

## The Mobility of Macedonian Army in Thrace during the Reign of Philip II and the Inscribed Lead Sling Bullets from Kozi Gramadi

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### ABSTRACT

Lead sling bullets are often inscribed with the personal names of military commanders of a unit of slingers. Archaeological sites that have yielded such projectiles provide an opportunity to link the names attested with historical figures known from literary sources. A classic example presents the city of Olynthus that was besieged and taken through treachery by the troops of Philip II of Macedon in 348 BC. Irrefutable evidence of this is provided by the hundreds of sling bullets bearing his name, along with those of several commanders from his army, such as Hipponikos, Potalos, Kleoboulos and Anaxandros. The present article evaluates the significance of inscribed sling bullets as a basic source in reconstructing historical events related to the Macedonian expansion in Thrace during the reign of Philip II. Through the discussion of a number of examples from Thrace, Macedonia and Northern Aegean, including previously unpublished finds, I argue that these objects can serve as a reliable marker of Macedonian mobility abroad. As a major source on the subject I further analyze the primary data generated as a result of the recent archaeological excavations of the Thracian fortified complex near Kozi Gramadi, located in south central Bulgaria. On a broader level, the present survey aims to reinforce the value of sling bullets as a necessary object of study which on account of their multi-layered nature should invite the application of an integrated approach towards antiquity by combining data from archaeology, history and epigraphy.

### KEYWORDS

sling bullets, Thrace, Macedonian army, mobility, Philip II

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### Introduction

Lead sling bullets are often inscribed with personal names in genitive signifying the military commander of a unit of slingers (Rihll 2009, 153; Ma 2010a, 171; Avram *et al.* 2013, 259-293). Naturally, sites that have produced such projectiles provide an opportunity to link the names attested with historical figures known from literary sources. Sieges of major towns have become a natural source of information about military clashes in antiquity and a comprehensive list of such events is now conveniently compiled (Avram *et al.* 2013, 245-248; *cf.* Pritchett 1991, 49-53). A classic example presents the city of Olynthus that was besieged and taken through treachery by the troops of Philip II of Macedon in 348 BC (Diod. 16.52.2-3). Sling bullets inscribed with his name, along with the ones of several military commanders from his army, e.g. Hipponikos, Potalos, Kleoboulos and Anaxandros, have been long known from the town excavated by the American team in the 1930s (Robinson 1941, 418-443; Lee 2001, 16, Fig. 4). More than a decade ago based on a close analysis of the distribution pattern of weapons, most notably sling bullets and arrowheads, John W.I. Lee (Lee 2001; *cf.* Cahill 2002, 45-48, fig. 9) argued that the town was in fact subdued after

SITE/NAME	Philip II	Hipponikos	Kleoboulos	Anaxandros	Potalos
<i>Olynthus</i>	14	16	15	1	5
<i>Torone</i>			1		
<i>Stageira</i>	X		X		X
<i>Amphipolis</i>			1		
<i>Apollonia</i>		X	X		
Strumica		3	1		
Kozi Gramadi			6	12	
Sotirya			1	2	
Yabalkovo	2				
<b>TOTAL</b>	<b>16+</b>	<b>19+</b>	<b>25+</b>	<b>15+</b>	<b>5+</b>

Table 1. Geographic distribution of inscribed sling bullets identified with Philip II and Macedonian commanders. The letter X denotes that the number of discovered items is unspecified

Таблица 1. Географско разпространение на оловни тежести за прашка с имена на Филип II и македонски военачалници. Буквата X обозначава, че броят на откритите находки е неопределен

fierce fighting had taken place inside the city walls, on the streets, even within courtyards of houses. Based on the case study at Olynthus, Lee (2006, 489-490; 2010, 138-157) elaborated on his hypothesis further by introducing the notion of urban combat in classical warfare.

The present article evaluates the significance of inscribed sling bullets in reconstructing historical events of potential importance for our understanding of Macedonian expansion into Thrace during the reign of Philip II (359-336 BC). It brings together further evidence for the idea that sling bullets can be profitably utilized as markers for Macedonian mobility abroad, armed with a dataset generated through archaeological excavation on an unnamed and isolated, mountainous site such as that at Kozi Gramadi, located in south central Bulgaria (Hristov 2006; 2011; 2012; 2014). On a broader level, it aims to highlight the value of sling bullets as a worthy object of study by providing an opportunity to integrate archaeology and history through the looking glass of, to quote Graham Shipley, the “small things remembered” (Shipley 2013).

### Inscribed sling bullets and Macedonian army abroad

Recent finds from sites in Greece, Republic of Macedonia and Bulgaria, which I discuss below (table 1), contribute to the establishment of a substantial database of inscribed sling bullets that can track down the interregional movement of Macedonian army during the reign of Philip II. For example, apart from Philip II himself, the presence of only Hipponikos (Robinson 1941, 426, nos. 2186-2201; Avram *et al.* 2013, 275) has been securely demonstrated during the siege of Olynthus both by archaeological and historical data (Dem. *Phil.* 3.58). Most names of other Macedonian military commanders are attested only on inscribed sling bullets, e.g. Kleoboulos, Anaxandros and Potalos (Robinson 1941, nos. 2202-2216; nos. 2244-2248; Avram *et al.* 2013, 277, 288). There is an increasing amount of data, however, from Northern Greece and Republic of Macedonia showing that not only were they in fact Philip’s generals but also that they were more frequently employed in siege operations abroad than previously thought.

One sling bullet inscribed ΚΛΕΟ|ΒΟΥΛΟΥ, along with several others, have been reported from Amphipolis (Kosmidou, Malamidou 2006, 136, fig. 11, n.19). Another identical item comes from Torone (ΚΛΕΟ|ΒΟΥΛΟ, [Cambitoglou *et al.* 2001, nos. 18.3, 724-726, Fig.

