Fields of Conflict: Progress and Prospect in Battlefield Archaeology

Proceedings of a conference held in the Department of Archaeology University of Glasgow, April 2000

Edited by

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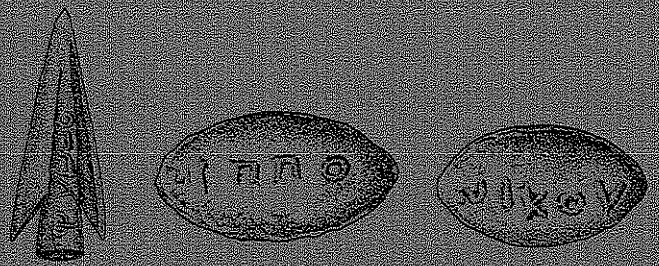


BAR International Series 958
2001

Urban combat at Olynthos, 348 BC

John W.I. Lee

Abstract

This paper combines literary and archaeological evidence in an attempt to reconstruct the mechanics of urban combat during the Macedonian capture of Olynthos (348 BC). Diodoros Siculus (16.53.2-3), our major source for the event, relates only that Olynthos was captured by treachery. Yet analysis of the hundreds of lead sling bullets and iron arrowheads scattered throughout the site suggests that substantial intramural fighting was required before the Macedonians could secure the city. These small missile objects turn up throughout the site, especially within house courtyards and internal rooms, in a manner which implies not accidental dropping, but deliberate use. Just as small domestic finds (e.g. loom-weights) have been used to reconstruct the uses of various rooms in a Greek house, these missiles help show where fighting took place in the city. Furthermore, because some of these missiles are inscribed with the names of Macedonian or Olynthian commanders, and because a marked discrepancy in weight exists between Macedonian and Olynthian sling bullets, it may be possible roughly to determine the positions of attacking and defending forces during this fighting. This archaeological evidence, when combined with the often-examined literary evidence, helps provide a clearer picture of what happened at Olynthos one hot summer twenty-four hundred years ago.

Introduction

The ruins of Olynthos spread out over roughly 40 acres along a low north-south ridge in Greece's Khalkidike peninsula. Olive trees cover most of the surrounding plain, while the River Retsinika - no more than a large stream, really - meanders southward below the western slopes of the ridge. The ridge itself affords panoramic views of the placid Aegean to the south and the rugged Polygiros mountains to the north. Yet the casual visitor to Olynthos is apt to be disappointed, for marble sculpture and impressive public edifices, the staples of Greece's most popular ancient sites, are nowhere to be found. Indeed, not much survives of the city aside from the stone foundations of hundreds of houses, most of them neatly laid out on a regular grid of broad streets and avenues (cf. Figs. 1 & 2). Only a few elaborate mosaics, many covered by conservators' tarps, serve as a reminder that until its destruction in 348 BC, Olynthos was prosperous and powerful, the leading city in the Khalkidike.

There was already a settlement on the site of Olynthos during the Neolithic period, and the place was noticeable enough by historical times that the Persians paused to sack it in 479 BC (Herodotus VIII.127; Cahill 1991: 131-133; Gude 1933; Hoepfner & Schwandner 1994: 68). Olynthos, however, remained of little note until 432, when the Macedonian king Perdiccas convinced the peoples of Khalkidike to abandon their coastal towns and settle together in a single strong inland city (Thucydides I.58; Borza 1990: 14-142; Cahill 1991: 134-144; Hoepfner & Schwandner 1994: 68-73; Zahrnt 1971: 49-57).

The new settlers substantially increased the size of Olynthos: to the north of the old, unplanned and crowded town on the southern spur of the ridge was added a regular gridded development of housing and shops, surrounded by a new city wall (Hoepfner & Schwandner 1994: 76-82). The old and new areas of the city are designated the South and North Hills, respectively. The houses, constructed of mud brick on stone foundations, show some variations in plan, but were in general built around a central courtyard (Cahill 1991: 196-253; Hoepfner & Schwandner 1994: 82-113; Robinson & Graham 1938). Surrounding the court were kitchens, banquet rooms and storage areas. Interior alleys in each house block facilitated drainage and waste disposal. By ancient standards, the houses at Olynthos were relatively spacious (average 17 x 17m in size, with house blocks of roughly 85 x 34m). Some, judging from the remains of stone staircases, even had second floors; all carried pitched tile roofs. They were comfortable and appropriate dwellings for the Olynthians, whose city now became the centre of a regional confederacy, the Khalkidic League (Cahill 1991: 144-152; Zahrnt 1971: 57-66).

In the following century, Olynthos rapidly grew in power and prosperity. New and more lavish housing, in the form of the so-called Villa Section, expanded the area of the city eastward (Cahill 1991: 159-162). By the mid-C4th BC the League centred on Olynthos had become a significant regional force, powerful enough to challenge the rising kingdom of Macedon, then ruled by Philip II, father of Alexander. Throughout the 350s, Philip stayed on good terms with Olynthos but as the king consolidated his hold on northern Greece, Macedon and the Khalkidic League began to drift apart (Borza 1990: 216-219; Gude 1933: 34-37; Hammond & Griffith 1979 II: 269-328; Hammond 1994: 50-52; Hoepfner & Schwandner 1994: 70; Zahrnt 1971: 104-111).

A period of increasing tensions and political manoeuvring soon gave rise to open warfare. In summer 349, Philip attacked and captured a number of Khalkidic cities. Olynthos appealed to Athens for aid which despite the urgings of the orator Demosthenes dispatched only meagre and tardy reinforcements, not enough to dissuade Philip (Cawkwell 1962: 122-140; Hammond & Griffith 1979 II: 315-324). The next summer, as the historian Diodoros Siculus (16.53.2-3), writing three centuries later, relates:

> "...having taken the field with a large army against the most important of the cities of this region, Olynthos, [Philip] first defeated the Olynthians in two battles and confined them to the defense of their walls; then in the continuous assaults that he made he lost many of his men in encounters at the walls, but finally bribed the chief officials of the Olynthians, Euthykrates and Lasthenes, and captured Olynthos through their treachery. After

