

Roof Tiles and Urban Violence in the Ancient World

William D. Barry

THE ROOF TILE, besides its conventional use for protection against the elements, frequently served as a projectile in urban violence. Thucydides (2.4) provides the first mention of this secondary function—the pelting of the Thebans who had invaded Plataea at the outbreak of the Peloponnesian War. Perhaps the most historically significant roof tile, hurled by an old woman at the king of Epirus, felled Pyrrhus during his assault on Argos in 272 B.C. (Plut. *Pyrrh.* 34.2). Plutarch claims that the tile knocked Pyrrhus unconscious just as he was attacking the old woman's son. The king was subsequently dragged off and beheaded.¹ Like the pitchfork or the shepherd's crook for the peasant, the roof tile was for the urban dweller an important weapon in an otherwise limited civilian arsenal. For the historian, the roof tile as a weapon offers a revealing perspective on the experience of urban violence in classical antiquity. Three questions will be addressed here: under what circumstances were tiles thrown? how effective were they as weapons? which urban inhabitants threw them? The evidence will be considered down to *ca.* A.D. 500.

The Ancient Roof Tile

The earliest evidence of terracotta roof tiles dates to the third millennium B.C. The "House of Tiles" at Lerna is only the most

¹ See also Paus. 1.13.8; Polyæn. *Strat.* 8.68; Strab. 8.6; Ov. *Ib.* 301f; Malalas 208.19; James Joyce, *Ulysses*, ed. H. Gabler (New York 1986) II 48. The ancient roof tile as a weapon even appears in American popular fiction: L. Wallace, *Ben Hur: A Tale of Christ* (New York 1880) 122f, where a roof tile accidentally falls, kills the new *procurator* of Judaea, and precipitates a barrage of tiles against the occupying Romans. In the 1959 William Wyler film version, Hollywood preserves the falling tile but not the consequent riot.

famous site. Bronze Age tiles have also been discovered at Tiryns, Asine, and Malthi. But the roof tile, along with the art of writing, palace complexes, and a sophisticated, multi-tiered bureaucracy, disappeared after the Mycenaean collapse. Either the technology for making tiles was lost or the need for tiles diminished; roofs were probably thatched. Some 500 years later, between 675 and 650 B.C., most likely as the result of denser habitation, the process of synoecism, and concomitant concern about the spread of fire, terracotta roof tiles re-emerged, first at Corinth and Isthmia and, by 600 B.C., throughout most of the Greek world. The technology reached Sicily and southern and central Italy by *ca* 650.²

The shape and size of the ancient Mediterranean roof tile varied by region and period, but three basic types can be distinguished. Broad, rectangular pan tiles provided the roof's tile-foundation and the greatest protection from the elements. Corinthian pan tiles, the older of the two main ancient styles, were flat with raised edges along their two long sides. They ranged from 36 to 117 cm. in length and 20 to 85 cm. in width. Laconian pan tiles, the other standard design, distinguished by a gentle concave curve centered on the tile's long axis, were 68–120 cm. by 40–59 cm. Pan tiles lay lengthwise down the slope of the roof and rested on a wood foundation. At its lower end, the pan tile tapered in width and a section of its underside was cut out to permit overlapping and a snug fit with the tile below it (Wikander 208ff).

A second type of roof tile—long, narrow, gable-shaped (Corinthian) or semi-cylindrical (Laconian) cover tiles—straddled the seam between adjacent pan tiles, thus protecting the structure almost completely from the weather. Cover tiles, typically equal in length to the pan tiles, varied in width (Corinthian: 15–30 cm.; Laconian: 12–38 cm.; Wikander 210f). Like the pan tile, the cover tile overlapped the tile below. Different styles of pan and cover tiles were combined in one of

² A useful overview of roof tiles in O. WIKANDER, "Ancient Roof-Tiles—Use and Function," *OpAth* 17 (1988: hereafter 'Wikander') 204ff; cf. his "Archaic Roof Tiles: The First Generations," in N. Winter, ed., *First International Conference on Archaic Greek Architectural Terracottas* (=Hesperia 59 [1990]) 288f; "Archaic Roof-Tiles: The First (?) Generation," *OpAth* (1992) 151–61; "Roman and Medieval Tile-Roofs: Evidence from Representations," *OpRom* 17 (1989) 191–203; A. McWhirr, ed., *Roman Brick and Tile: Studies in Manufacture, Distribution and Use in the Western Empire* (=BAR Int. Ser. 68 [Oxford 1979]). Tiles were also used on walls: Thuc. 3.22.4; Liv. 40.28.10; Vitruv. *De Arch.* 2.8.18; lack of roof tiles was a sign of 'barbarity': Tac. *Ger.* 16.

three ways: Corinthian pan with Corinthian cover, Laconian with Laconian, and the Sicilian (or 'Hybrid') system of Corinthian pan and Laconian cover (see Figs. 1-2).³

Ridge tiles, the third major type, covered the gap between the uppermost tiles on either side of a pitched roof. Sometimes of special shape and design, and ranging up to a meter in length, they might also simply be pan and cover tiles turned to a ridge-tile function.⁴ Other types of terracotta tiles include antefixes, simas, and skylights; single piece combinations of pan-cover tiles were also not uncommon. All these tiles, *ca* 1.2 to 4 cm. thick,⁵ could be used against targets on the ground, but the tiles of choice were probably the pan and cover, given their abundance and proximity to the street.

