short, its form more conical than rounded, and the top defined by a pronounced crease.[334] Subsequently, the lower, brow section is quite high-set. The dome front is offset from the lower section by a square-ish gable. Particularly eye-catching are the wide, high eye and ear cutouts and their widely bulging, offset frames, as well as the wide nasal guard with diamond-shaped lower half. From the sides and in the rear we can observe yet another singular feature: the lower rim of the vertical neck guard 'shoots out' into a short, horizontal brim with a rounded outer contour.[335] This particular feature is unique amongst all known Chalcidian types.

The group of helmets from the Sochi Museum is joined by two further examples with identical features, one from the Pushkin Museum in Moscow (NBS/H-01), the other from the Lanchkhuti Museum in Georgia (Lan/H-01). (Figure 49) The hammered bronze helmet NBS/H-01 is part of the Karakovsky Collection[336] donated to the museum in 2005. Amongst the artefacts from the collection was a

[Images removed due to copyright restrictions]

NBS/H-01 **Lan/H-01**

Figure 49. The helmets from the 'Northern Black Sea area' and Lanchkhuti.
(Photographs: S. Chandrasekaran)

[333] Only the right cheekpiece is preserved on each.

[334] This is clearly visible in the helmet Soc/H-01. The tops of the other four helmets are damaged along this crease.

[335] See the profile views shown under the respective catalogue entries.

[336] The Karakovsky Collection was a private collection. Most of the objects were purchased by the collector and have no specifically named provenance.

helmet from the 'Northern Black Sea area'. No further information about the find site and find context is given in the subsequent publication of 2006.[337] Somewhat more is known about the find context of the Lanchkhuti helmet, which is reported to come from a 4th century burial complex in the vicinity of the town, in the foothills of the Lesser Caucasus.[338] Both helmets share all of the same features as those from the Sochi Museum – the small, conical dome, gabled offsetting at the forehead, large, rounded cutouts for eyes and ears framed by heavily offset borders, and – most importantly – a horizontal 'brim' at the helmet rear. As such, these helmets clearly belong to the same group as the helmets from the Sochi Museum.

The seven helmets from the Sochi, Pushkin and Lanchkhuti Museums constitute a unique group of helmets which were clearly manufactured in *one* workshop – in following the 'Sochi workshop' – and perhaps even by the same craftsman. This is seen the likeness of the overall form and especially in the hammering of the offset borders framing the eye and ear cutouts. The question remains to ascertain the actual location of the workshop.[339]



Figure 50. The find sites of helmets from the Sochi workshop.
(Map: S. Chandrasekaran – using Google Maps)

The text originally presented here cannot be made available in this copy due to the sensitivity of the material.

[337] See Cat. Karakovsky.

[338] Unfortunately, no precise information on the nature of this complex or its finds is available.

[339] Note that no academic or official survey or excavations of the Khosta area have yet been carried out, and there is no way of ascertaining the presence of a possible manufacture for ancient weaponry in the area.

The text originally presented here cannot be made available in this copy due to the sensitivity of the material.

The strong likelihood that five of the identical helmets from the Sochi workshop (Soc/H-02, Soc/H-03, Soc/H-04, Soc/H-05, NBS/H-01) were discovered in a single burial complex suggests a special workshop, probably in the vicinity, working for the elite of this region. It is quite possible that the helmet from Bogushevka (Soc/H-01) comes from this complex.

[340] Four of the helmets from the Sochi Museum were brought there in 2002. The helmet from the Karakovsky collection was passed on to the Pushkin Museum in 2005, which is the first time we hear anything about it.

[341] A further helmet appears to have been placed in a collection in Stavropol.

Other 'Sochi' type helmets

A further five helmets from the Western Caucasus share similar characteristics with those of the Sochi workshop, but cannot be directly attributed to it. These include the previously mentioned helmet in Khosta (Kho/H-01), a helmet in the Novorossiysk Museum (Nov/H-01), another one in the Gelendzhik Museum (Gel/H-01), a particularly luxurious example in the State Hermitage in St. Petersburg (May/H-01), and a helmet from Mezmay in the Caucasus (Mez/H-04) that has gone missing since its original discovery in 1937.[342] Yet another helmet from the Caucasus Mountains is known through by a vague drawing. This is the helmet from Teberda (Teb/H-01). Judging by the proportions shown, the helmet should be included in the category of 'standard' Chalcidian type V helmets. Its only apparent deviations from the Kekuvatsky helmet include a short lower helmet body and a rather wide nose guard with diamond-shaped tip. However, it is reported to have had a silver-coloured surface.[343]

The 'Khosta' workshop

The text and footnote 342 originally presented here cannot be made available in this copy due to the sensitivity of the material.

[343] See the catalogue entry.

The text, footnotes and images originally presented here cannot be made available in this copy due to the sensitivity of the material.

The missing helmet from Mezmay (Mez/H-04)

This helmet comes from a burial context uncovered in 1937 in Mezmay, in the Caucasus, and was originally kept in the Maykop Museum. Since the helmet has subsequently gone missing and no photographs of it exist, details about its form must be gathered from the only available drawing, which shows it in profile. It appears to repeat the form of the helmets of the Sochi workshop: short, offset dome, huge cutouts for eyes and ears framed by a heavily offset border, a vertical neckguard finishing in a horizontal brim, and an elongated nose guard.[346]

The only differences between the Mezmay helmet and those of the Sochi workshop are the hinge tooth ratio – 3:2 on the former versus 4:3 on the latter – and the exact form of the offset borders framing the eye cutouts. These appear to consist of a double border, or two parallel, rounded offset borders lining the cutouts – but this may simply be due to the angle rendered in the drawing. As it stands, however, the helmet cannot be attributed to the Sochi workshop with full certainty.

The helmet from Maykop (May/H-01)

An exceptional example of the Sochi type helmet is the well-preserved helmet from Maykop, a purchase made in 1906. It shares with the helmets of the Sochi workshop the short, narrowing form of the helmet dome and with both workshops the 'square-ish' forehead gabling, 4:3 hinge tooth ratio and the large, rounded eye cutouts with pronouncedly offset border. The small ear cutouts without offset border are reminiscent of the Khosta workshop, as is the long, thin nose guard with rounded finish.[347]

The unique features of this helmet are its ornamentation. The offset helmet dome sits upon a thick, ornamental ridge that lines the dome along its full circumference and

[346] The exact form of the nose guard tip remains uncertain, as it is shown in profile.

[347] The bottom of the neckguard is damaged, therefore nothing can be said about a possible brim.

imitates the gabling. The ornamentation of the eye borders, nasal guard and helmet side rims is even more elaborate than that of the Khosta workshop. It consists of a chain of punched circles connected by diagonal chased lines, resulting in a wave-like ornament (see Cat. May/H-01, c). A single chain lines the eye borders and edges of the nose guard, while the helmet side rim is lined with three such chains. It is worth noting that similar ornamentation is found on a number of illicit helmet finds.

The excellent condition and careful ornamentation of this helmet upon discovery suggests that it saw no proper battle action and was instead used for parade or ritual functions only.

The helmet from Pshada (Gel/H-01)

Another distinct example of the 'Sochi' type helmet is the helmet discovered in 1984 in an ancient burial in the vicinity of the village of Pshada, south of modern-day Gelendzhik. The helmet shares most of the features of the 'Sochi' helmets, primarily those of the helmets *not* associated with the Sochi workshop. The offset helmet dome narrows towards the top, where it is defined by a lengthwise crease at the top. The eye cutouts are large, rounded arches framed by heavily offset borders. The ear cutouts are small and finish off with a slight flare, similar to 'standard' Chalcidian type V helmets. The hinge tooth ratio is 4:3. The nasal guard is thin and elongated, ending in a rounded tip. And, finally, the horizontal neckguard finishes with an outward brim.

An interesting feature is the riveting of the upper hinge component on this helmet – quite uncommon amongst helmets of the 'Sochi' type.

The distinguishing feature of this helmet is the shape of the forehead gable formed by the offset dome. Unlike the gables of all other 'Sochi' helmets discussed here, the gable is not 'square cut'. Instead, the gable is wide and curves upward to a high tip, similar to the 'standard' Chalcidian V type.

The helmet from Sovetkvadzhe (Ros/H-01)

A further helmet of the 'Sochi' type was found in the village of Sovetkvadzhe along the Black Sea coast and brought to the Rostov Museum (Ros/H-01). Unfortunately, only a drawing has been published of this helmet.[348] The drawing shows a high, elongated helmet dome of almost conical shape set atop a short lower helmet body. The gable at the forehead is square and narrow, similar to the helmets of the Sochi workshop. Large rounded cutouts framed by offset borders mark the eyes, similar to the helmet Gel/H-01. The rounded ear cutouts finished with a slight flare are also reminiscent of the Gelendzhik and 'standard' helmets. The neckguard form with flared rim and lateral lappets is also reminiscent of the 'standard' Chalcidian type V helmet.

This is the only other helmet of the 'Sochi' type (together with Gel/H-01) to also demonstrate riveting of the upper hinge components. The hinge tooth ratio is 3:2.

Hinge components on 'Sochi' type helmets

Unlike the helmets of the 'standard' group, only two of the thirteen 'Sochi' type helmets were subject to deliberate damage.[349] However, enough of the hinge components has survived on all thirteen to calculate the hinge tooth ratio for each respective helmet. Of these, four have a hinge tooth ratio of 4:3, while the other nine display a 3:2 ratio.

Of exceptional importance is the fact that the upper hinge component is *not riveted* on practically all 'Sochi' type helmets. The only exceptions are the helmets Gel/H-01 and Ros/H-01.

[348] The helmet itself was inaccessible due to internal museum politics.

[349] These are the helmets Gel/H-01 and Soc/H-04.

Cheekpieces of the 'Sochi' type helmets

Of the thirteen 'Sochi' helmets, cheekpieces are preserved on only six, of which only five are part of this study (Figure 52).[350] Like the cheekpieces of the 'standard' type, all five are also of an elongated form, with rounded lower and curved inner edge. Of these, only three share the same form – those of the helmets Soc/H-03, Soc/H-05 and Mez/H-04 – where the inner edge is marked by a pronounced double-wave ornament.[351] Note that the first two cheekpieces are of the Sochi workshop. The latter – known only from a drawing – probably also belongs to this workshop as well. The double-wave inner edge is similar to that found on the cheekpieces on the 'standard' type helmet from Pkhiya (Pkh/H-01). The cheekpiece from the Gelendzhik helmet Gel/H-01 has a similar inner edge with double-wave ornament that is far less pronounced.

The text originally presented here cannot be made available in this copy due to the sensitivity of the material.

Note the perforation at the bottom of the Gel/H-01 cheekpiece, indicating the attachment of a chinstrap.

Summary of the 'Sochi' group

The thirteen helmets of the Sochi type discussed above clearly belong in a single typological group based on the form and features described above and best represented by the helmets of the Sochi workshop. Hinge tooth ratios of 3:2 are the more popular within this group, even though the 4:3 ratio is also used. The cheekpiece

The image originally presented here cannot be made available in this copy due to the sensitivity of the material.

Figure 52. Cheekpieces on 'Sochi' type helmets.
(Mez/H-04: After Rabinovich 1941, Fig. 17;
Photographs: S. Chandrasekaran)

[350] Note that the cheekpieces of Nov/H-01, while known to be in storage at the Novorossiysk Museum, cannot be accessed at the present time. This is due to the impending move of the museum and its depots to another building. It is unclear when this will be completed.

[351] Note that while the lower half of the cheekpiece Soc/H-05 is missing, it is clear that is must be completed in the form of the cheekpiece from Soc/H-03.

forms are quite similar to those found on 'standard' helmets, with some variation of the curved inner edge, thus corresponding to the overall cheekpiece form found on Chalcidian type V helmets.

Helmet finds of the 'Sochi' type are known from the Western Caucasus *only*, and with heaviest concentrations in the coastal and foothill areas between the Bosporan Kingdom and Colchis (Figure 53). Note that no helmets of this type are found in the foothills of the Southern Caucasus. A further helmet of the 'Sochi' type - the sole find of its kind – was discovered in Lanchkhuti (Lan/H-01), located south of the Colchian Depression, in the northern foothills of the Lesser Caucasus. This suggests a local preference for this helmet type in the 'wild territory' between the two established states and perhaps even local manufacture of these items, a prospect which will be discussed further in Chapter VI.



Figure 53. Distribution of the 'Sochi' type helmets.
(Map: S. Chandrasekaran using Google Maps)

Dating the finds of 'Sochi' type is somewhat complicated, as the bulk of these – incidentally from the Sochi workshop – are from unknown, i.e. undatable, find contexts. However, the few dated find contexts – Lazerevsk (Nov/H-01), Teberda (Teb/H-01 and Lanchkhuti (Lan/H-01) – are all of the 4th century BC, suggesting a similar dating for

the remaining helmets of the 'Sochi' type. This places the 'Sochi' type helmets in the same period as the helmets of the 'standard' type.[352]

[352] Perhaps even somewhat earlier, based on the Early 4th century BC dating of the helmet Nov/H-01.

TREATMENT OF THE HELMET SURFACE ON TYPE V HELMETS

A factor not to be disregarded when dealing with ancient bronze armour is the composition and treatment of the metal itself. These factors influenced both the metal properties and its appearance, and as such the ultimate function of the item in question. However, for whatever reasons, metal analyses are rarely carried out on the helmets.[353] Nonetheless, close inspection of the helmets and their surfaces can often reveal signs of ancient enhancement of the metal.

Silver surfaces

A total of 31 Chalcidian helmets have been analyzed in this study. From these, traces of the original surface colour are visible on or have been recorded for approximately half (14).[354] Of these, traces of a silver-coloured surface are definitely observed on eleven.[355] Interestingly, all of these are of the 'Sochi' type. Of these, the silver colour is best visible on the helmet Mai/H-01 and those of the Sochi workshop in the Sochi Historical Museum.[356] Because of the silver colour, many of these helmets were often been mistakenly referred to as silvered or silver-plated in earlier literature.[357] However, none of the helmets in this study were actually coated with real silver. Instead, the silver

[353] Exceptions to this are the weapons in the Guttmann Collection, which were restored by Hermann Born and published by him: see Born 1993.

[354] It was not possible to ascertain the original surface colour on all helmets for a number of reasons, mainly because the helmets in question were not available for hands-on study. This is the case with most of the helmets from the Dioscurias area or Eshera. In other cases, the helmets have simply gone missing, and no records of this detail were ever made.

[355] The eleven helmets are: Gel/H-01, Kho/H-01, May/H-01, Mez/H-04, NBS/H-01, Ros/H-01, Soc/H-01, Soc/H-02, Soc/H-03, Soc/H-04, Soc/H-05.

[356] Helmets in the Sochi Historical Museum = Soc/H-01- Soc/H-05. The inventory records at the Sochi Museum note that these helmets have undergone some form of treatment in order to harden the metal. Often the treatment is specified as 'thermal'. See the respective catalogue entries for more details as well colour plates, in which the silver colouring is visible.

[357] This is particularly true of the older literature of Rostovtsev (1913) and Rabinovich. The latter (1941, 147-148), for example, erroneously describes the helmet purchased in Maikop in 1906 (Mai/H-01) and the now missing helmet from Mezmay (Mez/H-04) as silver-coated. This kind of misinterpretation is a frequent occurrence, which has often led to mislabelling in museums (see Meeks 1986, 133, 150).

colour of the surface is the result of high tin levels on the *surface*, the result of a surface enrichment process known as tinning.

It is important to note that the copper alloy (i.e. bronze) was used for ancient hammered helmets was generally of a low tin content.[358] Low-tin bronze was more malleable and could be cold-worked with a hammer. However, the silver surface of a helmet of low-tin bronze can only be the result of tinning. This is a metal-finishing method involving the application of tin to the bronze surface. Tinning is first reported in ancient literature by Pliny, who speaks of coating bronze items with a so-called 'white lead' (tin) in order to render them practically indistinguishable from silver.[359] The earliest examples of tinning can be observed in museum objects of the Classical period.[360] With a few exceptions, the tinning of ancient weapons has not enjoyed much attention in scholarly publications until quite recently.[361] H. Born notes the increased number of *tinned* Chalcidian helmets of the 5th and 4th centuries BC now appearing in sale rooms, all apparently from the Balkan region (Bulgaria).[362] Additionally, tinned helmets are known from find sites in Pella and Italy.[363] Interestingly, none of the Chalcidian helmets from Olympia was tinned,[364] perhaps indicative of the time after which the tinning of this helmet type became popular.

Tinning can be achieved in a number of ways. N. Meeks addresses the three different

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[358] Manti/Watkinson 2008, 167; Caple (2000, 27) suggests a value of ca. 7.7% tin for a helmet made of a 'typical bronze'.

[359] Pliny, *N.H* 34.48.7. See Meeks (1986, 134) for further references to tinning by Pliny.

[360] Meeks 1986, 134. An exception to these is the so-called Barton Stacey axe, a tinned object dated to ca. 2000 BC. Meeks (1986, 135) also notes the widespread use of tinned bronze for military gear (helmets, in particular).

[361] Born 2009, 119.

[362] Born 2009, 119.

[363] Born 2009, 118. Neither of the helmets from Pella and Italy are Chalcidian helmets. However, Manti/Watkinson (2008, 170) note a tinned Chalcidian helmet of the 5th century BC of Italian provenance (Ruvo) in the British Museum (from Ruvo, Inv. no. GR 1856,1226.616).

[364] Born 2009, 118.

methods of bronze tinning and its use on archaeological artefacts in his 1986 article. All three methods involve treatment at high temperatures. This is particularly significant in relation to the five helmets of the Sochi workshop at the Sochi Historical Museum. The inventory records for these objects not only note the silver-coloured helmet surface – which is also clearly visible on the objects themselves – but that they had undergone *thermal* treatment which had resulted in a particularly hardened surface. Indeed, tinning results not only in a silvery surface colour, but also in a hardened surface.[365] This clearly suggests that surface treatment of the helmets was undertaken not only to produce a more aesthetic and elite product – reminiscent of the silver-plated helmets of the 4th century BC (Melos)[366] – but also a more practical one.

While the Sochi records suggest the treatment of the helmets to have been thermal, no laboratory analyses of these were actually ever carried out. Therefore, the question remains as to exactly which of the three tinning methods discussed by Meek was actually used on these five helmets.

Golden surfaces

Only two of the Chalcidian type V helmet originals in this thesis displays as a golden-coloured surface - the helmet from Kekuvatsky (Kek/H-01) – and the helmet from Pkhiya (Pkh/H-01).[367] The Kekuvatsky helmet is the better preserved, and the golden colouring is clearly visible. Just as other silver-coloured helmets were often referred to as 'silver-plated or coated' in older publications, the Kekuvatsky helmet has often been

[365] Manti/Watkinson 2008, 168. The authors also note that a treated surface would render the warrior wearing the helmet more visible in battle.

[366] It is worth considering whether tinned helmets such as the Sochi type were aimed at emulating proper silver-coated helmets such as the helmet from Melos. See Chapter IV, 'The helmet from the Kerch 1834 kurgan – comparisons'.

[367] A further helmet, from Lanchkhuti, also displays traces of a golden colouring on photographs. However, it is necessary to study the original in order to ascertain whether this is an accurate representation. Considering that it is of the 'Sochi' type, it is more likely that it was indeed tinned and that the photographs are misleading.

mislabelled as 'gold-plated'.[368] The golden surface colour on the helmet is in fact due to a high-quality alloy with a relatively high tin content of ca. 12%.[369]

The aesthetic values of a golden patina are quite evident.[370] More importantly, however, the tin content – neither particularly low nor particularly high – leaves the metal of the final product more flexible than that of tinned helmets.[371] The golden-coloured surface eliminates any possibility of the helmet having undergone any hardening processes (tinning), meaning that the metal of the Kekuvatsky helmet must be decidedly softer than that of the tinned/treated helmets in this study.[372] The lack of a hardened surface would have rendered the Kekuvatsky helmet more malleable and thus more vulnerable to attack – the softer metal give more easily under the shock of blows to the head instead of deflecting them, as a hardened surface would. A tinned helmet would have simply deflected any blows without giving, and as such was much better suited for battle.[373]

The 12% tin content of the Kekuvatsky helmet means that it would have been somewhat harder than an un-tinned helmet of low-tin bronze, perhaps even hard enough for battle purposes, but certainly not as deflective as a tinned helmet. Therefore we must consider whether the helmet from Kekuvatsky was actually a parade piece, not meant for the wear-and-tear of battle but for ritual, festivities and the grave. This could well account

[368] For example by Rabinovich (1941, 142).

[369] Aleksinsky 2007, no. 61; This is far higher than the so-called average tin value of ca. 7% noted for helmets of 'typical bronze' by Caple (see FN 358); Costello (2005, 7) notes how tin content influences the colour of the metal, changing it from red (low tin) to gold to silver (high tin); The tin content of the helmet from Pkhiya has not been calculated.

[370] See Manti/Watkinson 2008, 168 for the aesthetic advantages of various colourings.

[371] Costello 2005, 7; Manti/Watkinson 2008, 171.

[372] While I was not able to actually handle the Kekuvatsky helmet in my own hands and test its flexibility, I can attest to the rigidity of the tinned helmets from the Sochi workshop, for example. Additionally, all greaves were definitely far more flexible than any of the tinned helmets I was able to handle.

[373] Note that there are no published studies on the metal-strength of golden-coloured or tinned helmets. When examining this question, we must consider that malleable metal would give and not break or crack under a blow. Therefore, it is worth investigating whether the combination of a hardened surface (through tinning) and a malleable inner layer was developed to provide optimal combat deflection.

for its very good state of preservation. The same could also hold true for the golden-coloured helmet from Pkhiya.[374]

Conclusion

It is interesting to note that only 'Sochi' type helmets show traces of their original silver-coloured surface. On the one hand, this may simply be due to the fact that these are also the better preserved of the Chalcidian type V helmets. As noted by H. Born, the tinned Chalcidian helmets currently turning up in sale rooms appear to be from the Balkan region,[375] just on the other side of the Black Sea. It is therefore quite possible that many of those Chalcidian helmets from the Western Caucasus where no surface colouring has been recorded were also tinned. However, only closer inspection of these helmets can shed light on this question. In the meanwhile, it is also worth considering the possibility – perhaps less unlikely – that some of these helmets originally had a golden-coloured surface like that from Kekuvatsky,[376] and that the damaged state of most of these is in fact due to the lack of surface treatment which would have hardened them against corrosion and deterioration.

[374] However, this can only be ascertained after the tin content has been analyzed.

[375] See FN 362.

[376] The helmet from Pkhiya (Pkh/H-01) – comparable to the golden-coloured Kekuvatsky helmet in form – may have also been of the same of the same hue. If so, it may also have been manufactured as a parade helmet.

REPAIRS ON AND REWORKING OF CHALCIDIAN TYPE V HELMETS

Repairs

Metal helmets were often subject to repair work in cases of damage, which could occur in battle or simply as a result of material flaws. The economic solution to this problem was to repair the damage – if possible – instead of procuring/purchasing a new helmet. Examples of repairs carried out on helmets are found throughout the Ancient World.[377] In the Western Caucasus, clear signs of repair work can be observed on a number of helmets, for example UP/H-01, Kok/H-01, Kut/H-01 (Figure 54). Signs of repair generally consist of perforations along tears and holes, usually along the helmet bowl, the protruding helmet section which was most vulnerable to damage due to metal stress, or simply battle blows.[378] The form of these perforations is usually rough and uneven, their spacing irregular (Figure 54). As such, they cannot be mistaken for original regular perforations used for the attachment of a decorative crest or similar element on the helmet dome, or the reworking of helmets into a new form or fashion, as will be discussed in following.

[Kok/H-01, Kut/H-01, UP/H-01: Images removed due to copyright restrictions]

Figure 54. Signs of repair work on helmets from the Western Caucasus.
(Photographs: S. Chandrasekaran)

[377] Traces of ancient repair work can also be observed on Chalcidian helmets – not necessarily of the type V –from outside the Western Caucasus. See Frielinghaus (2011, 94.2) on ancient repairs on helmets from Olympia. H. Pflug (1988, 141-142) also notes obvious signs of repair work on a number of Chalcidian helmets of the so-called 'Thracian group' from Bulgaria.

[378] Born (2009, 87) notes that it is not necessarily easy to distinguish battle damage from material defects.

Reworking

While much of the damage on the type V helmets in this study is simply due to passage of time and natural conditions of preservation, a great deal is the result of reworking, a phenomenon that appears to have a long history in the Black Sea region and the Western Caucasus in particular.[379] Early examples of reworked helmets from the latter region are relatively few and include a Corinthian helmet from Maykop and a reworked helmet of Illyrian type from a kurgan in Nymphaion.[380]

Chalcidian type V helmets were often subject to reworking, as demonstrated by twelve of the finds in this study.[381] Most often, this consisted of the full removal of the existing cheekpieces and full or partial removal of the respective hinge components. The helmet sides were first cleanly cut or roughly torn along, above or below the perforations of the upper hinge, whereby the latter option was the most common. Following this, what remained of the inner hinge flap and rivets would (sometimes) be removed. New perforations would then often be added along the helmet sides, sometimes even incorporating the existing ones if these had survived. These secondary perforations are usually roughly punched and often irregularly spaced, making them easily distinguishable from the uniform original ones.[382]

[379] See Chernenko (2006, 92-96) for a discussion on some reworked examples from the Black Sea region.

[380] The Maykop helmet (Chernenko 2006, no. 606) is a chance find now kept in the Krasnodar Museum. The Nymphaion helmet (Chernenko 2006, no. 609) comes from the kurgan of the mid-fifth century BC excavated in 1868.

[381] These include helmets AA/H-01, Esh/H-01, Gel/H-01, Kok/H-01,Kur/H-01, Kur/H-02, Kur/H-03, Kut/H-01, Soc/H-04, Tem/H-01, Tul/H-01, UP/H-01.

[382] In some cases, secondary perforations could be of similar size and regularity as the original ones. Therefore, care should be taken when assessing the original hinge tooth ratio based solely on surviving perforations along the helmet sides without rivets, as some may be of secondary nature.

[Kur/H-01, Kut/H-01: Images removed due to copyright restrictions]

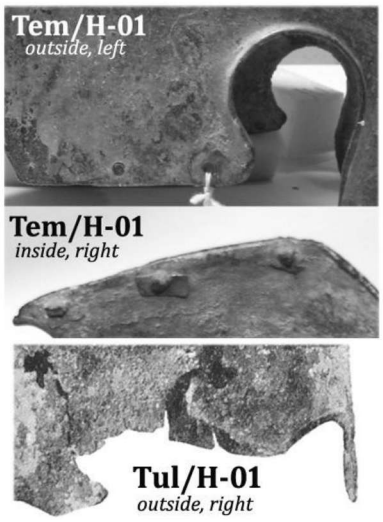


Figure 55. Reworking on Chalcidian type V helmets.
(Photographs: S. Chandrasekaran; Tul/H-01: After Lunin 1939, Fig. 4)

Figure 55 shows a selection of helmet sections displaying the phases of reworking named above. Both the helmets from Kurdzhips (Kur/H-01) and from Temnolesskaya (Tem/H-01) were cut cleanly below the original rivet perforations of the upper hinge component, effectively removing the hinge teeth.[383] The inner hinge flap was removed completely on the Kurdzhips helmet, together with the original rivets.[384] The latter were left in place on the Temnolesskaya helmet, and they each still hold in place small pieces of the original inner flap, the remaining of which was removed.[385] The helmet from Kutaisi (Kut/H-01) is an example of relatively clean cutting of the helmet edge – the uneven line of the edge is the result of damage over time, not tearing – almost along the line of original perforations. Additionally, secondary perforations of similar size were punched somewhat unevenly along the original line.[386] The helmet from Tulskaya (Tul/H-01) shows clearly the results of tearing away the helmet edge, which took away more than just the cheekpieces and hinge components.[387]

[383] Other examples of clean-cut helmet sides include the helmets AA/H-01, Esh/H-01 and Kur/H-01 (see the relevant Catalogue figures).

[384] Other helmets with complete removal of inner hinge section with rivets include Kut/H-01, Kok/H-01, Tul/H-01, UP/H-01 and Kur/H-02.

[385] None of the other reworked helmets in this study display partial or full preservation of the inner hinge flap.

[386] Secondary perforations are seen on the helmets Esh/H-01, Kok/H-01 and Kut/H-01. The perforations on the helmet AA/H-01 *may* also be secondary.

[387] Another example of a torn helmet side is the Sochi helmet Soc/H-04 – incidentally the only helmet in

In all cases, it remains unclear whether the cheekpieces were actually de-hinged before the helmet sides were removed.

Reasons for reworking

Why was it necessary to shave off the helmet sides and remove the cheekpieces of these helmets? Nikolai Sudarev has addressed this topic in his 1990 article '*On the Reworking of Ancient Helmets'* (in Russian).[388] In his study, he looks at eleven reworked helmets representing not only the Chalcidian type but also Corinthian, Chalcidian, Illyrian and mixed types.[389] All helmets examined by Sudarev had clearly been levelled off at approximately eye-level, i.e. just above the ears, by removing or cutting away the material below – this includes the nasal, facial guards (Corinthian helmets), cheek flaps and cheekpieces (Chalcidian helmets) and neck guards – following which perforations were added along the new helmet rim.[390] Sudarev points out that this reworking was not carried out for aesthetic reasons, i.e. not intended to produce a helmet form more similar to the local Kuban style.[391] It was also not sensible to simply remove the lower helmet sections, as this would have left part of the head and neck unprotected. Therefore, the removal was obviously carried out for certain reasons of practicality. The inflexible metal of the lower helmet section and cheekpieces, Sudarev suggests, were replaced with something better suited to the local style of warfare – on horseback – a style which required more freedom of movement for the head.[392] This would have been best served by the flexibility of scale armour as found on local scale helmets (see the *Introduction* to

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the Sochi Museum to show signs of reworking.

[388] To my knowledge, Sudarev's is the only publication which attends to this topic.

[389] Note that with the exception of the helmet from the Kerch kurgan of 1838 (to be discussed later on in this section) and a further Illyrian type helmet from Nymphaion (see Chernenko 2006, no. 609), none of the helmets examined by Sudarev are from the Western Caucasus.

[390] Sudarev 1990, Figs. 1-2. Note that the perforations line the new rim along its entire circumference on some of Sudarev's examples.

[391] Sudarev 1990, 105-106.

[392] Sudarev 1990, 107-108.

this chapter as well as Figure 30). The attachment of a flexible, scale neck guard is found preserved on a reworked Chalcidian helmet from Nikolskoe in the present-day Ukraine.[393]

No mention is made of scales found together with the reworked helmets from the Western Caucasus, and as such there is no way of knowing with certainty whether they were indeed refurbished with scale cheekpieces or cheek flaps. However, the multiple secondary perforations added to the helmet sides indicate the attachment of some kind of alternative cheekpiece. Since nothing has survived of the latter, it is logical to assume them to have been of organic materials, probably leather, perhaps embellished with scales that have gone missing.[394]

Noteworthy is that the neck guard is preserved on all the reworked helmets presented in this study. The only case where the neck guard might have been removed from a helmet to be replaced with one of flexible materials is the helmet from Kurdzhips Kur/H-03. In this case, only the neck guard – which shows clear signs of deliberate removal from its helmet – is preserved.