Figure 1. Olynthos: looking north along Avenue A. *Photo, John Lee, 1999*

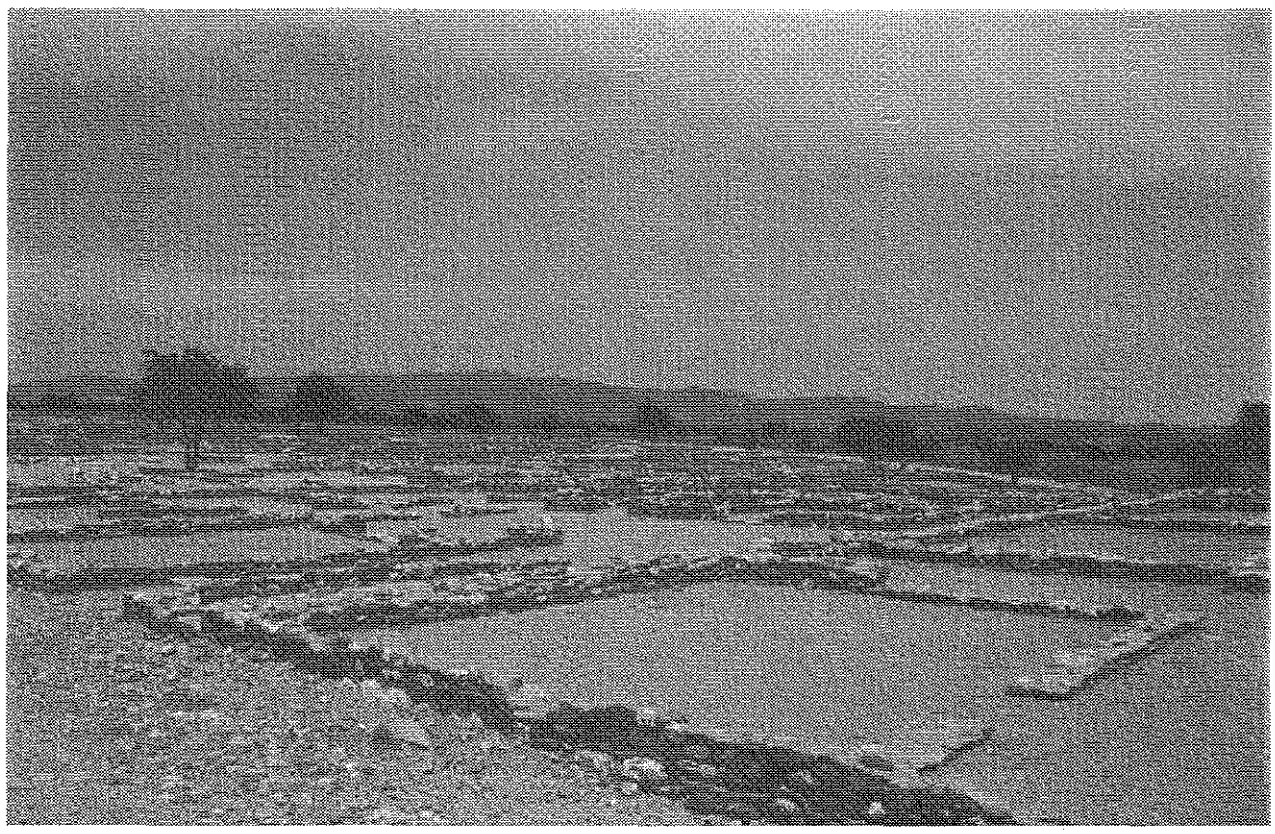


Figure 2. Olynthos: looking north-east across houses of the North Hill. *Photo, John Lee, 1999*

> plundering it and enslaving the inhabitants he sold both men and property as booty"

So fell Olynthos, probably in September 348 BC.

Archaeology and history at Olynthos

When archaeologists explored the site in the 1920s and 1930s, they discovered copious evidence of the havoc Philip's soldiers had wrought (Robinson *et al* 1930-1952). So ruthless was the Macedonian king in destroying cities, Demosthenes had claimed, that "...a traveller would find it hard to say whether they had ever been inhabited" (Dem. IX.26). At the site of Olynthos, collapsed tile roofs, localized traces of intense burning, and house after house apparently looted of valuable objects seemed to confirm this literary tradition. Recent research, however, suggests that Demosthenes may have been exaggerating. Olynthos was in fact partially reoccupied by squatters after 348 and enough Olynthians survived that not a few of them took part in founding the nearby city of Kassandreia three decades later (Cahill 1991: 165-195).

If Demosthenes cannot be trusted, what about Diodoros ? Scholars so far have generally relied on his account in combination with other scraps of literary testimonia to explain how the Macedonians captured Olynthos (cf. Gude 1933: 51-104). Given the brief and fragmentary nature of these sources, it is not surprising that conclusions drawn from them are unsatisfying. Many authors simply repeat Diodoros' statement that the city was betrayed (Gehrke 1985: 124; Gude 1933: 36; Hoepfner & Schwandner 1994: 70). Hammond and Griffith accept uncertainty: "...how the end came, whether by more treachery, or by an unconditional surrender, or by a storming of the city, is unknown" (Hammond & Griffith 1979 II: 324). Cawkwell casts doubt on the idea that treachery alone caused the fall of Olynthos, but offers no further explanation (Cawkwell 1962: 132-133 n.8; see also Borza 1990: 218).

Relying on the spotty literary evidence for the fall of Olynthos would make sense if the site had not been carefully explored. Robinson's excavations, however, were unusual for their day in scale and meticulousness. About four acres of the roughly 40 acre site were dug, and the excavators published their findings with a level of detail "...unmatched in the publications of some excavations even today" (Nevett 1999: 57). Indeed, the find spots of thousands of small artifacts were accurately recorded, in many cases down to individual rooms in houses. Amongst these artifacts are hundreds of bronze and iron arrowheads and lead sling bullets, some inscribed with the names of Macedonian commanders, others with Olynthian markings, as well as quantities of swords and other weapons. These objects, uncovered in clear destruction contexts of 348 BC, have so far received little attention.[1] Yet their very presence suggests that something more than simple treachery was required to subjugate Olynthos. By examining the context and distribution of these artifacts in conjunction with Diodoros' account and other literary testimonia, we may be able to reconstruct more precisely what happened during the fall of the city.