The weight of roof tiles naturally varied according to type and dimensions. Combination pan-cover tiles recovered from the 'Temple Hill' in Corinth weigh *ca* 30 kg. (*ca* 66 lbs.); pan-cover tiles from the Burdur Museum (Turkey) are *ca* 22 kg. (40 lbs.); and pan tiles from Acquarossa weigh up to 14 kg. (*ca* 30 lbs.).⁶ On most roofs their weight kept the tiles in place, but occasionally, especially in archaic Greece, they rested on a bedding of clay.⁷ Numerous reports of both tiles and stones thrown from a roof suggest that the latter were sometimes placed on tiles to affix them more securely—a technique still in wide use in Mediterranean countries.⁸

³ Wikander 213; W. B. Dinsmoor, *The Architecture of Ancient Greece* (New York 1973) 43f.

⁴ Wikander 213; see also T. Rook, "Tiled Roofs," in McWhirr (*supra* n.2) 298.

⁵ For examples see W. Willson Cummer, "Phrygian Roof Tiles in the Burdur Museum," *Anadolu* 14 (1970) 36; G. P. Stevens, "A Tile Standard in the Agora of Ancient Athens," *Hesperia* 19 (1950) 176, 178.

⁶ Typically, the weight of roof tiles is not given in archaeological reports, but see Cummer (*supra* n.5) 41; O. Wikander, *Acquarossa* VI.2 (Stockholm 1993) 130; H. S. Robinson, "Roof Tiles of the Early 7th c. BC," *AM* 99 (1984) 59.

⁷ Wikander, 207f; Rook (*supra* n.4: 295), who has determined that tiles without any adhesive begin to slip when a roof is pitched at 35° to 40°. Most Greek and Roman roofs were pitched at no more than 20°: *cf.* Stevens (*supra* n.5) 178.

⁸ See below for references to the use of stones in riots and urban warfare. Ti. Gracchus was hit in the foot by a falling stone dislodged from the roof of a house by two fighting crows (Plut. *Ti. Gracch.* 17). On the similarity between ancient Olynthian and modern roof tiles, see D. M. Robinson and J. W. Graham, *The Hellenic House* (=Olynthus VIII [Baltimore 1938]) 233.