171, pl. 96]; SEG 52.647), in addition to an unspecified number of inscribed sling bullets with the names of Kleoboulos, Potalos and Philip (almost certainly Philip II) retrieved at Stageira (SEG 45.646; 47.806), and several with the names of Kleoboulos and Hipponikos from Apollonia on Chalcidice peninsula (SEG 59. 650<sup>bis</sup>). The data from these sites is consistent with information from literary sources referring to sieges conducted by Philip II at Amphipolis and Torone in 357 and 349 BC (Diod. 16.8.2; 53.2).

Yet another instance can be pointed out from the region around the modern town of Strumica in Republic of Macedonia. One sling bullet inscribed ΚΛΕΟ|ΒΟΥΛΟ and three inscribed ΙΠΠΟ|ΝΙΚΟΥ were found on the acropolis of Carevi Kuli, Strumica, commonly identified with ancient Astraion (Angelovski 2012, figs. 1-2; Papazoglou 1988, 333-335). A fourth specimen was inscribed with an abbreviation of possibly another personal name – ΜΕΡ|ΝΑ, possibly from Ναμέρτας or Ναμερτίδας (*see* Rihll 2009, 153, nn. 45-46; Avram *et al.* 2013, 281-282).<sup>1</sup> Although these are treated with caution and left unrelated to a recorded historical event, it has been pointed out that they might signify the presence of a Macedonian garrison (?) in Strumica between 350-300 BC (Angelovski 2012, 261). I suggest it may be indicative of a siege operation conducted by Philip II officers, Kleoboulos and Hipponikos, perhaps in 342-339 BC (Nankov 2015b, 25), as recorded in Polyaeus (4.2.16).<sup>2</sup>

The name Kleoboulos, for example, has recently assumed a Thracian dimension, thanks to the discovery of 6 sling bullets inscribed with his name at the site of Kozi Gramadi (Hristov, Manov 2011, cat. nos. 1-6). Using the long known data published by Robinson from Olynthus, Hristov and Manov (2011, 27-28) have convincingly associated those artifacts with the march of Philip II in inland Thrace during 342-341 BC (Hammond, Griffith 1979, 554-566; Badian 1983, 66-70; Delev 2015, 50-51). The hypothesis seems all the more compelling on account of the identification of yet another Macedonian general, Anaxandros, known also from Olynthus (Robinson 1941, no. 2177; Avram *et al.* 2013, 261-262), who was attested with 12 sling bullets inscribed with his name at Kozi Gramadi (Hristov, Manov 2011, nos. 7-17; Hristov 2014, 124, fig. 29-32). It now appears more than likely that both men mustered units of slingers within the army of Philip II and were frequently employed in military operations abroad.

Inland Thrace, however, continues to provide surprises. Further examples of 4 lead sling bullets carrying the names of the same Macedonian commanders, Anaxandros and Kleoboulos, are stored currently in the holdings of the Regional Museum of History in Sliven.<sup>3</sup> The specimens (fig. 1a-d) share an identical way of inscribing the names (ΑΝΑ|ΞΑΝ[ΔΡΟΥ] and ΚΛΕΟ|ΒΟΥΛ[ΟΥ]), metrology and weight,<sup>4</sup> when compared with the ones from Kozi

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1 A total of 20 lead sling bullets were discovered inside large pits cut deep into the bedrock full of various items dated to 4th century BC. Some were also found near the fortification walls and as sporadic finds on the acropolis (Angelovski 2012, 260).

2 Polyaeus. 4.2.16: "Φίλιππος ἐνέβαλεν εἰς τὴν Ὀρβηλίῳν χώραν· ἡ δὲ ἐστὶ φαραγγώδης καὶ δασεῖα. καταδυσόμενων τῶν βαρβάρων ἐς τὰ ἄλση καὶ τοὺς θάμνους, θηρευτικὰς κύνας πολλὰς ἐξήγαγεν, αἱ τοὺς πολεμίους ἐξίχνεύουσαι τοὺς πλείστους αὐτῶν ἐθήρευον."

3 I was informed about the sling bullets by Petar Leshtakov (NAIM-BAS), who has kindly provided photo documentation, bibliography and further details about their metrology and weight (*see infra* note 4). My gratitude goes to him for allowing me to include them in this survey.

4 1. Obv.: ΑΝΑ, Rev.: ΞΑΝ[ΔΡΟΥ], l. 3 cm; w. 1,6 cm; th. 1,3 cm; weight: 34.27 gr. (fig. 1a);  
2. Obv.: ΑΝΑ, Rev.: ΞΑΝ[ΔΡΟΥ], l. 2,9 cm; w. 1,6 cm; th. 1,2 cm; weight: 31.44 gr. (fig. 1b);  
3. Obv.: [ΑΝΑ], Rev.: [ΞΑ]Ν, l. 3 cm; w. 1,7 cm; th. 1,3 cm; weight: 32.50 gr. (fig. 1c).  
4. Obv.: ΚΛΕΟ, Rev.: ΒΟΥΛ[ΟΥ], l. 2,8 cm; w. 1,4 cm; th. 1,3 cm; weight: 24.93 gr. (fig. 1d). Suggested readings of personal names are made by the author.