In most cases, secondary perforations were added to the helmet sides only when the original ones did not suffice or were damaged (Figure 56). This is the case with the helmets Esh/H-01, Kok/H-01 and Kut/H-01, where the removal of the helmet sides had damaged the original perforations.[395] Only the

[Kut/H-01: Image removed due to copyright restrictions]

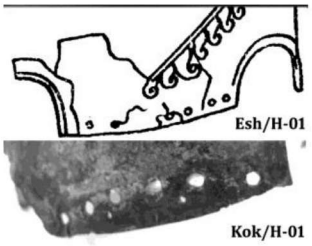


Figure 56. Secondary perforations on reworked helmets. (Photographs: S. Chandrasekaran; Esh/H-01: After Voronov 1975, 224, Fig. 6.3)

[393] Sudarev 1990, 107.

[394] The lack of scales on or near the helmet does not necessarily mean that these did not originally exist. They may have simply gone missing, shifted within the grave, gone unnoticed by the excavators or tomb robbers, that they had shifted within the burial over time, or that they were simply not recorded.

[395] Note that the older images of the helmet of unknown provenance (UP/H-01) show it without side perforations. However, this helmet has now been restored by qualified specialists using all available fragments, which must have included parts of the hinge components, since these have now been added

missing helmet from Tulskaya (Tul/H-01) shows no signs of side perforations – either original or secondary. Considering the lack of information about this helmet and its once preserved fragments, there is no way of knowing whether perforations were truly not preserved.

Thus, we can conclude that reworking of Chalcidian type V helmets was undertaken for practical reasons – to render the helmet more comfortable and flexible for the warrior in question. The helmet sides were shortened, rendering them less constricting. The cheekpieces were also removed together with the helmet sides. New cheek protection of flexible and mainly organic materials was then added along the surviving rivet perforations or using new, secondary perforations at the shortened sides. These new cheekpieces or cheek flaps were often strengthened by a plating of small scales. Thus, the new cheekpieces were both flexible yet appropriately protective against battle damage.

[Lan/H-01, NBS/H-01: Images removed due to copyright restrictions]

Figure 57. Unaltered helmets with remains of hinge pins. (Photographs: S. Chandrasekaran)

Missing cheekpieces on unaltered helmets

While reworked helmets are *always* found without their cheekpieces, six out of twelve *unaltered* helmets in this study were also found without cheekpieces. Three further helmets are missing one cheekpiece only.[396] All nine helmets are of the 'Sochi' type, and six of them from the Sochi workshop.[397]

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to the helmet together with the cheekpieces.

[396] It is unclear whether the hinge teeth on the *right* side of the missing helmet Mez/H-04 were damaged or not.

[397] Helmets with both cheekpieces missing: Mai/H-01, Ros/H-01, Lan/H-01, NBS/H-01, Soc/H-01, Soc/H-02, the latter four of which are from the Sochi workshop. Helmets with one cheekpiece missing: Mez/H-04, Soc/H-03 and Soc/H-05. The latter two are definitely from the Sochi workshop.

The hinge teeth are preserved on all nine examples, but traces of the hinge pin remain only on two (NBS/H-01, Lan/H-01), even though both cheekpieces are missing on both (Figure 57).[398] The right hinge teeth on the missing helmet from Mezmay (Mez/H-04) appear to be intact.[399] Five of the helmets (Ros/H-01, Soc/H-01, Soc/H-02, Soc/H-03, Soc/H-05) shows minor signs of damage along the hinge teeth (Figure 58).[400] And, finally, the hinge teeth of the helmet Mai/H-01 was clearly pried open, probably for the easier removal of the hinge pin (Figure 58).



[May/H-01, Soc/H-01, Soc/H-0
Images removed due to copyri

Figure 58. Damage to hinge teeth.
(NBS/H-01, Soc/H-01, Soc/H-02: S. Chandrasekaran; Mai/H-01: After Galanina 2007, no. 62; Ros/H-01: After Kosyanenko/Luk'yashko/Maksimenko 1978, Fig. 2)

How the cheekpieces went missing

It is difficult to determine just why cheekpieces were removed so cleanly from their hinges. Before commencing with this question, we should note that all nine helmets with cleanly removed cheekpieces come from unknown or robbed contexts. If we set aside the possibilities that the cheekpieces went missing or unnoticed upon the helmets' chance discovery or looting, or that the finders/looters found them and kept some as souvenirs, we must then consider the following: six of the thirteen helmets of the 'Sochi' type *do* preserve at least one cheekpiece, and two of these are almost certainly from the looted burial complex in the Khosta district of Sochi.[401] The detachment of the

[398] NBS/H-01: The remains of the hinge pins are found in the front part of both upper hinge components of this helmet. Note that the right hinge pin has survived between the first and middle hinge teeth. The hinge teeth themselves do not appear to be damaged. Lan/H-01: The entire left hinge pin is intact, while the back section of the right pin survives between the middle and rear hinge tooth.

[399] This cannot be determined for certain, as all we have to go by is a single drawing.

[400] Whether the hinge pin of the helmet Ros/H-01 is preserved or not cannot be determined using the available images.

The footnote originally presented here cannot be made available in this copy due to the sensitivity of the material.

cheekpieces may have occurred as a result of the iron hinge pins corroding away.[402] The displaced cheekpieces may have then shifted within the find context over time and subsequently not been discovered together with the helmets.

However, I believe there is a more plausible answer to this question. We have already observed the clear damage to the hinge teeth on the six helmets shown in Figure 58. A closer look at the damage, in particular on the inner hinge flap of helmet Soc/H-02, reveals it to have been deliberately cut and removed just to the right of the middle hinge tooth. The only logical reason to do this was to facilitate the deliberate removal of the hinge pin. By removing the inner part of one of the corner hinge teeth, one could grasp the end of the hinge pin and pry it out. On helmets with intact upper hinge components, the hinge teeth were obviously loose enough for the hinge pins to be poked through without damaging the teeth.[403] In cases where the hinge teeth were too tight, they were pried open (Mai/H-01, Soc/H-01) or cut away (Soc/H-02) to enable the easier removal of the hinge pins.

The reasons for the deliberate removal of one or (more frequently) both cheekpieces on the unaltered helmets is debatable. In any case, a number of reasons render it highly unlikely that the original cheekpieces were removed to make way for new ones, as is the case with reworked helmets discussed earlier in this section. First of these is that the attachment of new cheekpieces would presuppose the removal of *both* original ones, which is not always the case with the unaltered helmets.[404] Secondly, eight out of the nine helmets in question are of the 'Sochi' type *without* rivets and,[405] subsequently, rivet perforations, *and* the hinge teeth are at least partially damaged on six of these (Figure

[402] The areas around the hinge teeth show considerable traces of rust in all cases.

[403] The Chalcidian type helmets without cheekpieces but with intact hinge teeth are: Kel/H-03, May/H-01, NBS/H-01, Ros/H-01, Soc/H-01, Soc/H-02and Soc/H-03.

[404] For all unaltered helmets see FN 52.

[405] Only the helmet from Rostov (Ros/H-01) was riveted.

58). Thus there were no hinge teeth or perforations by which to attach the hypothetical new cheekpieces. In view of the fact that *reworked* helmets are characterized by shortened helmet sides lined with the original and/or secondary perforations meant for the attachment of the new cheekpieces, it seems highly unlikely that the cheekpiece removal on unaltered helmets was carried out for the same reason.

The situation grows more confusing in view of the helmets Lan/H-01 and NBS/H-01 (Figure 57), where enough of the hinge pins is preserved to have prevented an easy removal of the cheekpieces.

The only remaining option – while not a very satisfying one – is the possibility that cheekpieces were removed as part of a ritual function, perhaps some kind of 'ritual damage'.[406] Note that four of the helmets in question are almost certainly from the same burial complex in Khosta,[407] perhaps suggesting a ritual carried out at a particular site.

While the true reason must remain uncertain, it is clear that the removal of cheekpieces on otherwise unaltered helmets is found only amongst examples of the 'Sochi' type. I have already demonstrated the popularity of 'Sochi' type helmets in the Western Caucasus, in particular in the coastal areas and foothills between the Bosporan Kingdom and Colchis. As such, it is reasonable to assume that the deliberate removal of cheekpieces was of some particular significance to the local inhabitants of this region.

[406] Perhaps comparable with the ritually damaged swords in Hallstatt graves from the Middle Bronze Age on. See Trachsel 2005, 67-68.

[407] Soc/H-02, Soc/H-03, Soc/H-05, NBS/H-01

B. 'VARIATIONS' ON CHALCIDIAN HELMETS

A number of helmets from the Western Caucasus display similarities to Chalcidian helmets, but are clearly not of proper Chalcidian style. These are easily identified and can be classified in two groups. The first of these – the Eshera workshop – comprises helmets from the area of Eshera (Colchis) that were *reworked* to resemble Chalcidian type helmets to a certain degree. These helmets come from find complexes with a relatively wide date range (5th-3rd centuries BC). The second group – the 'Dakhovskaya' type – consists of helmets from later find complexes in the Northern Caucasus foothills specifically *fashioned* to resemble Chalcidian type helmets to a certain extent. Both helmet groups demonstrate the widespread popularity of the Chalcidian helmet type during the Hellenistic period.

Chalcidian helmets of the Eshera workshop

The series of Chalcidian helmets of the 'Eshera workshop' type is the earliest set of such finds from the Western Caucasus. The 'Eshera workshop' type defines a group of four very similar helmet finds – all hammered – from the Eshera area near Dioscurias (Sukhumi), in ancient Colchis (Figure 59). The first of these – Esh/H-02 – comes from a

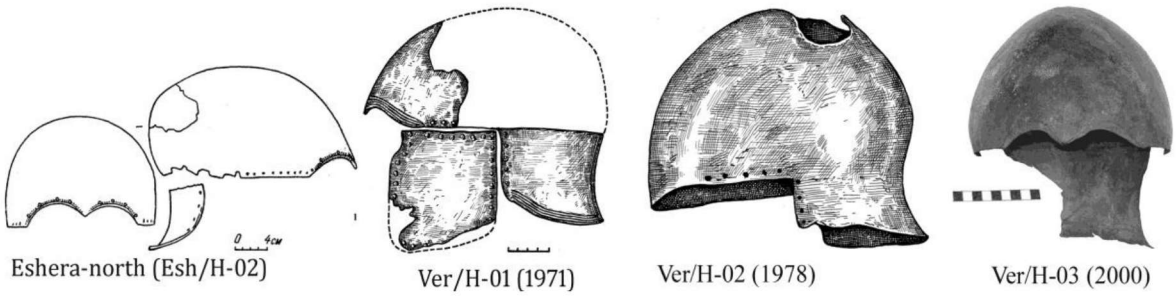


Figure 59. The 'Eshera' type Chalcidian helmets.
(Drawings after Erlikh 2008, Fig. 1.1, 1.2, 1.3; Photograph courtesy of V. Erlikh)

burial to the north of the Eshera fortifications and was discovered the late 1960s.[408] Two further such helmets – Ver/H-01 and Ver/H-02 – were discovered during the 1970s on Vereshchagin Hill, further north of the Eshera fortifications. The latest addition to this group – Ver/H-03 – was discovered in 2000 along the eastern slope of Vereshchagin Hill. The helmets were published at various times by Yu.Voronov and G. Shamba, respectively, and most recently as a group in a joint publication by V. Erlikh and A. Dzhopua.[409] All burials contained finds datable from the 5th to 3rd centuries BC, and the possibility of their Hellenistic dating places them within the sphere of this study.[410]

[408] Yu. Voronov originally describes the helmet as 'Attic' (1969, no.90), but later revises this, suggesting it to be an example of local re-working of an originally Corinthian helmet form (Voronov 1972; Voronov 1975, 226). Erlikh 2008, 80.

[409] Detailed literature includes Voronov 1975, Shamba 2000 and Erlikh 2008. See a full literature list for each helmet under the respective catalogue entries.

[410] The 1960 Eshera burial is dated to the 5th-3rd centuries BC. The first and the last Vereshchagin burials are dated to the 5th-4th centuries BC, while the second one carries a generic Early Classical dating and, as such, does not belong directly in this study and is used here only as a comparison.

With only a couple of exceptions, all the above helmets have the following characteristics in common (Figure 59):

The 'Eshera workshop' helmet form is not quite as 'exquisite' as that of the classic Chalcidian one. It consists of an elongated, bowl-shaped dome, which covers the head all the way up to the lower brow. There is no separately distinct lower brow section, as is otherwise found in Chalcidian helmets. The facial section is characterized by small, shallow cutouts for the eyes (with the exception of helmet Ver/H-02, which displays a fully horizontal facial rim). All eye cutouts are embellished with an ornamental border and/or perforations.[411] The cutouts join in the centre to form a short, pointed nasal guard – a roughly fashioned one, in the case of Ver/H-03. There are no cutouts for the ears, and the result is a straight horizontal helmet rim lined with perforations at the sides only. The bulging rear section of each helmet bowl creases slightly above the neck before falling into a neck guard of varying elongation. The neck guard – short or long – is formed *without* lappets at the sides and falls with an outward curve in the back, finishing off with a slight, almost indistinct flare. In all cases, the neck guard is also lined with perforations along the sides only, similar to those along the side rims of the helmet. The lack of perforations along the remaining helmet rim – the front rim and the lower rim of the neck guard) indicates that these were intended for the attachment of wide earflaps, holding them from the top and the side for greater stability. The use of the helmet perforations for an inner lining is very unlikely.

The separately worked and detachable cheek flaps place this series of helmets from the 'Eshera workshop' lend some semblance to helmets of the Chalcidian type V category

[411] In the case of Ver/H-03 – and probably also Esh/H-02 – the cutouts are lined with an ornamental border roughly created by turning over the metal at the edge and hammering it flat. On Ver/H-01, the eye cutouts are lined with an ornamental border of parallel, chased lines. Tiny punched dots set with perforations embellish the cutouts of helmet Esh/H-02, and row of closely set, tiny perforations those of helmet Ver/H-03.

as defined by H. Pflug. I shall use the shorter term 'Eshera' type to describe these helmets in the following.

All four helmets were clearly once equipped with separate, rather square-shaped earflaps, wide enough to cover both ears and cheeks. These would have been attached in some fashion to the helmet edges using the abovementioned perforations. In only one case does an earflap survive, on helmet Ver/H-01. It was short and wide, the lower front corner slightly rounded. Interestingly, all edges of the earflap are lined with perforations, suggesting these to have been used for the attachment of a chinstrap and/or some kind of soft, inner lining.[412]

A second earflap of the same shape (Esh/Ch-01) has also been discovered at the Eshera fortifications, in the same complex as the helmet Esh/H-02. This is also lined with perforations on all sides, but cannot be attributed to any of the helmets discussed here.[413] However, it does appear to belong to the Eshera workshop.

Thus we can define the distinguishing characteristics of the 'Eshera' type of Chalcidian helmet as consisting of a bowl-shaped dome *without* a distinct lower forehead section, with shallow ocular cutouts, short, pointed nasal guard, elongated neck guard *without* lappets, a horizontal helmet rim at the sides, and attachable, wide earflaps. Particularly noteworthy are the perforations lining the helmet and neck guard edges at the sides only.

While the four above helmets clearly constitute a solid typological group based on their overall form and details, they are unique amongst *all* helmet finds from the Ancient World, with *no* known artistic depictions of this type. Therefore, it is very difficult to place them within a certain timeframe, or, more importantly, assign them a particular provenance. One explanation for this lack of parallels has been that we are looking at a

[412] One of the uses of such perforations as suggested by N. Sudarev (1990, 107).

[413] Erlikh (2008), however, does suggest this earflap may actually belong to the helmet Esh/H-02.

group of reworked helmets.

As early as 1972, Yu. Voronov suggested at least one of these helmets to be a reworked Corinthian helmet, without going into further detail about the proposed transformation. In their 2008 article, V. Erlikh and A. Djopua rejected Voronov's suggestion of reworking,[414] based mainly N. Sudarev's convincing argument that the metal neck guard was also always removed on reworked helmets to incorporate a neck protection or covering of organic or more flexible materials.[415] This is certainly the case on the two Corinthian examples shown by Sudarev.[416]

Instead, Erlikh and Djopua see the 'Eshera' helmets to be an original helmet type, and find a close parallel in Greek sculpture of the early 5th century BC, in the helmet of the young warrior from the east pediment of the Temple of Aphaia at Aegina.[417] They identify the lack of ear cutouts in the warrior's helmet, together with the short, pointed form of the nasal guard, as the main similarities with the Eshera helmets. While the similarity of the nasal guards cannot be disputed, the authors appear to have been misled in terms of lacking aural recesses on the warrior's helmet. The authors base this claim on two photographs of the warrior head, one showing a frontal view, the other in full-profile.[418] However,

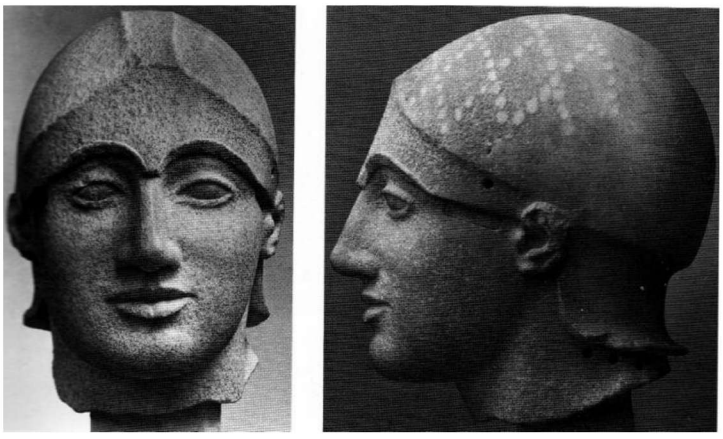


Figure 60. The young warrior from Aegina.
(After Pflug 1988, 145, Abb. 11, 12)

[414] Erlikh/Djopua 2008, 83.

[415] Sudarev 1990, 107-108.

[416] Sudarev 1990, 102, Fig. 1.1, 1.2.

[417] Erlikh/Djopua 2008, 82.

[418] The images were taken from Pflug 1988 (145, Abb. 11-12).

neither of these images give a clear view of the actual helmet form directly behind the ears (Figure 60). A look at the same warrior head in a three-quarters view as shown in Figure 61 clearly shows that the helmet is, in fact, fitted with ear cutouts, and that the warrior is therefore wearing a proper Chalcidian helmet. Furthermore, the nasal guard of the Aegina helmet is neither extremely reduced nor pointed, as the image suggests (Figure 60),[419] but in fact broken at the nose bridge, as clearly shown on better images (Figure 61).[420]



Figure 61. The young warrior from Aegina. (After Mackenzie 1908-09, 300, Fig. 6a)

However, the eastern pediment does contain two more examples relevant to the 'Eshera' helmet series. Two warriors, one upright and attacking in the northern pediment half, the other fallen (the so-called 'Laomedon'), both wear helmets similar to what Erlikh and Djopua appear to have been looking for (Figures 62, 63).



Figure 62. The young warrior from Aegina. (After Erlangen University archive. Web. Photograph no. München, A 44 Aegina, Ost Phot. Kaufmann 273 202.03.12.)

In both cases, it is perfectly clear that neither has aural recesses. Because of this, H. Pflug classifies these helmets as *Corinthian* helmets in their final phase of development, with movable cheekpieces, and it is important to note that originals of this helmet type remain to be discovered.[421] However, both helmets have long nasal guards, and the

[419] Pflug (1988, 143) claims the nasal guard to be of the short type, however with a flat – not pointed – end.

[420] Note the two ornamental lines lining the eye cutouts of the warrior's helmet and following them as they narrow into a nasal. Clearly, the ornamental lines were meant to line the edges of the full nasal, where they would then inevitable meet at the tip. In the present condition, however, the lines simply end abruptly at the nose bridge without joining together, making it clear that this is not where they would have ended, i.e. that this is not the actual nasal tip. Note, additionally, the roughness of the lower edge, indicating breakage and not a finished tip.

[421] Pflug 1988b, 94, FN 124. Pflug names only the helmet of the fallen warrior from the Aegina east pediment. Strictly speaking, the so-called cheekpieces on this helmet (and that of the attacking warrior

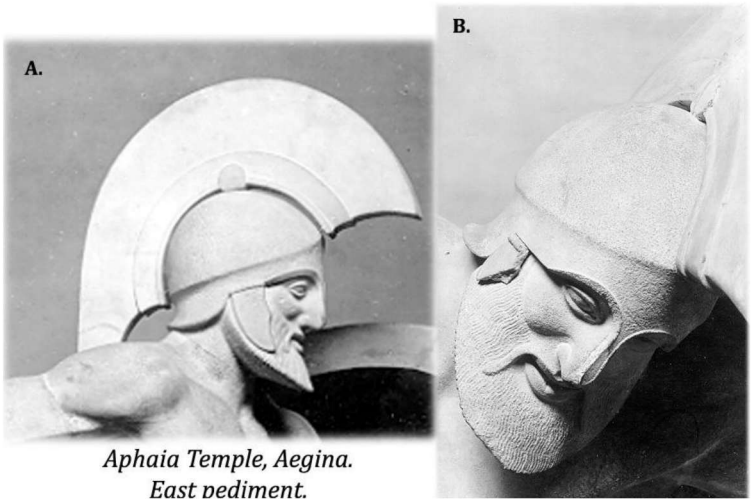


Figure63.
A: The attacking warrior from the north side of the pediment;
B: The dying warrior from the south half of the pediment.
(After University of Erlangen photo archive. Web. A: photograph F2. Glypt. 86 2; B: photograph München, A 41 Aegina Ost Phot. Stödtner 40871 2)

same must be assumed for the helmet of the young warrior discussed above.

At any rate, the lack of aural recesses is where any significant similarity between the Aegina helmets and the 'Eshera' series ends. Note that the overall form the Aegina helmet bodies – a bowl-shaped dome slightly yet distinctly offset from its lower forehead section – is very different from the rounded-bowl shapes of the Eshera helmets, which have no separate forehead section. The Aegina form is, in fact, typical of many Corinthian and all Chalcidian helmets.[422]

The discrepancies between the Eshera and Aegina helmets call for a closer look at the Eshera helmets, in particular helmet Ver/H-03, the only one which was available for proper study and documentation.

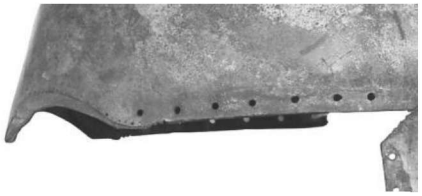


Figure 64. Helmet Ver/H-03, left profile.
(Photograph: S. Chandrasekaran)

I have already mentioned that the ocular cutouts of the helmet Ver/H-03 were lined with a number of fine, punched dots. Closer scrutiny of these reveals the line of dots to run past the eyes and out to the helmet sides, where it is clearly cut off abruptly by the helmet rim (Figure 64). Further, a close look at the helmet side reveals the soft swell of an upper helmet dome offset from the flatter, extremely short lower

from the same pediment) are really 'earpieces', as they only cover the ears and not the cheeks.

[422] See Pflug 1988b, 87ff. The distinct offsetting of helmet bowl from lower section characterizes Corinthian helmets of the third phase according to Pflug, i.e. from the mid-6th century BC on.

section, just large enough to incorporate the perforations. Finally, while the side rim of the helmet edge is cleanly cut in a perfect horizontal, it is not finished in any way.

All these details indicate that the helmet Ver/H-03 is indeed a reworked helmet: the lower helmet section was cut off cleanly at the level of the punched dots, only slightly below the offsetting of the dome, leaving only the slightest hint of the original lower section. The question remains to ascertain whether we are dealing with a Corinthian or Chalcidian original.



Figure 65. Damaged helmet, provenance unknown. Berlin, Antiquities Collection, Inv. no. 2969x.
(After Pflug 1988, 432, Kat. 45)

An example of reworking similar to what we find on the Ver/H-03 helmet is can be seen in the damaged helmet of unknown provenance now in the Antiquities Collection of Berlin (Figure 65). The Berlin helmet demonstrates the same short, pointed nose guard as on the Vereshchagin one, lined similarly with tiny perforations (not dots) moving from the outer eye to the helmet sides. The lower helmet section appears to have been deliberately torn below the helmet dome, which is more pronouncedly offset from the lower section than on the Vereshchagin helmet. The result is a similar – not exact – form as on the Vereshchagin helmet.

Pflug tells us that the Berlin helmet should be completed as a Chalcidian type V helmet, i.e. with flexible cheekpieces on hinges.[423] The photographs provided give no clear traces of ear cutouts or hinges by which to judge this, and these may have simply been removed or damaged. Unfortunately for our comparison, the neck guard of the Berlin helmet is not preserved.

[423] Pflug 1988, 432



Figure 66. Helmet Tem/H-01, profile. (Photograph: S. Chandrasekaran)

The question of reworked helmets that preserve the original neck guard has already been discussed above, at least in terms of Corinthian helmets. Sudarev's examples of reworked Chalcidian helmets also do not preserve the original neck guard.[424] However, we have a number of Chalcidian helmets in this study – all type V with flexible cheekpieces on hinges – that have been reworked at the sides and preserve the neck guard. The best preserved of these is the helmet from Temnolesskaya (Tem/H-01 – Figure 66). The side rim of this clearly Chalcidian helmet was shortened, cut off just above the cheekpiece hinges at the mid-eye level, i.e. at the level of the outer eye corner, and lined with secondary perforations.[425]

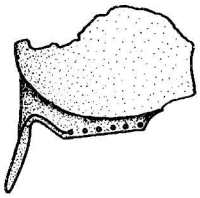


Figure 67. Helmet AA/H-01. (After Voronov 1991, Fig. 3.1)

Another example of similar reworking from the Western Caucasus – without preserving the neck guard – is found in the geographically close helmet from Akhul-abaa AA/H-01 (Figure 67), unfortunately only fragmentarily preserved. A close look at the surviving fragment, which preserves the facial features and part of the left side of the helmet, shows interesting parallels to the Vereshchagin helmet: we see a clear distinction between the offset helmet bowl and lower helmet body, a cleanly cut side rim at mid-eye level lined with perforations. Most important is the fact that the side rim is cut extremely close to the offsetting of the helmet bowl, leaving space only for the line of perforations and nothing more. This is exactly the same situation we observe in the Vereshchagin helmet.

In the case of the Akhul-abaa piece, the surviving upper arch of the ear cutout makes it

[424] Sudarev 1990,102, Fig. 1.3, 1.4.

[425] Other examples of this type of reworking include the helmet from Kokhi (Kok/H-01), two helmets from Kurdzhips (Kur/H-01, Kur/H-02), a helmet of unknown provenance from the Krasnodar region (UP/H-01), and the helmet from Kutaisi in Colchis (Kut/H-01).

clear that we are dealing with a Chalcidian type helmet with cheekpieces. Whether these were detachable or not cannot be clarified from the available drawings. Unfortunately, there is nothing on the Vereshchagin helmet apart from the similarly short helmet body that allows us to assume a Chalcidian original. Indeed, the slight degree of offsetting of the Vereshchagin helmet bowl, particularly in the rear, is more typical of Corinthian helmets than Chalcidian. Further, the unfinished sides of the neck guard indicate that these were also cut as part of the reworking process, indicating the possibility of a different – perhaps Corinthian – form.

The find context of Vereshchagin helmet Ver/H-03 is dated to the 5th-4th centuries BC.[426] This does not contradict the dating of the helmet itself somewhere from the mid-6th – mid-5th century BC as suggested by Erlikh and Djopua.[427] This dating would also support the possibility of a Chalcidian or, especially, a Corinthian original.[428]

Thus it is clear that the Vereshchagin helmet Ver/H-03 is a reworked Chalcidian or Corinthian helmet. The remaining helmets of the 'Eshera' series are also reworked examples, as can be clearly seen on the secondary perforations along the helmet side rims.[429] While a Chalcidian or Corinthian original can easily be assumed for helmets Esh/H-02 and Ver/H-01, it is more difficult to guess the original shape of Ver/H-02, as it has no eye cutouts in its present form. A close study of the original fragments of the latter three helmets, once they are made available for this purpose, should shed more light on these questions for *all four* helmets, which have been reworked in the same

[426] Djopua/Shenkao 2003, 7.

[427] Erlikh/Djopua 2008, 83.

[428] A Corinthian original would probably be of the 3rd stage of Corinthian development as defined by H. Pflug (1988b, 87), i.e. a hammered and quite light in weight, characterized in particular by a particularly flexible cheek section which allowed for the helmet to be propped onto the forehead (see Pflug 1988b, Abb. 29).

[429] Note that these perforations are unevenly spaced on helmets Esh/H-02 and Ver/H-01, clearly indicative of their secondary addition.

fashion.

Erlikh and Djopua suggest a common workshop for the 'Eshera' series,[430] and in this they are quite correct. The reworking of these helmets demonstrates a single workshop with the goal to transform helmets – of whatever type – into ones suiting the local tastes, with a bowl-shaped body, flat side rim cut at the level of the mid-eye, and wide cheek flaps that cover both ears and cheeks. It is also highly likely that the workshop was located somewhere in Eshera or in the vicinity.

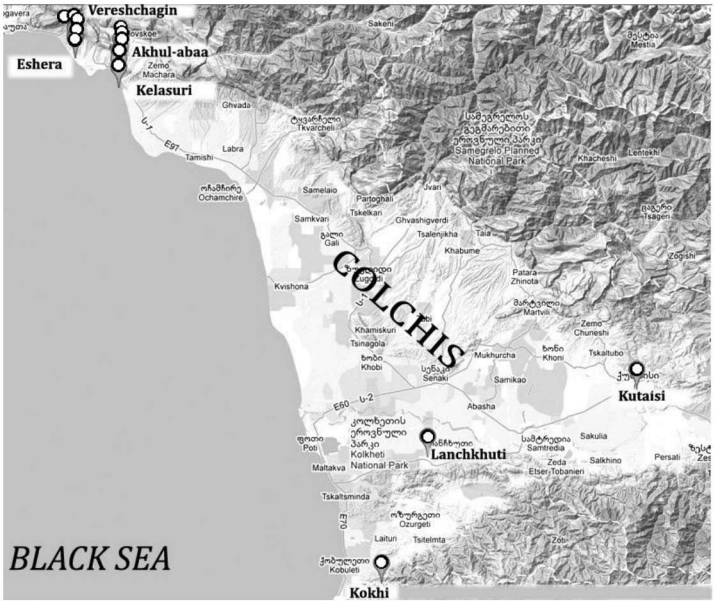


Figure 68. Distribution of Chalcidian helmets and helmets of the Eshera workshop in Colchis.
(Map: S. Chandrasekaran – using Google maps)

The question remains to determine whether the fashion of reworking indicates any particular affinity towards Chalcidian type helmets. In this respect, two factors catch our attention. One is the addition of *moveable and detachable* cheek coverings, reminiscent of Chalcidian type V helmets. The other is the retaining of the original neck guard, which may also indicate an affinity to Chalcidian type features, especially in view of the fact that neck guards were otherwise always removed on reworked Chalcidian helmets.[431] Also not to forget is the distribution of the nine Chalcidian helmets throughout Colchis (Figure 68).[432] Six of these come from the

[430] Erlikh/Djopua 2008, 82.