Weapons artifacts

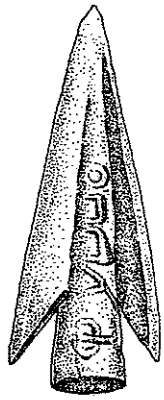
Let us start by looking at the missile artifacts (Fig. 3). First, the sling bullets.[2] The excavators unearthed about 500 of these lead projectiles (Robinson 1941: 418-443). Generally bi-conical in shape and between two and three centimetres long, the bullets range in weight from about 19 to more than 30gms. More than 100 are inscribed, with a total of 20 different markings (Pritchett 1991: 48-49). Some markings are clearly Macedonian. Fourteen bullets, for instance, carry the name of Philip himself, while 16 carry the name of Hipponikos, one of his officers (Philip bullets - Robinson 1941: 431-433. Hipponikos bullets - Robinson 1941: 424-426). Others are clearly Olynthian, such as the 8 bullets inscribed with the abbreviated form ΟΛΥ.[3] Yet others bear the names of otherwise unknown individuals, and one sports the words αισχρον δωρον- "an unpleasant gift." (Robinson 1941: 421). The inscribed Macedonian bullets, Cahill and others point out, average almost 30gms as opposed to roughly 26gms for Khalkidic or Olynthian bullets (Cahill 1991: 164 n.71; Korfmann 1973: 40-41; Robinson 1941: 433). The distinction appears statistically significant, and may reasonably permit assigning bullets to one side or the other, on the basis of weight, even when they are not inscribed.

Next, there are the arrowheads (Fig. 3). Of the hundreds excavated, about a fifth are iron and one is bone; the rest are bronze (Robinson 1941: 378-411). The Olynthos publication divides these arrowheads into six types, not all of which can be associated with the fighting of 348 BC. Arrowheads found under C4th floor levels on the South Hill, for example, probably represent the Persian attack of 479, while others are best linked with the Spartan campaigns around Olynthos between 382-379 (Robinson 1941: 378). Nevertheless, more than 100 arrowheads, mostly Types E and G, can be relatively securely identified as relics of the Macedonian attack (Type E arrowheads (iron): (Robinson 1941: 392-397); Type G (bronze; Macedonian or Thracian): (Robinson 1941: 405-410). The six Type C arrowheads which carry Philip's name have attracted the most attention (Robinson 1941: 382-383). These are roughly six to seven centimetres long and two to three centimetres wide, with a one centimetre shaft

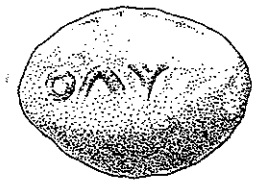
[1] Borza (1990: 299) briefly mentions the possible significance of the missile artifacts from Olynthos, but misreads their find spots. Cahill (1991: 162-165) retreats to a text-based perspective in discussing the fall of the city.

[2] Caveat: Pritchett (1991: 39) observes that in general only prehistorians look for non-leaden sling (clay or stone) ammunition. We may thus be missing an entire class of sling bullet evidence from Olynthos. For more on clay and stone projectiles see Pritchett (1991: 39-43) and Vutiropulos (1991: 279-286).

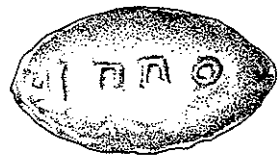
[3] Bullets inscribed Ολμ(υφιωυ) or "of the Olynthians" Robinson (1941: 430-431). Five bullets (see Robinson (1941: 437)) carry the abbreviated form ΧΑΛ or similar; that is, Χαλ(κιδεωυ) or "of the Khalkidians."

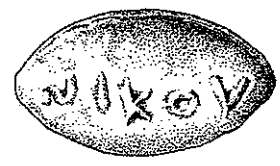


Catalogue no. 1907
Type C arrowhead
Length: 0.07m
Width: 0.03m
Diameter of shaft opening: 0.013m
Inscribed: on shaft, retrograde
ΦΙΛΙΠΠΟ
From House A.9, room I



Catalogue no. 2224
Lead sling bullet
Length: 0.026m
Weight: over 31g
Inscribed: OAY (obverse)
N (reverse)
= 'Ολυνθίων
from House B.vi.5,
Room h





Catalogue no. 2187
Lead sling bullet
Length: 0.03m
Width: 0.017m
Weight: 32.11g
Inscribed: ΙΠΠΟ (side A)
NIKOY (side B)
From South Hill, Section F

Catalogue no. 2228
Lead sling bullet
Length: 0.03m
Width: 0.017m
Thickness: 0.012m
Weight: 29.36g
Inscribed: ΦΙΛΙ (side A)
ΠΠΟΥ (side B)
From South Hill, Section G,
Area\10

Figure 3. Arrowheads and Slingbullets from Olynthos.

opening. They boast clear retrograde relief inscriptions: ΦΙΛΙΠΠΟ.[4]

Finally, non-missile artifacts deserve brief mention. These are far less numerous than sling or bow projectiles, probably because the Macedonians recovered most of them during their post-battle looting. A single hoplite shield was recovered from the so-called Villa of the Bronzes in the Villa Section of the city, along with a number of poorly-preserved iron blades and spearheads (Robinson 1941: 443-446 & 549). An iron spear end and spearhead, found together on the South Hill, were identified by Robinson as the remains of a Macedonian *sarissa* or pike (Robinson 1941: 412). A similar spear end turned up also in a house on the North Hill (Robinson 1941: 418). As far as the few excavated swords are concerned, Robinson points out that in many cases it remains impossible to determine whether a blade was originally for military or domestic use (Robinson 1941: 335). Because non-missile weapons artifacts at Olynthos are scarce and sometimes difficult to identify, our analysis from here on will focus mainly on the sling bullets and arrowheads.

Context and deposition

"The great value...of a violently destroyed site like Olynthos," observes Cahill, "is that many artifacts are found in destruction debris on the floors of houses, rather than in dumps or fills...so that they are still in something like their primary context" (Cahill 1991: 162). This, as Cahill recognises, is not exactly true. For one thing, the thin overburden - less than a metre in some places - meant that the site was disturbed by modern ploughing and treasure-hunting before excavations began. Furthermore, the excavators made occasional mistakes in their record-keeping. Cahill's work with the excavation notebooks, nevertheless, reveals that the excavators for the most part kept accurate stratigraphic records. They were aided by the relative simplicity of the site, which for the most part constitutes one large destruction level.