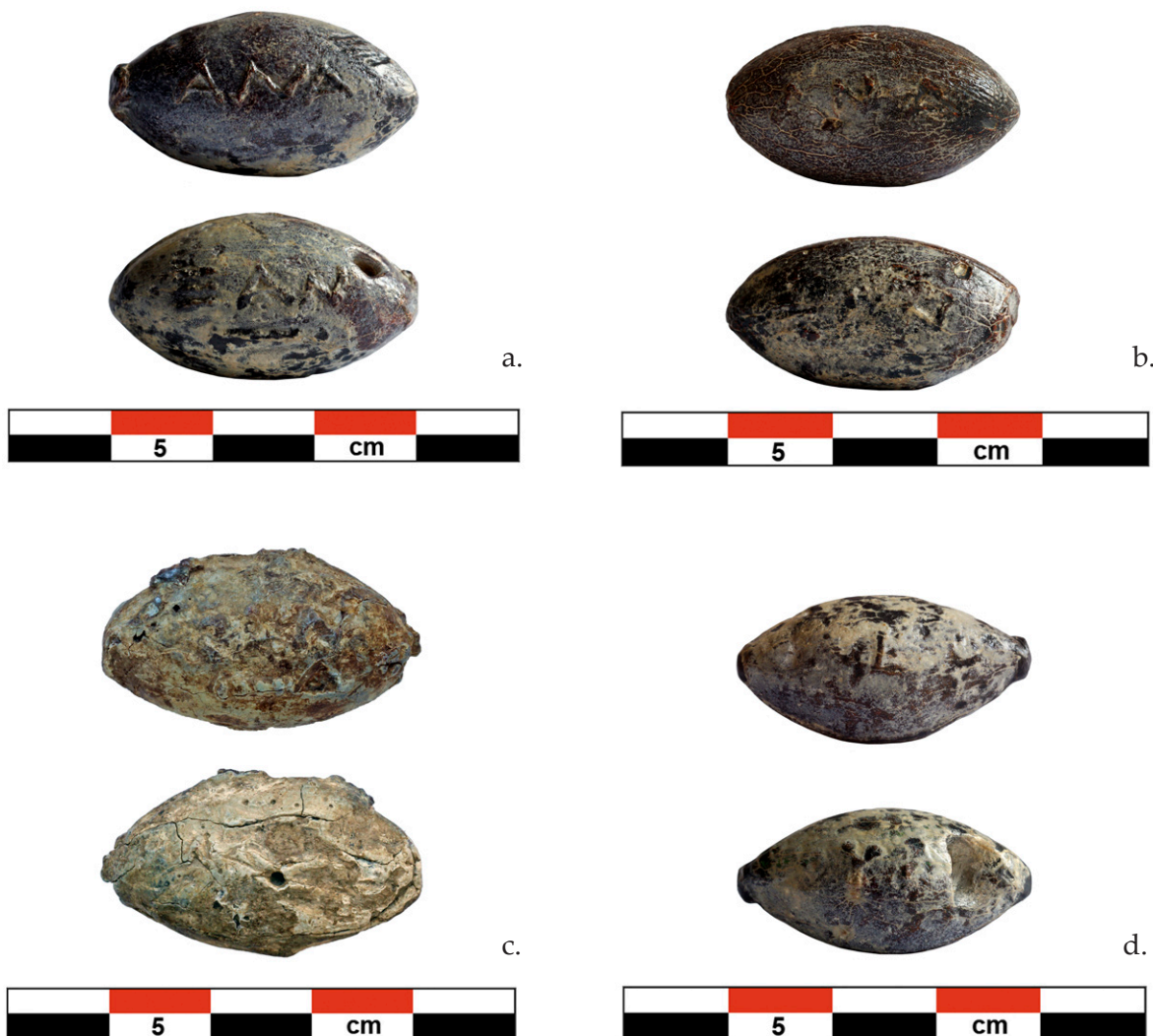


Fig. 1.a-d. Lead sling bullets inscribed with the names of Anaxandros and Kleoboulos from Kolopenishteto near the village of Sotirya, Sliven district (Photos by Petar Leshtakov)  
 Фиг. 1.a-d. Оловни тежести за пращка с имената на Анаксандър и Клеобул от обект Колопенището до с. Сотиря, обл. Сливен (снимки: Петър Лецаков)

Gramadi, and allegedly originate from the mountainous site Kolopenishteto (1054 masl) located near the village of Sotirya, Sliven district (Лисицов 2008, 43, обр. 16, 27/7). The mountainous topography of the site near Sliven makes it akin to the topographic signature of Kozi Gramadi, which introduces a whole new dimension of Macedonian expansion in Thrace during the 340s BC. It is now evident that Philip II stuck not only to the plains, but he also took the pain to allocate manpower in order to deal with the aristocratic seats of Odrysian overlords located on elevated points in Sredna Gora and Stara Planina mountain (Nankov 2015a, 406-407). It is hardly accidental that Kozi Gramadi and Kolopenishteto lie north of, and strategically close to, Philippopolis (44 km) and Kabyle (20 km), respectively, where Philip II planted Macedonian *colonies* along the Hebros and Tonzos rivers (Nankov 2015a, 402-403).

Two sling bullets inscribed ΦΙΛΙΠΠΟΥ with the name of Philip II originate from the villages of Yabalkovo or Stalevo, Haskovo region, currently in the holdings of the Regional Museum of History in Haskovo (Петров 2010, 73, Кат. №№80-81; cf. Hristov, Manov 2011,

124).<sup>5</sup> To date, they remain the sole specimens from inland Thrace bearing his name, which unfortunately lack archaeological context and precise findspot. The geographic area of this discovery, however, is consistent with literary sources (Dem. 58. 37-38; 8 hypoth. 3) that attest to the fact that Philip II penetrated into inland Thrace along Maritsa River (anc. Hebros). Until the 20 specimens reported from Kabyle remain unpublished (Paunov, Dimitrov 2000, 48-49), one can only speculate whether they should be connected with the march of Philip II. Several sling bullets from private collections, especially the ones with inscribed Macedonian names, allegedly found on various sites in Thrace signal the presence of other Macedonian commanders and their troops. The examples that stand out are from the Middle Mesta region, near the village of Dubnitsa, Gotse Delchev district: 3 sling bullets inscribed with the name of Amyntas (AMYNTA|spearhead) and 12 with that of Sparoidas (ΣΠΑΡΩΙΔΑ|coiled snake or bee),<sup>6</sup> (see Paunov, Dimitrov 2000, 49, 53, Table 3; Avram *et al.* 2013, 288). For the most part, it remains uncertain whether they can be attributed to military operations of Philip II or associated with unrecorded sieges during the years following the death of Alexander III. The latter option, however, seems more likely (Paunov, Dimitrov 2000, 53; Avram *et al.* 2013, 288) and accords well with the lack of historical information about Philip II being active in the Middle Mesta region (Delev 2002, 26-27)