[431] Sudarev 1990, 102, Fig. 1.3, 1.4.

[432] Chalcidian helmet finds in Colchis include AA/H-01, AA/H-02, Esh/H-01, Kel/H-01, Kel/H-02, Kel/H-03, Kok/H-01, Kut/H-01 and Lan/H-01.

Dioscurias area, near Eshera, and from complexes with a similar dating as the helmets of the Eshera workshop, thus clearly indicating that they were valued in this area.

The factors mentioned above can be found in some of the later helmet finds from the Western Caucasus, as we shall see in the following section. However, the defining characteristic of this workshop – the use of perforations along the side helmet rim and neck guard sides to fasten the cheek flaps – remains unique to the helmets of this particular workshop.

Local 'imitations' of the Chalcidian type V style



Figure 69. Find sites of local 'imitations' of the Chalcidian type V style.
(S. Chandrasekaran – using Google maps)

Imitations of the 'Dakhovskaya' type

A small group of helmets similar to Chalcidian type helmets stand out amongst the finds from the Western Caucasus because of their unique forms. These include two bronze helmets from a complex in Mezmay (Mez/H-01, Mez/H-02) and another bronze helmet from Dakhovskaya (Dkh/H-01), in the foothills of the Northern Caucasus (Figure 69). The Mezmay complex is dated to the 3rd-2nd centuries BC.[433] The Dakhovskaya find, however, comes from a disturbed complex and is given a relatively vague dating of 'Sarmatian period' by B. Lunin,[434] placing it in a period from anywhere between 3rd century BC and the 3rd century AD. Of all three helmets, only the Mezmay examples could be studied.[435] The helmet from Dakhovskaya, once in the Rostov Museum, went missing during World War II and is only known from photographs. Archaeological reports also mention a fourth helmet of this kind found by chance in Dakhovskaya. This, unfortunately, also went missing at some point, and no images of it were ever produced.[436]

The helmet form (referred to in following as the 'Dakhovskaya' type) combines elements we have already observed on Kuban style helmets, local riveted helmets *and* Chalcidian type V helmets. In all three helmets, the form consists of a rounded, bowl-

[433] Shevchenko/Zaytsev/Mordvintseva 2011, 148-149.

[434] Lunin 1939, 211.

[435] These helmets are kept in the Krasnodar State Museum of History and Archaeology.

[436] See Chernenko (2006, no. 613) and Rabinovich (1941, 131) for a more detailed description of this helmet.

shaped helmet body embellished with arched eye cutouts and a short, pointed nose guard. On the helmet Mez/H-01, the back of the helmet extends into an elongated, curved neck guard. The rear of the other two helmets, on the other hand, ends with the helmet bowl above the neck. The two Mezmay helmets are further characterized by wide, hinged cheek flaps which cover both ears and cheeks. Note the lack of aural recesses on all three helmets.

The truly defining characteristic of the 'Dakhovskaya' type helmets, however, is their manufacturing and assembly technique. Each helmet – hammered of bronze – consists of two symmetrical halves riveted together along the length of the helmet from nose to nape. This is reminiscent of the riveted helmets as discussed in the introduction to this chapter (Figure 70).

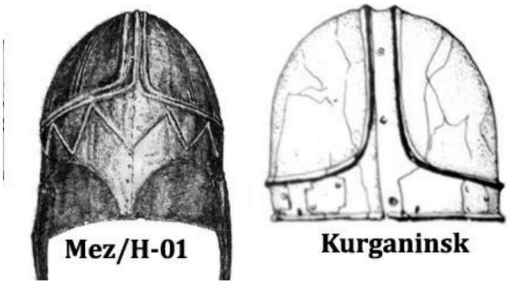


Figure 70. Comparing the riveted construction of 'Dakhovskaya' type helmets with riveted helmets.
(Mez/H-01: After Shevchenko/Zaytsev/Mordvintseva 2011, Fig. 20.2; Kurganinsk: After Raev/Simonenko/Treister 1991, Fig. 16.2-3)

Unique to this particular series of helmets is elaborate decoration along its entire body, which is hammered and/or stamped into the metal, as well as the construction of the cheekpieces, which will be described later on in this section.

Of the three 'Dakhovskaya' type helmets, two can clearly be assigned to the same workshop.

The Dakhovskaya workshop

Helmet Dkh/H-01: This workshop takes its name from a helmet with an ornament of ram's horns discovered in the village of Dakhovskaya (Dkh/H-01) in 1935 (Figure 71). The helmet, now missing, is known mainly through its publication by B. Rabinovich, who fortunately included photographs of the object showing it from the front and in



[Mez/H-02: Images removed due to copyright restrictions]

Figure 71. Helmets from the Dakhovskaya workshop.
(Dkh/H-01: After Rabinovich 1941, Pl. 10.1, 10.2; Mez/H-02: Courtesy of E. Khachaturova)

profile.[437] The photographs show a helmet of an inverted bowl shape with a uniform rim at the back and sides. The facial area is defined by shallow, almond-shaped cutouts for the eyes that would have joined together in the middle to form a nose guard. Note the lack of cutouts for the ears. No cheekpieces or cheek flaps were found with the helmet. However, perforations were reported to line the helmet sides.[438]

Nothing can be said of the metal surface or colour, as no mention was made of it in the reports. Rabinovich noted the exceptionally light weight of this helmet at 612g.

A set of offset, decorative elements were hammered, chased and/or stamped into the helmet at the forehead, sides and rear, as well as along the length of the helmet from front to back. The forehead is marked by two small volutes curling downwards, one on each side of the helmet centre – a combination of repoussé and chasing. At the rear of the helmet we find a thin, double-ridged relief set a few centimetres above the helmet rim – at the same height as the forehead volute – and running parallel to the helmet rim, thus separating the upper helmet dome from the lower. The lower helmet rim is defined by a thin relief edge along its full circumference, including the eye cutouts, created by turning out and hammering the lower helmet edge. And, finally, a triple-rib relief runs the helmet length from the forehead volute to rear double-ridged ornament, effectively

[437] Rabinovich 1941, 129-130, Pl. 10.1, 10.2.

[438] Chernenko 2006, no. 612.

concealing the riveted middle-seam along the helmet crest.



Figure 72. Ram's horns. (After: O. Zebest. Ram's Horn, Ram's Head. 23 Jan 2009 via Flickr, Creative Commons Attribution

The heavily offset ornament at the helmet sides is quite significant: a generous pair of rams horns in relief spiral up from the upper forehead to form a large, spiralling curl on each side of the helmet. The horns are crafted as realistically as possible (cf. Figure 72) the length of each horn is marked a sharp ridge along its middle. The ensuing horn 'sides' are further defined by a series of sharply hammered, closely-set 'ribs' running perpendicular to the main ridge.

Helmet Mez/H-02: The Dakhovskaya helmet, with its characteristic ornament, was considered unique until the discovery of a practically identical helmet from the Mezmay burial complex in 2004 (Figure 71). This helmet was quite well preserved – albeit fragmented – and demonstrates practically all of the elements found on the helmet Dkh/H-01. The only real difference is the lack of forehead volutes. Instead, the ram's horns on the Mezmay helmet are set at the mid-forehead, somewhat lower than on the Dakhovskaya helmet, and begin to unfurl at the same level of the forehead volutes on the Dakhovskaya helmet.

Particularly exceptional is the likeness of the ram's horns on both helmets. Rabinovich suggested the horns on the Dakhovskaya helmet to have been stamped.[439] Indeed, so similar are the overall form and proportions of both sets of horns that this could well be the case. The additional ridges – both lengthwise and perpendicular – would have been hammered into the stamped ornament. The identical stamped ornament, together with the likeness of overall form and proportions, clearly demonstrate that these two helmets are of the same manufacture.

Therefore, it is possible to use the preserved features of the Mezmay helmet to complete

[439] Rabinovich 1941, 129.

the picture of the Dakhovskaya helmet. These include the short, pointed nose guard of the former, together with its wide, elongated cheek flaps. The latter is of a stylized 'sickle-shape' – the outer edge rounded, the inner edge cut vertically at the bottom and marked by a double wave at the top. The edges are marked by a double-ridge relief border and a series of small, uniform perforations.

Additionally, it is important to note the golden hue of the bronze that showed up during the helmet's restoration, indicating that it was polished to this colour.

Another helmet of the 'Dakhovskaya' type

The 2004 excavations of the flat grave cemetery in Mezmay brought forth yet another bronze helmet (Mez/H-01) similar in construction and overall form to its companion helmet discussed above, yet differing from it in its ornamentation.

The helmet Mez/H-01 consists of a slightly elongated, inverted bowl-shape. The front is marked by wide, arched cutouts for the eyes. These join together to form a triangular nose guard of medium length with a pointed tip. The back of the helmet is particularly interesting, as the helmet bowl is lengthened to form a short neck guard with slight outward curve. The neck guard has no lateral lappets. Note that this helmet is also without aural recesses. The helmet was equipped with wide, elongated cheek flaps of a shape similar to those of helmet Mez/H-02. Finally, restoration of this helmet also revealed the bronze to have been of a golden colour, similar to the helmet Mez/H-02.

The ornamentation of this helmet is truly unique amongst helmet finds of the Ancient World. The upper and lower dome sections are separated by a double-ridge relief ornament running around the helmet circumference at forehead level. Note that there is no offsetting of the upper helmet dome. The helmet crest is marked by a triple-ridge relief ornament, serving to mask the riveting of the helmet halves along the central seam. The upper dome is further decorated by a series of triple-ridges radiating outward

from the helmet peak to the horizontal double-ridge 'partition'. A set of triangular 'teeth' line the horizontal ornament from below. Finally, the lower helmet rim is lined with a thin relief edge created by folding the lower edge over and hammering it tight.

Note that the cheek flaps were also decorated with double ridges bordering the edges and lining the middle (Figure 73). The outer edges were lined with small, uniform perforations, similar to the helmet Mez/H-02.

As we can see, the helmet Mez/H-01 was fashioned in a style similar to those of the Dakhovskaya workshop, and perhaps even in the same workshop. The construction of two halves – mirror images – joined together along a central seam is identical, as is the basic bowl shape of the helmet dome. Besides the obvious discrepancy in decoration, differences include the presence of a neck guard, the longer nose guard, the larger eye cutouts, and the cut of the cheek flaps. The latter has a rounded outer-lower edge, but a vertical inner edge, with the exception of a small rounded cutout at the top.

[Mez/H-01, Mez/H-02: Images removed due to copyright restrictions]

Figure 73. Cheekpieces of the Mezmay helmets. (After photographs kindly provided by E. Khachaturova)

Unique features of the 'Dakhovskaya' type helmets

We have already discussed the similarities of construction between these helmets and riveted helmets of the Kuban region. A further element of the helmet construction deserves attention at this point – the hinged cheek flaps. These are truly unique to this particular helmet series. The shape of the cheek flaps – wide and elongated – is unlike anything seen on other helmets with cheek protection. However, the embellishment of the inner edges with a wave (or crescent) cut is something often found in cheekpieces from the 5th-3rd centuries BC. Both cheek flaps are decorated with hammered ridge ornaments – also unique amongst cheek protection known from the Western Caucasus.

The complete lining of the cheek flap edges with small perforations is also unknown amongst the known Chalcidian type V cheekpieces, but is found on helmets of the 'Eshera' series. Particularly interesting, however, is the construction of the lower hinge components on the cheek flaps. These consist of three hinge teeth each – two wider outer ones, and a smaller middle one. This constellation is clearly visible on the cheek flaps of helmet Mez/H-01.[440] The arrangement of the hinge teeth, with two of them marking the *outer* edges of the cheek flap – is otherwise unknown amongst Chalcidian helmets with hinged cheekpieces, where the outer edges are always cut out to fit the outer teeth of the upper hinge component.

Conclusion

Based on the above analysis, we can sum up the 'Dakhovskaya' helmet type as follows: it is a unique blend of elements from other helmet types which were popular in the region from the 7th – 2nd centuries BC – the earlier Kuban style helmets, contemporary riveted helmets and, of course, Hellenistic Chalcidian type V helmets – combined with exclusive features of decoration and technique, i.e. the ornamentation and the cheek flap construction.

The three helmets of this unique group all come from complexes dated to the 3rd century BC or later.[441] The degree of similarity to local types varies amongst the helmets. The Dakhovskaya workshop appears to have more local elements – the bowl-shape of the helmet without neck guard, the lack of ear cutouts, the shallow eye cutouts and short, pointed nose guard. The 'Dakhovskaya' type helmet (Mez/H-01) shows a greater

[440] The middle hinge tooth of the cheek flap from helmet Mez/H-02 is damaged.

[441] A further helmet of very similar make and elaborate ornamentation is found today in the Pushkin Museum in Moscow. It is part of the Karakovsky Collection donated to the museum in 2005. The catalogue (Cat. Karakovsky, 3, 7) states no provenance for the helmet but dates it to the 4th century AD, a dating which requires closer examination of the helmet itself. The resemblance of this helmet to those of the 'Dakhovskaya' type is unmistakable, and closer study of it would be highly desirable, especially in regard to its dating.

tendency towards the Chalcidian type V style, with neck guard, longer nose guard and larger eye cutouts. In both cases, the helmets are equipped with cheek flaps. At first glance, this points towards the cheekpieces of Chalcidian type V helmets. However, it is worth recalling the helmets of the Eshera workshop. These helmets were reworked to incorporate not *cheekpieces* but *cheek flaps* which covered both the ears and the cheeks. The similarity is further supported by the small perforations lining the entirety of the cheek flaps on both 'Dakhovskaya' type and 'Eshera' type helmets. Not to forget is also the fact that all helmets of the Eshera workshop have neck guards, thus suggesting further affinity between them and the helmet Mez/H-01. Therefore, I suggest that the cheek flaps of the 'Dakhovskaya' type helmets represent the continuation of a *local* preference which manifested itself mainly in the foothills of the Caucasus – Mezmay and Dakhovskaya in the north, and Eshera in the south – as neither helmet type is found elsewhere.

According to Rabinovich, the elaborate ornamentation of the Dakhovskaya helmet Dkh/H-01 suggests that it was not used in battle.[442] The same reasoning is easily applicable to the Mezmay helmets. Yet another feature lends credibility to this theory: the golden hue of the bronze on helmets Mez/H-02 and Mez/H-01. The same colour can be inferred for the Dakhovskaya helmet, even though the black-and-white photographs do not show this.[443] As already discussed earlier, a golden colour is achieved by simply polishing up the bronze surface. No additional treatment is required. The golden colour negates the possibility of deliberate hardening (tinning) of the bronze, which would result in a silver-coloured surface. The golden, non-hardened surface, combined with the elaborate ornamentation on all helmets, goes far to indicate their use solely as *representative* or *ritual* objects that did not see action in battle. The extremely light

[442] Rabinovich 1941, 131.

[443] Archaeological records also make no mention of the colour of the Dakhovskaya helmet.

weight recorded for the missing helmet from Dakhovskaya (612g) may also be viewed as evidence for the helmet's use *outside* the battlefield, in a parade or ritual function.[444]

[444] No mentions are made of the weight of the Mezmay helmets, but they will probably prove to be similarly lightweight, like the Dakhovskaya helmet.

C. THE PHRYGO-CHALCIDIAN HELMET FROM BOLSHAYA BLIZNITSA*

One of the most interesting helmet finds from the Western Caucasus comes from the kurgan Bolshaya Bliznitsa in the Asian Bosporus (BB/H-01). The helmet, which has gone missing since its discovery in the 19th century, is known to us only through the two drawings made of it that time.[445]

The helmet is often referred to as a Phrygian helmet based on its similarity to this well-known form. The term Phrygian, however, is rather misleading, for while the helmet does imitate the typical Phrygian form with high-folding peak, it incorporates a number of facial elements known to us from the Chalcidian helmet style. This combination of elements is otherwise unknown amongst ancient helmet finds, making the helmet from Bolshaya Bliznitsa a unique object of study.

The Phrygian (or Thracian, as it is sometimes called) helmet type has been the subject of four very important studies. The earliest, *Thrakische Helme*, is a comprehensive analysis undertaken by B. Schröder in 1912. This was followed up on only in 1982 by another comprehensive work, *Phrygische Helme,* by J. Vokotopoulou. Shortly after, in 1988, G. Waurick addressed the problems in studying Phrygian helmets as part of his monograph on Hellenistic helmets entitled *Helme der hellenistischen Zeit und ihre Vorläufer*. The most recent analysis of this helmet form is *Early Hellenistic Helmets with tiara-shaped Body from the Eastern Black Sea Region* (in Russian) by D. Aleksinsky of the State Hermitage Museum.

* This section is partially based on a presentation (and subsequent article) given at the 2011 conference 'Bosporsky fenomen' in the State Hermitage in St. Petersburg. See Chandrasekaran 2011.

[445] See the drawings under the catalogue entry BB/H-01.



Figure 74. Detail from krater K6, Louvre.
(After: Bibi Saint-Pol. 2007-06-15 via Wikipedia)

The Phrygian helmet type takes its name from the so-called Phrygian cap or 'tiara' which it resembles – a conical headdress of soft organic material with the bent peak folding over in front (Figure 74). This cap form was often referred to as 'Phrygian' in ancient sources.[446] The transposition of the original cap form into metal results in its sectioning into helmet skull and brow section, separated from one another by an ornamental ridge or similar. G. Waurick distinguished four variations of the Phrygian helmet form: 1) a main form; 2) a form influenced by Chalcidian elements; 3) a transitional form to the Boeotian helmet type; 4) Italic special forms ('Conversano') with reduced peak.[447] All these variations share a base of common elements, as best seen in a typical and well-preserved Hellenistic helmet find from Vitsa, Greece (Figure 75).[448] The Vitsa helmet displays a solidly offset conical skull rising to fold into a soft, rounded peak, with a low brow flaring into a wide, flat, horizontal rim, a neckguard with sides dipping below the nape, and the attachment of cheekpieces[449]. Variations in the helmet form typically occur in the rendering of the helmet brow and rim, the division between brow and skull,

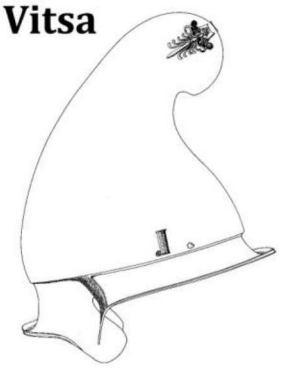


Figure 75. The helmet from Vitsa.
(After Waurick 1988, Abb. 34)

[446] E.g. Alciphron, Epistolae 3, 59, which refers to a ' ίω…' (Dintsis 1986, 48 FN 145); Many other designations have also been used for this helmet type, most often 'Thracian.' However, as Dintsis points out (1986, 47-48), this designation is devoid of any direct connection with Thrace, whether through actual examples or artistic depictions of the item, other than the exception of their widespread distribution on Thracian territory (Bulgaria).

[447] Waurick 1988, 163.

[448] Athens National Museum, Inv. no. Ioannina 6419. The helmet is dated to the 3rd quarter of the 4th century BC based on stylistic elements (the ornament on the helmet peak) and the find context. See Vokotopoulou 1982.

[449] As indicated on the Vitsa helmet by the traces of riveting on the inside of the rim.

the manner of cheekpiece attachment and the possible embellishment of the folded peak.

Phrygian helmet finds are known from Italy, Greece and Bulgaria.[450] It is unclear whether such helmets were always cast and then hammered into their final form, like the helmet from Vitsa,[451] or hammered straight from metal sheet. While the helmet form is depicted in ancient art from the 5th–2nd centuries BC, it is quite difficult to date actual helmet finds with some precision,[452] and most are given a generic 4th century dating.[453] In fact, the so-called Phrygian helmet from Bolshaya Bliznitsa is the only one to bear a more or less precise 4th century dating.[454]

When assessing the Bliznitsa helmet form, it is important to note that the two available drawings show it from different angles, and that some of the elements do not match. Nonetheless, the basic form is the same on both. The helmet clearly falls into the second (Chalcidian) category of Phrygian helmets as defined by Waurick. For simplicity's sake, I will use the term Phrygo-Chalcidian for such helmets in what follows.

I have already mentioned the overall conical form of the helmet, with its folded peak. The lower section is separated from the upper part by a high-arched border, which finishes at the helmet sides in large volutes. The rear of the helmet is shaped to a short, curved neck guard with short outward flare and small lateral lappets.

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[450] A single example is also known from Western Turkey. See Vokotopoulou (1982, 506, no. 11), who nonetheless places the origin of the Phrygian helmet in Asia Minor (1982, 519).

[451] Vokotopoulou 1982, 502.

[452] Waurick 1988, 167.

[453] The helmet from Vitsa is the only one where a precise dating has been attempted based on pottery finds – by Vokotopoulou (1982, 503-504). Waurick (1988, 166-167) notes that this dating is by no means certain. It is therefore unclear upon which evidence A. Snodgrass (1991, 120) states that it was common for Alexander the Great's companions to don helmets of the 'Thracian type'.

[454] Waurick 1988, 166.

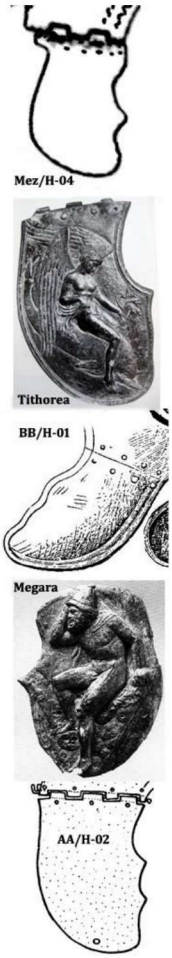


Figure 76. Cheekpieces on Chalcidian helmets and the helmet BB/H-01.
(Mez/H-04: After Chernenko 2006, Taf. 28, no.576; Tithorea: After Andriomenou 1976, Taf. 68; BB/H-01: After Waurick 1988, Abb. 38; Megara: After Waurick 1988, 146, Abb. 13; AA/H-02: After Voronov 1991, Fig. 2.3;

Amongst the defining Chalcidian features are the wide, arched cutouts for the eyes, the small, rounded ones for the ears, the short, pointed nose guard and the long cheekpieces with rounded edges. Their form and wavy inner edge is typical of Chalcidian type V cheekpieces (Figure 76.). Significant is their attachment to the bottom of the helmet's side rims similar to Chalcidian helmets, and not attached to the helmet *inside* the rim,[455] as usually found on Phrygian helmets of the main form.[456] Instead, they are formed as the natural extension of the helmet skull, similar, and attached to the *bottom* of the rim. The hinge tooth ratio of BB/H-01 is impossible to determine.[457]

The execution of the arched-border differs on Kondakov's and Stefani's respective drawings. Kondakov's image shows the arch to be a chased furrow growing into thinly offset volutes, while Stefani's shows the entire brow section – including volutes – as uniformly and distinctly offset from the helmet body, i.e. worked in repoussé. Thus the volutes on Kondakov's drawing are elegantly thin, while those on Stefani's are fat and tightly wound.

The arched form itself is otherwise unknown amongst both Phrygian and Chalcidian helmet types. The forehead of the former is marked by a horizontal offsetting or slight

[455] As in the aforementioned helmet from Vitsa – see FN 448.

[456] See Waurick's categorization of Phrygian helmets as discussed earlier in this section.

[457] However, it is worth noting that the helmet from Vitsa preserves the remains of the upper hinge component with two hinge teeth set away from the outer edges of a triangular, double-riveted hinge flap, thus suggesting a 2:3 ratio.

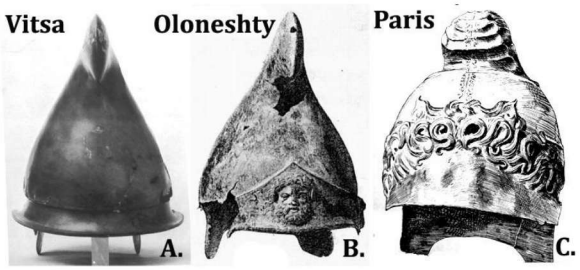


Figure 77. Line, gable and arch on Phrygian helmets.
(Vitsa: After Vokotopoulou 1982, Abb. 5; Oloneshty: Sergeev 1966, Fig. 11a; Paris: After Schröder 1912, Beil. 10.4)

gable (Figure 77 A, B), while the latter always sports a forehead gable. However, it is sometimes found on so-called Conversano helmets (the fourth category of Phrygian helmets as defined by Waurick), which are most frequent in Southern Italy (Figure 77 C).

These combine a shortened Phrygian cap form with reduced Chalcidian facial features. More often, the arched form is found on so-called Attic-with-visor helmets,[458] where it is part of the overall visor shape which also finishes with volutes at the helmet sides. These helmets are found in Greece and Italy, but more often in the Black Sea area,[459] and the nearest example comes from the kurgan excavated in 1834 in Kerch (Ker/H-01).

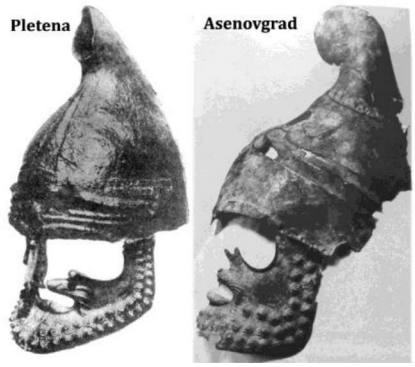


Figure 78. Phrygo-Chalcidian helmets.
(Pletena: After Aleksinsky 2005, Fig. 14; Asenovgrad: After Vokotopoulou 1982, Abb. 17)

Three other examples of Phrygo-Chalcidian helmets are known, all from the Black Sea area: one is from Oloneshty in Moldavia (Figure 77B), and two particularly elaborate ones from Bulgaria – one from Asenovgrad, the other from Pletena (Figure 78).[460] These three helmets also display Chalcidian facial features, but in a very different manner than on

[458] Waurick 1988, 170-171. See the following section in this thesis, 'Attic-with-visor Helmets'.

[459] Waurick 1988, 171.

[460] For Oloneshty see Sergeev (1966, 138-140, Fig. 11) and Chernenko (2006, no. 590). For Asenovgrad see Vokotopoulou (1982, 505, Abb.17) and Waurick (1988, Fig. 36). For Pletena see Vokotopoulou (1982, 506), Waurick (1988, Fig. 137) and Aleksinsky (2005, Fig. 14). Note also the number of separate cheekpiece finds, mostly from Greece, attributed by Vokotopoulou (1982, 509-512) to this helmet type; Note the elongated cheekpieces of the Bulgarian examples, highly decorated with engraved beard curls, reach around the chin to frame the face like a mask.



Figure 79. Chalcidian facial features.
(BB/H-01: After Waurick 1988, Abb. 38; Kekuvatsky: Cat. St.

proper Chalcidian helmets. The ocular cutouts are seriously reduced to slightly 'waves'. The nose guards are extremely long (Pletena), extremely short (Asenovgrad) or non-existent (Oloneshty). The execution of the same features on the helmet from Bolshaya Bliznitsa however, is exactly as on helmets of the Chalcidian type V (Figure 79): from the pronounced, high arches for the eyes to short, solid nose guard and long cheekpiece form. Thus, the Bliznitsa helmet clearly stands apart from the other helmets of the Phrygo-Chalcidian category.

The golden finish of the helmet

In light of the seeming popularity of Chalcidian style helmets in the Western Caucasus, and the lack of other Phrygian forms in the area, would indicate that the helmet from Bolshaya Bliznitsa is not of local manufacture but an import, and considering the almost non-existent direct trade with Greece most likely from neighbouring Thrace.

While the helmet is lost, and no photographs of it have ever been published, the original archaeological reports describe it to have been gilded or gold-plated.[461] As with the Kekuvatsky helmet, it is logical to assume not a surface coating of gold but a golden-coloured finish to the surface. This indicates a reasonable tin content of the alloy (12%),[462] resulting in a softer, more pliable metal. As such, this helmet, like the helmet from Kekuvatsky, could not have undergone any treatment or tinning to harden its surface, which would have lent it a silver colour. As discussed earlier, the softer metal

[461] Vokotopoulou 1982, 508, no. 12; Rabinovich 1941, 150; Schröder 1912, 326; OAK (for 1866), 69; OAK (for 1865), V.

[462] Compare with the golden colour of the Derveni crater, which has a tin content of 15%. See Varoufakis 1977.

was most likely disadvantageous on the battlefield, as it could not deter blows to the head as hardened helmets could. However, this would have no bearing on a piece meant for representative or ritual use only, for example as part of an elite burial. The golden colour, which imitated the actual metal, was also better suited to reflect the wealth of the deceased than silver. The solely representative/ritual function is further emphasized by the helmet's exclusive form and decoration.[463]

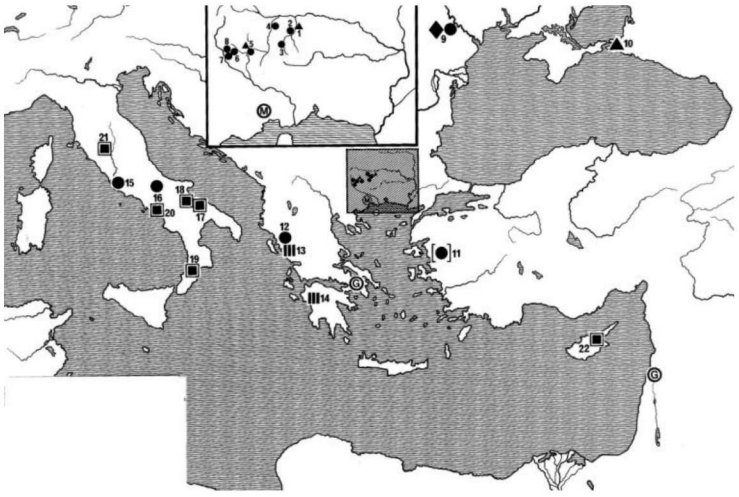


Figure 80. Distribution of Phrygian helmets.
(After Waurick 1988, Abb. 46)

Distribution and provenance

Scholars have often referred to this helmet as a Greek import based on its likeness to the Phrygian form. However, I believe it is worth looking closer to home for the helmet's origins. A look at the distribution of Phrygian helmets (Figure 80) shows the highest concentration of such finds to come from Thracian territory, i.e. present-day Bulgaria. The Chalcidian attributes of this helmet force us to pay attention to the Western Caucasus itself, which is where we have the greatest concentration of Chalcidian helmet finds of the Hellenistic period throughout the Ancient World.[464] As discussed earlier, this clearly indicates an affinity for the Chalcidian helmet type in this region, which is further emphasized by the local Chalcidian 'imitations' of the 'Dakhovskaya' type.[465] Note in

[463] While this solution seems the most probable, we should not that it is impossible to verify it without the original helmet, of which no trace is known.