When a site like Olynthos is violently destroyed, then, the archaeological remains of the catastrophe can provide a sort of snapshot of the place's final moments. A broken pot found atop a hard-packed earth floor, covered by the rubble of a fallen tile roof, for example, indicates that the pot was in position on the floor just before the roof collapsed. Cahill and others have already used the evidence of the domestic assemblages - cooking vessels, loomweights, agricultural tools - found in the Olynthos destruction layer to reconstruct where and how daily activities like cooking and weaving took place in the city's households. The problem, of course, remains that domestic objects may not necessarily have been used in the room where they were placed at the time the city fell. To give a perplexing example: do loomweights in an *andron,* or men's banquet room, mean that weaving went on there, or merely that the loom may have been stored there when it and the *andron* were not in use ?[5]

Like the domestic artifacts, the weapons finds at Olynthos, and in particular the sling bullets and arrowheads, rest in clear destruction contexts: on floor levels, but underneath the tile fall from collapsed roofs. This means they were deposited at the time the city fell. With this depositional context in mind, I plotted the find spots of more than one hundred sling bullets and arrowheads on a plan of the site. Figure 4 displays the results of this plotting. On this plan, arrowheads are identified by type, as is each group of inscribed sling bullets. Non-inscribed sling bullets are identified by weight category. In choosing which missiles to plot, I eliminated all types of arrowheads which did not with relative certainty belong to the C4th; I also avoided more than 200 sling bullets found early in the excavations which did not have definite provenances. As the figure shows, bullets and arrowheads appear throughout the excavated areas of Olynthos, mostly inside houses. The relative absence of missiles in the streets, it should be pointed out, is misleading, as the original excavators for the most part did not explore these. Recent excavations along Avenue B, in fact, recovered many sling bullets, as well as spearheads and spear ends (T. Protopsalti *pers. comm.*, 15 June 1999).

How were these bullets and arrowheads deposited ? One might argue, of course, that missiles could be dropped accidentally, as coins often are. This is true, but a slinger or archer carrying his ammunition in a container might then seem more likely to lose the whole container than an individual missile (Pritchett 1991: 56 note 106). The 8 bullets inscribed ΤΙΜΟΣ found together in Section F of the South Hill, or the 9 Type E arrowheads similarly clustered together on Street III may represent such an event. Probably some individual missiles were in fact dropped accidentally, yet it is difficult to imagine both attackers and defenders randomly scattering missiles around the site in a manner that would produce the results shown on Fig. 4. It seems plausible, therefore, to interpret the missile finds as the physical remains of urban fighting. That is, these bullets and arrowheads were discharged at human or area targets during the taking of Olynthos in 348. To put this in the terms of household archaeology: a missile is shot, usually at a specific target, at a specific time. Thus a

[4] Borza (1990: 299) speculates that these may be Olynthian arrowheads inscribed with a local dative form ("for Philip" rather than "of Philip"), but it seems unlikely that the besieged defenders would have spent so much effort producing beautifully crafted missiles bearing their opponent's name. Snodgrass (1967: 117) writes that these arrowheads "may well" be catapult bolts on account of their length, a hypothesis which Hammond & Griffith (1979: 447) turn into a statement of fact. Yet Snodgrass (1967: 40 & 81) notes that even longer (four inches) tanged arrowheads of a type later particularly associated with Cretans appear already in the Greek Dark Ages. It seems unreasonable therefore to interpret the Philip arrowheads as catapult bolts merely on account of their length. The recent Greek excavations in Street 5 at Olynthos have produced iron projectiles 50-60cms in length (T. Protopsalti *pers. comm.*, 15 June 1999). These would seem better candidates for catapult bolts; closer scrutiny will be possible when they are published.

[5] See the excellent discussion of Nevett (1999: 57-61) who points out in particular that the Olynthos domestic assemblages represent not the remains of everyday Greek life but of a city under extended siege.

Macedonian sling bullet found on an Olynthian courtyard floor presents relatively secure evidence for the 'use' of that courtyard: there was probably a defender there to be shot at. Several deformed sling bullets and arrowheads, perhaps damaged by striking people or architecture at high velocity, further support the hypothesis that these missiles were deposited because they were discharged intentionally, not dropped accidentally.

In his brief discussion of Philip's attack, Cahill recognises that these missiles must have been spent during the fall of the city. In noting that most of the bullets and arrowheads were found inside houses, Cahill does not question that bows could be used indoors. On the other hand, he writes; "...it is hard to imagine that a sling would be a very useful weapon within the confines of a private home" (Cahill 1991: 164). Perhaps, he suggests, Olynthian defenders were positioned on house roofs, and were pelted there. Yet this explanation does not entirely make sense, for as Cahill acknowledges, the bullets are "...often found on floor levels rather than in debris above the floor, as they presumably would have been if they had fallen onto the roofs of the houses" (Cahill 1991: 165).

Could slingers, then, have operated effectively even indoors ? Modern perceptions of how the sling works tend to imagine a weapon which requires a lot of room to use. In David-and-Goliath fashion, the slinger is supposed to twirl his weapon several times, either in a horizontal circle above his head, or vertically parallel to his body (Korfmann 1973: 38). Yet ancient testimonia indicate that slingers could be trained to release their missiles after a single rapid underarm swing, as the late Roman military writer Vegetius recommends (Vegetius 2.23; Richardson 1998a: 45). Trajan's Column, likewise, shows soldiers in close-packed formation using slings in underhanded fashion (Ferrill 1985: 25; Korfmann 1973: 35-37). Recent practical experiments in the use of the sling, furthermore, show that an underhanded or 'whip' throw can impart greater acceleration to projectiles than the better-known horizontal or vertical whirls (Richardson 1998a: 44-45). It seems a plausible conjecture that both Macedonian and Olynthian slingers could have been trained in this underarm technique, and thus able to use their slings in confined spaces.[6] Indeed, they must have been so trained, unless we are to fall back on the assumption that the bullets were all dropped accidentally, rather than discharged on purpose.