Among the obvious questions one can raise based on the survey above would be the following: can inscribed sling bullets be used as reliable evidence in order to track down Macedonian military operations abroad? Should the ones recovered from Olynthus, Amphipolis, Apollonia, Torone, Stageira, Strumica and now Kozi Gramadi be unquestionably linked to Philip II and his commanders? For example, can we argue that Kleoboulos personally took part in the sieges on Amphipolis in 357 BC, Torone in 349 BC, Olynthos and Stageira in 348 BC, Strumica in 340 BC and Kozi Gramadi in 341 BC? Or, is it possible to assume that at least in some cases we are dealing with a subsequent reuse of ammunition rather than personal involvement of the generals in question? Although most of these questions cannot receive explicit answers, as was recently observed (*cf.* Hristov, Manov 2011, 126-128), further light on the issues involved can nonetheless be shed by discussing the largest sample of sling bullets retrieved through controlled excavation in Bulgaria – the fortified complex at Kozi Gramadi.

### The sling bullets at Kozi Gramadi

The total number of sling bullets discovered at the site to date (157) is impressive (fig. 2; table 2). Not only does it double up the existing database of such artifacts (ca. 200) known from Bulgaria, which for the most part comes from private collections (*cf.* Paunov, Dimitrov 2000 Table 3; *cf.* Webber 2011, 74-79; Avram 2011), but it also creates further opportunities for more detailed analysis. Their publication, however, remains in many respects incomplete leaving the reader with much to be desired. In particular, no statistical analysis of the weights of all sling bullets was attempted. Only the inscribed examples (17 out of 18) have been weighed, with variation from 23 to 32 grams. The average weight for sling bullets in-

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5 Stanislav Iliev from RIM-Haskovo, to whom I express my gratitude, informed me that the sling bullets were found in the area of Yabalkovo, while according to Petar Leshtakov (NAIM-BAS), they originate from the village of Stalevo. See entries for description of archaeological sites located near Yabalkovo and Stalevo in TIR K-35/2-Philippopolis, 357, 435.

6 Four other from the type ΣΠΑΡΩΙΔΑ|coiled snake are on display at the Regional Museum of History in Blagoevgrad (Y. Bozhinova, pers. com.)