[464] This has been discussed in detail in Parts IV-A and IV-B of this thesis.

[465] See Part IV-B. The 'Dakhovskaya' type: local imitations of the Chalcidian type V style.

particular the attention paid to the Chalcidian execution of the ocular cutouts on the 'Dakhovskaya' and Bliznitsa helmets.[466]

The above arguments demonstrate the logic of seeking the origins of the Bliznitsa helmet closer to home, i.e. in Black Sea region, and not necessarily Greece. The arched forehead border with volutes is reminiscent of Attic-with-visor helmets found mostly in the Western and Northern Black Sea regions, while the execution of certain Chalcidian features points towards the Western Caucasus, with its proven affinity for Chalcidian helmets and 'imitations'. Somewhere in these regions was a workshop that clearly understood the need for a unique helmet form as well as the appeal of Chalcidian helmet features to local tastes in the Caucasus, and thus crafted the ideal item to represent one of its prominent noblemen.

[466] See the catalog entries for Dkh/H-01, Mez/H-01, Mez/H-02.

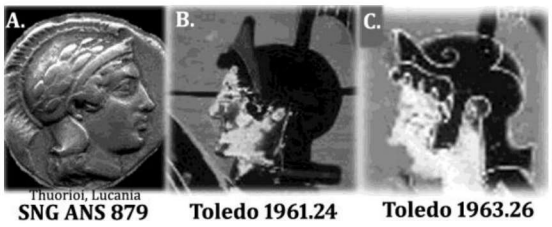


Figure 81. Attic helmets.
(A: After SNG ANS 879 – Wildwinds website;
B and C: After Perseus Project website)

D - ATTIC TYPE HELMETS WITH VISOR

One of the new helmet types to appear in the 4th century BC is the so-called Attic helmet type *with visor*.[467] The name of this helmet form was coined by G. Waurick based on the similarity with so-called Attic helmets,[468] a type often shown on coins and Attic pottery of the Classical period, yet actual examples are unknown (Figure 81).[469] The Attic helmet consists of a rounded helmet dome that ends at the upper brow with a pediment-like protrusion practically crowning the forehead. The rear is marked with a neck guard similar to that of Chalcidian type helmets. The high-set forehead rim makes the ocular recesses obsolete. Many Attic type helmets are shown with aural recesses, as shown in the images in Figure 81, and sometimes with cheekpieces (Toledo 1963.26 – Figure 81).

The main difference between the Attic helmet in ancient art and the existing helmet type with visor is, in fact, the lack of a visor, as we shall see in the following.[470] Waurick divides Attic type helmets with visors into two groups. The first group includes helmets

[467] Alternately, the helmet form has also been denoted as *Thracian* , *Attic-Thracian* (for example by Rabinovich -1941) or even *pseudo-Attic* (Simonenko 1999), yet none of these terms has found wide acceptance amongst scholars.

[468] Not to be confused with the Attic helmets listed in Voronov (2006, 86-89), which are in fact Chalcidian type V helmets as described in this thesis.

[469] Figure 81A shows a coin of Thourii (Lucania, Magna Graecia), dating ca. 440-410 BC. Figure 81B shows a detail from a Panathenaic amphora of the early 5th century BC. Fig…C shows a detail from a black-figure krater of the Late 6th century BC; Waurick 1988, 169; S. Ritter (1998, 22) disagrees with the idea that the Attic helmet was restricted to ancient art. However, none of his arguments can counter the fact that no original helmets of the Attic type as shown in ancient art have been found to date.

[470] Waurick 1988, 172. This is a difference that many scholars, including Ritter, do not bother to actually define. Note, also, that the vase examples shown in Figure 81 have ear cutouts, like Chalcidian type V helmets.

constructed of multiple parts, while the helmets of the second group are all hammered of one sheet of metal.[471]

THE HELMET FROM THE KERCH 1834 KURGAN

The sole example of the first group of Attic helmets with visors in the Western Caucasus is the unique iron helmet with silver fittings uncovered in 1834 in a wealthy kurgan burial in Kerch (Ker/H-01).[472] The burial is dated to the 1st half of the 3rd century BC.[473] The helmet itself has been mentioned in a number of publications. Most recently, it has been scrupulously discussed in a 2008 publication by D. Aleksinsky.

The overall helmet form consists of a semicircular helmet dome that flares into a short visor with rounded outer edge at the lower brow, just above the eyes. Upper dome and brow sections are separated at the forehead by a wide, shallow, triangular, pediment-like protrusion consisting of a thick, gabled upper ridge and a lower, thinner base ridge. This offset 'pediment' narrows into the sides, where it grows into volutes at the sides of the helmet. The rear of the helmet body is typically marked by a short neck guard covering the neck from cheekpiece to cheekpiece, but without lateral lappets at the sides. Note the arched form of the neck guard edge in the back. The helmet crest is marked by a high, angular ornamental ridge.[474] Note that this helmet type does not include cutouts for eyes or ears.

The four-part construction of the Kerch helmet is identified by rows of rivet perforations lining the edges of the various sections and clearly places it in the first

[471] Waurick 1988, 170.

[472] See the respective catalogue entry for images.

[473] See Chapter I, 'Kerch 1834'.

[474] Perforations along the ridge indicate the attachment of a further ornament to the crest.

[Ker/H-01: Image removed due to copyright restrictions]

Figure 82. The four-part construction of the Kerch helmet. (Photograph courtesy of D. Aleksinsky)

group of this helmet category as defined by Waurick.[475] The helmet bowl consists of two symmetrical halves soldered together along the helmet crest to form the semicircular shape.[476] The shadow of the central helmet seam is visible on the inside of the helmet, as shown in Figure 82.

The forehead visor and neck guard in the rear were both manufactured separately and attached to the helmet using iron clamps,[477] the forehead section from the outside and the neck guard from the inside (Figure 82).[478] The helmet crest is marked by a massive ridge, inside with remains of a wooden core were found. Metal analyses indicate that this ridge was coated with silver.[479] The forehead partition between helmet bowl and visor consists of a heavily offset ridge in shape of a wide and shallow gable which continues to the helmet sides to finish off in a volute on each side. The gabled ridge is accented by a shallow arched ridge set below the former that also finishes at the side volutes. Each volute forms a circular medallion of is fitted with a gorgoneion in silver relief. A further silver relief ornament marks the peak of the forehead gable – this one showing Athena. All silver relief ornaments show traces of gilding,[480] and the silver itself was of extremely high purity.[481]

[475] The sectioning and riveting of this construction is best seen in the diagrams provided by Waurick (1988, Kat. 52, Abb. 52f, 52,g) showing the four-part construction of the Melos helmet in Berlin.

[476] Aleksinsky 2008.

[477] Aleksinsky, Cat. Petersburg , no. 60.

[478] Note that the lower rim of the helmet bowl 'peeks out' from below the visor edge.

[479] Aleksinsky 2008.

[480] Aleksinsky, Cat. Petersburg , no. 60.

[481] Aleksinsky 2008.

Particularly interesting is the recent discovery through x-ray analysis of what appears to be an ear-shaped ornament, slightly offset, marking the lateral edges of the neck guard.[482]

The helmet was fitted with elegant hinged cheekpieces, found separately. These have a curved outer edge and a slanting inner edge with curved protrusion at the top. The cheekpieces were also decorated with a silver relief ornament showing what appears to be Scylla.[483] Unfortunately, the hinge components of the Kerch helmet are far too damaged to make out the hinge tooth ratio. [484]

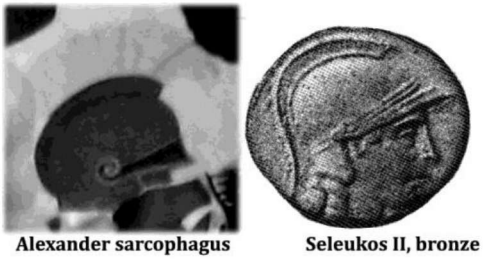


Figure 83. Attic type helmets with visors in ancient depictions.
(Left: S. Chandrasekaran; Right: After Waurick 1988, Abb. 56)

Helmets of this type were often depicted in ancient art of the Hellenistic period. Clear examples shown here include a helmet in the painted background of the Alexander Sarcophagus (last quarter of the 4th century BC) and a bronze coin of Seleucus II Callinicus, who ruled from 246-226 (Figure 83).[485]

Comparisons

Waurick names four other helmet finds – all from Greece – that

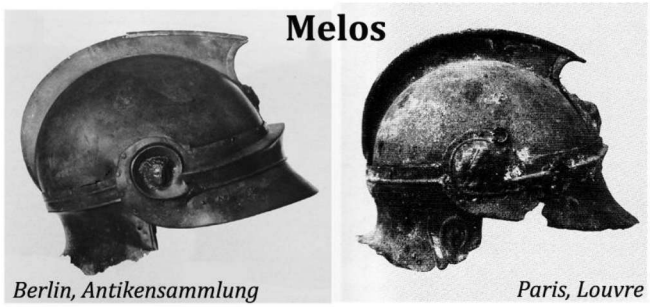


Figure 84. The bronze helmets from Melos.
(After Waurick 1988, Abb. 47, Kat. 52)

[482] Aleksinsky 2008.

[483] See the catalogue entry for a detailed image of this cheekpiece. See Aleksinsky (2008, 48-53) for a detailed discussion on the possibilities of identifying this figure as Scylla.

[484] However, the components on the Melos helmet in Berlin and the silver-coated helmet from Prodromi appear to have been of a 1:2 ratio, both with double-riveting of the hinge teeth.

[485] Aleksinsky (2008) gives a detailed list of iconographic depictions of this helmet type. Note that neither he nor Waurick (1988, 172-173) name any vase depictions of this helmet type.

belong to this group. The form of the iron Kerch helmet is practically identical to two helmets of bronze from Melos – one in Berlin, the other in Paris (Figure 84). The only real difference between these helmets is the different material used. The Melos helmets are also similarly assembled of four individual sections, just as the Kerch helmet. Particularly significant are the traces of a wooden core found inside the upper helmet ridge of the Berlin helmet – once again, just as in the Kerch helmet. Parallels are also observed in the relief ornaments: both Melos helmets are similarly set with gorgoneions in the volutes the head of Athena at the gable peak.[486] Noteworthy is the clearly stamped ear ornament marking the sides of the neck guard on the Louvre helmet, very similar in form to that of the Kerch helmet.[487] The cheekpieces of the Melos helmets have not survived.

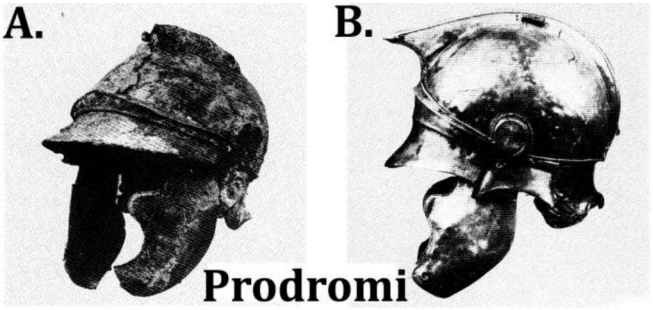


Figure 85. The iron helmets from Prodromi.
After Waurick 1988, Abb. 48, 49

The other two helmets come from a burial in Prodromi (Epirus) dated to the first third of the early 3rd century BC.[488] Like the helmet from Kerch, they are both of iron (Figure 85), and one of them (Figure 85 B) was *completely* coated in silver. The form of the purely iron one is almost identical to that of the Kerch helmet, while that of the silver-coated one deviates slightly at the lower sides. The side volutes of the silver-coated helmet were similarly embellished with relief ornaments. Published images of the helmet make it difficult understand the extent of the relief ornamentation or make out their overall

[486] Aleksinsky 2008; Waurick 1988, 170. The Paris helmet is further embellished with an ear-shaped ornament along the sides of the neck guard.

[487] See below FN 508.

[488] Aleksinsky 2008; Waurick 1988, 170.

construction.[489] Both helmets were also embellished with ear ornaments marking the lateral edges of the neck guards. These were offset, similar to the Kerch helmet and the Melos helmet in the Louvre. As for the construction, Waurick notes that at least the silver layer of the coated helmet appears to follow the four-part construction pattern of the Kerch and Melos helmets.[490]

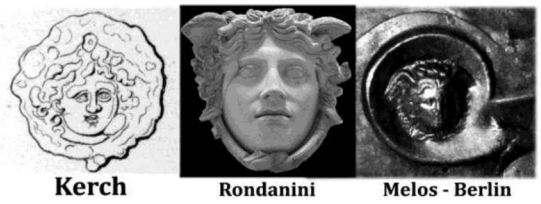


Figure 86. The gorgoneions on the Kerch and Melos helmets and the Rondanini gorgoneion in Munich.
(Kerch courtesy of D. Aleksinsky; Rondanini: after Matthias Kabel via Wikemedia Commons 2005-10-26;

The Melos burial is dated to the 3rd-2nd centuries BC,[491] the Prodromi burial to the first third of the 3rd century BC.[492]

Relief appliqués

Relief ornamentation of the kind on the Kerch and Melos helmets was quite common for Hellenistic weapons and helmets in particular.[493] Gorgoneions are depicted not only on the Kerch and Melos helmets, but also on other weapons throughout the Ancient World, including

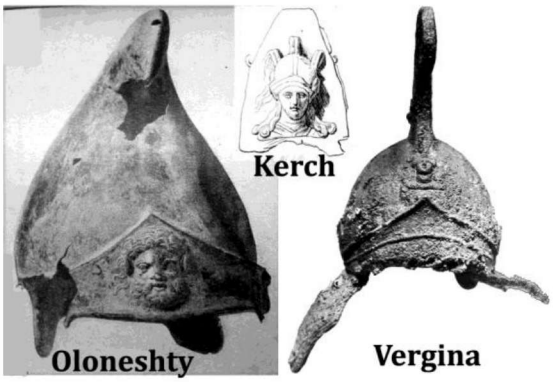


Figure 87. Appliqués on Hellenistic helmets.
Oloneshty: After Sergeev 1966, Fig. 11a;
Vergina: After mlahanas.de website, photo ©: Harry Gouvas http://prevezamuseum.spaces.live.com;
Kerch: After Rockstuhl 1835-1853, Pl. XXXI)

[489] It is unclear what figures are depicted by the volute reliefs, or if the iron helmet was also embellished with volute reliefs. Equally uncertain is whether the peak of the forehead gable on both helmets was marked with a relief ornament.

[490] Waurick 1988, 170. Waurick notes that the four-part construction is visible only in the silver coating. The original would have to be studied in order to verify the four-part construction of the iron core beneath (even though it is very likely).

[491] Aleksinsky 2008, FN 115.

[492] Aleksinsky 2008.

[493] See Aleksinsky (2008), who gives a detailed analysis of the iconography – with comparisons – of the Athena bust and gorgoneions of the Kerch helmet.

the Black Sea region (Figure 86). Appliqués to the helmet forehead were also not uncommon. A similar appliqué showing the face of Pan marks the gable of a helmet from Oloneshty (Moldova),[494] while the well-known Early Hellenistic iron helmet from Vergina displays the bust of Athena at the peak of the forehead gable (Figure 87).[495]

Cheekpieces

Of the four comparisons, cheekpieces have survived only on the helmets from Prodromi. They are both of the same basic form as those of the Kerch helmet but without any decoration. Relief-decorated cheekpieces occurred with some frequency on helmets of the 5th and 4th centuries BC,[496] often showing figures from mythology. In addition to 'Scylla' on the Kerch cheekpieces, the bronze cheekpiece from Tithorea (early 4th century BC)[497] shows Eros astride a dolphin, while a bronze cheekpiece from Megara (late 5th century BC)[498] displays Odysseus.[499] (cf. Figure 88)

[494] The Oloneshty helmet is dated to the second half of the 4th century BC by Sergeev (1966, 140).

[495] Treister 2001, 113-114.

[496] See comparable cheekpieces named by Andriomenou (1976, 199-200) and Aleksinsky (2008, 47-48?), including the ones in Figure 88.

[497] Andriomenou 1976, 199.

[498] Aleksinsky 2008.

[499] Andriomenou (1976, 195) lists four further helmets with comparable relief-decorated cheekpieces. Aitken (1982, 61) gives a more comprehensive list of relief appliqués for cheekpieces and cuirasses of the 4th century BC.

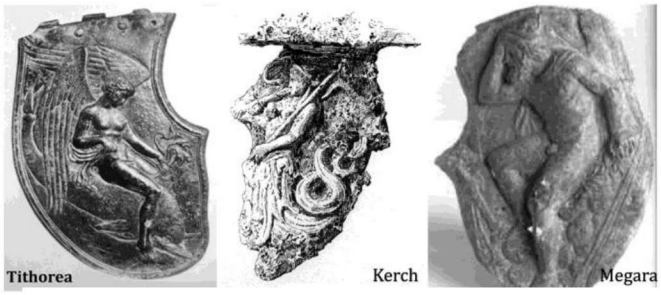


Figure 88. Relief-decorated cheekpieces.
(Tithorea: After Andriomenou 1976, Taf. 68;
Kerch: After Lipperheide 1896, Beil. 13.5.;
Megara: After Thompson 1969, Pl. 65f)

The significance of iron

The material of the Kerch helmet is of utmost significance, as iron helmets were considered a luxury item from end of the 4th – 3rd centuries BC,[500] during which time they were still considerably rare products being produced alongside masses of bronze helmets.[501] As such, they would have been limited to wearers of elite status. According to Plutarch, Alexander the Great wore an iron helmet which gleamed like silver.[502] Plutarch also mentions the armour of two further rulers, Demetrius I Poliorcetes and Alcimus of Epirus,[503] also made of iron. Quite significant is the fact that Plutarch also names the craftsmen responsible for the items' manufacture. As Aleksinsky has noted, the recording of the manufacturers' names was not only unusual, but emphasizes the importance of the actual items.[504]

Summary

While this helmet type was quite popular in Greece during the Hellenistic period, no other example of it is known from the Black Sea region. The helmet from Kerch is obviously a luxury helmet, a parade piece, designed solely for representative purposes. The silver-coated relief appliqués with traces of gilding serve not only as aesthetic embellishments but go far to promote the elite status of the wearer. It is worth

[500] Aleksinsky, Cat. Petersburg 2007, no. 60.

[501] Aleksinsky 2008.

[502] Plutarch, Alex. 32.5. Aleksinsky, Cat. P 2007 no. 60.

[503] Plutarch, *Demetr*. 21.3-21.4; Aleksinsky 2008.

[504] Aleksinsky 2008.

remembering that the burial itself is located close to an area identified as the cemetery for *strategoi* in the 1st century BC.[505] In spite of the discrepancy in dating, the location would certainly be suited the elevated status of the individual buried with such a prestigious helmet.

The Kerch 1834 burial is dated to the 1st half of the 3rd century BC – similar to the Melos burial – based on its pottery. This would place the helmet somewhere before that, probably within the second half of the 4th century BC.[506] This dating fits in neatly with the dates of a) ancient monuments/artwork depicting this helmet form (4th-2nd centuries BC)[507] and, in particular, the Alexander Sarcophagus (Figure 83), b) the other helmet originals of this type (3rd-2nd centuries BC), c) other relief-decorated cheekpieces on ancient helmets (5th-4th centuries BC), d) the iconography of similar relief depictions, in particular of Scylla (4th-3rd centuries BC).[508] The ear ornament of the Kerch helmet not only corresponds to similar embellishments of the other helmets in this group (Melos, Prodromi), but to a decorative tradition common on helmets from Archaic to Roman times.[509] A dating in the earlier part of the Hellenistic period is also supported by the application of gold to the silver reliefs through *gilding* and not amalgamation, the latter being typical of much later periods.[510]

The Kerch helmet form is unique to the Western Caucasus, suggesting it must have been imported. The form itself may have its origins in Macedonia, home of the Vergina

[505] Aleksinsky 2008.

[506] Aleksinsky 2008.

[507] See Figure 83. Aleksinsky (2008) gives an extensive list of monuments showing Attic type helmets with visors.

[508] Aleksinsky 2008.

[509] Aleksinsky (2008) notes the occurrence of such ear ornaments on Archaic helmets from Olympia as well in Roman weaponry of the Common Era.

[510] Aleksinsky 2008.

helmet find of iron, which is perhaps a forerunner of this helmet type. The faithful resemblance of construction, form and decoration to the above mentioned Greek finds, especially to those from Melos – indeed, it is often referred to as being of the 'Melos type'[511] – combined with its iron-silver composition, similar to the helmets from Prodromi, are convincing arguments for singling out Greece, perhaps Melos itself, as the place of the Kerch helmet's manufacture.

[511] Waurick 1983, 274.

ATTIC TYPE HELMETS WITH VISOR – SIMPLIFIED CONSTRUCTIONS

The second group of Attic type helmets with visors (in following the 'simplified' type) according to Waurick defines helmets of the same overall form as described above – rounded helmet dome, protruding 'pediment' marking the forehead, forehead visor and neckguard. The execution of these details varies somewhat amongst the helmet examples in question. The significant difference between the helmets of this group and those of the first group the simplified construction, as helmets of this group are not constructed of multiple parts but hammered of a single sheet of metal.

Unlike the standard helmets discussed above (Ker/H-01, Cho/H-01), the simplified Attic type helmets with visor are not found in the Bosporan Kingdom. In this study, the one helmet in question (May/H-02) comes from the Caucasus foothills. However, it is worth noting that a number of similar finds are known from the remaining Black Sea region outside the Western Caucasus, a fact that will be discussed in the following in more detail.

The helmet from the Apostolidi burial, Adygeya (May/H-02)

The helmet May/H-02, from the so-called Apostolidi tumulus in Adigeya (Caucasus) is the sole example of an Attic type helmet with visor of a simplified construction in the Western Caucasus (Figure 89). The bronze helmet now kept in the National Museum of Adigeya in Maykop. No material is available by which to date the find complex.

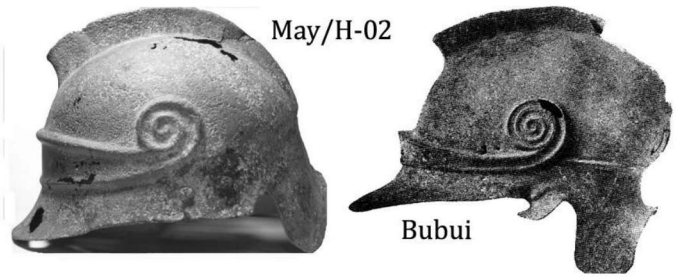


Figure 89. Helmets of the 'simplified' type.
(May/H-02: S. Chandrasekaran; Bubuy: After Waurick 1988, Abb. 52)

The helmet was hammered of one sheet of bronze into a form similar to that of the helmet Ker/H-01, i.e. with a rounded helmet dome, forehead visor and neckguard. The crest of the dome is marked by a ridge that was hammered into the helmet from within. The visor is wide, with a markedly rounded edge. Helmet body and forehead are separated by two hammered ridges that form the typical pediment-like partition. Note that the upper ridge forms more of a shallow arch than a gable. The neckguard is short, with a high, square arch marking the outer edge. The moderate offsetting of the forehead ridges and spiralling volutes is similar to what we see on other helmet finds of the 'simplified' type from the Black Sea region, a feature that will be discussed in the next group of helmets.

The only known parallel to this helmet is a helmet from Bubuy in Moldova (Figure 89).[512]

Perforations along the helmet indicate repair work as well as the attachment of a decoration at the crest and possibly even an inner lining.

Particularly interesting are the traces of a golden-coloured surface visible on the helmet, indicating that it was not subject to a special treatment for hardening. No analysis of the tin content has yet been carried out.

VARIATIONS ON ATTIC TYPE HELMETS WITH VISORS

Amongst the known helmet finds of Attic type with visor from the ancient world, a number of these can be considered 'variations' on the standard form. All 'variations' are hammered of a single sheet of metal. Characteristic of all 'variations' is the lack of the

[512] Also known as 'Bubuech'. See Simonenko (1999, 134, Figs. 105, 106) and Maslennikov/Treister (1988, 8-9, 11, 13).

hammered ornamental ridge to mark the crest of the helmet. Two of the helmet finds from the Western Caucasus can be defined as 'variations' on Attic-with-visor helmets.

The helmet from Mezmay (Mez/H-05)

The first of the 'variations' is one of the many helmet finds from the Mezmay burial complex in the Caucasus (Mez/H-05), which is dated to the 3rd-2nd centuries BC,[513] was hammered of a single sheet of bronze. The helmet was badly damaged upon discovery, but reveals all basic characteristics of the Attic type helmet with visor: a rounded helmet dome, a short visor and a neck guard. In spite of the damage to the helmet, it is clear that the dome was *without* an ornamental ridge marking the crest, unlike helmet May/H-02. Particularly striking is the extremely short visor, which barely protrudes away from the brow. The neck guard is similar to that of the helmet May/H-02 and marked with a distinct outward flare (reminiscent of Chalcidian type V neck guards). The typical forehead 'pediment' separating helmet body from visor consists of moderately offset ridges, the upper forming a shallow triangular gable, the lower the slightly curved 'base'. The 'pediment' narrows into the helmet sides and finishes in simplified volutes formed as a round offset disc instead of the more intricate spirals. The overall 'reduction' of certain features – visor protrusion and ornamental offsetting – combined with the 'bald' helmet dome and simplified rendition of the volutes as discs, is what characterizes this particular helmet. These same features are found in other 'variations' of the Attic-with-visor helmet type from the Black Sea area and beyond (Figure 90).[514]

[513] See the section on Mezmay in Chapter III-C.

[514] Parallels to the helmet Mez/H-05 are found in a helmet of the 3rd-2nd centuries BC from Vladikavkaz in Northern Ossetia (Aleksinsky/Gulyaeva, Cat. Petersburg 2007, no.63); Another very similar helmet (only the volutes differ) comes from Grushevka in the Don region (Dedyulkin/Derkach/Kraysvetny 2012 forthcoming; Simonenko 1999, 134, 108.1).

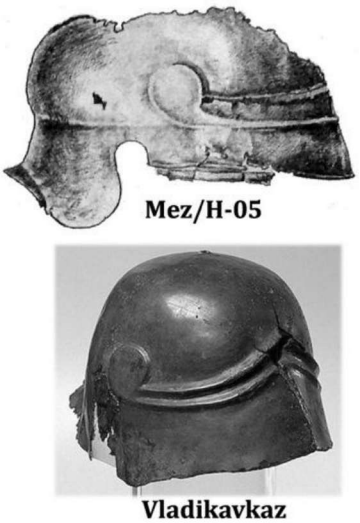


Figure 90. 'Reduced' features and disc-shaped volutes.
(Mez/H-05: After Shevchenko/Zaytsev/Mordvintseva 2011, Fig. 6.1; Vladikavkaz: After Cat. Petersburg 2007, Fig. no. 63;)

The metal surface on the helmet Mez/H-05 before its reconstruction revealed a golden-coloured hue, suggesting that the helmet did not undergo any special treatment to harden the metal.

The helmet of unknown provenance from the Krasnodar Region (UP/H-02)

A second of the Attic-with-visor 'variations' is a helmet of unknown find context from the Krasnodar Region (UP/H-02). It is mentioned only superficially in a few publications,[515] and only a single drawing of it has been published. Its form is more reminiscent of the 'simplified' helmet May/H-02 than of the helmet Mez/H-05 discussed above. It consists of a rounded dome, protruding visor, neck guard and the typical 'pediment' partitioning of helmet body from visor. Judging by the drawing, the helmet was without a decorative hammered ridge marking the crest.



Figure 91. Similar volutes on helmets of the 'simplified' type.
(After Simonenko 1999, Figs. 107, 108.3, 108.4)

It is interesting to note that the moderate offsetting of the 'pediment', together with the spiralling volute shape, is practically identical to what we find on the 'simplified' Attic helmet with visor May/H-02 (Figure 91). These characteristics are shared amongst other 'variations' in the Black Sea and beyond.[516]

[515] See Anfimov (1981, 94-100) and Simonenko (1999, 134, Fig. 108.4) for details on this helmet.

[516] (Maslennikov/Treister 1998, Fig. 3), as well as the helmet from Pergamon (Waurick 1988, Abb. K53c). Note that these helmets are all 'variations' of the Attic-with-visor type. Waurick (1988, 173, Abb. 59) lists the Pergamon helmet as a 'special form' of the Attic-with-visor helmet type.

DISTRIBUTION, DATING AND PROVENANCE OF ATTIC TYPE HELMETS WITH VISOR IN THE WESTERN CAUCASUS

A total of five examples of the Attic helmet type with visor have been found in the Western Caucasus.

Helmets of the first group (standard or 'Melos' type) are not particularly widespread in the Black Sea area. In fact, the helmets Ker/H-01 and Cho/H-01 are the only known examples of this type. It is interesting to note that both were found on the territory of the European Bosporus (Figure 92). While the Kerch helmet (Ker/H-01) can clearly be identified as an import, far too little remains of the Chokrak helmet (Cho/H-01) to determine its status with any certainty. However, the fact that no other helmets of this type are known throughout the Black Sea region does suggest that the Chokrak helmet was likely imported into Bosporan territory. It is worth recalling that the other helmets of this type are dated from the 4th-2nd centuries BC. Therefore, it is logical to assign the helmet from Chokrak a similar dating, in spite of the lacking find context and destruction of the respective find site in the 1st century BC.



Figure 92. Distribution of Attic type helmets with visor in the Western Caucasus.
(S. Chandrasekaran – using Google maps)

The helmets of the second group (the 'simplified' type) are even rarer in the Western Caucasus, with only one find (May/H-02) from the Caucasus foothills. Another helmet Black Sea find of this category comes from Bubuy in Moldova. Interestingly, no other helmet finds of the 'simplified' group as defined here have yet been found *outside* the Black Sea region. The dating of this helmet type is difficult, as only the Bubuy helmet comes from a known find context. While the finds of the Bubuy complex are dated from the 2nd-1st centuries BC, most researchers date the helmet somewhat earlier, in the 4th or 3rd centuries BC.[517] This would fit in well with the date range of the standard Attic-with-visor helmets mentioned above.