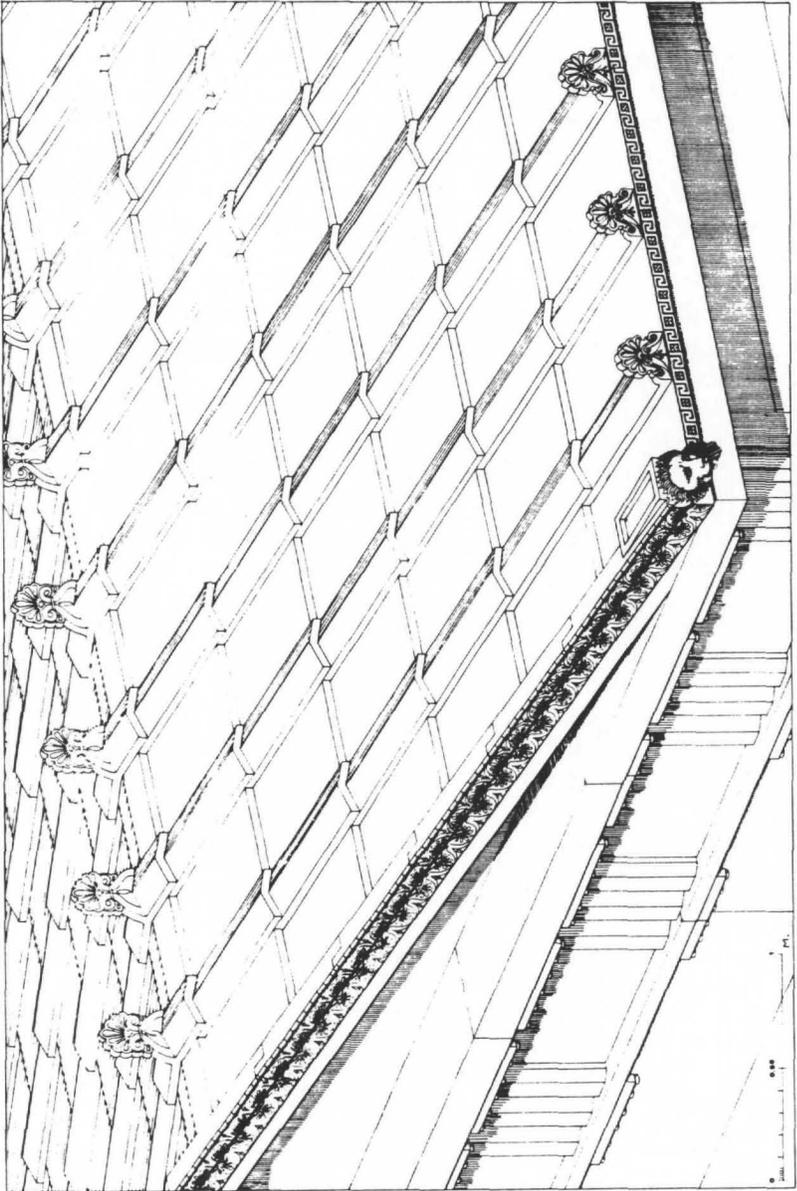


Fig. 1. Corinthian tiles: roof of the Megarian Treasury at Olympia (after N. A. Winter, "Defining regional styles in Archaic Greek architectural terracottas," *Hesperia* 59 [1990] 21).

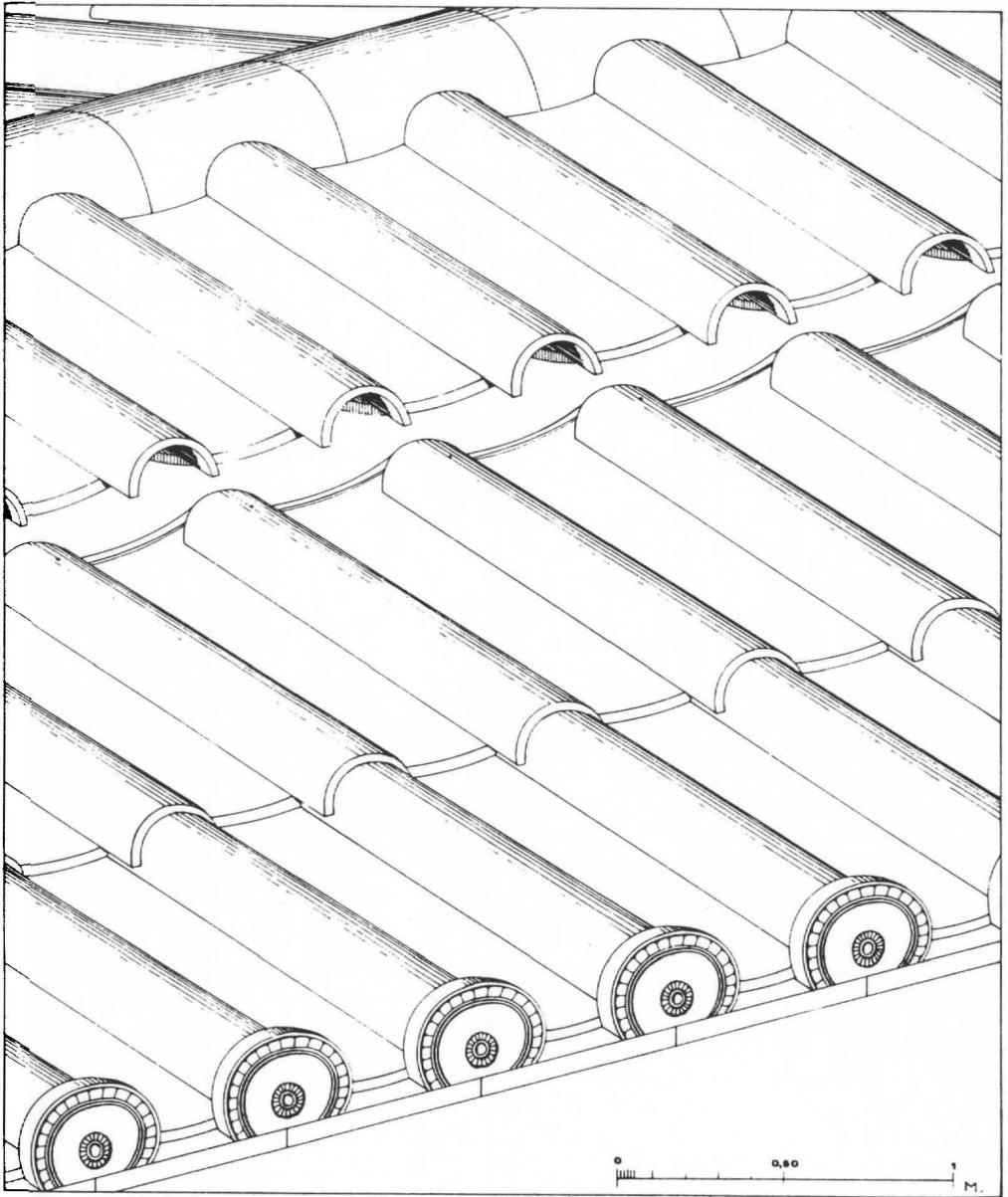


Figure 2. Laconian tiles: roof of the Heraion at Olympia (after *Hesperia* 59 [1990] 15).