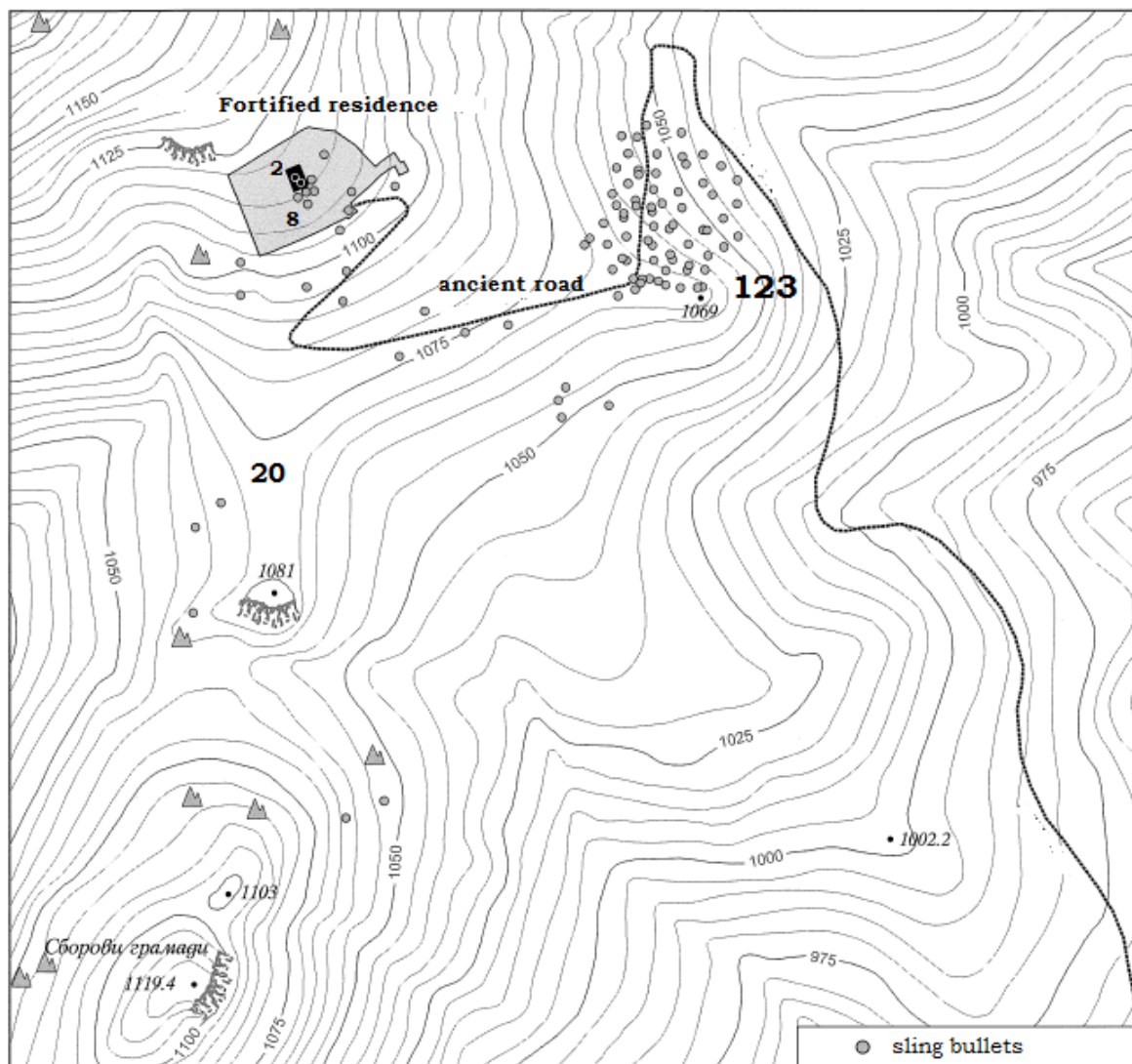


Fig. 2. Distribution pattern of sling bullets at the fortified residence and its vicinity at Kozi Gramadi. Fortified compound in gray, with the monumental building in the middle (in black) (after Hristov 2012, 87 with additions by the author)

Фиг. 2. Пространствено разположение на тежести за пращка от обект Кози грамади в рамките на укрепената резиденция и нейната периферия. Укрепена площ в сиво, с монументалната сграда в средата – в черно (по Христов 2012, 87, с допълнения от автора)

scribed Anaxandros is 26.64 grams and for those inscribed Kleoboulos – 26.72 grams. It is to be noted that the Olynthian bullets are somewhat heavier: Anaxandros (1), 34.16 gm and Kleoboulos (8), average weight, 28.3 gm (Robinson 1941, no. 2177; nos. 2202-2216; cf. Rihll 2009, 159, n. 90).

Further information can be extracted from the observation that the heaviest items, i.e. over 27 gr., were found inside the fortified area (fig. 2; table 3). According to the catalogue descriptions, three with the name Kleoboulos weigh over 27 gr.: 29.38; 28.34; 29.22 (Hristov, Manov 2011, cat. nos. 3, 5-6), and so do five inscribed with the name Anaxandros: 27.16; 30.17; 29.29; 28.43; 30.32 (Hristov, Manov 2011, cat. nos. 7, 14-17). One of those three was in fact found on the threshold of the monumental building (Hristov, Stoyanova 2011, 99). Since those inscribed with the names of Anaxandros and Kleoboulos are discovered both

INSCRIBED	PARTIALLY LEGIBLE	SYMBOLS	OTHER (illegible, damaged, misshapen)	TOTAL
Anaxandros – 12 Kleoboulos – 6	8	1	130	<b>157</b>

Table 2. Sling bullets discovered at Kozi Gramadi to date  
Таблица 2. Оловни тежести за пращка открити на обект Кози грамади

KOZI GRAMADI PEAK	MONUMENTAL BUILDING	FORTIFIED AREA	SCATTERS OUTSIDE	EAST HILL	TOTAL
Anaxandros – 1 Unspecified – 3	Anaxandros – 1 Unspecified – 1	Anaxandros -5 Kleoboulos - 3	20	123	<b>157</b>

Table 3. Distribution of sling bullets at Kozi Gramadi according to findspot  
Таблица 3. Разпределение на тежести за пращка на обект Кози грамади с оглед тяхното местонамиране

outside and inside the fortified area (Hristov 2012, 80-81) the on-site vs off-site distribution would be 8 to 9. In addition, eight inscribed sling bullets and another with a symbol in relief were published by Hristov (2006, 53, fig. 18). Upon further investigation and surface cleaning, more names can emerge from this group (Hristov, Manov 2011, 27). Thus, the exact ratio between the inscribed and uninscribed bullets remains unknown. Since 140 sling bullets lack data about the weight, it is at this point impossible to distinguish the presence of different calibers based on weight alone. As in the case of Olynthus, where Lee (2001, 13) drew attention to slight variation between Macedonian and Olynthian sling bullets, this could be potentially significant to determine whether the 'Thracian' defenders at Kozi Gramadi possessed slingers, as already suggested by Hristov (2012, 81-82).<sup>7</sup>

The most puzzling remains the pattern of distribution attested on the small hillock situated ca. 200 m east of the fortified area (fig. 2). It is curious for at least two reasons: the extremely high concentration of sling bullets (123), away from the complex, and the relatively compact grouping of items deposited very close to one another, in fact <10 m. Hristov (2012, 81-82) explained their presence as a result of the fire opened by the defenders, presumably the Thracian force. This is, however, contradicted by the observation that at least 8 sling bullets inscribed with the names of Anaxandros and Kleoboulos were uncovered outside the fortified area as well. Simple logic dictates that they were found either within the scatters outside (20) or the cluster (123) on the east hill (fig. 2; table 3). In my view, the artifact distribution points to a siege that ended up quickly, with very little fighting inside the fortified area, the tower-gate and the monumental building (*contra* Hristov 2012, 84). The scatter of 9 bullets found outside within a perimeter of ca. 35 m around the southern fortification wall can be taken to indicate an assault on the compound by the attackers, pos-

7 Smaller, spherical stones, between 2.8-6.5 cm in diameter and almond-shaped projectiles made of stone or clay have been retrieved from a number of fortified sites in inland Thrace, such as Kabyle (Домарадски 1991, №51), Seuthopolis (Nankov 2008, 40, fig. 22), Sbornyanovo (Stoyanov 2015, 434), Kravevo (Гинев 2000, 83, №209) and Golemanite, Veliko Tarnovo district (Църков 2008, 91-92). It is reasonable to imagine, as has been already suggested, that these were fired from slings. No inscribed examples are known. Although literary sources mention stones thrown by hand on the part of Thracian defensive forces during sieges (see discussion of sources in Webber 2011, 106-107), no such artifacts have been reported from Kozi Gramadi.

sibly preceding the breach into the fortified area.