The third group of helmets discussed here ('variations') displays a varied rendition of certain features. Some of these appear to be common only to Attic-with-visor 'variations' of the Black Sea region, for example the moderate offsetting of ornamental ridges or the rendition of volutes as round discs (Figures 90, 91). Therefore, it is worth considering the possibility that these features are indicative of a local preference and, subsequently, local production somewhere within the Black Sea region. This is not too far-fetched, since the probability of local helmet workshops has already been demonstrated on the example of Chalcidian helmets in Chapter IV-B. This also opens up the possibility of assigning the helmet fragment from Chokrak (Cho/H-01), with its moderately offset forehead ornament, to a local Black Sea workshop, thus singling it out as the only known case of an Attic helmet with visor of the standard ('Melos') type manufactured outside Greece.[518]

[517] See Maslennikov/Treister (1998, 11) on the varied dating of the Bubuy helmet.

[518] Of course, the single surviving fragment is not enough to support this theory.

On the other hand, these abovementioned features are also observed on other Hellenistic helmet types – originals and in ancient art – throughout the ancient world. This is particularly true of piloi and Boeotian helmets.[519] Their implementation on finds of the Attic helmet type with visor from the Black Sea area, and the Western Caucasus in

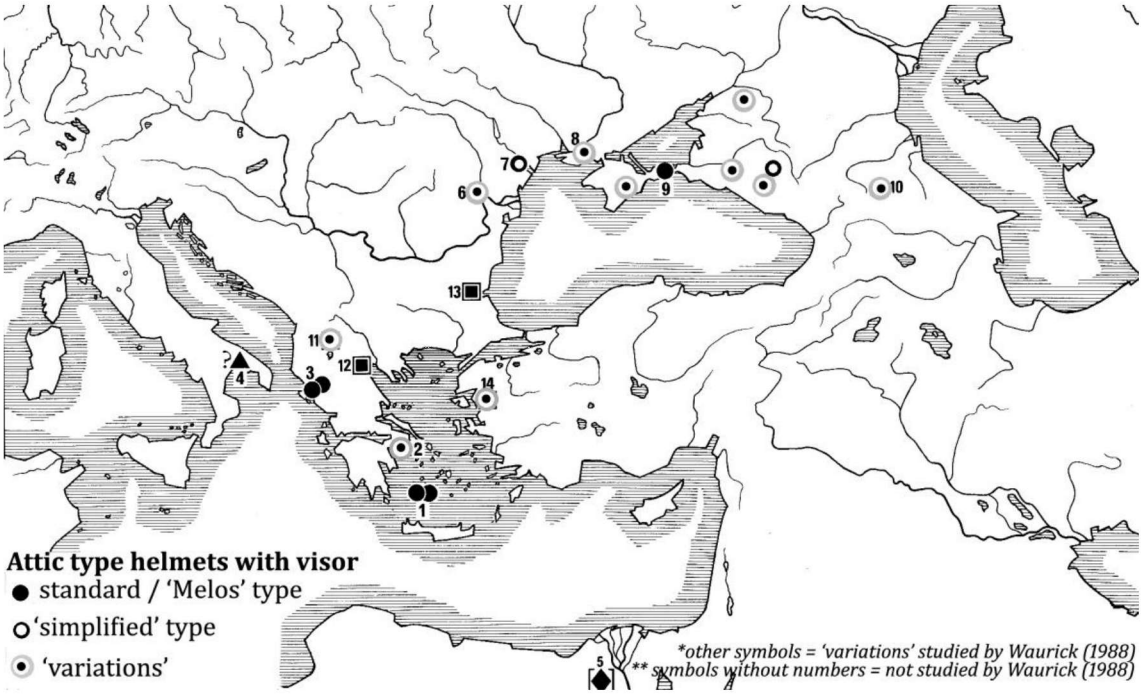


Figure 93. Distribution of Attic helmets with visor throughout the ancient world.
(After Waurick 1988, Abb. 59)

particular, may in fact be no more representative of the general tastes of the Hellenistic period as a whole, particularly in view of the rather uniform distribution of Attic type helmets with visors in all their variations throughout the ancient world (Figure 93).[520]

[519] Pilos helmets, for example, often feature disc-shaped volutes and moderately pronounced ornamental ridges (see the section on pilos helmets in this chapter). The 'bald' form of the helmet dome, on the other hand, is a typical characteristic of Boeotian type helmets, which also sport a protruding visor like helmets of the Attic type with visor (see Waurick 1988, 159-163, Abb. 25-33).

[520] See Waurick (1988, FN 112, Abb. 59) for 'variations' and 'special forms' of the Attic type helmet with visor. Note that Waurick has mistakenly attributed the helmet from Kamenka to the standard or 'Melos' group of Attic helmets with visor, when in fact it belongs to the 'simplified' group.

Late Hellenistic Period

Two types of imported helmet forms begin to occur in the Western Caucasus during the later part of the Hellenistic period – Greek pilos helmets and Roman-Gaelic Montefortino helmets. The burial complexes of these helmets can be placed from the 3rd to the 1st centuries BC.

E. Hellenistic Pilos Helmets

The *pilos* helmet takes its name from the Greek felt cap ('πῖλος' = 'felt') of conical shape often worn by peasants, hunters and travellers as depicted in Archaic vase-painting (Figure 94).[521] The term originally referred to the felt lining used with helmets.[522] As early as the 5th century BC, Thucydides mentions the pilos as part of the Spartan hoplites' armour.[523] While the pilos described by Thucydides may have easily been a reference to the felt cap and not the metal helmet (Figure 94), the term was definitely being used to describe the metal helmet of pilos-shape near the end of the 5th century BC, as attested to by a line in Aristophanes' Lysistrata.[524] Ancient authors describe helmets of conical shape as 'πῖ ῦς'[525] or 'πῖ ρκαδικὸς ἢ Λακωνικὸς',[526]



Figure 94. Detail of an Attic red-figure lekythos showing a hunter wearing a soft pilos. Athens, National Museum. Inv.-No. 12119.
(After: Hermann Wagner D-DAI-ATH-NM-3036, via Arachne website 24.02.12)

[521] Anderson 1970, 29.

[522] Hom. *Il*. 10, 265; Hurschmann 2012.

[523] *Thuc*. 4.34.3. Snodgrass 1999, 94.

[524] Anderson 1970, 30. The passage in Lysistrata (*Lys*. 561) has a military commander pouring his meal into his pilos of bronze.

[525] E.g. Aristophanes, *Lys*. 561. See FN 3; See Dintsis 1986, 58, FN 9.

[526] E.g. Arrian, *Tact*. 3; See Dintsis 1986, 58, FN 10.



Figure 95. ..Attic grave stele from Megara. (After Sekunda 2003, Fig. 192)

but also as *konos*, as in '…στέφανος χρυσοῦς επι κωνου δάφνης,…'[527]. Unlike the simple form of the actual felt cap (Figure 95), the helmet form consists of a conical crown with rounded or pointed peak, set atop and offset from a short forehead/brow section. The helmet was often fastened by means of a chinstrap, and often furnished with cheekpieces.[528]

The first comprehensive study of the pilos-type helmet was undertaken by P. Dintsis in his 1986 work '*Hellenistische Helme'*. Dintsis' typology of the pilos helmet was based largely on helmet representations in ancient art. A second careful study of the pilos type is found in G. Waurick's 1988 work '*Helme der hellenistischen Zeit und ihre Vorläufer'*, which attempts a typology using original metal helmet examples.[529] A recent and detailed study of the pilos helmets from the Western Caucasus is found in D. Aleksinsky's article of 2008.

Helmets of conical form were in existence as early as the 3rd millennium BC in the Near East, and the Greeks, whose contacts with Eastern peoples are attested to, did not adopt helmets of conical shape until the Archaic period, with the so-called *Kegelhelm*.[530] While the high-crowned, bulky *Kegelhelm* can definitely be traced back to Eastern

[527] E.g. *Inscr.Délos* 442 B56; Dintsis 1986, 57, FN 1-5.

[528] Waurick 1988, 152.

[529] Waurick 1988, 151-8.

[530] Aleksinsky 2008.



Figure 96. Early piloi. A. Helmet from Upper Egypt. Staatliche Museen zu Berlin, Inv. no. L 41; B. Helmet from Southern Italy. Bari, Museo Archeologico.
(A: After Pflug 1988, Kat. 48);
(B: After Waurick 1988, Abb. 2.1)

helmet shapes,[531] the conical, bell-like pilos shape can be traced back to the light felt cap of the Greeks described above.

Dintsis distinguishes two groups of piloi and two groups of konos helmets based primarily on depictions in ancient artwork, using the cone dimensions and execution of the helmet brim as criteria.[532] Waurick, on the other hand, distinguishes two categories of pilos helmets based on finds of the Classical period.[533] His first category defines helmets in which the egg-shaped body is distinctly and cleanly offset from the lower, strictly vertical forehead section of smaller circumference, with no further distinguishing features (Figure 96 A). The second category defines helmets in which the narrower crown is only slightly offset from the forehead section, which simply continues the line of the helmet crown (Figure 96 B). The separation of crown and forehead section is achieved through a thin ornamental ridge or

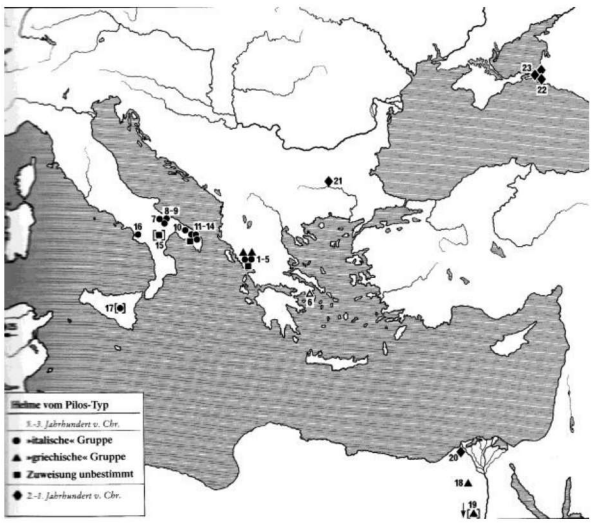


Figure 97. Distribution of pilos finds in the Ancient World.
(After Waurick 1988, 153, Abb. 2)

[531] See Pflug, H. 1988. Griechische Helme hellenistischer Zeit. *Antike Helme. Sammlung Lipperheide und andere Bestände des Antikenmuseums Berlin. RGZM Monographien* 14. Mainz, RGZM.

[532] Dintsis 1986, 57-76, 77-85.

[533] Waurick 1988, 151.



Figure 98. Attic red-figure skyphos of Makron.
(After Waurick 1988, Abb. 7)

furrow.[534]

The pilos helmet is found as early as the 5th century BC not only in Greece, but also Asia Minor and Southern Italy (Figure 97).[535] It was a popular form, but not nearly so much as the Chalcidian form, which dominates both the ancient artistic scene as well as the original helmet finds. In art, the pilos was most popular in the Italic vase-painting of the 4th century BC, however not nearly as popular as the Chalcidian helmet type. These proportions are reflected in the actual helmet finds from the region.[536]

A number of variations on the pilos helmet were in circulation in the Ancient World.[537] One of these is defined by a flat, slightly slanted forehead brim that forms a small yet distinct angle with the helmet crown. This is shown on some of the earliest Greek artistic depictions, for example on the Attic red-figure skyphos of Makron of the early 5th century BC (Figure 98).[538] Original examples of such helmets from this period include a pilos from Ruvo.[539]

A further variation of the pilos with forehead brim appears during the Hellenistic period (in following the 'Hellenistic pilos'). The form consists of a conical body with softly pointed crown, which is equipped with a flat or slanted forehead visor that runs to the sides, finishing at ear level. The rear of the helmet body flares into a short neckguard.

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[534] Waurick 1988, 151-2. An example of the first group is a find from Upper Egypt (Waurick 1988, Cat. 48). The second group is represented by finds from Dodona.

[535] Waurick 1988, 155.

[536] Waurick 1988, 155.

[537] See the various forms discussed by Waurick (1988, 151-158).

[538] Waurick 1988, 154.

[539] Waurick 1988, 154, Abb. 5.

The Hellenistic pilos is especially defined by two further factors. One is the soft, pronounced indentations worked into the sides of brim at ear level – the result is a single 'pleat' or multiple pleats of metal on each side, or a 'pleated' brim-visor.[540] The other defining factor is the ornamentation of the helmet body, which consists of a gable ornament at the forehead, which flows into large rounded volutes – one at each side of the crown. The gable-volute ornament can be either part of a fully offset lower helmet section, or offset from the crown in its own right as a thin ridge or thickly hammered ornament.



Figure 99. Coins of Philip V and Perseus.
(After Waurick 1988, Abb. 13.7-12)

The Hellenistic pilos is attested to by coins of Philip V and his successor Perseus (185-168 BC) (Figure 99).[541] Such helmets are also attested to by original finds from the Black Sea and other regions,[542] from which I will compare only a select few with those of the Western Caucasus (see Figure 100 A-C): e.g. a bronze helmet from Kazanlak (Bulgaria), another one in the Ashmolean Museum, and an iron one from Üçtepe (Turkey). The piloi of the Western Caucasus are represented by a small handful in the Asian Bosporus (Figure 100 D-G) – a bronze helmet from Akhtanizovskaya (Akh/H-01), and two further bronze ones from Merdzhany (Mer/H-01, Mer/H-02)[543] – as well as a further pilos from Geya in the Caucasus Mountains (Ge/H-01). Of all these examples,

[540] Waurick 1988, 157.

[541] Dintsis 1986, 78; Waurick 1988, 156-7, Abb. 13.7-12.

[542] See Dintsis 1986, 57-85; Aleksinsky 2008;

[543] Aleksinsky 2008: A further example of a Hellenistic pilos may be suggested by the bronze helmet fragments from Buerova mogila, also in the Asian Bosporus. However, the amount of surviving helmet material is not enough to confirm this.

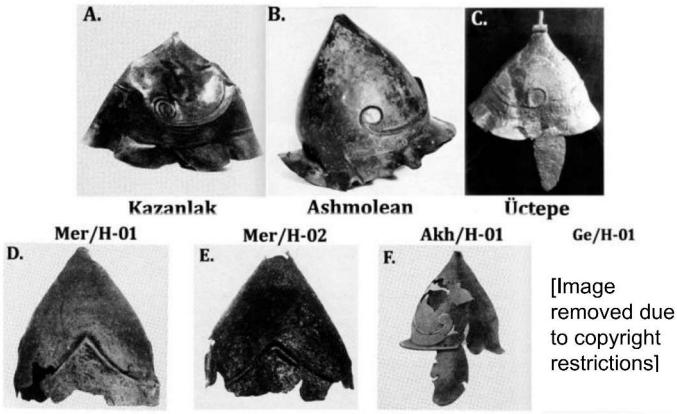


Figure 100. Various pilos helmets of the Late Hellenistic period.
(A: After Waurick 1988, Abb. 16; B: After Vickers/Brown/Catling 1974-75, Fig. 13; C: After Mellink 1993, Fig. 15; D-F: After Waurick 1988, Abb. 17-19; G: Photograph courtesy of E. Khachaturova, Krasnodar Museum.)

cheekpieces have survived only on the helmets from Üçtepe, Akhtanizovskaya and Geya. In addition to the cheekpieces, the Akhtanizovskaya and Geya helmets are the only two piloi of the Western Caucasus to preserve (partially) the hinge components. These are of a 1:2 hinge tooth ratio, with double-riveting of each tooth.[544] This also means that the lower hinge teeth (i.e. of the cheekpiece) were set at the *outer* edges of the cheekpieces, marking the first clearly identifiable case of this phenomenon, a trait unknown amongst Chalcidian type V helmets.[545]

All the above-mentioned helmets share the common characteristics of overall conical form, forehead brim/visor, and gable-volute ornament. Noteworthy is the great degree of variation in these details, in particular in the visor form and execution of the gable-volute ornament. The Ashmolean, Kazanlak and Üçtepe piloi sport forehead visors with varying slants and with 'pleats' at the sides – the Ashmolean helmet with multiple side pleats – and the fashioning of the gable-volute ornament also differs on all three (see Figure 100 A-C).

[544] The same appears to hold for the helmet from Üçtepe; Note that due to image quality the double-riveting on the Geya helmet is only clearly visible on the upper hinge teeth.

[545] See Chapter IV-A, 'The 'standard' Chalcidian type V helmets'; This phenomenon might have been introduced as early as Phrygian helmets or helmets of the Attic type with visor – see the respective sections in this thesis. A closer study of all known finds would bring clarity to this question, which, however, goes beyond the scope of this study.

The execution of these details on the piloi of the Western Caucasus is somewhat different from that of the abovementioned helmets. Both the Akhtanizovskaya and Geya helmets are characterized by identically formed cheekpieces – long flaps with rounded ends and a wavy inner edge – and the short, flat (i.e. horizontal) brim at the forehead, apparently without 'pleats' at the sides.[546] While nothing can be said of the missing visors on the Merdzhany piloi, the overall form and the execution of the gable-volute ornament – a thin, offset ridge denoting the gable at the forehead which grows into thick, rounded, offset volutes at the sides – is identical on all four helmets. These matching details indicate that all four helmets were manufactured in the same workshop. As such, it is quite probable that the Merdzhany piloi also had a visor similar to that of the Akhtanizovskaya and Geya piloi, as well as similar, wide, rounded cheekpieces attached by rivets to the inside of the helmet body.

[Image removed due to copyright restrictions]

Figure 101. Lettering on the pilos from Akhtanizovskaya. (Photograph courtesy of D.

A remarkable feature of the Akhtanizovskaya helmet is the two letters 'BN', formed as a series of tiny punches (*pointillé*) at the neckguard (Figure 101). While none of the other helmets of the Western Caucasus have similar lettering, the abovementioned helmet from the Ashmolean carries an inscription ΜΗΝΟΦΙΛΟΥ at the neckguard, fashioned similarly as a series of tiny punches.[547]

Both the Akhtanizovskaya and the Merdzhany find complexes are dated to the turn of the 2nd–1st centuries BC, while E. Vlasova notes that the Akhtanizovskaya complex

[546] Note that the visor was found as separate fragments.

[547] Catling 1974-75, 35, no. 56; Dintsis 1986, 80. Aleksinsky (2008, 23) mistakenly gives the Ashmolean inscription as 'ΑΛΔΞΑΝΓΡΟΥ ΤΟΥ ΝΙΚΑΝΟΡΟC', which is actually the wording found on a pilos helmet from Egizio (Dintsis 1986, 78).

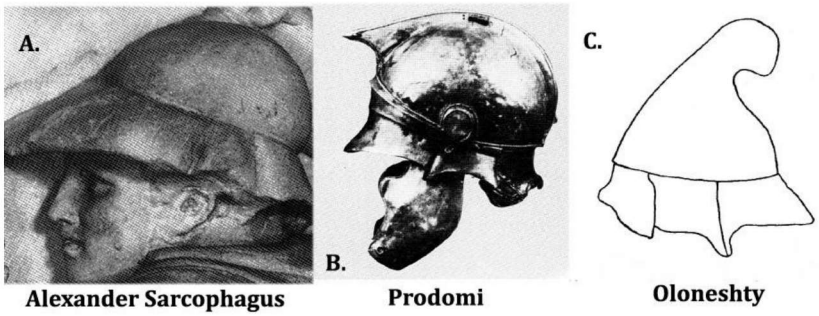


Figure 102. Other helmet types with pleated brims-visors.
A: Boeotian helmet (After Waurick 1988, Abb. 28);
B: Attic-with-visor helmet (After Waurick 1988, Abb. 49);
C. Phrygian helmet with brim (After Waurick 1988, Abb. 39)

should be slightly earlier than that of Merdzhany.[548] While no information is currently available about the find context and dating of the Geya helmet, it clearly deserves the same dating as the other three. This dating corresponds to the other complexes have brought forward here: The Kazanlak helmet is said to come from a 'Celtic burial', suggesting a 3rd-2nd century dating.[549] The Ashmolean helmet can be dated around 200 BC,[550] and the iron pilos from Üçtepe is reported to come from 'the upper Roman level' of the site.[551]

The exact origins of this combination of defining elements are hard to determine. Waurick suggests the pleated forehead visor to have originated with Boeotian-type helmets (Figure 102 A).[552] Forehead visors - often of the pleated type – are also found on Attic-with-visor helmets and even on Phrygian helmets, as shown on the examples in Figures 102 B, C. This helmet type also uses an ornament of forehead gable curling into volutes at the sides, similar to the Hellenistic pilos.[553] However, none of this is sufficient to successfully identify the origins of these individual elements, which were mixed and matched during the 2nd century BC to form new variations on existing helmet

[548] Vlasova 2009, 78; Waurick 1988, 157.

[549] Getov 1962. Getov suggests that the helmet was ritually damaged.

[550] Carter 1984, 85, no. 108. Carter defines the helmet as Boeotian. Note that Catling (1974-75, 35, no. 56) incorrectly places this helmet in the 5th-4th centuries BC.

[551] Mellink 1993, 117.

[552] Waurick 1988, 157.

[553] Waurick 1988, 171, Abb. 47-54.

types.[554] As such, the piloi finds of the Western Caucasus are typical examples of the Hellenistic pilos, which may have spread to the Black Sea and Western Caucasus as the result of the Celtic advent in the Balkans during the first quarter of the 3rd century BC, as suggested by Dintsis and Aleksinsky.[555]

[554] Waurick 1988, 180; Dintsis 1986, 77.

[555] Dintsis 1986, 77; Aleksinsky 2008.

CHAPTER V - GREAVES AND THIGH-GUARDS

Introduction

The greave, or shin-guard, was a specific kind of *metal* leg protection typical of *Greek* hoplite armour.[556] It is known from numerous depictions in Greek art (pottery and sculpture) and from surviving examples from Greece and territories belonging to the general sphere of Greek culture (Figure 103).[557] Both material and artistic evidence show that greaves belonged to the traditional Greek and even earlier Mycenaean panoply and were in use in the Ancient World from the Bronze Age.[558] Greaves were typically manufactured of a sheet of metal – usually bronze – bent and formed to fit around the lower leg and often also cover the kneecap. The knees, shins and calves were thus almost completely sheathed, with only a strip of skin exposed along the back where the vertical edges of the metal sheet did not meet. Perforations along the edges indicate that many greaves were certainly layered with some kind of softer material to protect the bare leg. In other cases, unlined metal greaves were worn either directly on the leg or over soft leggings



Figure 103. Red-figure bowl in Brussels, Royal Museums of Art and History.
(Image from the Livius website: http://www.livius.org/pha-phd/phalanx/phalanx.html)

[556] See Snodgrass (1999, 53-4).

[557] Note that the Greek hoplite is not always shown wearing greaves, but that greaves are generally shown together with the remaining hoplite paraphernalia.

[558] Snodgrass 1967, 24-25: The earliest examples of greaves come from the Dendra Tomb, which is given a generic date of the 15th century BC. The earliest greave depictions are also Mycenaean – see Peatfield 2008, 98: the 'Warrior Vase' from Mycenae and a fresco from the Palace of Pylos (both in the Athens National Museum).

or stockings. Aristotle even mentions a type of fine porous sponge – Ἀχίλλειος– that was used as a cushion for both greaves and helmets.[559]

Greaves that could not be clipped onto the legs by means of their own resiliency were often fitted either by means of fastenings or straps attached to the edges or by ties bound around them below the knees or at the ankles. These possibilities will be discussed below in further detail.

History of Research

Very few studies of ancient greave finds, even of individual ones, have been done, even though quite a few of the respective complexes are often well published. Luckily, however, the few available studies are quite thorough and give us a good idea of the material available. The only full-scale analysis on Western greave finds is Emil Kunze's *Beinschienen,* of 1991, an in-depth study and typology of greaves from the Archaic to the Classical Period based on the finds from Olympia.[560] Kunze also attempts to take into account greave finds from outside Olympia and Greece. Perhaps his greatest contribution is the catalogue of high-quality photographic images of select greaves, shown from varying angles.[561] Comprehensive studies of material from the Western Caucasus and surrounding regions (Kuban and Dnepr areas) include Lydmila Galanina's 1965 work *Ponozhi*. Both Kunze and Galanina make good use of detailed photographs to illustrate the greave typologies presented.[562] A much more

[559] *H.A.* 5.16; Kunze 1991, 67, no. 134.

[560] See Maß 1995 for a detailed review of Kunze's study.

[561] For an interesting discussion of Kunze's 1991 analysis see the section on greaves in E. Jarva's 2005 work.

[562] See also Sergeev 1966 for a good and detailed presentation of the weapon finds from the 4th century BC hoard of Oloneshty in the Dnestr region of Moldavia. Some of Sergeev's conclusions, however, are open to question faulty (e.g. his greave typology based on secondary details such as the number of perforations along the edges).

comprehensive listing of greave finds from the Western Caucasus and surrounding regions is Chernenko's *Schutzwaffen der Skythen* of 2006, a catalog of defensive 'Scythian' weaponry finds, of which much is of Greek type.[563] This work not only incorporates Galanina's material but adds to it from finds made after 1965.[564] Chernenko's work, unfortunately, contains no photographs of the greaves, providing instead some simplified drawings of the items which reveal only the general shape but little detail. However, Chernenko does list a number of items which have subsequently gone missing from their respective collections, which is very helpful is establishing distribution patterns of the items.

It should be noted that published images of the greaves are often quite unsatisfactory for a proper analysis of their form and typology. This is particularly significant for the discussion of greaves in the Hellenistic period, as will be shown below.

[563] Note that this is a revised and expanded version of Chernenko's earlier Russian work 'Skifsky dospekh' of 1968.

[564] Chernenko 2006, 98-105.

Greaves versus leggings

For the peoples of the Black Sea, metal greaves offered the warrior more durable protection than the softer leggings often worn by native warriors. Such leggings are best known to us through their archaeological remains, which are far less substantial than



Figure 104. Black figure amphora in Florence, Museo Archeologico, inv. no. 3845.
(After Ivantchik 2006, Fig. 11).



Figure 105. Short metal and leather legging from Nymphaion Grave VI, Oxford, Ashmolean Museum 1885.463.
(After Chernenko 2006, Tab. 34, no. 695.)

those of Greek-style leg guards. Leggings consisted of a core binding of some organic material – usually leather – which was then bound around the leg and stabilized with strips or 'ribs' metal.[565] These leggings always covered the leg only along the shinbone, offering no protection for the knee, unlike greaves. Almost all examples of leggings from come from the territory of the Royal Scythians.[566] The few examples from the Western Caucasus include the fragments from Nymphaion Grave VI and the Semibratny kurgan.[567] The fragment from Nymphaion (Figure 105) is particularly interesting, as some of the original leather binding is still preserved along the back side

[565] The only organic material that has survived on any of these leggings (attached to the metal ribs) is – to my knowledge – leather. Note nonetheless that in many cases there are no traces of organic material on the ribs. This leaves room for the use of other organic materials, such as heavy wool or felt, which have less chance of surviving.

[566] See Chernenko (2006, 108-9) for a list of known finds of native leggings.

[567] Nymphaion Grave VI: Chernenko 2006, nos. 695; Vickers 1979, 45, Fig. 16, b; Semibratny kurgan: Chernenko 2006, no/ 696;

of the bronze ribbing. Such leggings are rarely shown in ancient art. A rare example is the main scene of a black-figure amphora in Florence (Fig 104), which shows the central, seated figure in full Scythian garb, including a pair of short, shiny leggings pulled over his trousers.

It is difficult to ascertain the true demand for leggings as compared to greaves in the Black Sea area based on the archaeological material. One can only assume that for each metal clad set of leggings there must have been so many more made of organic materials only, such as leather, heavy wool or felt, which have simply not survived. At any rate, it is logical to assume the materials used for the production of leggings would have rendered them more affordable than their Greek-style metal counterparts.



Figure 106. Electron vessel from the Kul-Oba kurgan.
(After Cat. Petersburg 2003, Fig. p.44)

Note that there are absolutely no written mentions of leggings worn by Black Sea peoples in any ancient sources, and that artistic depictions of them are very few, as will be discussed below.

Artistic depictions – greaves and the peoples of the Black Sea



Figure 107. The golden comb from the Solokha kurgan.
(After Cat. Petersburg 2003, Fig. p. 35)



Figure 108. Red-figure kylix in Basel, Antikensammlung und Sammlung Ludwig, Inv. no. BS 459.
(After Ivantchik 2006, Fig. 7)

Artistic depictions of Black Sea peoples (or 'oriental archers', as Minns calls them)[568] wearing Greek-style greaves do occur on occasion and certainly more frequently than wearing leggings.[569] As a rule, however, the Black Sea natives are usually depicted without any kind of leg protection, simply wearing long trousers occasionally tucked into soft boots, as shown on the electron vessel from Kul-Oba (Figure 106), and depictions of them with greaves are relatively few. While commonly assumed that these peoples would have worn their greaves over their trousers, there is actually only one known artistic depiction of this fashion – on the golden comb from the Solokha kurgan (Figure 107). In most cases, the Black Sea warrior (or non-Greek, nomadic warrior) is depicted wearing his greaves in true hoplite fashion clipped around a bare leg, as seen in the kylix in Basel (Figure 108).

[568] Minns 2011, 56.

[569] This greater frequency does not in any way reflect the reality of greave or legging frequency amongst Black Sea peoples. It is far more simply representative of artistic preferences and idealizations. See Ivantchik (2006, 205), who discusses how Attic vase-painting uses of hoplite armour and weapons to lend barbarian figures a 'heroic' status in vase depictions.

Areas of distribution

The currently available material evidence shows that greaves of the Greek type were particularly popular throughout the Ancient World during the Classical and Hellenistic Periods and enjoyed a wide, if uneven, distribution during this time. While not quite as numerous as helmets, they do make up a great part of the armour finds from the Ancient World. A perfunctory glance at the overall greave distribution (Figure 109) reveals two clear areas of concentration – Greece proper/Macedonia in the West, and the Black Sea region in the East.

About 40-50% of the overall, published finds come from mainland Greece in the form of votives, mainly from Olympia.[570] An equally large amount comes from burials of the northern and western Black Sea region, mainly from the Ukrainian steppe, but also from the Bosporan Kingdom and Thrace.[571] The remaining few known examples come from burials in Macedonia and Magna Graecia.[572]

[570] The average percentages were calculated by the author and are based on the body of *published* material available for use in this study. Of course, Olympian finds make up a far larger percentage of the overall greave finds in existence: at the time of Kunze's publication (1991, 3), the Olympia depots contained ca. 300 Archaic greaves alone, most of which have yet to be examined or published, and the amount of material steadily grows. Kunze also mentions other Greek temples as a source of votives.

[571] See Chernenko 1996, Tab. 44,b for distribution in the Bosporan Kingdom and Greater Scythia. Webber (2001, 23-24) mentions some of the Thracian examples, which are on the whole few and poorly published.

[572] Kunze (1991, 3) also mentions greaves from burials in the Peloponnese and Central Italy.