Because tiles simply rested on the roofs, urban combatants, perhaps singly or with the help of a companion, could easily strip them off. If they found the tiles too heavy or awkward to hurl, they might either break them into smaller, more manageable chunks or just drop them on the people below. Cracked or broken tiles were not uncommon (breakage is, in fact, a major disadvantage of tiled vs thatched roofs).⁹ The old Argive woman in her battle with Pyrrhus managed a tile by herself, although she used both hands to throw it (Plut. *Pyrrh.* 34.2).

Tiles were relatively expensive. A single tile might cost 1.5 days' wages.¹⁰ Nevertheless, most urban structures, both private and public, even those in poorer districts, had tiled roofs by the fifth century B.C..¹¹ The state occasionally covered the cost and replacement of roof tiles, not so much to provide potential weapons for the people as to inhibit the spread of fire from roof to roof. Tiles were also sometimes scavenged from public buildings (Liv. 45.28.10) and, at least in the Roman period, occasionally served as the currency of patronage (Mart. 7.36).¹² In any event, the use of roof tiles in urban warfare or riots could be quite costly for combatant and community, and resort to this weapon no doubt indicates that the stakes were

⁹ Wikander 207. Ammianus (26.6.16) refers to the use of "broken tiles" (*tegularum fragmentis*) as weapons. Plautus (*Mostell.* 108f; *Mil.* 501–505) indicates that storms and chasing monkeys on a roof could result in broken tiles. Cf. *Rud.* 78, 87; Vitruvius (*De Arch.* 2.8.18).

¹⁰ Wikander (206), using epigraphical evidence (ca 350–180 B.C.), puts the price at 2.5 obols to 1 dr. 3 obols for one tile and 2.5–3 dr. for two tiles. Cato (*Agr.* 14.3ff) prices tiles at one sesterce apiece with discounts for broken tiles. Dio (46.31.3) reports that in 43 B.C. senators were assessed four obols for every roof tile on houses they owned or leased out to raise money for the war against Antony.

¹¹ In general see Wikander, "First Generations" (*supra* n.2) 285–90 and "First (?) Generation" (*supra* n.2) 151–61: the Greeks were somewhat slow (*i.e.*, not until the classical period) to transfer tiles to domestic structures. The evidence for tile-throwing accords well with this suggestion: most incidents date from the fifth century B.C. or later (see Appendix). For use even in poorer areas, see *e.g.* Robinson and Graham (*supra* n.8) 10f, 232–36; Wikander (*supra* n.6) esp. 161f; Juv. 3.201. Sardis (Hdt. 5.101) and Massilia (Vitruvius *De arch.* 2.1.5) were among cities that did not use tiles.

¹² Diod. 14.116.8; Liv. 5.55.3. As the sponsor of the construction of some public buildings, the state naturally had an interest in the tile industry. A possible indicator of such was the erection of a tile-standard in marble near the civic offices in the southwest corner of the Athenian agora: see Stevens (*supra* n.5); Plut. *Mor.* 811c. On tile production in the Roman Empire see McWhirr (*supra* n.2).

quite high for the participants. The Selinuntines in the late fifth century B.C. ripped up all the tiles from several roofs in defense against the Carthaginian invasion (Diod. 13.56.7), only to have their city ultimately sacked. The Plataeans in 431 B.C. were defending their lives and the autonomy of their polis against the Thebans (Thuc. 2.4), and in 396 B.C. the Veientines defended themselves with roof tiles against Roman invaders who ultimately razed the city (Liv. 5.21.10).

Accessibility and Effectiveness of the Roof Tile as a Weapon

Access to the tiles was easy. In addition to watching and participating in urban violence, people on roofs slept (*Od.* 10.558), kept guard (*Aesch. Ag.* 1ff), conducted festivals (*Ar. Lys.* 387–98), spied on lovers (*Plaut. Mil.* 156–60), watched processions through the city (*Dio* 62.4.2), and even participated in political assemblies (*Plut. C. Gracch.* 3.1). Rarely do the sources mention how any one climbed onto or down from a roof. The silence suggests that the ascent and descent were unremarkable. Most probably, people climbed out of windows in instances where roofs were terraced or, perhaps more often, used ladders for access from the street or from top floors through skylights.¹³ The dimwitted and drunken Elpenor of the *Odyssey* fell to his death from a roof when “he forgot to go to the long ladder” (10.558: ἐκλάθετο φρεσὶν ἦσιν ... ἰὼν ἐς κλίμακα μακρὴν), and Strepsiades ordered Xanthias to “fetch a ladder” (κλίμακα λαβὼν ἔξελθε) and climb up to the roof of the Thinkery in order to expedite its destruction (*Ar. Nub.* 1485–89). Ladders were commonly used in the ancient city, not only to reach the upper stories of dwellings, but also to gain access to a second floor gallery of a temple or to the tops of walls and towers.¹⁴ They are the only piece of household equipment named in a Roman law prohibiting assistance to thieves (*Dig.* 67.2.55 [54].4). In some instances, an external staircase also might have risen to the roof.¹⁵