### The catapult bolts

Interestingly, some of the iron arrowheads – left with no comment by Hristov in his discussion of weaponry (Hristov, Manov 2011; Hristov 2012; *cf.* Nankov 2008, 40, no. 29; Stoyanov 2015, 433), but briefly discussed in the last volume (Hristov 2014, 123, figs. 24-27) – are found in association with sling bullets, as is also the case with a couple of finds at Pistiros (Katinčarova 2007, 40, fig. 22, Pl. 9), Olynthus (Type E arrowheads [Robinson 1941, 392-397]) and Stymphalos (Hagerman 2014, 80-85). Two arrowheads and one sling bullet found near the SW corner of fortified area, illustrated in Hristov (2006, 123), near the inward projecting bastion (Hristov 2006, 46). Two arrowheads and one sling bullet found near the S wall of the monumental building in a burnt layer (Hristov, Stoyanova 2011, 82). In addition, five other examples were retrieved on Kozi Gramadi peak during the most recent excavations (Hristov 2014, 123, figs. 24-27). In short, the distribution pattern of both sling bullets and catapult bolts at Kozi Gramadi may provide, at least theoretically, further support for the controversial hypothesis, put forward by T. Rihll (2007, 92-104; 2009, 160-169), that in ad-hoc situations sling bullets can be employed as ammunition for catapults (see critical remarks in Ma 2010b, 427-428; Campbell 2011, 692-698).

### “Urban” combat at Kozi Gramadi?

The discovery of inscribed sling bullets at Kozi Gramadi displays further value because the excavator of the site hastily plugged the retrieved data into the concept of urban combat developed on the case of Olynthus (Lee 2001; 2006, 489-490; 2010, 138-157). As I have remarked elsewhere (Nankov 2015a, 406-407), however, the application of this novel paradigm is superficial and ultimately inadequate for several reasons (Hristov 2012, 80-86).<sup>8</sup> First, the site as excavated and published to date cannot be interpreted *stricto sensu* as an urban establishment. Although, it clearly boasts substantial fortifications, equipped with towers, bastions and gates, the monumental building appears to be solitary, thereby remaining the principal focus of the compound (3,4 decares) supplemented with a series of sheds built with less durable materials. Labels for its function range from being an Odryasian royal treasury to a princely hunting lodge (Hristov 2014, 31; Archibald 2013, 147). No traces of street network have been documented.

Unlike Olynthus, where the vast majority of sling bullets were found inside the city (Lee 2001, 15-16, fig. 4), only 10 out of 157 retrieved at Kozi Gramadi were found inside the fortified area (table 2). This is too small a sample to fit the bill. As discussed above, the distribution pattern of weapons informs the conclusion the Macedonians met with little resistance on the part of the defenders upon approaching the compound. What can be said with certainty is that evidently Philip II decided to utilize light troops (slingers) in the area

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<sup>8</sup> I feel obliged to share the fact that I personally gave a copy of Lee’s article on Olynthus to the excavator of Kozi Gramadi, Dr. Ivan Hristov, in 2011, who for some reason has failed to exercise basic professional courtesies (Hristov 2012, 80). It is further regrettable that nowhere in Hristov’s text is there a proper citation of statements and passages obviously culled from Lee’s article, which transpire throughout his discussion on military weapons (*cf.* Hristov 2012, 80-86). It is also questionable whether Hristov’s copy-paste approach of the overall structure of Lee’s original article, with particular section headings (in bold), has led to an adequate presentation of the primary data from Kozi Gramadi, which in itself deserves more careful scrutiny.



MINT	KOZI GRAMADI PEAK	FORTIFIED RESIDENCE
Philip II (359-336 BC)	24	5
Alexander III (336-323 BC)	4	4
Anonymous Macedonian (288-277 BC)	-	1
Subtotal	28	10
<b>TOTAL</b>		<b>38</b>

Table 4. Macedonian bronzes from Kozi Gramadi published to date (after Hristov 2011; 2014)  
 Таблица 4. Македонски бронзови монети от обект Кози грамади публикувани към днешна дата (по Христов 2011; 2014)

of Kozi Gramadi on account of their suitability for military operations in mountainous and difficult terrain (Pritchett 1991, 58-59). The sling bullets from Sotirya (fig. 1a-d) indicate the application of a similar strategy. Thus Kozi Gramadi should find its proper place in the long list of historical sieges that have received visibility through archaeological excavation (Avram *et al.* 2013, 245-248). Attempts to project it as an example of a site yielding information about urban combat in Thrace should be discounted.

Recent excavations on top of the Kozi Gramadi peak (1361 masl) introduced another level of complexity through the exposure of what is now interpreted as a sanctuary (Hristov 2014, 269-277). Although four sling bullets (one of them inscribed with ANA|ΞAN[ΔΡΟΥ]) and six catapult bolts were found in association with the complex may be suggestive of siege operations on the peak as well, the excavator has left the data without discussion (Hristov 2014, 123-124, обр. 24-27, 29-32). Their stratigraphic position, together with a bronze coin minted by Alexander III found at the base of the fortification wall (Trench 5), (Hristov 2011, 35, cat. no. 15), may be significant in terms of establishing whether the fortification walls of good ashlar masonry, which are currently interpreted as *peribolos* of the sanctuary, were built *before* or *after* the arrival of the Macedonians. Moreover, the presence of Macedonian bronzes of Philip II, Alexander III, anonymous Macedonian (288-277 BC), including a bronze of Seuthes III (Hristov 2011, 34, cat. no. 11; Type 4 after K. Dimirov, dated 309-295 BC), both in the fortified area, the monumental building and on the Kozi Gramadi peak (table 4), in addition to the curious discovery of gaming counters and dice (clay and bronze) inside the fortified compound (Hristov 2014, 120-122, обр. 10-13; full account in Nankov 2013), clearly points to habitation (military?) after the Macedonian takeover. Future investigations will demonstrate whether we can acquire a fuller understanding of the historical significance of this atypical complex nestled in the heart of mountainous Thrace.