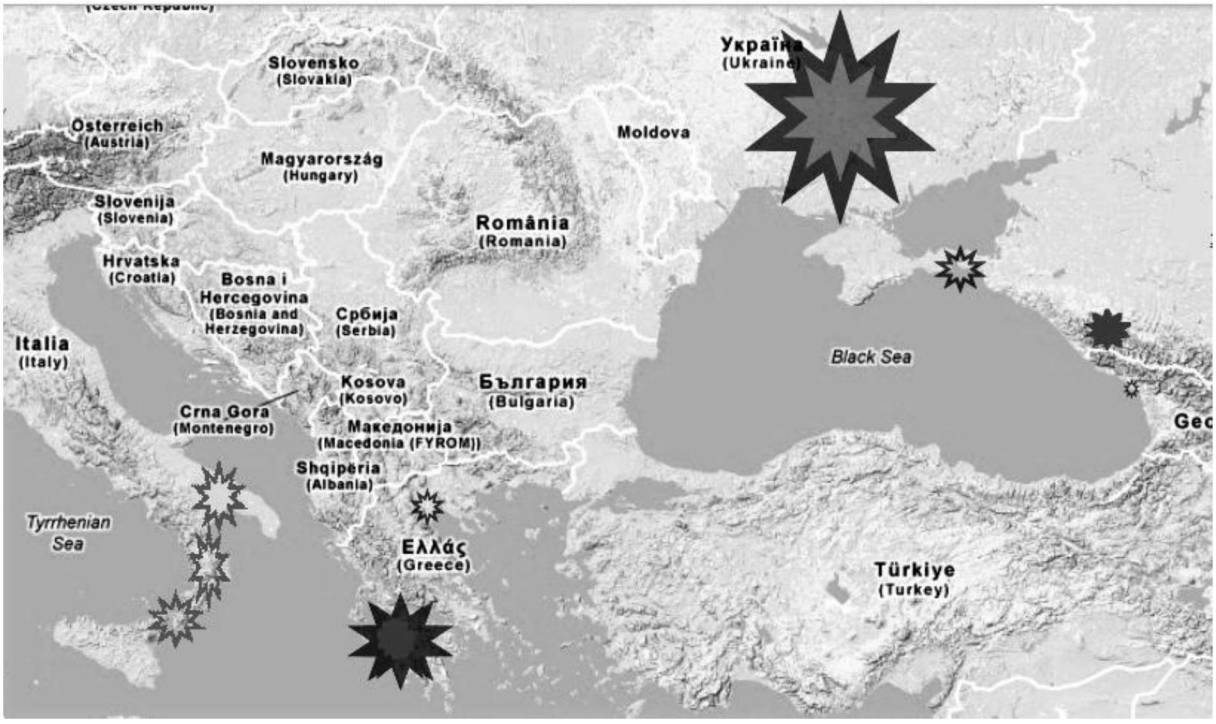


Figure 109. Overall distribution of greave finds throughout the Ancient World.
(Image: S. Chandrasekaran using Google Maps)

Of foremost significance when looking at this distribution (Figure 109) is the difference in the dating of the *Western* versus the *Eastern* items from pre-Roman times: the bulk of the Western (Greece proper / Olympia) finds dates to the Archaic and Classical Periods, whereas Eastern (Black Sea) finds comes from various find contexts from both the Classical and Hellenistic Periods. In fact, there are very few known examples of greaves from Hellenistic find contexts in Greece,[573] and the latest Olympia votives are dated no later than the mid- or late 5th century BC, after which no such offerings have survived.[574] This gives us very little overlap with the Caucasus material, the earliest greaves of which date to the beginning of the 5th century BC.[575] This complicates our

[573] Published finds from Greece and Magna Graecia are usually given a Hellenistic dating, however they are few and far between. (Examples include the greaves from Vergina, Derveni and Ruvo. These are discussed in the upcoming section 'The full-length greaves from the Western Caucasus – Analysis' of this chapter.)This small quantity is probably not truly representative – see the discussion on missing information in what follows.

[574] Pflug 1988, 137; Kunze 1991, 1, FN2.

[575] Chernenko 1996, 100.

analysis of the Hellenistic finds from the Western Caucasus, as there is practically nothing from the Greek mainland that could be used for a typological comparison.[576] Therefore it is necessary to make use of the Classical material from Greece together with later material from other parts of the Ancient World in order to piece together the typological development of greaves during the transition from the Classical to the Hellenistic periods.

The advantage of the Greek (Olympia) votive finds is their rather precise dating due to the many inscriptions left by donors. The Hellenistic Black Sea finds, however, rarely bear inscriptions. Most of these finds are simply given a generic 4th century BC dating, often based on a similarity with other such finds with an equally generic Hellenistic dating.[577]

Chronological development of the overall form

Shape: Before examining the Caucasus greaves, it is necessary to look at the overall chronological development of the greave as established by Kunze,[578] which is quite straightforward. From the High Archaic period, two elements remain consistent: their technique of manufacture and their basic shape. The variations in size and proportions found amongst all known greaves indicate that each grave pair was manufactured as a bespoke fitting. As mentioned above, greaves were made of a single piece of pre-cut, hammered metal (usually bronze) 'folded' and shaped around the lower leg to cover the shin and most of the calf from knee to ankle. Ornamental details were also worked into

[576] Kunze (1991, 117) notes that non-Olympian material far outweighs that from Olympia after the Early Classical period.

[577] For example in Galanina (1965) and Chernenko (2006).

[578] Kunze 1991.

the metal using various hammering techniques (see below).[579] The long edges met at the back but were not soldered together, leaving a vertical strip of calf exposed. With the exception of Early Archaic greave finds, all known greaves are of the 'long' type, i.e. covering the entire lower leg and kneecap.[580] Practically all greave finds tend to have small perforations along the upper and lower edges, in some cases even along the vertical rear edges, presumably for the attachment of an inner lining (either sewn or riveted; in either case, the lining has rarely survived to this day)[581] and/or for threading fastenings in order to ensure a snugger fit. It should be noted that these perforations were not always made in antiquity, a fact that will be discussed in what follows.

[579] A number of details concerning the manufacturing technique of greaves still remains unclear, e.g. just how the metal sheet was folded into its cylindrical shape, whether anatomical details were hammered before or after the metal was folded, and whether they were worked using free-hand repoussé or with matrices. Apart from a brief discussion by Kunze (1991, 66-7), no publication has ever addressed this topic, and there are no ancient sources that mention the manufacturing process in any detail. I am therefore grateful to Uwe Peltz, restoration specialist at the Antiquities Collection of the National Museums in Berlin, for taking time to discuss this question with me. According to him: the metal sheet would have been slowly hammered along a central vertical line in order to produce the greave fold; anatomical details could have been hammered into the sheet both before and/or after its folding; while matrices may have been used for the hammering of anatomical details, no such items have ever been found, and no microscopic studies of greaves have been undertaken to investigate this question; however, the experienced bronze smith would have been fully capable of working these details using his regular tools, i.e. without matrices.

[580] Only the earliest examples of Archaic greaves do not cover the knee. See Kunze 1991, 7-8.

[581] Remains of inner lining have been found on the greaves from Vani (Van/G-01).

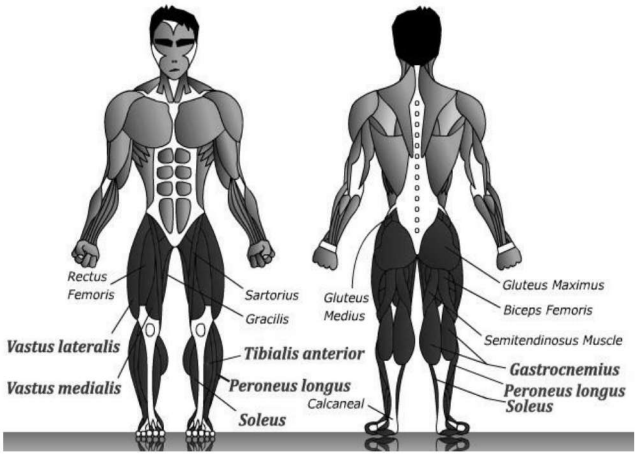


Figure 110. Anatomy of the legs.
(Image after Martin Vidic, flashmavi website - 02.11.11:
http://www.flashmavi.com/weight_training_skeletal_muscle_system_legs.shtml#learn_more)

Ornamentation

Another important aspect of the greaves is their ornamentation. Ornamentation of all greaves had two basic functions. The one was purely decorative, the other anatomical: to indicate the lines and bulges of the muscles and bones of the knee and lower leg in a *flexed* state (Figure 110). For the knee, this meant the lower edges of the two *vastus* muscles (from the upper legs) on either side of the kneecap as well as the light protrusion of the upper shinbone (*tibia*) in the middle. For the leg, this meant distinguishing between the short, fat calf muscle (*gastrocnemius*) and the longer muscles of the lower leg - *soleus*, *tibialis anterior* and *peroneus longus* – or rendering short and long muscles as a single, elongated bulge, together with the long protrusion of the shinbone. The bulges, furrows and protrusions of these anatomical details worked into the greave were either matrix hammered or worked using repoussé technique, sometimes with additional chasing from the front for emphasis of detail.[582] Further details such as ornamental borders were then chased into the metal.

[582] Treister 2001, 40; Note that detailed, microscopic studies of greave would be necessary in order to distinguish matrix hammering from repoussé, and that no such study has yet been carried out.



Figure 111. Greave from Olympia, Br 277.
(After Kunze

The following chronological characterizations are based on the known assemblages of Archaic and Classical greaves as given by Kunze.

Archaic period: The bronze sheet used for Archaic greaves was generally quite thick and somewhat tough.[583] This sheet was then cut into a simple, ellipsoidal form (Figure 111),[584] from which the final product was shaped to fit around the leg, remaining open in the back. The wider upper half of the ellipsoid would wrap around the knee and upper shin, while the lower, narrower part would wrap around the lower calf (Figure 112). The greave fit could be adjusted using threaded fastenings at the back. The result was a rather straight-edged greave with a slight taper towards the ankle, resulting in a simplistic or stylized rendition of the natural leg form.

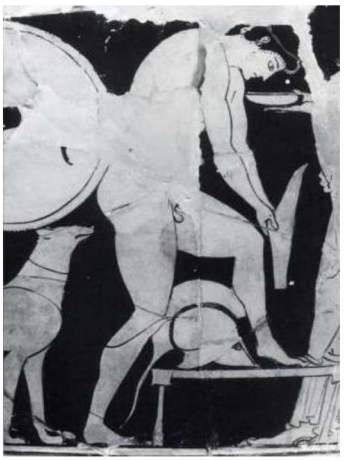


Figure 112. Hoplite clipping on a greave. Calyx-krater by the Eucharides Painter, early 5th century BC. Paris, Louvre, Inv. G 47.
(After Sekunda 2005, Fig. p. 12)

[583] Kunze 1991, 7.

[584] See Kunze 1991, Taf. 1-10, for greaves cut from an ellipsoidal-shaped metal sheet.

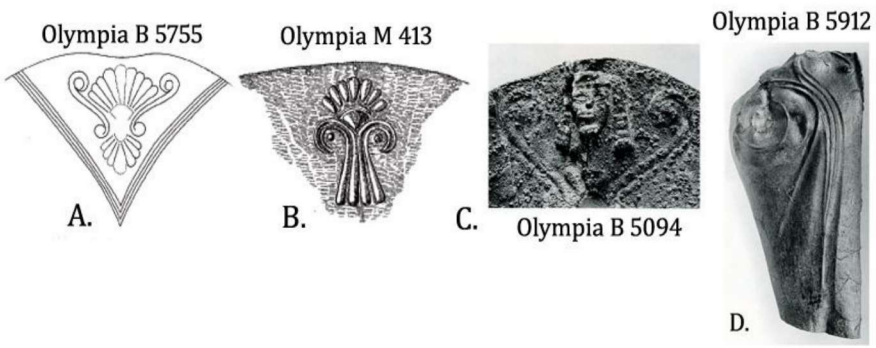


Figure 113. Ornamentation on Archaic greaves.
(After Kunze 1991, Abb.6, 8, Taf. 8.1, 36.3)

The thick metal of the Archaic greaves rendered them rather inflexible. This meant that it was difficult to ensure a 'snug' fit around the leg – the low resiliency of the metal would have hampered the process of pulling the greave apart at the back in order to fit the leg into it. Therefore, the fastenings in the back were a necessity for a good fit, and perforations along the back edges are found on practically all greaves of this period, attesting to the threaded fastenings.[585]

Characteristic of the ornamentation of Archaic examples was the use of lines and ridges to render the knee as a triangular space (Figure 113 A) – this tended to give way to a smoother division of space in later periods (Figure 113 B). Amongst Archaic pieces, we often find rather elaborate decorative elements[586] – lines ending in swirling hooks, tendrils, the occasional palmette, and sometimes even figurative images, such as a female face directly on the kneecap (Figure 113 C).[587] The necessary muscles and bone lines mentioned above were not rendered realistically, but indicated by the stylized lines, tendrils etc, shown in the correct anatomical places (Figure 113 D). The assemblages also contain plainer examples. Both decorative and plain greaves of these

[585] Compare the Archaic greaves shown in Kunze (1991, Taf. 3-6, 9-14), most of which show perforations along the rear edges.

[586] The primary function of such greaves – whether they were strictly votive/decorative or experienced actual use in battle, has yet to be analyzed.

[587] Generally an Astarte-like face (e.g. Figure 113 C) or a Medusa (e.g. see the greaves from the British Museum in Figure 116).

periods have in common that all ridges, lines and grooves are executed in a sharp, pronounced and highly stylized fashion.

Later Archaic examples tended to add hammered swells and bulges to emphasize certain anatomical details, for example the calf, and particularly the flexed lower *vastus* muscles above the knee. These were rendered with either a one long, moulded semicircular bulge framing the upper knee (Figure 113 A), or, more often than not, as *two* separate bulges positioned *symmetrically* on either side of the kneecap (Figure 113 B).[588]

Classical period: The overall greave shape developed over time and was extremely dependent on the elasticity of the metal used. Since the end product would need to give in order to pull the edges apart and 'clip' it over the leg (Figure 112),[589] around which it would close using its own natural resiliency, the material used would require a great degree of elasticity and spring tension.[590] By the early 5th century BC, bronze smiths were capable of producing extremely thin yet durable metal sheet, which the greave manufacturers in turn could use to produce a tighter and more closely fitted product which no longer required extra ties and fastenings for a snug fit.[591]

The overall cut of greaves remained relatively unchanged during the Classical period. The metal sheet was cut only slightly more elaborately during this period in an effort to further emphasize the anatomical reality of the leg form.[592] The kneecap section was

[588] See Kunze (1991, Taf. 23-33, 37-39, 46-50) for examples of symmetrical *vastus* bulge or bulges.

[589] Note also that the hoplite's right greave is fastened above the knee by a tie attached to the greave's upper edge.

[590] Kunze 1991, 7.

[591] Kunze 1991, 76-77.

[592] See Kunze (1991, 76) on the tendencies towards a more anatomically correct greave form during this period.

more rounded, the S-shape of the lateral edges between the upper knee and upper calf more pronounced, resulting in a more definition of both individual sections. In some cases we observe an additional tapering of the lower leg and thus better emphasis of the wide calf section. The result of these developments was a more form-emphasizing, tightly tapering greave which rendered the lines of leg and knee in a more realistic fashion. It is important to note that the increased metal elasticity of greaves in this period had rendered extra fastenings for a tighter fit redundant.[593] The need for the attachment of an inner lining to the greaves also disappears in the period, and, subsequently, the lining of the greave edges with perforations for this purpose.[594]

By the early fifth century BC, with the transition from Late Archaic to Early Classical, greave ornamentation underwent a radical change, forgoing any figurative or decorative elements.[595] The previously highly stylized and elaborate versions gave way to smoother, more realistic forms with less pronounced transitions between muscles. The flexing of the knee was now clearly depicted, the kneecap and surrounding muscles moulded as thick, rounded bulges, flatter moulded triangles or even sharply jutting ones.[596] The lower *vastus* muscles were now moulded even more realistically, as two separate, *asymmetrical* bulges – a longer inner one and shorter outer one. Even their placement – the inner one lower, the outer one higher – was meant to reflect the reality of a flexed upper leg.[597]

[593] Kunze 1991, 77.

[594] Kunze 1991, 77.

[595] Kunze 1991, 76.

[596] See Kunze (1991, 117-24, Taf. 49-54) for descriptions and images of greaves from this period.

[597] Kunze 1991, 79, Taf. 52-3.

Late Classical/Hellenistic period: From the Late Classical period on, the main problem concerning the typology of greaves is the decrease in available material – at least from Greece proper. Kunze draws attention to the decrease in Greek material of this time, as well as the fact that much of it is in poor shape due to damage and corrosion, and therefore not adequate for establishing a typology.[598] It is worth considering whether greaves were generally a flimsier construction as a whole than helmets, which would nonetheless have served their purpose when new.[599] From the Late Classical period on, greave finds from Greece are far outnumbered by those from outside Greece,[600] in particular from the Black Sea region. Kunze was well aware of the latter, and admits that the limited access to Soviet publications and the language barrier prevented him from working with this material,[601] and he has only included one pair of greaves from the Western Caucasus – those from Kekuvatsky (Kek/G-01). This lacuna has been partially filled by Chernenko's compilation and analysis of the Black Sea material in his work of 2006.[602]

Kunze comes to the conclusion that the Greek greave had already peaked in its development by the mid-5th century BC, after which its form and features remained more-or-less unchanged all the way up to the Hellenistic period, i.e. for over a century.[603] Similarly, Chernenko notes that greave finds from the Black Sea area remain relatively unchanged in form, whether from the mid-5th century BC or the Hellenistic

[598] Kunze 1991, 78.

[599] I am grateful to M. Vickers for making this suggestion.

[600] Kunze 1991, 117.

[601] Kunze 1991, 117.

[602] Chernenko 2006.

[603] Kunze 1991, 80.

period.[604] There is no satisfactory evidence of Greek greaves following the 4th century BC, and there are no finds of Greek greaves from the Black Sea area that can be attributed to the 3rd century BC or later.[605]

While the overall greave form remains unchanged, characteristic for the Late Classical and Hellenistic periods is a general reduction in the moulding of the various anatomical details:[606] the various bulges and protrusions grow softer, the transitions smoother. In some cases, details that were once moulded separately, such as the kneecap and upper tibia, or the anterior and *peroneus* muscles, are now one fluidly moulded form.[607] The asymmetrical inner and outer and *vastus* bulges are continuously reduced.

Greaves from the Western Caucasus

10 individual and 8 pairs of Greek-style metal greaves, together with one pair of metal thigh-guards, have been analyzed in this study.[608] As with the other weapon categories, the greave material shown here is but a small part of the material that is actually available or known of from Western Caucasus sites, which for various reasons could not be included in this study.[609] Nonetheless, the material included in this analysis is representative of the overall situation in the Western Caucasus.

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[604] Chernenko 2006, 100.

[605] Roth (2008, 391) notes that greaves disappeared from the gear of Greek heavy infantry as early as the beginning of the 4th century BC. The disappearance of Greek greaves from the *oikumene* along the Black Sea seems to have come about with some delay.

[606] Kunze 1991, 79.

[607] This is more frequent amongst greave finds from outside Olympia. See, for example, the pair from Vergina (outer chamber) for kneecap and upper tibia together, the greaves from Derveni for *anterior* and *peroneus* moulded into a single elongated form. I am grateful to Dr. Ioannis Galanakis of the Ashmolean Museum, Oxford, for providing me with a good photograph of the Vergina greaves.

[608] Two further pairs which were lost during the Second World War have not been analyzed, but included in the section '*Distribution and concentration in the Western Caucasus*' below.

[609] Many of the finds are documented, yet remain unpublished (including a large number of illicit finds), and some have vanished since the time of their original discovery and documentation.

Problems faced in the analysis

The limited number of available greave finds in the Western Caucasus is partially due to the fact that the bulk of *known* greave finds was excavated before the First World War, and much of these – together with the accompanying documentation – went missing during the Second World War.[610] Excavations during the Soviet period have brought forth only a few examples to add to the already diminished numbers. The main problem with most greave finds from this region is that they are by far more poorly preserved than those from Olympia. In many cases, the Western Caucasus items have only survived in a seriously damaged and fragmented state (e.g. Kurdzhips). A further problem is the lack of detail shown in published drawings and photographs - when these exist. Not only is the detail shown insufficient,[611] but the greaves are always shown in standardized views only, either from the front or in profile, with no attention paid to the back or inside.[612] This makes it almost impossible to study and compare the rendering of anatomical and ornamental details properly. Yet it is these very details which must be studied in order to understand any possible variations amongst the greaves of the Hellenistic period, especially in light of their standardized overall form.

In view of these limitations, I have undertaken a first-hand study of the Western Caucasus greaves in order to produce a proper analysis of the greaves from the Western Caucasus.

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[610] Galanina 1965, 7.

[611] Lighting (for photographs) is almost always one-sided, leading to a loss of the nuances in the rendering of anatomical details and the surface patina. Kunze notes that even photographs of well-preserved items tend to lend the polished surfaces a rougher grain. Kunze pointed out the same problem with the earlier published images of the Olympian greaves.

[612] Even Kunze's high-quality photographs show only standardized views.

Distribution and concentration in the Western Caucasus

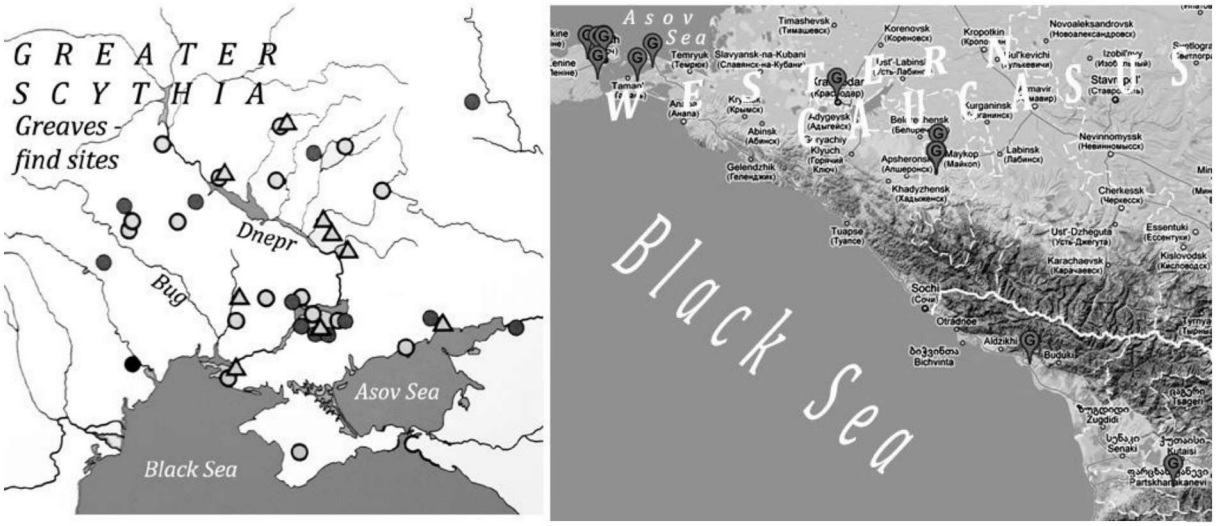


Figure 114. Find sites with greaves in the Ukrainian steppe and Western Caucasus.
(Map left: after Chernenko 2006, Pl. 44b; Map right: S. Chandrasekaran using Google maps)

The greave finds from the Western Caucasus constitute a very small portion of the overall finds of greaves from the Black Sea area. For purposes of studying the greaves' distribution, I have considered a further two pairs of greaves from Hellenistic sites in the Asian Bosporus in this analysis, both of which have gone missing since their discovery.[613]

The low concentration of greaves in the Western Caucasus is quite unexpected, especially considering that this region demonstrates the highest concentration of Greek-style helmets for the Black Sea area (see Figure 114). In fact, the highest greave concentration throughout the Black Sea area is seen in the Ukrainian steppe.

The low greave concentration brings with it a number of implications. Most evident is a muted partiality for metal greaves in the Western Caucasus as versus in the region of

[613] These include a pair of greaves from the Bolshaya Bliznitsa tumulus, found together with the helmet BB/H-01 (Galanina 1965, no. 7), and a pair from a kurgan near the village of Pivneva on the Taman peninsula (Galanina 1965, no.8).

Greater Scythia. Keeping in mind that burial assemblages containing defensive weaponry are basically similar in both territories, it is logical to conclude that the peoples of the Western Caucasus used leg protection, but preferred softer, organic materials such as felt or leather. This is easily supported by the percentage and type of reworking found on the greaves from this region.[614] The apparent aversion to metal, Greek-style greaves moreover does not lend support to their having been manufactured in an area of low demand. Thus it is logical to conclude that the greave finds of the Western Caucasus – both reworked and unaltered versions – were brought here from elsewhere, perhaps from Greece itself, but even more likely from the neighboring lands of the Royal Scythians, where manufacturing centres have been located.[615]

[614] It should be noted that the percentage of reworked greaves is far lower in Royal Scythia than in the Western Caucasus.

[615] For example in Kamenskoe gorodishche and Lyubotin – Chernenko 2006, 136.

The full-length greaves from the Western Caucasus - Analysis

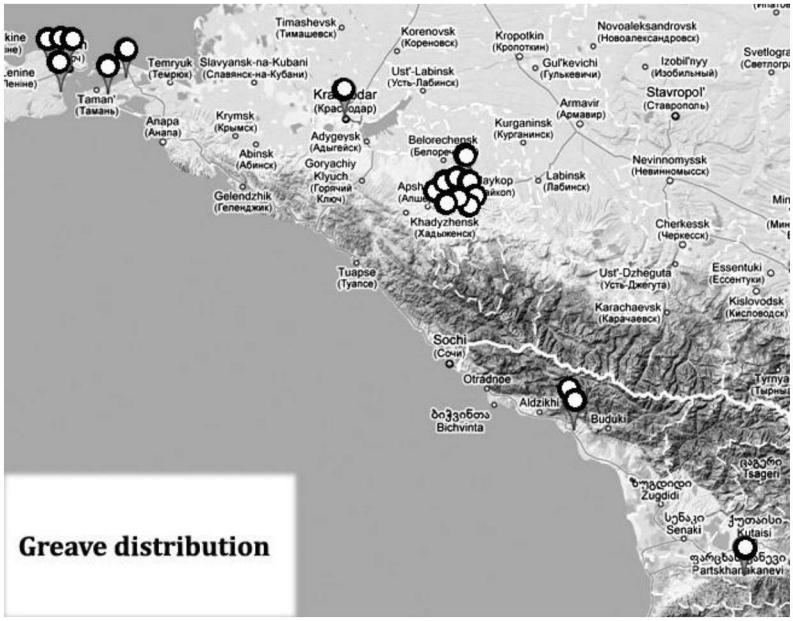


Figure 115. The greave distribution in the Western Caucasus.
(S. Chandrasekaran – using Google maps)

Within the Western Caucasus, the largest number of greaves included in this study comes from two sites in the foothill regions of the Caucasus – from Eshera in the southern foothills and Kurdzhips in the northern foothills. Following this is the European Bosporus, with four different find sites, and finally a site in Colchis proper (Vani).[616] (cf. Figure 115).

As already mentioned above, almost all greave finds within this study are all of a similar type, i.e. full-length greaves of a form corresponding to those of the Classical and Late Classical periods as listed by Kunze. Their average length – on those examples where it can be measured – runs at around 40cm.[617] This corresponds to an average length of ca. 40-41cm as demonstrated by the Classical greaves from Olympia.[618]

[616] See Chernenko 1996 for the Bosporan and Colchian finds, and Voronov 1991 for the Eshera finds.

[617] The greaves from Kerch Ker/G-01 are somewhat exceptional, with a length of 47cm for the right greave.

[618] Jarva 2005, 96.

It is almost impossible to arrange the Western Caucasus greaves in a meaningful chronological order. Suffice it to say that the oldest greaves in this group must be the elaborately worked pair with Medusa-adorned kneecaps from kurgan 1838 in Kerch (Ker/G-01). These are unique amongst the greave from Hellenistic sites, but the style of execution clearly places them in the Late Archaic/Early Classical period. The most obvious comparison for this pair is one from Ruvo, now in the British Museum (Figure 116). With its clearly early dating, this is the only example of Western Caucasus greaves from the so-called period of colonization that has made its way into a Hellenistic tomb assemblage, and as such the only example in this area of greaves that were 'in circulation' for over a century before ending up in their final resting place.



Figure 116. Greaves embellished with Gorgons. A: British Museum, Inv. no. BM 1856, 1226.615; B: Ker/G-01.
(Image A: after British Museum website; © Trustees of the British Museum. Image B: after Hermitage website – Feb. 2011)

[Images removed due to copyright restrictions]

Nymphaion

Scythian Neapolis

Oloneshty

Figure 117. Greave comparison: Scythian Neapolis Nymphaion, Oloneshty.
(Photographs: S. Chandrasekaran; Drawing after Chernenko 2006, Taf. 32, no. 655)

The remaining greaves can be grouped according to the degree of stylization/reduction of anatomical details. A number of greaves from the Black Sea region display 'bulging' anatomical details. Good examples for these are the greaves shown in Figure 117.[619] Note in

[619] The Oloneshty hoard (Moldova) is dated to the 4th century BC. Chernenko 2006, no. 655; Sergeev 1966, 137, Fig. 6; The Nymphaion kurgan 17, burial 8, is dated to the 5th century BC; The greaves from Scythian Neapolis come from a kurgan burial dated to the mid-Late Hellenistic period. See

particular the swollen rendering of the vastus muscles on all three. This stylization is reminiscent to the more 'overbearing' stylization of the *vastus* is found in a greave of the Classical period from Olympia B 4863.[620] In this sense, it may be possible to compare the greave pair from the Hellenistic burial in Akhul-Abaa (AA/G-02) with the greaves of this group, in particular the rendering of the kneecap, upper tibia, and *vastus* muscles hovering directly above the kneecap.

[Kek/G-01: Image removed due to copyright restrictions]



Figure 118. Kek/G-01, right greave; left greave from Derveni.
(Kek/G-01: S. Chandrasekaran; Derveni: After Themelis/Touratsoglou 1997, pl. 7 A15)

A far softer and more naturalistic depiction of anatomical details is seen in the greaves from Kekuvatsky (Kek/G-01), two of the best preserved from the Western Caucasus, and the only ones without signs of serious reworking. Characteristic are the reduced swells of the *vastus* muscles, as well as the sharp yet subtle hammered accents of the *soleus*/*anterior-peroneus* muscles, with the latter two given as a single elongated form. The latter details appear to have been worked similarly on the damaged greaves from Vani (Van/G-01). The same reduced subtlety of detail is found in the

Chernenko 2006, 105, no. 694 (who also specifies a dating of no earlier than the 2nd century BC), Galanina 1965, no. 29.