Key to plan

Arrowheads

- ▲ Type C, inscribed ΦΙΛΙΠΠΟ: no.'s 1907-1912 (6)
- △ Type D, 6th c. – Hellenistic: no.'s 1913-1971 (not plotted on Plan I)
- ▼ Type E, probably limited to 348 BCE: no.'s 1972-2026 (53)
- ▽ Type F, 6th-4th c. BCE: no.'s 2027-2096 (not plotted on Plan I)
- ◭ Type G, Macedonian or Thracian: no.'s 2097-2138 (42)

Slingbullets

- ● Inscribed ΦΙΛΙ/ΠΠΟΥ, all over 28.0g: no.'s 2228-2241 (14)
- ○ Inscribed ΙΠΠΟ/ΝΙΚΟΥ, all over 30.0g: no.'s 2186-2201 (16) *
- ■ Inscribed ΟΛΥ='Ολυ(νθίων), varying from 19.0-30+g: no.'s 2220-2227 (8)
- □ Inscribed ΚΛΕΟ/ΒΟΥΛΟ, all over 25.0g: no.'s 2202-2216 (15)
- ◧ Inscribed ΧΑΛ or similar = Χαλ(κιδέων), only one over 25.0g: no.'s 2260-2264 (5)
- ◑ Inscribed ΠΩΤΑ/ΛΟΥ, all under 22.0g: no.'s 2244-2248 (5)
- ◒ Uninscribed, over 25.0g
- ◐ Uninscribed, under 25.0g
- ⌽ Uninscribed, weight not recorded

} No.'s. 2242-2243, 2249-2251, 2265-2311 (52)

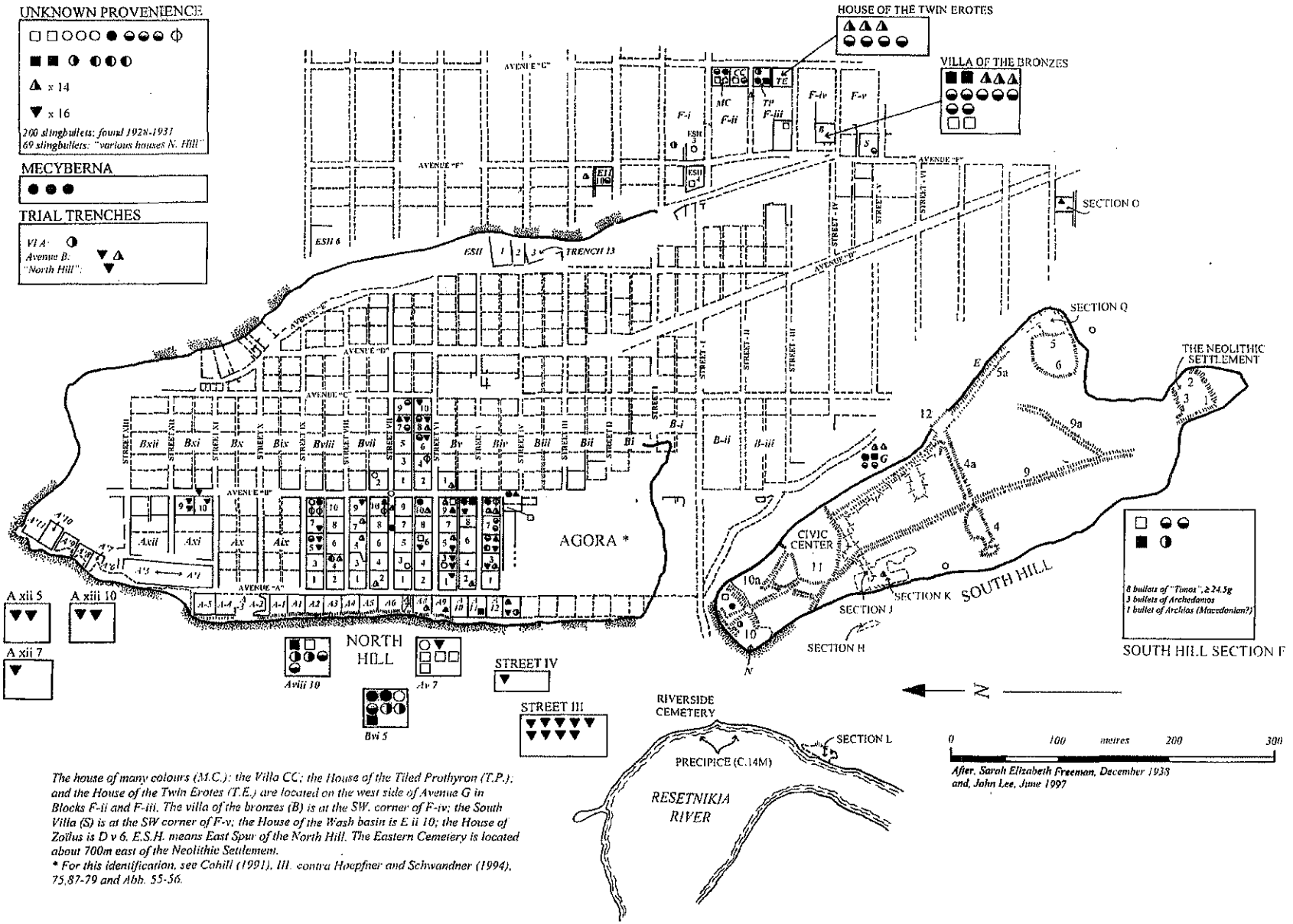
**Hipponikos attested as Macedonian commander: Dem. 9.58*

no.'s = boldface catalogue numbers given in Olynthus X

( ) = total number of plotted objects with this symbol

= approximate line of remaining traces of city wall

[6] Although an American survivalist handbook, Savage (1984: 34) judges the underarm hurl "...perhaps the easiest throw to learn" I admit that my own attempts to master this technique have so far produced more hilarity than accuracy. I am grateful to Doug Scott who kindly provided me with copies of the two articles by Richardson.



The house of many colours (M.C.): the Villa CC; the House of the Tiled Prothyron (T.P.); and the House of the Twin Erotes (T.E.) are located on the west side of Avenue G in Blocks F-ii and F-iii. The villa of the bronzes (B) is at the SW. corner of F-iv; the South Villa (S) is at the SW corner of F-v; the House of the Wash basin is E ii 10; the House of Zoïlus is D v 6. E.S.H. means East Spur of the North Hill. The Eastern Cemetery is located about 700m east of the Neolithic Settlement.

** For this identification, see Cahill (1991), III. contra Hoepfner and Schwandner (1994), 75,87-79 and Abb. 55-56.*

Figure 4. Findspots of selected arrowheads and sling bullets: the position of a symbol indicates only the location of an object in a house or area, not its exact position there. Each symbol represents one object.