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## Abbreviations

- SEG Supplementum Epigraphicum Graecum. Leiden, Brill, 1923-.
- TIR Tabula Imperii Romani K-35/2-Philippopolis. Tendril Publishing House, Sofia, 2012.

## References

- Гинев, Г. 2000. *Тракийски могили при село Кралово, Търговищко*. Варна.
- Домарадски, М. 1991. Западна крепостна стена на Кабиле. In *Кабиле*, т. II, София, 54-82.
- Лисицов, С. 2008. Фортификацията за защита на Ичеренския проход и дублиращите му пътни трасета през късната античност и българското средновековие (края на век). *Годишник на регионален исторически музей Сливен*, т. 1, 36-62.
- Петров, И. 2010. *Културната следа. Изложба с експонати от РИМ Хасково*. Електронен каталог. Музей на НБУ. София.
- Христов, И. 2006. *Тайнствената тракийска резиденция, крепост и светилище на одриските царе в Средна гора (V-IV в. пр. Хр.)*. Велико Търново: Faber.
- Църков, И. 2008. *Траките край Атрюс: Тракийско погребение от село Големаните, Велико-търновско*. София: УИ „Св. Климент Охридски“:
- Angelovski, B. 2012. Survey for the Studying of the Lead Projectiles and Findings from the Carevi-Kuli-Strumica. In Stephanos Archaeologicos In Honorem Professoris Ivani Mikulčić (Folia archaeologica Balkanica, vol. 2), Skopje, 255-261.
- Archibald, Z. 2013. *Ancient Economies of the Northern Aegean: Fifth to First Centuries BC*. Oxford: Oxford University Press.
- Avram, A. 2011. Marginalien zu griechisch beschrifteten Schleudergeschossen (I). In Ruscu, L. et al. (ed.) *Scripta classica. Radu Ardevan sexagenario dedicata*, Cluj-Napoca: Mega Publishing House, 195–199.
- Avram, A., Chiriac, C., Matei, I. 2013. Balles de fronde grecques en pays gète et ailleurs. Sur les traces de Zopyrion dans le bas Danube. *Revue archéologique* 2, 227-303.
- Badian, E. 1983. Philip II and Thrace. *Semaines philippopolitaines de l'histoire et de la culture thrace* (Pulpudeva 4), 51-71.
- Cahill, N. 2002. *Household and City Organization at Olynthus*. New Haven and London: Yale University Press.
- Cambitoglou, A., Papadopoulos, J.K., Jones, O.T. 2001. *Torone I: The excavations of 1975, 1976, and 1978*. Athens.
- Campbell, B. 2011. Ancient Catapults: Some Hypotheses Reexamined. *Hesperia* 80, 677-700.
- Delev, P. 2002. The Middle Mesta Region in Antiquity. In Bozkova, A., Delev, P. (eds.) *Koprivlen, vol. 1. Rescue archaeological Investigations along the Gotse Delchev-Drama Road 1998-1999*. Sofia: Nous, 13-28.
- Delev, P. 2015. Thrace from the Assassination of Kotys I to Koroupedion (360–281 BCE). In Valeva, J., Nankov, E., Graninger, D. (eds.) *A Companion to Ancient Thrace*. Wiley-Blackwell, 48-58.

- Hagerman, Ch. 2014. Weapons: Catapult Bolts, Arrowheads, Javelin and Spear Heads, and Sling Bullets. In Schaus, G.P. (ed.) *Stymphalos: The Acropolis Sanctuary*, vol. 1. Toronto/Buffalo/London: University of Toronto Press, 79-102.
- Hammond, N. G. L. Griffith, G. T. 1979. *A History of Macedonia, 550-336 BC*, vol. II. Oxford: Clarendon Press.
- Hristov, I. 2011. Archaeological Materials. In Christov, I. (ed.), *Kozi Gramadi. Studies of an Odrysian Ruler's Residence and Sanctuaries in Sredna Gora Mt. 8th-1st Cent. BC*, vol. 1. Sofia: Unicart, 27-41.
- Hristov, I. 2012. Military Operations before the Walls of the Residence in 341 BC in Accordance with the Evidence of the Lead Sling-Balls from the Site. In Christov, I. (ed.), *Kozi Gramadi. Studies of an Odrysian Ruler's Residence and Sanctuaries in Sredna Gora Mt. 8th-1st Cent. BC*, vol. 2. Sofia: Unicart, 79-89.
- Hristov, I. 2014. *A Sanctuary of Zeus and Hera on Kozi Gramadi Peak in Sredna Gora*. Sofia: Unicart.
- Hristov, I., Manov, M. 2011. Sling Bullets from the Area of a Thracian Ruler's Residence near the Peak of "Kozi Gramadi. In Christov, I. (ed.) *Kozi Gramadi. Studies of an Odrysian Ruler's Residence and Sanctuaries in Sredna Gora Mt. 8th-1st Cent. BC*, vol. 1. Sofia: Unicart, 119-132.
- Hristov, I., Stoyanova, D. 2011. Monumental Building. In Christov, I. (ed) *Kozi Gramadi. Studies of an Odrysian Ruler's Residence and Sanctuaries in Sredna Gora Mt. 8th-1st Cent. BC*, vol. 1. Sofia: Unicart, 81-115.
- Katinčarova, D. 2007. Survey along the Main Street – from the Eastern Gate of the Emporion Pistiros inwards and in the Sector of the Easter City Wall. In Bouzek, J., Domaradzka, L., Archibald, Z. (eds.) *Pistiros III. Excavations and Studies*. Prague: Charles University, 35-61.
- Kosmidou, E., Malamidou, D. 2006. Arms and Armour from Amphipolis, Northern Greece. Plotting the Military Life of an Ancient City. *Anodos. Studies of the Ancient World* 4-5/2004-2005, Trnava, 133-147.
- Lee, J. W. I. 2001. Urban Combat at Olynthus, 348 BC. In Freeman, Ph., Pollard, A. (eds.) *Fields of Conflict: Progress and Prospect in Battlefield Archaeology* (BAR International Series 958). Oxford: Archaeopress, 11-22.
- Lee, J. W. I. 2006. Warfare in the Classical Age. In Kinzl, K.H. (ed.) *A Companion to the Classical Greek World*. Wiley-Blackwell, 480-508.
- Lee, J. W. I. 2010. Urban Warfare in the Classical Greek world. In Hanson, V. (ed.) *Makers of Ancient Strategy*. Princeton University Press, 138-157.
- Ma, J. 2010a. Autour des balles de fronde "camiriennes". *Chiron*, 40, 155-173.
- Ma, J. 2010b. A Note on Lead Projectiles (*Glandes, Molybdides*) in Support of Sling Bullets: A Reply to T. Rihl. *Journal of Roman Archaeology*, 23, 427-428.
- Nankov, E. 2008. The Fortifications of the Early Hellenistic City of Seuthopolis: Breaking the Mold. *Archaeologia Bulgarica*, 12/3, 15-56.
- Nankov, E. 2013. Playful in Life and after Death: Board Games in Early Hellenistic Thrace. In *The Thracians and their Neighbors in the Bronze and Iron Ages. Proceedings of the 12<sup>th</sup> International Congress of Thracology Târgoviște 10th -14th September 2013, "Necropolises, Cult places, Religion, Mythology"*, Vol. 2, Brașov: Muzeul Brăilei Editura Istros, 277-288.
- Nankov, E. 2015a. Urbanization. In Valeva, J., Nankov, E., Graninger, D. (eds.) *A Companion to Ancient Thrace*, Wiley-Blackwell, 399-411.