[620] Kunze 1991, Taf. 51.1-2.

well-known pair of greaves from Derveni (Figure 118),[621] perhaps the closest parallel to the Kekuvatsky pair from outside the Black Sea region. Note that all three find sites are dated to the second half of the 4th century BC.

[Images removed due to copyright restrictions]

The remaining greaves are exemplified by a lack of sharp lines or profiles along the lower leg. Instead, all details – calf, *soleus*, *anterior-peroneus* – are softly rounded or smoothened swells.

Figure 119. Outer profiles - KO/G-01 and UP/G-01. (Photographs: S. Chandrasekaran)

Further reduction of anatomical details can be seen in the surviving left greave from Kul-Oba (KO/G-01). Gone are the subtly sharp profiles of the elongated *soleus* and combined *anterior-peroneus* muscles, as seen in the Kekuvatsky or Derveni greaves (Figure 119). Instead, these are now given as a soft, elongated swell. The calf muscle is a softly rounded bulge.

Even more reduction is found on the damaged greave of unknown provenance UP/G-01, where the *soleus*/*anterior-peroneus* details appear almost completely smoothened away, and only the hint of the lower calf bulge bears any resemblance to the above (Figure 119).

An interesting group of greaves is formed by the well-preserved greave from Maykop (May/G-01) and a kneecap fragment from Kurdzhips (Kur/G-04). Characteristic for these two pieces is the smooth, jutting kneecap section without *vastus* muscles. A further similar kneecap fragment also comes from Kurdzhips (Kur/G-05). Note that this

[621] Found in tomb B at Derveni, together with the Derveni krater– Burn 2004, 30-2. Note that the anatomical details of the Derveni greaves are actually somewhat more reduced than those of the Kekuvatsky greaves.

[Image removed due to copyright restrictions]

Mai/G-01 Oloneshty

Figure 120. May/G-01, right greave; Oloneshty, left greave. (May/G-01: S. Chandrasekaran; Oloneshty: after Chernenko 2006, Taf. 32, no. 656.)

form does not occur on any of the Classical greaves from Olympia.[622] The lower leg of the Maykop greave shows a smoothly rounded stylization of anatomical details similar to that of the greave from Kul-Oba. The overall stylization of the Maykop greave strongly resembles that of one of the greaves from the Oloneshty hoard (Figure 120).[623] It also suggests a similar lower leg section for the Kurdzhips greave fragment Kur/G-04, perhaps also for Kur/G-05 as well as a similar jutting knee for the Kul-Oba greave, and perhaps even for the damaged greave UP/G-01.

A number of greaves in this study are so damaged, reworked or fragmentary that practically nothing can be said of the overall form and/or stylization of anatomical details with any certainty. This includes a number of Kurdzhips greaves – Kur/G-01, Kur/G-02, Kur/G-03, Kur/G-06, Kur/G-07, Kur/G-08 – and the greaves from Kerch Ker/G-02. The greaves from Akhul-Abaa, excavated in 1979 (AA/G-01), are currently only available as a drawing that shows too little detail by which to surmise the degree of stylization. The damaged and reworked greaves will be discussed further below.

In summarizing the above, we observe a consistency of form amongst the greaves in this study – full-length greaves, most without perforations of original manufacture along the edges or corners[624] but a great degree of variation in the stylization of anatomical

[622] See Kunze (1991, 117-120) for a list of Classical greaves from Olympia.

[623] Chernenko 2006, no. 656; Sergeev 1966, 135, Fig. 4a, 4b.

[624] The exceptions are the greaves from Kekuvatsky (Kek/G-01), with small perforations along the upper greave edges, and the greaves from Akhul-Abaa (AA/G-01).

details, typical also of greaves from neighbouring regions. This variation is characterized by varying degrees of reduction of anatomical details from pronounced bulges to soft swells. Particularly interesting is what seems to be the smoothing away or complete disappearance the *vastus* details.[625] The latter is seen whenever the kneecap is formed as a protrusion jutting forward directly from the upper greave edge. The various degrees of reduction in the Western Caucasus may simply be attributable to workshop styles and preferences, and not indicative of a chronological trend. When, however, compared to the stylistic progression of greaves from Olympia as demonstrated by Kunze, the reduction must be viewed as a continuous trend ultimately leading to the disappearance of certain details. Thus, while greaves with jutting knees and lacking *vastus* details (May/G-01, Kur/G-04, Kur/G-05) might simply be characteristic of a particular workshop, it is far more plausible to view them as examples of the later/latest phases of greave development during the 4th century BC.

It is also interesting to note that (in most cases) no two pairs of greaves in this study are alike.[626] This degree of variation corresponds to what we find in the neighbouring Ukrainian steppe with its by far greater concentration of greaves. The degree of variation indicates that greaves were originally not the product of mass production or pre-fabrication, but instead made-to-order for their (original) purchasers.[627]

[625] Kunze (1991, 79) notes an overall disinclination to 'let go' of the *vastus* details.

[626] The possible exception is found in the single-greave finds KO/G-01 and UP/G-01, which may in fact be part of the same pair. See the respective catalogue entries.

[627] The question of pre- or mass fabrication of hoplite weaponry during the Classical and Hellenistic periods is quite debatable - written sources give little information on this matter, and no studies have been carried out on this topic.

Reworking

The majority of the greave finds from the Western Caucasus show signs of reworking, regardless of which region they were found in. Reworked greaves include three of the four pairs from the Bosporan Kingdom (Ker/G-02, KO/G-01, Nym/G-01), the better-preserved greaves from Kurdzhips in the Caucasus (Kur/G-01, Kur/G-02, Kur/G-03), the greave pair from Vani in Colchis (Van/G-01), and the greave of unknown provenance in the Krasnodar Museum (UP/G-01).

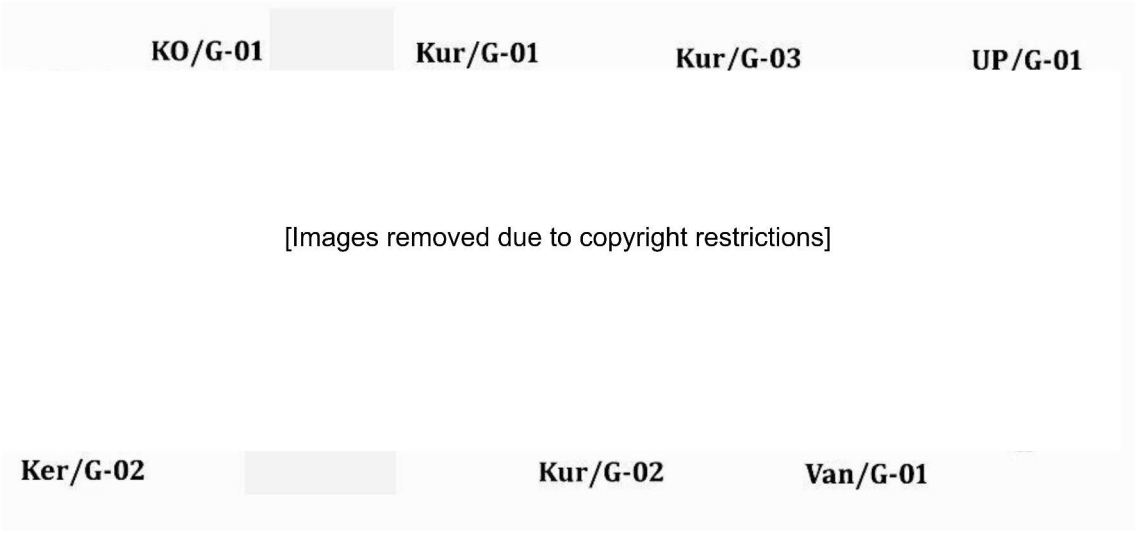


Figure 121. Reworked greaves.
(Photographs: S. Chandrasekaran)

Reworking most often consists of the removal of the entire kneecap section. This can be seen clearly in the greaves Ker/G-02, KO/G-01,Kur/G-01, Kur/G-02, Kur/G-03, Van/G-01, UP/G-01 (Figure 121). This frequency of kneecap removal stands in clear contrast to Chernenko's observation of only a couple of such cases.[628]

Another popular aspect of greave reworking is the removal of the calf section. This can be seen in greaves Ker/G-02 and Van/G-01 (Figure 121). Calf removal does not occur

[628] Chernenko (2006, 100) apparently underestimated the number of greaves from the Northern Caucasus where the kneecap sections were removed.

as frequently as removal of the kneecap, yet *always* only on items where the kneecap is also removed.[629] A partial digression from this rule may be seen in the abovementioned greave Nym/G-01 with its partially removed kneecap section.

Both kneecap and calf sections are usually removed on an individual basis, leaving the surrounding sections such as the upper tibia/shinbone relatively intact. An exception to this is the greave UP/G-01, where the entire upper half of the greave has been removed in one piece, leaving only the lower section of the calf visible.

In some cases, the greave edges are torn off –in particular the bottom edge. This is the case in greaves Nym/G-01 and Kur/G-01 (Figure 121). The removal of the bottom edge can also be seen in greaves that are otherwise undamaged, such as Ker/G-01 and May/G-01 (Figure 121).[630]

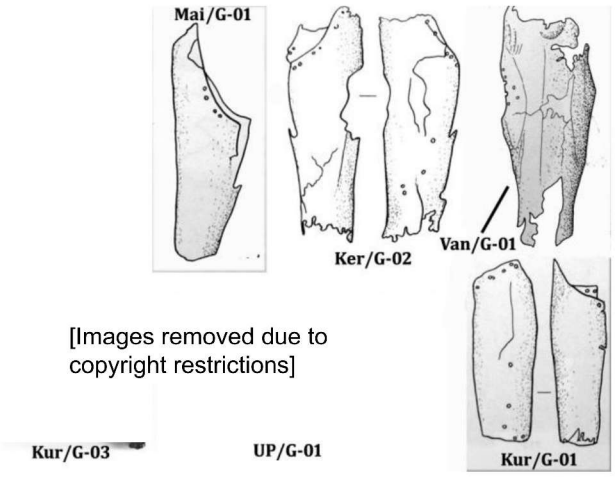


Figure 122. Sample of secondary perforations on greaves from the Western Caucasus.
(Drawings after Chernenko 2006, Taf. 33, nos. 682, 688, 689, 693d; Photographs: S. Chandrasekaran)

[629] There are no examples of a greave from the Black Sea area where only the calf section is removed but the kneecap remains.

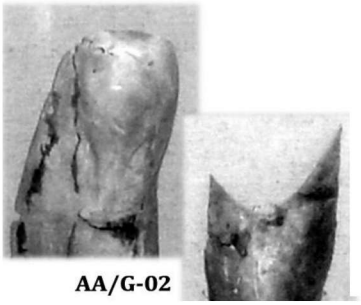
[630] It is unclear whether the lower leg section of the greaves Ker/G-01 were deliberately removed or whether the fragments were not found or could not be pieced together.

[Image removed due to copyright restrictions]

Figure 123. Suggested cross-lacing on the greave UP/G-01. (Photo: S. Chandrasekaran)

Yet another form of reworking is seen in the secondary perforations often added to the greaves along their edges (Figure 122). This is seen in practically all the otherwise reworked greaves shown in Figure 121, with the exception of KO/G-01. The relatively unaltered greave Ana/G-01 is also embellished with secondary perforations. The new perforations are almost always roughly cut or punched and often irregular in size. They did not cover the length of the greave edges, but were limited to certain of the following sections: the upper knee, the lateral edges, the lower edges, and, sometimes, even the rear edges. The perforations were often spaced regularly, frequently set in pairs along opposing edges, suggesting their use criss-cross ties/fastenings to enable a snugger fitting of the greave (Figure 123).

Occasionally, secondary perforations also appear around and/or below the kneecap. This is the case with the greaves from Kekuvatsky (Kek/G-01), Akhul-abaa (AA/G-02).



[Kek/G-01: Image removed due to copyright restrictions]

Figure 124. Greaves with secondary perforations around/below the kneecap. (Photographs: S. Chandrasekaran)

(cf. Figure 124). In the case of the Kekuvatsky greaves, the secondary perforations are of approximately the same size as the original ones lining the upper and lateral edges. They run from edge to edge to form a semicircle below the knee. The greaves from Akhul-abaa display a number of small, secondary perforations clustered below the knee at the upper tibia, with a few further ones along the upper knee. In both cases, the

secondary perforations are indicative of the addition of an inner lining or cushioning specifically aimed at the area of the knee joint.[631] The filling in of surplus space at the knee (or elsewhere) is clearly indicative of second-hand usage.[632]

A particularly interesting sign of 're-use' are the darkened stripes below the knees of the Akhul-abaa greaves found in 1985 (AA/G-02). These can be attributed to chafing from ties bound around the greave just below the knee to provide a more secure fit around the leg. A similar situation is depicted on the famous golden comb from Solokha, which shows a warrior on horseback wearing greaves over his trousers and additionally secured at the lower leg with fastenings bound around the ankle (Figure 125).[633]

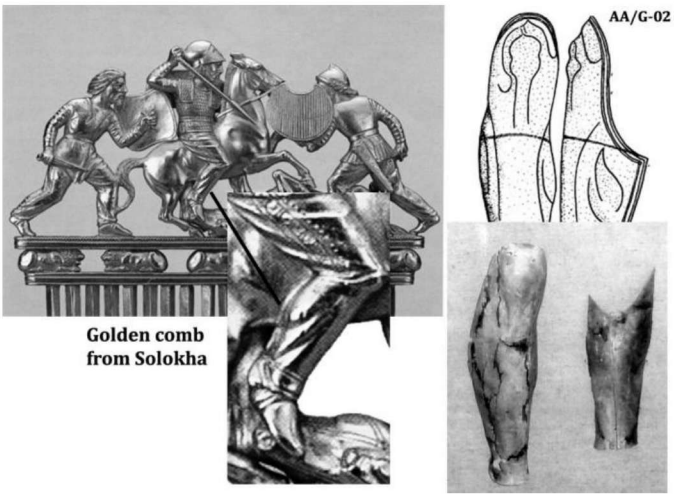


Figure 125. Left: The comb from Solokha, with close-up of greave bindings at the ankle.
(After Cat. Paris, Figure p.47);
Right: The greave pair from Akhul-abaa AA/G-02.
(Drawing after Voronov 1991, Fig. 2.1-2.
Photograph: S. Chandrasekaran)

For some researchers,[634] ankle-bindings such as those on the Solokha comb are seen to represent the conventional method of securing greaves which lacked perforations for fastenings. Ankle-fittings are even mentioned by Homer,[635] and a number of vase paintings and reliefs also show

[631] Jarva (2005, 100) cites Feruglio 1991 as suggesting that the *vastus* bulges were also used to create extra space on the inside to be filled with an additional knee cushioning.

[632] Uwe Peltz further suggests that the presence of surplus space to be filled out *may* also be indicative of pre-fabricated (but first-hand) goods that did not fit quite correctly. However, there is very little evidence to support the existence of pre-fabricated greaves in the Classical and Hellenistic periods.

[633] Vlasova 2011, 124.

[634] For example Galanina (1965, 14).

[635] Homer (*Illiad* 3.330; 11.18; 18.459) calls these 'ankle-pieces'.

similar conventions.[636] The greaves from Akhul-Abaa (AA/G-02) certainly provide archaeological evidence of this practice.

Reasons for reworking: The forms of reworking discussed here are clearly the results of efforts to make the greaves more comfortable for their *new* owners and facilitate their needs, the most obvious being for a pair of leg protectors similar to the traditional, native leggings. The kneecap and lower edges were removed in order to shorten the greave so that it only covered the shinbone. Perforations were then added in order to attach the greaves to the softer core of organic materials (leather). Thus, the reworked greave took the place of the metal strips or 'ribs' which stabilized the overall construction. Without the kneecaps, there was more freedom and flexibility for the perpetually bent legs on horseback. The removal of the calf muscles would have prevented unnecessary chafing. Extra cushioning at the knees also provided more comfort for the bent rider's knee. Finally, the extra fastenings and ties would ensure a snugger, more secure fit of the second-hand items.

The extensive reworking on some of these greaves is suggestive of consecutive owners. The new owners – all warriors belonging to the elite class, judging by the accompanying burial goods – obviously did not fight in the same manner as hoplite foot-soldiers, for whom these greaves would have originally been intended. Instead, the new owners belonged to a warrior class that fought on horseback, as will be discussed below.

[636] Aside from the Solokha comb, Galanina (1965, 14) mentions vase paintings and relief depictions showing greaves fastened to the leg either at the ankle or just below the knee. The hoplite in Figure 112 shows the right greave fastened to the leg just above the knee. Note, however, that the majority of vase depictions show the greaves simply being 'clipped' around bare legs.

Repaired greaves

Repair work is usually ascertainable through the generally irregular and roughly cut perforations set along a tear or hole in the metal, as seen on many of the helmets discussed in section IV.A. However, the greaves in this study are often quite damaged and extensively reworked, making it extremely difficult to make out perforations created specifically for the purpose of repairing damage.

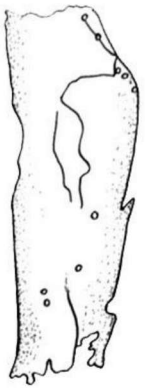


Figure 126. Repair work on the right greave from Kerch - Ker/G-02. (After Chernenko 2006, no. 682)

A clear example of repairs on greaves is seen on the right greave from Kerch Ker/G-02, with perforations randomly spaced along the lower leg, particularly along the tear (Figure 126).

Reworking vs. first-hand use

Almost all greave finds from the Western Caucasus demonstrate some form of reworking. The one apparent exception is the pair of greaves from the Dioscurias area, AA/G-01.[637] As with the helmets, the reworking of greaves implies second-hand use by new owners. Therefore, it is quite logical to conclude that the bulk of greave finds in this study were *not* buried with their primary owners. As second-hand items, it is also clear that these greaves would not have been of local manufacture, as a local workshop would tailor items to suit the needs of their local customers *without* the need for any harsh readjustment, such as removal of key sections of the item.

[637] This statement is made tentatively, as it was not possible to study the actual Akhul-Abaa greave pair for signs of reworking.

Circulation before burial

The second-hand status of our greave finds leads to the question of just how long they were in circulation before finally landing in a grave. Unfortunately, the evidence available does not provide a clear answer. The extensive reworking indicates the items to have changed hands at least once, if not more often. Change of hands could have been due to some form of purchase,[638] barter or gift exchange. Battle action may have also resulted in the greaves being removed to the Western Caucasus as trophies.



Figure 127. Interior of the Foundry Cup, Berlin, F 2294.
(After Mattusch 1980, Fig. 1)

And once the greaves were in the hands of a nobleman from the Western Caucasus, just how long were they used before ending up in the grave? Were they passed on from generation to generation? Perforations on top of the knee of some greaves[639] indicate that they were meant for suspension on a wall (Figure 127), perhaps even as a family heirloom. However, there is no way of knowing just how long this was actually done, if at all. It is also unclear for which reasons the greaves were 'retired'. Were they automatically consigned to the grave of the secondary owner who had worn them in battle? Or were they kept in use generation for generation, until they were just too damaged? Or until they had simply grown obsolete?

Before pondering the latter two possibilities too closely, one should not forget that the greaves in this study were (almost) always found in elite burials containing many other valuable goods, often including much gold and silver. The wealth of these tomb owners

[638] If the greaves were purchased as first-hand goods by a nobleman of the Western Caucasus, then probably in connection with participation in campaigns abroad (i.e. as part of Philip II's forces).

[639] Such perforations are visible on greaves AA/G-01 and Kur/G-04. The perforations along the top edge of the Kekuvatsky greaves (Kek/G-01) could have also been used for this purpose.

is thus evident, and there is no reason to suppose that they would not have the purchasing power for a fresh pair of greaves, should the need have arisen. Therefore, I suggest that the secondary owners of these greaves were also their final owners, and that the greaves themselves were *not* passed on from generation to generation.

Summary

Following the above analysis, the greave finds of the Western Caucasus can be summarized as follows:

With few exceptions, all finds are from Hellenistic sites, regardless of the greaves' dating. The low concentration of finds, as well as the frequency of their reworking, indicates a low demand for Greek-style leg coverings in the region and, subsequently, their manufacture *outside* the territories of the Bosporan Kingdom, Colchis, or the mountain regions. However, it is impossible to determine the region of manufacture. Greece/Athens, Macedonia and/or the Scythian territories along the Ukrainian steppe all must be considered, based on the historically attested contacts with these areas. Furthermore, the varying forms of these greaves indicate different workshops, and therefore different paths of acquisition by the final owners.

With one exception (the greaves from Kekuvatsky), all greaves in question were manufactured without perforations along the edges, i.e. originally intended for wearing without ties or fastenings. This corresponds to the degree of metallurgic proficiency demonstrated during the latest phase of greave development as defined by Kunze – a

phase characterized by a high degree of metal resiliency and resulting in a secure greave fit without ties or fastenings.[640]

In terms of manufacturing technique, it is interesting to note that the all greaves on which the patina has survived show it to be of golden colouring. This stands in some contrast to the helmets discussed in this study, which were usually finished off with a *silver*-coloured patina.[641] Of the greaves found together with Greek-style helmets,[642] none of them were matched with the latter in terms of the colour of the surface patina.

Finally, I would like to propose that Greek-style greaves of the Late Classical and Hellenistic periods found their way into the Western Caucasus as part of events in the mid-late 4th century BC, in particular through contacts with the Scythians, and through them the Macedonians. The peoples of the Western Caucasus could have easily been affected by or involved in the Scythian ruler Ateas' battle against Philip II in 341 BC. The Bosporans, in particular, may have also been affected by the invasion of neighbouring Scythia by the general of Alexander the Great, Zopyrion, in 331 BC. Certainly, both Bosporans and the local tribes of the Caucasus were involved in a battle between the Bosporan ruler Pairisades I and the Scythians, and even more so in the subsequent battle that erupted in 310-9 BC amongst Pairisades' sons, who fought each other with the support of either Scythians or Sarmatian tribes, respectively.

The final owners of these greaves may have been issued with or acquired them for use during the above campaigns, or brought them back to their Caucasus homes as trophies

[640] Kunze 1991, 77. However, we must note the possibility that such greaves were held in place with the help of additional fastenings, as discussed earlier.

[641] Helmets with a golden-coloured patina include BB/H-01, Pkh/H-01, Mez/H-01, Mez/H-02, Lan/H-01, Kek/H-01.

[642] The exceptions are Ker/G-02, Nym/G-01 and Van/G-01, Van/G-02.

following said campaigns. Such greaves would not have been 'kept in the family' for generations before finding their way into graves – this is indicated by the heavy signs of usage.[643] They were used immediately before they were buried, and probably by the person they were buried with. The dating of the respective burials is therefore indicative of the approximate time of the greaves' use – ca. mid-late 4th century BC.

On the whole, Greek-style greaves in the Western Caucasus *may* have represented an elitist alternative to the more traditional 'leggings' discussed earlier. However, the extensive reworking of Greek-style greaves was clearly geared towards making them more like traditional leggings or simply rendering them more comfortable for the new owner. This signals a clear lack of any marked preference for items of 'Greek style' and, subsequently, any pronounced association with Greeks or a 'Greek' identity. In fact, the mixed burial assemblages of the respective graves, which contained elements of both 'Greek' and local – i.e. 'Scythian' – weaponry, indicate an affinity with the local tribes of the neighbouring Ukrainian steppe, for whom Greek-style greaves – whether in their original state or reworked – were simply part of the Hellenistic fighting tradition.

[643] The single exception is the greave Ker/G-01 with the Medusa ornament – a clear example of the workmanship of the 5th century BC.

[Image removed due to copyright restrictions]



Van/G-02 Olympia

Figure 128. Thigh-guards, from Vani and Olympia.
(Van/G-02: S. Chandrasekaran; Olympia: after Jarva 1995, Fig. 36)

The thigh-guards from Vani

Vani has brought forth the only known find of Greek-style metal thigh-guards (Van/G-02) throughout the Black Sea region. These were found together with the abovementioned full-length greave pair Van/G-01. Their heavily damaged state makes it difficult to ascertain particulars about form and decoration, and any possible anatomical details have now been flattened out. The situation is further complicated by the fact that only one other actual example of an ancient Greek thigh-guard is known, a piece from Olympia dated to the late 7th century BC.[644] For this reason, Greek-style thigh-guards have been studied primarily on the basis of their depictions in ancient artwork, mainly on black-figure pottery of the 7th-5th centuries BC.[645]

Both the original thigh-guard from Olympia and the various artistic depictions known to us do not present very good comparisons for the thigh-guards from Vani. The only apparent similarity between the thigh-guard from Olympia and those from Vani is the row of perforations lining the top edge of the respective items (Figure 128).[646] However, the High Archaic dating of the Olympia piece places it somewhat ahead of the onset of a strong Greek presence in Colchis, and certainly too far ahead of the Early Hellenistic

[644] Jarva 1995, 79, Fig. 36.

[645] A complete listing of thigh-guards depicted in ancient art is to be found in Wrede 1916.

[646] Note the difference in lengths between the Olympia and Vani examples: the Olympia thigh-guard runs all the way to the upper knee and has a full length of 24cm (Jarva 1995, 79), while the Vani thigh-guards display a *surviving* length of 26.5cm *without* any trace of the upper knee, thus suggesting it to have been of 'middle-length' as defined by Jarva's Type IV (Jarva 1995, 81-82).

find site of the Vani thigh-guards – almost three centuries – to be taken into serious consideration as a possible comparison.

The typology of Greek thigh-guards compiled by E. Jarva provides a better basis for the classification of the Vani examples.[647] His category Type IV brings together the bulk of depictions found on Attic black-figure vases, most of which belong to the mid-late 6th to late 5th century BC and show thigh-guards of a medium length, with their opening at the back.[648] Both chronological period and length are suitable for the Vani thigh-guards. The period in question saw a particularly strong Greek presence throughout Colchis,[649] and it is extremely tempting to assign the thigh-guards from Vani to this time. However, aside from the actual length, there is no depiction which compares with the original thigh-guards from Vani.[650]

In view of the lack of comparative material, it seems best to assign the thigh-guards from Vani to the same period as the Vani greaves (Van/G-01), which fit into the category of greaves from the Classical/Late Classical periods. A Classical dating for these thigh-guards would certainly not contradict their attribution to the Type IV group according to Jarva. As the only example of thigh-guards in the Western Caucasus, or even throughout the entire Black Sea region, it is safe to surmise that there was practically no demand for this Greek form of leg protection here, and that the pair from Vani was at best an 'elitist peculiarity'.

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[647] Jarva 1995, 79-84.

[648] Jarva 1995, 81-82.

[649] See this thesis, Chapter III-B, *Greek colonization and local inhabitants*.

[650] The thigh-guards in artistic depictions are almost always decorated with some kind of ornament. See Jarva (1995, 82) for a complete list of depictions pertaining to Type IV.

CHAPTER VI – INTERPRETING THE EVIDENCE

ANALYZING THE FIND DISTRIBUTION IN THE WESTERN CAUCASUS

A total of 68 finds have been analyzed and catalogued in this thesis. Of these, 25 are from unknown find contexts. From these finds, thirteen are very similar to finds from contexts of the 4th century BC,[651] and probably also stem from similar contexts.[652]

The remaining 42 find objects come from reasonably – if not precisely – datable find contexts. These can be broken down as follows:

1. Seven finds from sites dating from the 6th/5th – 4th/3rd centuries BC;[653]
2. 21 finds from sites dating to various periods of the 4th century BC;[654]
3. Four finds from sites of the 4th-3rd centuries BC;[655]
4. Seven finds from sites of the 3rd century BC;[656]
5. Four finds from sites of the 3rd-2nd centuries BC;[657]
6. One find from a site of the 2nd-1st centuries BC.[658]

The distribution of imported weapon types of Hellenistic contexts throughout the Western Caucasus is far from uniform. A glance at the find sites marked in Figure 129

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[651] Gel/H-01, Kho/H-01, May/H-02, Mez/H-04, NBS/H-01, Pkh/H-01, Ros/H-01, Soc/H-01, Soc/H-02, Soc/H-03, Soc/H-04, Soc/H-05, Tem/H-01. Note that while the helmet Mez/H-04 falls into this category, its burial context dates to the Roman period.**

[652] The remaining unknown finds are: the three Kelasuri helmets, Ker/G-02, Kut/H-01, May/G-01, May/H-01, the three finds of 'unknown provenance' and Ver/H-02. The Geya helmet Ge/H-01 can probably be dated to the 3rd-2nd centuries BC.

[653] Esh/H-01, Esh/H-02, Esh/Ch-01, Piv/G-01, Teb/H-01, Ver/H-01, Ver/H-03.

[654] Kek/H-01, Kek/G-01, Ker/G-01, KO/G-01, Kok/H-01, all 11 finds of the Kurdzhips kurgan, Lan/H-01, Nov/H-01, Tul/H-01, Van/G-01, Van/G-02.

[655] All four finds from Akhul-abaa.

[656] BB/H-01, BB/G-01, Dkh/H-01, Dkh/H-02, Ker/H-01, Mer/H-01, Mer/H-02.

[657] Mez/ H-01, Mez/H-02, Mez/H-03, Mez/H-05.

[658] Akh/H-01.

shows the heaviest concentrations of find sites to be in the regions *outside* the states of the Bosporus and Colchis, i.e. in the foothill steppes, foothills and mountains of the Caucasus. This concentration is further emphasized when we look at the actual number of finds from each region. This category is clearly dominated by the finds of the territory between the Bosporan Kingdom and Colchis.