Reconstructing the course of events

So slingers and archers, both Macedonian and Olynthian, were shooting at each other inside houses during the fall of the city. Diodoros' story of simple treachery is therefore evidently incomplete. Because so many of the Olynthos missile finds are inscribed, I hoped at first to trace the progress of the Macedonian attack through the missile artifacts, following the precedent set by work at the Custer/Little Big Horn battlefield (cf. Fox 1993). The find spots of the Type C or 'Philip' arrowheads, for example, appear to form a trail along the houses of Avenue B. Could this path of expended missiles mark the progress of Philip's personal troop of archers ? It is a tantalizing suggestion. Unfortunately, these arrowheads show up also in scattered locations elsewhere on the North Hill, as do the inscribed missiles of other Macedonian commanders. What is more, the account of Diodoros provides none of the information necessary to place the finds in a temporal sequence. In other words, we can not tell in what sequence the arrowheads were deposited; possibly they were all expended nearly simultaneously. Nonetheless, by reconciling the bare sketch of Diodoros' narrative with the archaeological evidence and the topography of the site, we can make a tentative reconstruction of the general course of events.

Look at the account of Diodoros again; it breaks the action down into three stages. First, having defeated the Olynthians in two pitched battles, Philip confines them to the defense of their walls. As Plan 1 shows, the surviving traces of city wall - probably of mud brick on a stone foundation - seem to enclose the North and South Hills but not the Villa Section (Garlan 1974: 89, 149). "This suburb," Cahill reminds us, "was only partly explored," so it too may well have been enclosed and defended (Cahill 1991: 161). Even if a permanent wall did not exist in 348, the Villa Section could have been protected by a hastily-built wooden palisade, such as that put up to cover the extramural suburbs of nearby Amphipolis in 424-422 BC (Thucydides V.10). In any case, the North and South Hills seem to have been well-fortified. The excavated walls and gates have long since been backfilled and overgrown, making first-hand examination impossible. The steepness of the two hills, especially on the western side of the South Hill, would have added to the defensibility of the city. For his part, Philip may well have set up camp to the west of Olynthos, in order to control the Retsinika river. This would have deprived the defenders of a major water source, and insured his own troops a steady supply (Cahill 1991: 112; Hoepfner & Schwandner 1994: 80-81). Some water was piped into Olynthian public fountain houses from hills to the north; whether or not these pipes were cut during the siege is uncertain. Houses also had cisterns, fed by rainwater collected from roofs.

The city walls and steep terrain help explain the second stage of Diodoros' account: Philip made repeated and costly, but unsuccessful assaults on the walls (Garlan 1974: 204-205). Probably he attacked at a number of different places. The western side of the North Hill may have been among these, for two reasons. First, the terrain here rises in a long, gentle slope, facilitating the advance of assault troops (cf. Fig. 5). Second, recent excavations in the area

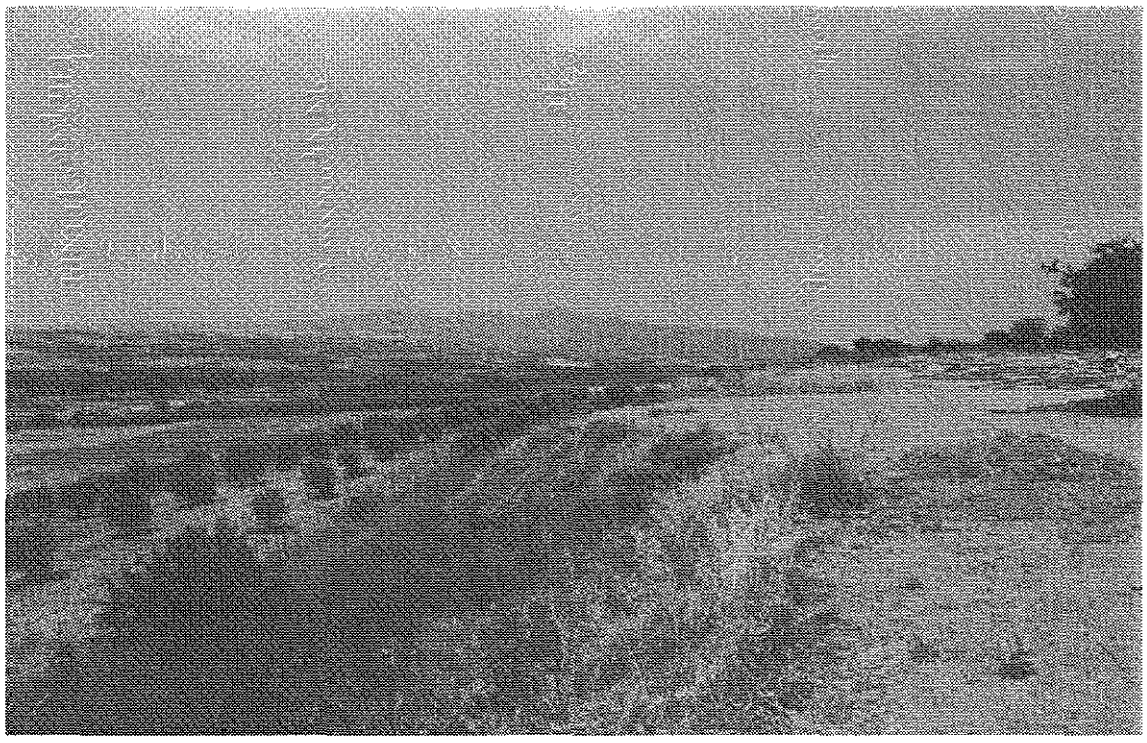


Figure 5. Olynthos: looking north along the west edge of the North Hill. *Photo, John Lee, 1999*

have uncovered numerous arrowheads, perhaps evidence of Olynthian defensive archery (T. Protopsalti *pers. comm.*, 15 June 1999).

Nothing in the archaeological record overtly contradicts these first two stages of Diodoros' narrative. It is with the third stage, as we have seen, that we run into problems. Diodoros writes that Philip corrupted Euthykrates and Lasthenes, chief officials of Olynthos, and captured the city through treachery (Cawkwell 1962: 132-133; Gehrke 1985: 204; McQueen 1995: 123). Given the extensive evidence for missile combat, this must mean only that the Macedonians gained entrance by treachery. In other words, simply getting inside the walls of a city does not automatically cause the surrender of its inhabitants.