¹³ *Ar. Vesp.* 138–51; Cicero (*Phil.* 2.45) might also refer to movement through skylights. On skylights see O. Wikander, “Ὀπαία κεραμίδες: Skylight Tiles in the Ancient World,” *OpRom* 14 (1983) 81–99.

¹⁴ Dinsmoor (*supra* n.3) 106; Thuc. 3.23.

¹⁵ Liv. 36.37.2 and *S.H.A., Pert.* 1.2 indicate that animals (two cows and a horse) were able to ascend to the roof—by a stairway in Livy.

Once on the roof with tile in hand, the urban dweller could expect to play a part in urban violence only if the location of the action on the ground was within range of a dropped or thrown tile. In Pyrrhus' attack on Argos Plutarch does not mention the use of tiles while the battle raged in the open areas of the city (*Pyrrh.* 34.2). Pyrrhus was struck by a tile only after he and his army had retreated into the narrow streets of Argos. Similarly, during their attack on Sparta (195 B.C.), the Romans—pelted by tiles in the narrow streets—achieved success only after they had pushed their way into wider areas (Liv. 34.39.5–12). The effectiveness of the roof tile as a weapon was probably also hampered by the unevenness of roof levels, the slope of the roof, and gaps between buildings. Although these features did not necessarily prevent movement on roofs, it is unlikely that tile-throwers could always keep pace with the potentially more rapid action of a disturbance or battle on the level streets below. The Plataean tile-throwers came into play only in one section of their city and were not part of the pursuit and final destruction of the invading Thebans (Thuc. 2.4). In bad weather, mobility was further restricted and even treacherous. Pausanias (4.21.6) reports that a heavy rain prevented urban combatants from mobilizing on roof tops during a Lacedaemonian attack on the acropolis of Eira.

Because of the tile-throwers' restricted mobility and the tiles' limited range, tile-throwing was probably also less effective in riots than in urban warfare. In the latter, one military force sought to defeat another and to capture the entire city (or at least a portion of it). Accordingly, an attacking force had to conduct its offensive in narrow streets—and thus within tile-range—when the defending force had positioned itself there (e.g. Selinus, Diod. 13.56.7; Argos, Plut. *Pyrrh.* 34.2; Sparta, Liv. 34.39.5–12). Indeed, it is not difficult to imagine that defensive positions were chosen in order to take advantage of the tile-barrage. Battle in confined areas also might very well be protracted because of the difficulties of encirclement (e.g. Paus. 4.21.8) and consequently permit sufficient time for tile-throwers to deploy on roofs.¹⁶

In riots, on the other hand, targets were much more limited, tended to be in public areas away from the narrow streets, and

¹⁶ Cf. D. Schaps, "The Women of Greece in Wartime," *CP* 77 (1982) 195. On Greek urban warfare in general see J. Ober, "Hoplites and Obstacles," in V. D. Hanson, ed., *Hoplites: The Classical Greek Battle Experience* (London 1991) 180–88.

thus not in easy range of thrown tiles. In the most violent years of the Late Republic, for example, the vast majority of disturbances occurred in the Forum, the Campus Martius, the theaters, or on the Capitol.¹⁷ The same pattern exists for the Principate.¹⁸ Moreover, as the targets in these areas also tended to be public (e.g. the Curia), their defense fell naturally to well-armed guards with more effective methods for dispersing a crowd. Tiles were, of course, used in riots, perhaps most often when violence spread to residential areas (e.g. Philo *Leg.* 127.5; *Amm. Marc.* 27.3.8). It remains significant, however, that most recorded instances of tile-barrages occur in a context of warfare (see Appendix). It is unlikely that the pattern is the result of inadequate reporting: both Appian and Cicero were attentive chroniclers of popular violence in the Late Republic, and yet Appian mentions tile-throwing only once, and Cicero not at all. Late Imperial sources are also relatively silent about tile-barrages in riots, despite good evidence for popular violence in Late Antiquity.¹⁹

When, however, tiles were used in urban violence, how destructive were they? A 3-kg. fragment (ca 6.5 lbs.) of a tile dropped from 6 m. (ca 20 ft) will reach a speed of 10.8 meters per second (ca 25 mph.) before contact with its target in the street. The kinetic energy upon impact of this hypothetical tile is ca 175 joules (J). For a comparative perspective, the kinetic energy of a baseball traveling ca 100 mph. (the speed of a major league fast ball) is only ca 150 J. A 3-kg. tile fragment dropped from a 15 m. height (ca 50 ft or e.g. from the roof of a Roman *insula*) will reach a speed of just over 17 meters per second (ca 38 mph.) before impact. The kinetic energy of this tile is ca 438 J or about that of a baseball at ca 170 mph., well over the speed of

¹⁷ P. P. J. Vanderbroeck, *Popular Leadership and Collective Behavior in the Late Roman Republic (ca. 80–50 BC)* (Amsterdam 1987) 218–67.