The distribution of the greaves and each individual helmet type has been discussed in detail in the respective chapter sections. It remains to understand the significance of find distribution within the three regions of the Western Caucasus and in the Western

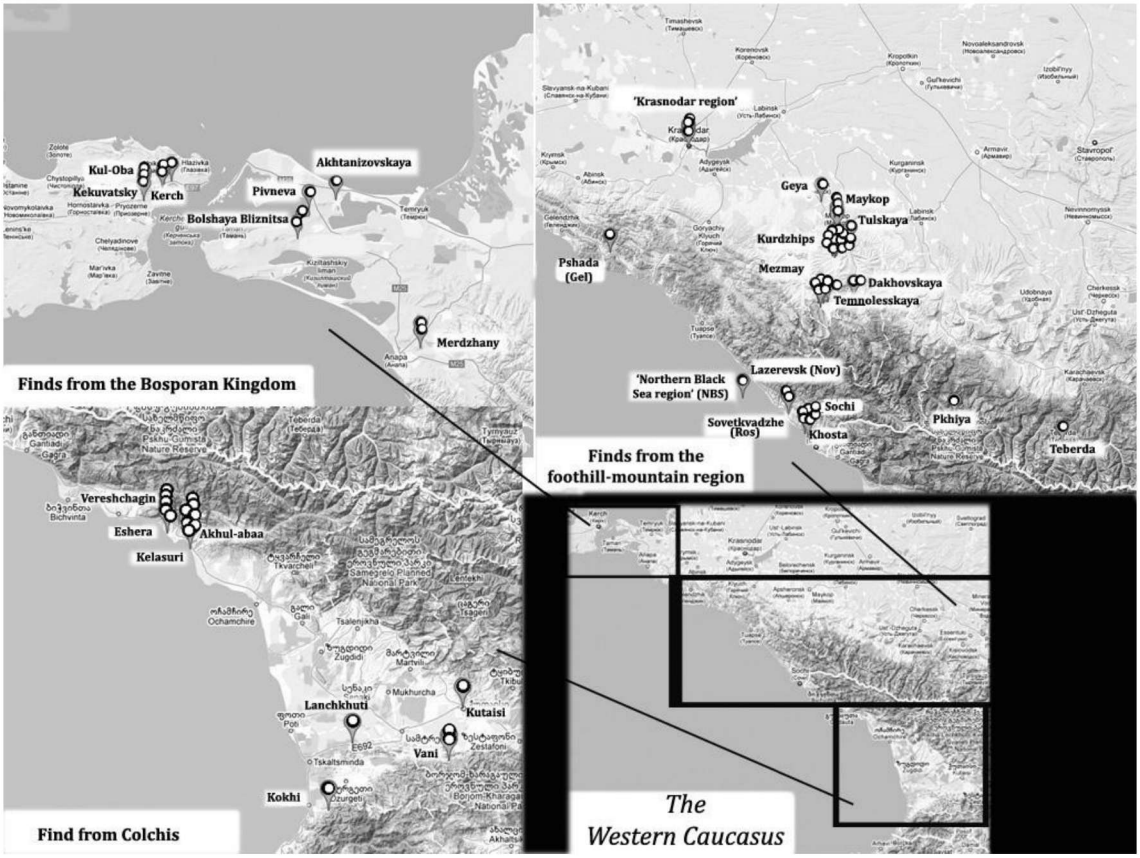


Figure 129. Distribution of finds throughout the Western Caucasus.
(S. Chandrasekaran – using Google maps)

Caucasus as a whole.

The Bosporan Kingdom

The finds of the Bosporan kingdom are rather evenly distributed between European and Asian Bosporus (Figure 129). The concentration of the European finds in the necropoleis of Pantikapaion is not surprising given the elite nature of the relevant burials. The finds are also rather evenly divided between the 4th and the 3rd centuries BC,[659] with the later ones mostly in the Asian Bosporus.[660] It is also only in the Asian Bosporus that we find helmets of the pilos type – popular in the 3rd-2nd centuries BC. This 'surge' of armour finds of the 3rd century BC and later in the Asian Bosporus may suggest the rise of a new Sindian elite within this territory.

Colchis

The high concentration of armour finds in the Caucasian foothills of Colchis is particularly interesting. The relevant find complexes date from the 6th to the 3rd centuries BC, after which no find sites with armour finds occur. This clearly indicates a certain significance or function of the locality, which is easily explained by its position at the approach to the mountain routes that would lead the traveller through the mountains into the Northern Caucasus foothills. The presence of Hellenistic fortifications in this area (e.g. Eshera) only serves to emphasize the role of this area, perhaps as a customs station or similar, controlling traffic and goods entering and exiting the mountains into and out of Dioscurias. The significance of a fortified station in these reaches emphasizes the major, even *key* role played by mountain routes and passes for travel and transportation of goods throughout the Western Caucasus as has

[659] Of fourteen total finds, five are from complexes of the 5th-4th centuries BC (Piv/G-01, Kek/H-01, Kek/G-01, Ker/G-01, Ker/H-01), six from complexes of the 3rd-2nd centuries BC (BB/H-01, BB/G-01), Ker/G-02, Mer/H-01, Mer/H-02), and one from a complex of the 2nd -1st century BC (Akh/H-01).

[660] Interestingly, these later burials coincide with the appearance of kurgan chamber tombs with barrel vaults in the Asian Bosporus from the beginning of the 3rd century BC on. See Savostina 1984 and 1986 for more details on the subject.

been discussed by B. Raev and will be discussed here in what follows. It also explains the presence of armed noblemen – administrators or the like – serving at this particular post and buried in the surrounding area.

The end of find complexes with armour, Greek-style or otherwise, may indicate a decline or stagnation of military presence in the area, and, subsequently, in the significance and/or function of the Colchian foothills sometime during the 3rd century BC or shortly after. This would not be surprising in view of the unstable economic situation of the Bosporus of this time, which only worsened during the 2nd century BC and would inevitably have affected the foothill-mountain region.[661]

Between the Bosporus and Colchis

A look at the distribution of finds from the region between the Bosporus and Colchis shows the main pockets of concentration to be in the mountains and foothills of the Caucasus. Of the finds from datable contexts, the bulk is from sites of the 4th century BC and located in the northern foothills of the Caucasus, in and around Kurdzhips.[662] The remaining finds are from sites of the 3rd to 1st centuries BC.[663] Interestingly, these sites – Mezmay and Dakhovskaya – are located deeper in the foothills, only a few kilometres south of the Kurdzhips complex and, like Kurdzhips, along the Kurdzhips River.

[661] See Chapter I, 'Political set-up in the Hellenistic period'.

[662] 21 in total. Finds from complexes of the 4th century BC include Teb/H-01 (6th-4th cc. BC), the eleven finds from Kurdzhips, Tul/H-01 and Nov/H-01. The helmet from Lazerevsk (Nov/H-01) is the only find from the Sochi area where the find context could be investigated.

[663] The Dakhovskaya complex (Dkh/H-01, Dkh/H-02) is dated to the 3rd century BC, while the Mezmay complex (Mez/H-01, Mez/H-02, Mez/H-03, Mez/H-05) is dated to the 3rd-2nd centuries BC.

This picture becomes more interesting once we add the finds from non-datable contexts to the equation. Of these, which are as numerous as those from datable contexts, over half are extremely similar to other finds of the Western Caucasus from sites of the 4th century BC, and can therefore be provisionally attributed to contexts that period.[664] Particularly significant is the placement of the greater part of the 'Early Hellenistic' finds in the coastal foothills near Sochi, practically mirroring the placement of similar sites in the northern foothills of the Caucasus and indicating the approaches to the main mountain routes and passes (Figure 130).

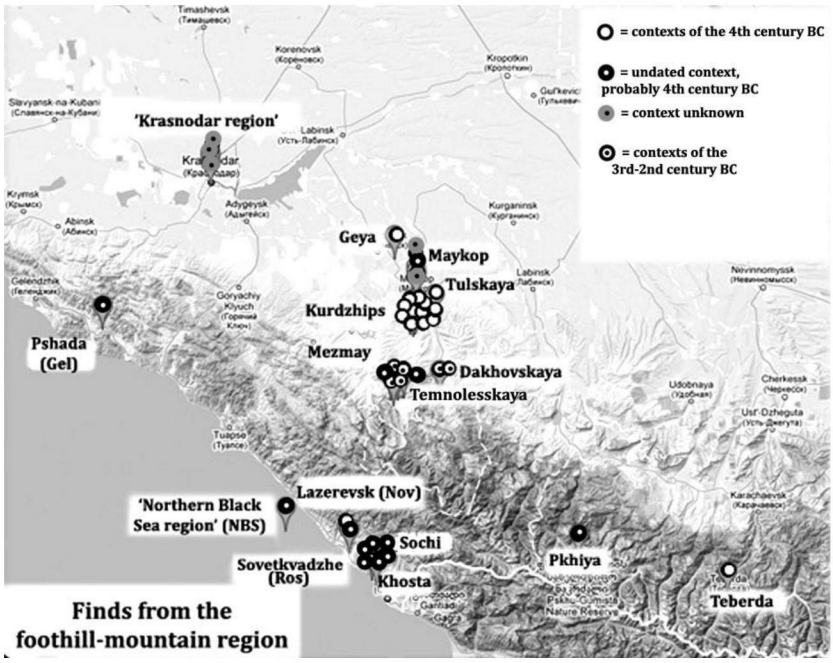


Figure 130. The finds of the foothills-mountains between the Bosporan Kingdom and Colchis.
(S. Chandrasekaran – using Google maps)

The significance of mountain routes

Travel through the mountain regions of the Western Caucasus has been discussed in some detail by B. Raev, who in 2006 published a detailed description of the mountain passes in the Western Caucasus and the major routes used to traverse the mountains (Figure 131). These were generally used to travel between the coastal areas and the Kuban River, which could then be followed all the way to the markets of the Don-Azov region and even the Bosporus.

[664] See the list in FN 651.

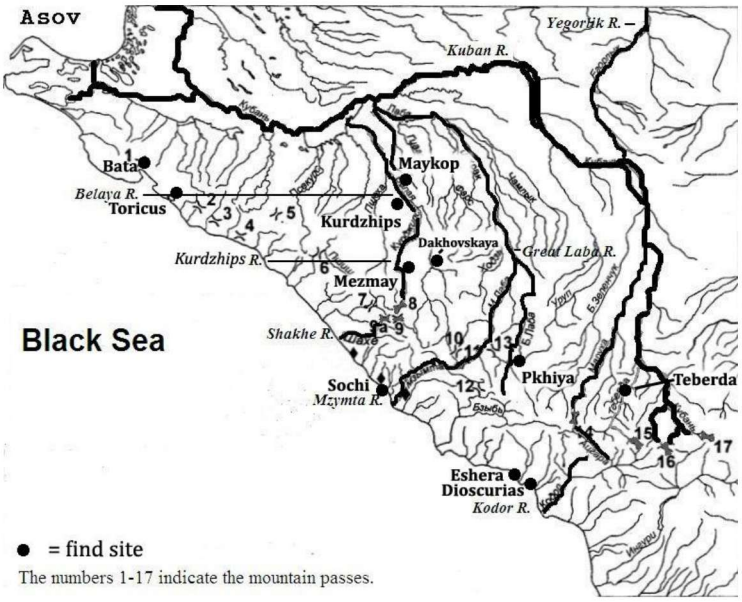


Figure 131. The mountain routes and find sites.
(After Raev 2006, Fig. 1)

Raev suggests that the mountain routes would have been preferable for travel between the northern and southern reaches of the Eastern Black Sea to foot marches along the coast or traversal by water.[665] This may well be true. A. Skakov has noted that the Eastern Black Sea coastline is rather difficult to traverse by foot between Gelendzhik (ancient Toricus) and Gagra (ancient Colchis),[666] and this would even explain the relative lack of known ancient settlements along this stretch. To this could be added the always-impending threat of pirates on the waters of the Black Sea,[667] whom travellers would logically wish to avoid. Nonetheless, it is worth noting the recent excavations being carried out along the eastern coastline and which are producing traces of ancient settlements. The existence of extensive burial complexes in the vicinity of Sochi also supports the idea of settlement in the area. Therefore, it is unclear whether mountain routes were used as the best solution for travel between the southern and northern reaches of the Eastern Black Sea coast. However, they would certainly have been an effective and perhaps even more comfortable method of making the journey between from the southern and northern foothills of the Caucasus, a journey which could easily

[665] Raev 2006, 305.

[666] Skakov 2006.

[667] Diodorus, *Lib*. 20.25. 2-3.

have been extended to reach the Lower Don basin, the Asov and Black Sea regions as required.

The mountain routes and passes often followed the courses of major rivers. One of these main routes led from the northern Sochi area (the Lazerevsk district) at the coast along the Shakhe River, through two mountain passes and up the Kurdzhips River, along which one could come by the sites such as Mezmay, Temnolesskaya and, finally, Kurdzhips at the northern access to this route.[668] A second major route begins along the Mzymta River in southern Sochi, and following it up to the Small and the Great Laba Rivers, bringing the traveller close to the site of Pkhiya and past the sites of Dakhovskaya and Tulskaya. In this context, it is worth noting that the site of Teberda is also situated along a major mountain route, this one leading from the Colchian coast up the Kodor River and onto the Kuban River.

Thus we can observe that the majority of our armour finds are from sites situated along the major travel routes of the Caucasus Mountains. In the overall picture, these would have been used not only to travel from site to site within the mountains and foothills, but between coastal sites of the Eastern Black Sea and the main markets of the Bosporus and Don-Asov regions.[669]

The finds sites of the Caucasus are located mainly in the foothills, along the entrances or exits from the mountains. This, together with the presence of the few known ancient sites deeper in the mountains, demonstrates a *high* level of population and activity along the mountain routes, indicating their popularity and intense usage. It remains unclear just which tribe or combination of tribes controlled these routes and their accesses –

[668] Raev 2006, 306.

[669] These would include the sites of Tanais/Elizavetovskoye in the Don-Asov basin, the Sochi area and Dioscurias in Colchis.

Sindians, Heniochi, Maeotians or perhaps some tribe yet unknown by name. What these find sites with their elite 'warrior' burials *do* suggest is the high level of importance – political and economic – that went along with the function of controlling these *trade* routes between Colchis, the eastern coastline and the northern foothills. The reciprocal influences of the Bosporan Kingdom and Colchis are keenly felt in the material culture at the sites in the Caucasus foothills and mountains, demonstrating a healthy trade dynamic along the main mountain routes.

Acquisition of Greek-style armour in the Western Caucasus

The Bosporan Kingdom

The armour finds from Bosporan territory come from burials of a visibly elite nature, thus representing the aristocracy of the Kingdom. The nature of all burial assemblages was typically Bosporan, i.e. a mixture of Greek, Greek-style and locally produced items. With the exception of the armour finds, the weaponry in these assemblages was almost always fully of local type, especially the offensive weapons.

The low frequency of Greek-style armour finds in the Bosporus suggests them have been imported and not locally manufactured. Simple trade does not explain the low numbers. Instead, these items were probably acquired during the course of the various military events affecting the area from the 5th-3rd centuries BC, or perhaps presented to the owners as high-status gifts. The latter explanation suits the finds of a representative nature, as seen in four of the six finds in the European Bosporus,[670] but (only) one of the seven on the Asian side – the lost helmet from Bolshaya Bliznitsa (BB/H-01).[671] I have

[670] These include Kek/G-01, Kek/H-01, Ker/G-01 and Ker/H-01.

[671] The remaining finds that clearly had a parade or representative function are: Dkh/H-01, Dkh/H-02, Esh/H-01, Kho/H-01, May/H-01, Mez/H-01, Mez/H-02, Nov/H-01. It is also worth considering whether a number of the helmet finds that survived with relatively little damage – such as the Sochi helmets – were not also produced as representative items.

already discussed the possibility that this helmet was a royal gift, perhaps even from the neighbouring Thracians in view of the kinship between the royal houses. This could easily also hold true for the four above-mentioned European finds, especially considering their relevant sites in the various necropoleis of ancient Pantikapaion, the seat of the Spartocid dynasty of Thracian origin. Nonetheless, such gifts could equally have been made by Scythian or other allies with exposure to the Hellenic weapons market.[672]

The remaining finds of the Bosporan Kingdom were more likely obtained over the course of some military conflict – of which there are quite a few to choose from during the 5th-3rd centuries BC[673] – and brought back to the Bosporus as military issue or battle trophies. As noted earlier, they are too few and too differing in style and helmet type to warrant a local production.

The Bosporans may have been fighting their own battles or taken part in the battles of others as mercenaries or in an allied function. The latter possibility once again brings to mind the ties of kinship between the Bosporan royal house and Odrysians of Thrace.[674] While discussing allies, it is worth remembering that the Scythians, while often 'in divergence' with the Bosporans, were often allied to them.[675] Therefore, it is worth considering that the armour finds of the Bosporan Kingdom – particularly of the 4th

[672] Not to disregard is the possibility that most of these parade items were in fact manufactured locally for the Bosporan elite. The only exception would be the helmet Ker/H-01, which was clearly imported – see Chapter IV, The Helmet from the Kerch 1834 Kurgan.

[673] Direct involvement of the Bosporans includes the clashes with the Scythians in the 5th and 3rd centuries BC, the war against the Scythians in the mid-fourth century BC, the major civil war towards the end of the 4th century BC and, of course, the conflicts with pirates throughout the 4th (and probably also 3rd) century BC .

[674] The Odrysians were involved in numerous military encounters with the Athenians or Macedonians during the 4th century BC. See Archibald (1994, 457-471) for a detailed account of Odrysian battle conflicts.

[675] Archibald (2004, 9, FN 17) notes that non-Bosporans did hold higher offices in the Bosporan Kingdom, citing the example of one Hymnus, son of Scythas of Chersoneses, serving as the Bosporan *proxenos* at Delphi.

century BC – belong to Scythian noblemen allied with the Bosporus and buried on Bosporan territory. This explanation is best supported by the Kul-Oba burial, which parallels complexes from the territory of the Royal Scythians.[676]

The Caucasus and Colchis

The finds of the territory between the Bosporan Kingdom and Colchis – as far as can be ascertained – also come from elite burials.

Three main centres of find concentration can be identified in the foothills – the Kurdzhips kurgan, the Mezmay burial complex and the Sochi area – all marking the access points to the mountains. These three points differ somewhat in their dating. The Kurdzhips and neighbouring sites (Tulskaya) are dated to the 4th century BC. Further south, the Mezmay complex is dated to the 3rd century BC, while the nearby site of Dakhovskaya is dated later still (3rd-2nd century BC). The sites of the Sochi area, which have all yielded helmets solely of the 'Sochi' type, would appear to date to the 4th century BC.

Thus, it is possible to reconstruct the following picture for the Caucasus foothills: two accesses to the mountain routes were controlled by a local tribe or tribes during the 4th century BC – a northern foothill one at Kurdzhips, and a northern coastal one at Sochi. The tentative early fourth-century dating of the helmet Nov/H-01 (Sochi area) may indicate that the Sochi area was brought under control shortly before Kurdzhips, which dates towards the end of the 4th century BC. Control of the northern foothill access (Kurdzhips) shifted or expanded some kilometres south along the Kurdzhips River,

[676] The closest of these parallels would be the kurgan from Chertomlyk. See Firsov/Zhuravlev (2007, 282).

moving deeper into the foothills during the 3rd century and resulting in the Mezmay complex.

I have already mentioned that control of the mountain access in the southern coastal foothill around Dioscurias-Eshera accounts for the high concentration of armour finds in the Early Hellenistic period, as well as the presence of stone fortifications in the Late Hellenistic period. The find dates here have a wider range, varying from the 6th-4th to 4th-3rd centuries BC. As already mentioned in Chapter II, settlement remains in Eshera go all the way back to the 6th century BC, suggesting that the Eshera mountain access was perhaps the first of the three mountain accesses in question to come under military control – perhaps of the local Heniochi, perhaps of the Greeks, and perhaps of both working in combination at this station.

The question remains to account for the acquisition of the Greek-style armour finds in the mountain areas. Once again, many choices present themselves. The local tribes inhabiting the mountain areas were frequently recruited as allies or mercenaries by the greater powers at their doorsteps – the Bosporans, the Scythians and perhaps even the Sarmatians. Thus, many of the armour finds – in particular the badly damaged ones – may have been acquired as battle trophies during any of the many skirmishes that affected the Bosporan neighbour in the north, as well as during various unnamed conflicts on Colchian territory, in particular with pirates.[677]

The same would hold true for the remaining finds scattered randomly throughout the foothill steppes or the Colchian valley (Figure 129). Their seemingly random placement at some distance from main find sites may suggest sudden burial after falling in battle – and this could also be the case for finds in the steppes of the Northern Caucasus

[677] See Chapter II, 'Trade, slaves and piracy'.

foothills. At the same time, however, this placement may simply be indicative of property owned by the deceased, who, in all cases, were men of wealth.

Like the representative finds of the Bosporan Kingdom, the parade pieces from the foothill sites and Colchian valley were probably also elite gifts made to the local area chieftains,[678] most likely by prospective allies such as the Bosporans but also the Scythians or Sarmatians, who were all constantly involved in battle against each other.[679]

The identity of the interred

The final question to resolve is that of the identity of the interred, a difficult problem to answer in view of what would have been a mixed population in the Bosporan Kingdom. As discussed in Chapter I, the Bosporans of the Hellenistic period comprised a mixed society of those of Greek origin, Scythians and other local tribes. A certain prevalence of Sindians is to be expected for the Asian Bosporus, which was traditionally Sindian territory (Sindike), and it is quite possible that the interred of the seven burials here are of Sindian origin. Whether Greek, Scythian or Sindian, however, all the deceased of the European and Asian burials discussed here clearly belonged to a military elite.

The population of Hellenistic Colchis was also similarly mixed. By this time, it was not only the traditional home to local tribes (Heniochi, Colchi) but by now also had a long history of Greek settlement. Not to forget is also the Persian influence of the Classical period, which may not yet have waned fully.[680] Other peoples from the East may have also begun to settle in the region with the advent of Transcaucasian trade with Eastern

[678] Esh/H-01, Nov/H-01, Kho/H-01, Mez/H-01, Mez/H-02, Dkh/H-01, Dkh/H-02 and May/H-01.

[679] However, these could have also been manufactured locally or elsewhere for and/or especially by order of the same local elite.

[680] Nonetheless, no evidence is known of resident Persians in Hellenistic Colchis.

countries in this period. However, the burial assemblages in question appear to have belonged to local tribesmen – perhaps the Heniochi and/or Colchi, but possibly also to the tribes-people inhabiting the northern foothills of the Caucasus.

As for the people of the mountains and northern foothills, the logical assumption is that the interred belonged to the elite of the relevant local tribes.

Imported or locally made?

The question of manufacture has been discussed in the sections dealing with greaves and relevant helmet types. The greaves, as has already been commented in detail in Chapter V, were most likely imports, perhaps from manufacturers in Athens, Macedonia and/or even the Scythian territories along the Ukrainian steppe. The situation with the Chalcidian type V helmets is somewhat more complicated. The helmets of the standard type (17-18 in this study, depending on the reality of the Teberda helmet Teb/H-01) are so varied in form that it is impossible to identify any single workshop. This would suggest import from elsewhere, perhaps Greece or Southern Italy, where similar finds are known. Less likely is import from the neighbouring Scythian territories, which itself has yielded very few finds of the 'standard' Chalcidian type.

The finds of other helmet types – the Attic type helmet with visor, the pilos helmet and the Montefortino type – are relatively scarce in the Western Caucasus, especially compared with their Chalcidian counterparts. All come from complexes of the 3th-1st centuries BC north of the Caucasus Mountains – from the foothill steppes or Bosporan territory. Their low numbers suggest that they were imported into this territory and not manufactured locally. As with the greaves and 'standard' Chalcidian helmets, these later helmet types would have been obtained as the result of the vigorous military activity of

these periods, when Bosporans and neighbouring tribes were kept busy fending off the repeated onslaughts of the Scythians and Sarmatians on their territory.[681]

The situation is different with Chalcidian type V helmets of the 'Sochi' type, among which we can easily discern the products of two workshops – the Sochi and the Khosta workshops – all found in the Sochi region. As has been discussed earlier in the relevant sections of Chapter IV, this would indicate a manufacture somewhere in the vicinity – perhaps in the Sochi region itself. It certainly suggests that the chieftains of the Sochi region obtained their armour from a single or two particular workshops. It is possible that they were issued these weapons in their function as allies of the Bosporans, and that the weapons were manufactured in the Bosporus. Similarly, the same could hold true in their function as allies of the Colchians or at least those Colchians stationed in and around ancient Dioscurias. In this respect it is worth recalling the Eshera workshop, with its four reworked helmets. As suggested earlier in Chapter IV, this workshop, tailoring existing helmets to suit local tastes, was probably located somewhere in or around Eshera. It is worth conjecturing whether this same workshop (5^{th}-3^{rd} centuries BC) was responsible for the production of the helmets of the Sochi and Khosta workshops, or served as the forerunner for the latter workshops. A connection may have existed between the workshops, providing armour for the chieftains of their tribe(s) on both sides of the coastal Caucasus. The sheer number of such helmets may even indicate a subsidy through the Bosporan state to outfit their allies from the foothills.

CONCLUSION - THE WESTERN CAUCASUS AND GREEK IDENTITY

The Greek-style armour finds of the Western Caucasus clearly demonstrate that connections between the Western Caucasus and Greeks during the 4^{th}-2^{nd} centuries BC

[681] See Chapter I, 'Political arrangements in the Hellenistic period'.

were frequently of a military nature. This has resulted in a number of Greek-style greaves and helmet finds of various Greek types. The most intensive connections are observable during the 4th and 3rd centuries BC, the period from when we have the greatest number of finds. Of these, the most prevalent find type is the Chalcidian type V helmet.

Approximately half of the Chalcidian helmet finds are of the 'standard' type. Based on their various workshops, scattered distribution throughout the Western Caucasus and often damaged and/or reworked state, these helmets are most likely imports. The other half are of the 'Sochi' type, a homogenous helmet type found mainly within a more-or-less limited radius (the Sochi area) in a rather high concentration. Their basically undamaged state and lack of major reworking indicates that they were manufactured specially for their final owners. The fact that 'Sochi' type helmets are found almost nowhere outside this region indicates a local production centre.[682]

The popularity of Chalcidian type helmets or their defining features continued to influence the local weapons industry into the later Hellenistic period, spawning variations on the Chalcidian helmet type as demonstrated by the 'Dakhovskaya' type helmets (3rd-2nd century BC).

The obvious popularity of the Chalcidian type helmets in the Western Caucasus, especially in the foothill-mountain regions between the Bosporan and Colchian states, should not be taken to indicate a particular affinity with Greeks or their armour culture for a number of reasons. Firstly, Chalcidian helmets (and metal greaves) were often subject to heavy reworking. Secondly, the other helmet types – the Phrygo-Chalcidian, Attic type helmets with visor, piloi – are found in rather small numbers throughout the

[682] The only 'Sochi' type helmet found outside the Sochi area is the helmet from Lanchkhuti Lan/H-01.

region, which are certainly not indicative of any great demand. Thirdly, local helmet types and leg protection *continued* to be manufactured from the 4th-2nd centuries BC. While the find numbers are not particularly high, we must not forget that a large portion of the defensive weaponry often consisted of materials that are often disregarded during excavation (small metal scales) or of perishable materials (leather, felt), which have not survived. Finally, in all cases where the find context is known, the Greek-style helmets and greaves are always accompanied by weapons and armour of local type – spearheads, arrowheads, swords and scale armour.

In view of these arguments, it is clear that the final owners of the armour finds in question were not going out of their way to identify themselves with Greeks or Greek culture. They did not attempt to replicate the Greek hoplite in their military gear. Instead, such finds attest to the constant exposure to Hellenistic armour forms, perhaps through representational art, as well as through exposure in battle.

While a certain level of Greek or Hellenized culture is clearly attested to by archaeology for the Bosporan Kingdom and Colchis, a certain consciousness of and maybe even 'affiliation' with Greek culture is certainly to be expected amongst the elite of the mountain-foothill regions. After all, they would have constantly been exposed to it through diplomatic relations, military affiliations and, most obviously, the brisk trade with Greece and the remaining Greek world. However, the use of Greek-style armour by the elite of these regions is far more likely to have reflected status and wealth than any affinity with Greek culture. Unlike the local armour types, which were often of perishable materials or a combination of organic materials and metal,[683] Greek helmets and greaves were *completely* of metal and therefore probably more expensive than the

[683] This is particularly true of scale armour, helmets and leg protection.

local items. Wearing such items was therefore an effective show of wealth and spending power that emphasized with shine/polish the status of the wearer.[684]

The relative lack of armour finds (of any type) and weapons in general in the Colchian basin may be taken to indicate a lack of military contacts with the Greek world (even though trade/artistic contacts are well-attested to by archaeology).

The (possibility of) local production of Chalcidian helmets and variations on these demonstrates an awareness of prevalent helmet trends in the Hellenistic world.[685] The large number of finds in the 4th and 3rd centuries indicates that warfare during this period was particularly intense. The heavy concentrations of finds in the foothill regions (c.f. Figure 130), especially at the three mountain accesses (Kurdzhips, Sochi, Eshera), indicate that the local tribes were heavily involved in the military affairs affecting the region. Such concentrations of elite burials at the mountain accesses indicate the importance of the corresponding settlements and their function – controlling the accesses – while at the same time emphasizing the role of the mountain routes for travel and trade between north and south. The find contexts of the Eshera region – the earliest amongst the foothill sites – would appear to attest to the earliest phase or onset of 'mountain mobility'. The heavy concentrations from 4th century find sites definitely points to the 4th century BC as the beginning of a very mobile period for the foothill-mountain regions, indicating a particularly high turnover in goods (and slaves) and thus a flourishing economy during this time. Within this context, it is worth mentioning that the mountains and their passes have failed to yield armour finds of local type (i.e.

[684] Perhaps copying the Greek elite of the Classical period was a way of establishing one's own elite status.

[685] This holds especially true for the Bosporan Kingdom, which had the longest tradition of direct contacts – military and trade – with Greece. Therefore, it would not be surprising if the Chalcidian helmets of the 'Sochi' type were actually manufactured here to supply the Bosporan allies.

Kuban helmets) from contexts dating *earlier* than the 4th century BC. This suggests that the control of all three mountain accesses is directly connected to a dramatic surge in trade with the various powers of the region – in particular the Bosporan Kingdom, Colchis and the Scythians – with the local tribes using the mountain routes to make their deliveries to the main markets – e.g. Dioscurias in Colchis, Tanais in the Don-Asov region, and Elizavetinskoye in the Kuban steppe,[686] where, as ancient sources confirm, they aimed to meet the high demands of Greeks and locals alike.

Taken together, the above clearly illustrates that the local tribes were *indispensible* in establishing a military balance within and ensuring the *economic* welfare of the Western Caucasus as a whole from the 4th century BC onward.

To conclude: The wish (and ability) to imitate Greek weapon style *does not* indicate a pronounced 'Greek' identity of any kind amongst the warrior class of the Western Caucasus. It also *does not* indicate an overwhelming desire for Greek style armour. It is at best indicative of a certain affinity for Greek stylistic elements that were prevalent throughout the Ancient World during the Hellenistic period and spread through the Western Caucasus – even spawning certain variations – as the result of direct or indirect connections with the Greek world in which all regions – the Bosporan Kingdom, Colchis and foothill-mountain regions in between – played an active and integral part.

[686] Not to forget is the very likely possibility of a similar market in the Sochi area. See FN 270 of Chapter III, 'The Greater Sochi area'.

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[1] All transliteration from the Russian is based on the BGN/PCGN system, i.e. British Standard 2979 *without* diacritics.

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Compte-Rendu = Compte-Rendu de la Commission Imperial Archéologique. St. Peterburg.

DBK = Drevnosti Bosfora Kimmeriiskogo/Antiquités du Bosphore Cimmérien conservées au musée impérial de l'Ermitage. Vols. I-II, Atlas. 1854. St. Peterburg.

OAK/OIAK = Otchet (imperatorskoy) arkheologicheskoy kommissii. St. Peterburg.

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