- Nankov, E. 2015b. In Search of a Founder and the Early Years of Heraclea Sintica. In Vagalinski, L., Nankov, E. (eds.) *Papers of the American Research Center in Sofia*, vol. 2. *Proceedings of the Conference Heraclea Sintica: From Hellenistic Polis to Roman Civitas (4th c. BC–6th c. AD)*. Petrich, September 19–21, 2013. Sofia, 7-35.
- Papazoglou, F. 1988. *Les villes de Macédoine à l'époque romaine*. BCH, Suppl. XVI.
- Paunov, E., Dimitrov, D. Y. 2000. New Data on the Use of War Sling in Thrace (4th–1st cent. BC). *Archaeologia Bulgarica*, 4.3, 44-57.
- Pritchett, W. K. 1991. *The Greek State at War*, vol. V. Berkeley/Los Angeles/Oxford: University of California Press.
- Rihll, T. 2007. *The Catapult: A History*. Yardley: Westholme Publishing.
- Rihll, T. 2009. Lead 'slingshot' (*glandes*). *Journal of Roman Archaeology*, 22.1, 147-169.
- Robinson, D. M. 1941. *Excavations at Olynthus, vol. X, Metal and Minor Miscellaneous Finds: An Original Contribution to Greek Life* (John Hopkins University Studies in Archaeology, 31). Baltimore/Londres/Oxford, John Hopkins.
- Shipley, G. 2013. 'Small Things Remembered': the Under-Theorized Domestic Material Culture of Hellenistic Greece. In Fenn, N., Römer-Strehl, Ch. (eds.) *Networks in the Hellenistic World. According to the Pottery in the Eastern Mediterranean and Beyond*, (BAR International Series 2539), 3-13.
- Stoyanov, T. 2015. Warfare. In Valeva, J., Nankov, E., Graninger, D. (eds.) *A Companion to Ancient Thrace*, Wiley-Blackwell, 426-442.
- Webber, Ch. 2011. *The Gods of Battle: The Thracians at War, 1500 BC–150 AD*. Pen&Sword Military.

## Мобилността на македонската войска в Тракия по времето на Филип II и оловните тежести за прашка с надписи от Кози грамади

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(резюме)

Оловните тежести за прашка често носят лични имена, които в повечето случаи се идентифицират с пълководците на съответните единици от прашкари. Обекти, откъдето произлизат такива находки, предоставят възможност за свързване на имената с личности, известни от историческите извори. Класически пример е халкидическият град Олинг, който е обсаден и превзет от войските на Филип II Македонски през 348 г. пр. Хр. Неоспоримо свидетелство за това са стотиците тежести, носещи името му, заедно с тези на няколко военачалници от неговата армия, като например Хипоник, Потал, Клеобул и Анаксандър.

Настоящата статия илюстрира значимостта на оловните тежести за прашка, носещи лични имена, като първостепенен извор за възстановяването на историческите събития, свързани с македонската експанзия в Тракия по време на царуването на Фи-

лип II (359-336 г. пр. Хр.). Чрез дискусията на редица примери от Тракия, Македония и Северна Егея, в това число и досега непубликувани материали, е застъпена идеята, че тези предмети могат да служат като надежден индикатор за мобилността на македонските войски във вътрешна Тракия. За основен извор по темата са анализирани първични данни, генерирани вследствие на археологическите разкопки на укрепления тракийски комплекс до Кози грамади, разположен в Средна гора в централна Южна България.

В по-общ план, предложеният анализ и синтез имат за цел да затвърдят стойността на тежестите като необходим предмет на изследване, които поради своята многопластова природа осигуряват уникална възможност за интегриран подход към античността чрез комбинирането на данни, почерпени от археологията, историята и епиграфиката.