¹⁸ E.g. Curia: Dio 54.1.1ff; Tac. *Ann.* 3.14, 14.42; Suet. *Calig.* 14; theater: Dio 56.47.2, 57.14.10; Tac. *Ann.* 1.54, 77; Capitol: Tac. *Ann.* 14.61; Forum: Tac. *Ann.* 12.43; for a useful overview of violence in the early Principate see Z. Yavetz, *Plebs and Princes* (Oxford 1969) 24–30.

¹⁹ See e.g. A. Cameron, *Circus Factions* (Oxford 1976) for theater and circus violence; C. J. Haas, *Late Roman Alexandria: Social Structure and Intercommunal Conflict in the Entrepot of the East* (forthcoming). The more frequent use of tiles in warfare than in riots may also help to explain the greater number of tile-throwing incidents in the Greek and Hellenistic eras than in the Roman Imperial era, i.e., when Rome had brought greater international stability to the Mediterranean.

a home run ball as it flies off the bat.²⁰ Falling or hurled tiles certainly did not always kill, but, like a fast pitch or home run ball, they very likely disabled and even sometimes permanently crippled a combatant in the street.²¹ Mancinus, a Roman envoy to Asia in the middle of the second century B.C., survived a hit in the head from a falling tile, but, Diodorus adds, "the greater part of the bones were taken out" (32.20, τὸ πλεῖον μέρος τῶν ὀστέων ἐξηρημένως, Polyb. 36.14.2). Given the attested damage of this accidental tile and taking into account the energy of a falling 3-kg. tile, one need hardly doubt the plausibility of Plutarch's report of Pyrrhus' demise, especially if the hurled tiled weighed closer to 15 or 20 lbs., and, unlike a baseball, had jagged edges and sharp corners.²²

The broader tactical value of roof tiles in an ancient urban battle or riot is also beyond doubt. At Plataea, Thucydides (2.4) notes that during part of the battle of 431 B.C., some Plataeans on the roof tops hurled stones and tiles down upon the enemy. Aeneas Tacticus (2.6) tells essentially the same story and gives, like Thucydides, at least some credit for the eventual Plataean victory to the tile-throwers. Diodorus (12.41.6) goes a bit further: the Thebans held out against the Plataeans *until* they were pelted with the roof tiles, at which point they were routed.

A roof-tile barrage was also tactically significant at Sicilian Selinus in 409 B.C., when the Carthaginian general Hannibal was thwarted in the narrow streets so long as the enemy threw tiles at his army (Diod. 13.56.7f). The tide of battle turned only when

²⁰ K (kinetic energy, in joules) = $1/2 \times m$ (mass) $\times v$ (speed)²; speed (in m/s) = $\sqrt{2 \times g}$ (acceleration = 9.8 m/s^2) $\times H$ (height). The weight of a baseball is 145 g. I thank Professor Andrew Rex of the University of Puget Sound for assistance in these calculations.

²¹ On the seriousness of baseball injuries see H. Seymour, *Baseball: The Golden Age* (Oxford 1971) 88; D. Q. Voigt, *American Baseball 3* (University Park 1983) 261. In 1920 Ray Chapman, the shortstop for Cleveland, was hit in the head and killed by a 'submarine ball' pitched by Carl Mays. Tony Conigliaro was nearly killed and had his career ended when he was struck in the eye by a fast ball. Pitcher Don Drysdale retired from the game when part of his ear was ripped off by a line drive. Dizzy Dean never recovered his pitching greatness after being struck in the foot by a 'shot up the middle'. Broken fingers and serious testicular injuries are also not uncommon in baseball, particularly for catchers struck by foul tips.

²² Plutarch (*Mor.* 241B.5) suggests that roof tiles were lethal even if thrown at ground level; see also Philo *Leg.* 127.5; Lucian *Charon* 6.

the Selinuntines had stripped up all the tiles of the surrounding roofs and thus exhausted their supply of ammunition.

In 109 B.C. the people of Vaga in north Africa defeated an unsuspecting Roman garrison, who "were unable to guard against the double-headed evil" (Sall. *Iug.* 67.1f, *ita neque caveri anceps malum ... posse*), namely one contingent of Vagenses fighting in the street with more conventional weapons and another on rooftops who "eagerly threw stones and whatever else the place provided" (*saxa et alia quae locus praebebat certatim mittere*).