Consider, for instance, the Theban attempt to seize Plataia at the outbreak of the Peloponnesian War in 431 BC (Thucydides II.1-2.5). Let into the town at night by traitorous Plataians, the Thebans marched to the *agora* or marketplace. There they grounded arms, issued a proclamation commanding the inhabitants to submit, and waited around. "They did not, however," observes Thucydides (II.2.4), "follow the advice of the party which had called them in, which was to set to work at once and enter the houses of their own enemies." The Plataians, initially stunned by the Theban entry, soon recovered. They set up wagon barricades in the streets and cut holes through mud brick house walls in order to move their forces in secret. Before dawn, the Plataians counter-attacked; the surprised Thebans, confounded by darkness and the city's irregular plan, showered with rocks and tiles by slaves and women on rooftops, were pursued through the city until most had been captured or killed.

What did the Macedonians do at Olynthos that the Thebans did not do at Plataia ? Probably Philip's troops began the same way that the Thebans did - by securing the *agora*. This would be a natural first move, for the *agora* represented the communications and control centre of the *polis* (Gehrke 1985: 241). Indeed, Aeneas Taktikos, in a military handbook written just a few years before Philip's attack on Olynthos, stresses that whenever a city is taken by treachery, its *agora* gets captured first (Aeneas II.1; III.6; IV.2-4; XXIX.6; Whitehead 1990: 10). Aeneas advocates extra guards around the *agora* (Aeneas XXII.3-5) and the blocking up of open spaces in the city: "...making them as inaccessible as possible to those who might wish to start a revolt and begin by taking possession of them." (Aeneas II.1). At Olynthos, the *agora* seems curiously devoid of missile finds - perhaps an indication of the swiftness and surprise of the Macedonian entry into the city.[7]

Like the Plataians, the Olynthians may well have been confused and disheartened by a sudden Macedonian invasion. Perhaps their defenses collapsed as individual citizens, fearful for the safety of houses and families, deserted their posts and ran home. Supporters of Euthykrates and Lasthenes, most of whom would have been richer citizens, could have either escaped easily from their Villa Section homes, or scurried to join the Macedonians. At any rate, probably the Olynthian army retained at least some semblance of cohesion, for the number of excavated projectiles suggests more than sporadic and individual resistance. The recent weapons finds in Avenue B, too, may well reflect an organized defense; perhaps the Olynthians too barricaded their streets in an attempt to seal off the Macedonian incursion. As at Plataia, women and slaves on house roofs could have joined the battle, throwing roof tiles and rocks at attackers below (Barry 1996; Gehrke 1985: 240-241).

Unlike the Thebans at Plataia, though, the Macedonians apparently set straight to work subduing their opponents by force. However much organized and sustained resistance the Olynthians put up, the excavational context of the missile finds suggests that Philip's troops at some point drove the defenders off the streets and into their houses. The Macedonians would then have been faced with the task of securing individual houses, a process which might have been made easier by the regular grid plan of the city.[8] Only in the cramped and irregular areas of the South Hill might the Olynthians, like the Plataians, have had the advantage of familiarity with the urban terrain.

On the North Hill, it is possible the Macedonians were forced to tackle individual city blocks one after the other.[9] Each house would have to be cleared systematically, with attackers entering the central courtyard before fanning out into the adjoining rooms. Partisans of Euthykrates and Lasthenes, accompanying the Macedonians, could well have pointed out in which blocks the attackers were likely to meet determined opposition.[10] The distribution of missile finds in two adjacent blocks furnishes intriguing evidence in this regard (Cahill 1991: 261, 509). The houses of Block A.vi are architecturally the most elaborate in the neighborhood: 8 of the 10 have cement floors, and several boast mosaics. Yet this block produced only three sling bullets and an arrowhead, all of them certainly or arguably Macedonian.[11] Adjacent Block A.v, with only three cement

[7] Cahill (1991: 111 & 367-369) makes a convincing case for locating the *agora* as it appears on Fig. 4. Contra see Hoepfner & Schwandner (1994: 75 & 78-79). Recent excavations in this area have uncovered clay surfaces which may be building floors (T. Protopsalti *pers. comm.*, 15 June 1999).

[8] Note the comment of Aristotle (*Politics* 1330b): "The arrangement of private dwellings is considered to be more pleasant and more convenient for other purposes if it is regularly planned...but for security in war the opposite, as it used to be in ancient times. For that [the unplanned arrangement] is difficult for *foreign* [note emphasis] troops to enter and find their way about in when attacking."

[9] Compare Diodoros' accounts of house-to-house fighting at Motya in 397 BC (14.51.5-7) and Perinthos in 341/0 BC (16.76.1-4).

[10] McQueen (1995: 123): Euthykrates allegedly "...even advised Philip on the amount of money each of his enslaved fellow citizens would fetch on the open market."

[11] Certainly Macedonian: Philip sling bullet (House A.vi.10), Hipponikos sling bullet (House A.vi.3). Arguably Macedonian: Type G Macedonian or Thracian arrowhead, uninscribed sling bullet over 25gms (both in House A.vi.6).

floors in 10 houses, produced 18 missile artifacts, of which 7 are inscribed Olynthian or Khalkidian sling bullets. This evidence does not permit any definite conclusions, but it does seem just possible that the attackers encountered less resistance in Block A.vi because most of the residents were supporters of Euthykrates and Lasthenes; meanwhile the poorer residents one block south fought strenuously to protect their homes.

Naturally, our focus on missiles here should not lead us to forget that much of the fighting at Olynthos must have been hand-to-hand. Indeed, in both armies the number of archers and slingers must have been relatively small - in the hundreds rather than thousands (Hammond & Griffith 1979 II: 430-431). Moreover, as Xenophon (*Cyropaedia* 7.4.15) points out:

> "In conjunction with other forces there are occasions when the presence of slingers is of very effective assistance, but by themselves alone not all the slingers in the world could stand against a very few men who came into a hand-to-hand encounter with them with weapons suited for close combat"

We have already noted that relatively few non-missile weapon artifacts were recovered at Olynthos. Hand-to-hand fighting therefore borders on being archaeologically invisible. Still, the few non-missile artifacts do offer some hints about the practical problems of close-quarter fighting in an urban environment. For example, consider again the spearhead and end, found on the South Hill, which Robinson identified as a Macedonian *sarissa* (Robinson 1941: 412). Now, if a sling or bow might seem difficult to employ in the confines of a private house, the 12 to 15 foot *sarissa* intended for use by troops in massed phalanx formation on level open ground would seem completely unsuited for urban warfare. Yet a large proportion of Philip's troops fought with the *sarissa*, and many of them must have been involved in the house fighting at Olynthos (Hammond & Griffith 1979 II: 418-428). We may perhaps imagine a *sarissa*-armed phalansite, faced with the need to fight indoors, breaking his pike in half. The spear end and several feet of shaft could be discarded, leaving the soldier with a short and manageable spear. Xenophon's mention of slingers working in conjunction with other forces helps us imagine a sort of 'combined arms' process at work in the Macedonian assault. Perhaps groups of slingers were paired with infantry units for mutual support - the slingers could cover the phalansite as they entered house courtyards and help flush recalcitrant defenders from interior rooms. The infantry, armed with shortened spears or swords, could in turn protect the slingers and take care of any hand-to-hand fighting which followed entry into a house.