A barrage of roof tiles also drove Sulla's forces back during his attack on Rome, until he ordered the torching of houses situated around his troops (Plut. *Sull.* 9). Finally, several centuries later, in one of the few narratives of roof tiles used in riots, Ammianus Marcellinus (27.3.8) describes a popular attack on the Roman prefect Lampadius, who had seized without compensation various construction materials. As the crowd approached his house, he was saved only because his friends and neighbors climbed to their roofs and drove off the rioters with a hail of stones and tiles. At the very least, a barrage of roof tiles would divert the enemy's attention, thus giving an advantage to the more direct assault by one's comrades on the ground.²³

The tile was also effective in mopping up operations, when an enemy lodged in a building was an easy target. Towards the end of the Corcyraean civil war, members of the oligarchic party, having failed to establish their rule, sought refuge in one of the town's buildings. They were extricated only when members of the popular party climbed to the roof of the building, stripped up the tiles and began pelting those within and shooting arrows down upon them (Thuc. 4.48).

Similarly, in 370 B.C. the Mantineans assisted the Tegeans when a dissident faction sought refuge in the temple of Artemis outside the city's walls. Both Mantineans and Tegeans climbed onto the roof of the temple, ripped up the tiles, and began throwing them upon the Tegeans trapped inside (Xen. *Hell.* 6.5.9). The barrage was successful: the Tegeans within the temple promptly surrendered and were led out for execution. Finally, in the political violence of 100 B.C. at Rome, a crowd "tore the tiles off the senate house and threw them until they killed a quaestor, a tribune, and praetor" who had been locked up in the Curia (App. *B.Civ.* 1.4.32, τὸν κέραμον ἐξέλυον τοῦ βουλευτηρίου

²³ See also Hdn. 1.12.8; Paus. 4.29.5; Polyæn. *Strat.* 8.69; Tac. *Hist.* 3.30.

καὶ ... ἔβαλλον, ἕως ἀπέκτειναν, ταμίαν τε καὶ δήμαρχον καὶ στρατηγόν). In short, whether used on the enemy in the street as a vertical flanking movement or merely in the final stages of a disturbance, as illustrated in the attacks on refugees in buildings, the roof tile was an effective weapon in urban violence.²⁴

The Tile-Throwers

During the Second Messenian War in a fierce battle for the acropolis of Eira, Messenian women intended to throw tiles on the attacking Spartans but were prevented from climbing to their roofs by a severe storm (Paus. 4.21.6). The story is probably apocryphal, not only because Pausanias claims to know the mind of Messenians dead some 500 years, but, more critically, because roof tiles were not widely used in Greece until after the mid-seventh century B.C., the putative date of the Second Messenian War.²⁵ The story is, then, all the more significant for revealing Pausanias' expectations about roof tiles in urban violence, especially warfare, and about the identity of tile-throwers. His assumption that the women planned to throw tiles was probably rooted in more recent and reliably attested episodes of urban violence.

During the Theban invasion of Plataea, the Plataean tile-throwers according to Thucydides (2.4) and Aeneas Tacticus (2.6) were women and slaves; Diodorus (12.41.6) says slaves and children. Thucydides again notes (3.74) tile-throwing women in the Corcyraean civil war. In the Carthaginian attack on Selinus, Diodorus states (13.56.7) that women and children threw tiles from the roof tops, and Polyaeus (*Strat.* 8.69) reports that once Acarnanian women, standing on their roofs, pelted invading Aetolians with stones and tiles. Pausanias, a few chapters after the events at Eira, relates (4.29.5) that *ca* 214 B.C. Messenian women helped drive off a Macedonian attack on Ithome with a

²⁴ As implied above, the best counter-tactic to a roof-tile barrage was probably to avoid the narrow spaces of the city—not always easy, as tile-throwers and their comrades in the street were often on the defensive and thus had more control over the location of the fighting. The Roman *testudo*, described by Polybius (28.11) as a “sloping tiled roof,” was a moderately successful response to a tile barrage: Liv. 34.39.5–12; Amm. Marc. 26.6.16. Fire was also an effective counter-measure: Plut. *Sull.* 9; Hdn. 7.12.5f.

²⁵ Wikander, “First Generations” (*supra* n.2) and “First (?) Generation” (*supra* n.2).

tile-barrage. As noted earlier, a woman dropped a tile on Pyrrhus' head at Argos (Plut. *Pyrrh.* 34.2) and Polyaeus (*Strat.* 8.68) reports that Argive women generally participated in the tile-barrage against Pyrrhus and his troops.

The only two examples of a tile-barrage in urban warfare in Early Republican Italy also feature female tile-throwers. In C. Marcus' attack on the Volscian town of Corioli, women climbed atop their roofs and pelted the Roman invaders with tiles (Dion. Hal. *Ant. Rom.* 6.92.6; cf. Plut. *Cor.* 9). Like Pausanias' Messenian-Spartan battle, one may doubt the historicity of the story, but the report is significant in revealing expectations of the rôle of women in urban warfare. In the Roman attack on Veii in 396 B.C., Veientine women and slaves threw tiles on their assailants (Liv. 5.21.10).