Whatever weapons their men carried, commanders on both sides would have faced sometimes intractable tactical problems. Certainly soldiers could form up in close order on the broad avenues, but elsewhere, in the narrower streets and inside houses, all semblance of formations would have disappeared. Unit cohesion may have suffered, as troops ended up mixed together here and there throughout the city. Officers must have had difficulty maintaining control of their men, especially after a long and costly siege; probably the Macedonian soldiers were in no mood to show mercy to the defenders. The prospect of booty, as well, likely drew many attackers away from the fighting (Cahill 1991: 259-262).

We can not say for certain how long the fighting inside Olynthos lasted - perhaps a day at most - but at some point the defenders ceased to be numerous or organized enough to offer further resistance. Those who could escaped the dying city and fled into exile. Many others, now prisoners of the Macedonians, faced the degrading prospects of slavery.[12] Philip, secure in his victory, proceeded to plunder the ruins of Olynthos. Perhaps he compelled Olynthian prisoners to remove and bury or burn the bodies scattered in streets and houses throughout the city, for the excavations unearthed no human remains (Cahill 1991: 165). Finally, the Macedonians demolished the city, knocking down mud brick house walls and trampling fallen tiles into the streets.

Battlefield archaeology and Greek urban warfare

So, by reconciling archaeology with the account of Diodoros, it seems clear that the fall of Olynthos was more than a matter of simple treachery. Admittedly, the limits of both textual and material evidence mean that the reconstruction offered above must remain tentative. At the very least, we can point to several worthwhile conclusions.

To begin with, it is important to recognize that the treachery of Euthykrates and Lasthenes represented only the initial step in the capture of Olynthos. Thucydides, of course, in his description of the Theban attack on Plataia, makes clear that simply getting inside a city does not guarantee its capitulation. In the particular case of Olynthos, though, historians have tended to focus on attendant political events, including the relations between Philip and Athens and internal debates at Athens itself, rather than on the mechanics of the city's capture. In most accounts, therefore, how Olynthos actually fell merits either brief or no consideration. Granted, Diodoros does not give the historian much to work with. Yet if, as Cahill argues, we are to move away from a "...sterile view of a Greek city" to an understanding of the life of Olynthos, we should attempt to recover as much of the city's existence as possible (Cahill 1991: 384). Certainly its political relationships deserve study, as do the dimensions of everyday behaviour in its households. But we should also search for a better understanding of how Olynthos died. Hopefully this essay provides at least a step in that direction.

Next, the evidence from Olynthos suggests that slingers (and archers) can indeed operate in confined spaces. This

[12] Philip allegedly distributed Olynthian women captives as gifts to his friends and supporters: see Demosthenes XIX.194-198 & 305-310.

represents an important addition to understanding the value of these light troops in ancient warfare. Here there exist a number of avenues for continued research. The renewed excavations at Olynthos may eventually help clarify and solidify the pattern of sling bullet distribution. Further practical slinging and archery experiments, perhaps conducted in the confines of a mock Olynthian house, could help define more exactly how missile weapons might have been used in an ancient urban environment.

Finally, a few general observations. The subject of urban warfare in ancient Greece seems to rest between two distinctly defined areas of inquiry. On one side there lies the study of pitched battle between armies on open ground usually devoid of major obstacles. Traditionally this sort of struggle has been approached through literary sources, sometimes with the aid of topographical autopsy. The ideal battle neatly proffers itself for inspection on a schematic diagram of manoeuvre, attack, and retreat. On the other side lies siegecraft, the study of which finds much of its expression in the examination of physical remains - fortifications, catapult fittings, and so on. Investigations of siegecraft thus tend to end just behind the city walls, the defense and/or overcoming of which, after all, usually form the main object of discussion. Urban warfare fits comfortably into neither category, for it represents pitched battle which cannot be neatly diagrammed, and witnesses siege-like combat *within* city walls. This may explain why fighting of the sort which took place at Olynthos has been so far relatively neglected.[13]

Ancient urban combat, though, deserves more attention. Precisely because it falls between the neat categories of pitched battle and siege, the study of city fighting helps create a more wide-ranging and complete understanding of Greek warfare. It offers the opportunity to reconcile diverse literary, archaeological and topographical evidence which may at first glance seem contradictory. And, it allows us to conceive the ancient city as a space for military, as well as social, economic and political action. Perhaps the present essay will spur further interest in this fascinating and understudied topic.

Acknowledgements

Many thanks to everyone who helped in the research and writing of this essay. Nick Cahill, Barry Strauss and Barbara Tsakirgis provided valuable comments and suggestions on earlier drafts. Fani Athanasiou and Dimitris Grammenos of the Archaeological Ephoria of Thessaloniki made possible my June 1999 visit to Olynthos. Tania Protopsalti of Aristoteles University, Thessaloniki generously took time to discuss her recent excavations at the site. Tony Pollard graciously permitted me to be the sole ancient historian at the Fields of Conflict conference and many conference participants offered helpful and insightful feedback on my presentation. Any errors or omissions are of course my own. Thanks also to the History Department of Cornell University, which funded my travel to the Glasgow conference. Finally, this essay is dedicated, *con amor y cariño*, to Alice Nash.

[13] Gehrke (1985: 237-245) does provide a short discussion, based on literary sources, of Greek intra-urban warfare. See also Isserlin & du Plat Taylor (1974: 75-78 & 87-91) for brief comments on urban combat at Motya in Sicily.

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