At Rome there is no explicit evidence of tile-throwing women, children, and slaves. Before the rioting and civil wars of the Late Republic, this silence is not significant, as tile-throwing in the city was apparently rare, if it occurred at all (see Appendix). Except for the Gallic invasion of 390 B.C. (for which no tile-throwing is attested), Rome was always the conqueror, never the conquered. (The Late Republic and Empire will be discussed below.) The frequency with which women elsewhere in the western Mediterranean threw tiles during the Republican era is difficult to assess. Sallust (*Iug.* 67.1) offers an example that at least admits the possibility: the women and boys at Vaga mentioned earlier. No doubt most adult freeborn males, absent in these references to tile-throwing, were fighting in the streets as citizen soldiers in defense of their city or faction.²⁶

The predominance of tile-throwing women, children, and slaves down to the second century B.C. (11 of 14 cases; see Appendix) is noteworthy. It demonstrates that those often considered the weakest members of the Graeco-Roman world could apparently play a significant rôle in urban warfare (cf. Schaps [*supra* n.16] 195f). This irony probably attracted the sources' attention to the composition of the tile-throwing crowd. Sallust was impressed that at Vaga "the strongest men

²⁶ Ober (*supra* n.16) 185f; Y. Garlan, *War in the Ancient World*, tr. J. Lloyd (London 1975) 86–93, provides an especially useful overview of citizen armies of the Greek, Hellenistic, and Roman Republican worlds; on the Greek and Hellenistic armies in particular, see Garlan 174ff and "War and Siegecraft," *CAH*² VII.1 (1984) 354; A. M. Snodgrass, *Arms and Armour of the Greeks* (London 1967) 59; on the Romans, e.g. P. A. Brunt, *Italian Manpower* (Oxford 1971) 391–415.

could not withstand the feeblest attackers [*i.e.*, women and boys]" (*Iug.* 67.2, *neque a fortissimis infirmisumo generi resisti posse*).²⁷ Moreover, the occasional presence of slaves, standing beside their mistresses and defending their masters in the street, offers a revealing image of the master-slave relationship in antiquity and perhaps evidence of the degree to which the ancient urban slave felt integrated into household and community (or how much he feared capture by the enemy).

The apparent frequency of tile-throwing women is particularly significant in the context of gender divisions in ancient Mediterranean societies. It is a commonplace that warfare in classical antiquity was man's work.²⁸ Women might lend assistance by running supplies to the front lines or shouting encouragement to their men, but only rarely did they actually engage in violence. The evidence of tile-throwing women would seem, however, to constitute an almost routine breakdown of this gender boundary. No doubt in every instance the desperation of the situation and the expected consequences of defeat—for the women, exile at best, rape and enslavement at worst—overcame any feelings of social impropriety and drew the women out onto the roofs and into a defensive rôle. The female intervention into this male-dominated sphere was perhaps eased, however, by a preservation at least of the traditional gender division of public and private space: women fought, but they fought from the domestic sphere.²⁹

²⁷ See also Dion. Hal. *Ant. Rom.* 6.92.6; Thuc. 3.74. On Thucydides' attentiveness to women see T. Wiedemann, "ἐλάχιστον ... ἐν τοῖς ἄρσεσι κλέος: Thucydides, Women, and the Limits of Rational Analysis," *GaR* 30 (1983) 163–70. Ancient writers were always somewhat fascinated and puzzled by effective female combatants, as stories about the Amazons, Artemisia, and Camilla attest.

²⁸ F. Graf, "Women, War, and Warlike Divinities," *ZPE* 55 (1984) 245–54; Schaps (*supra* n.16); Wiedemann (*supra* n.27).

²⁹ On gender divisions see W. K. Lacey, *The Family in Classical Greece* (Ithaca 1968) 151–76; S. B. Pomeroy, *Goddesses, Whores, Wives, and Slaves* (New York 1975) 58ff, 79–84, 169f; H. P. Foley, "Women in Greece," and S. K. Dickson, "Women in Rome," in M. Grant and E. Kitzinger, edd., *Civilization of the Ancient Mediterranean* (New York 1988) III 1301–05 and 1319–31 respectively; M. Jameson, "Private Space and the Greek City," in O. Murray and S. Price, edd., *The Greek City* (Oxford 1990) 86–92. Wiedemann (*supra* n.27: 169) suggests that Thucydides viewed the participation of women in warfare as an inversion of social and cultural norms, much as Thucydides uses language to show the breakdown of society. The preservation of the private/public division in warfare suggests that the inversion was not complete.

Two of the three instances of tile-throwing before 100 B.C. without female combatants can also be viewed against this background of gender divisions in warfare.³⁰ Thucydides (4.48), who twice mentions female tile-throwers, makes no gender distinctions about who threw roof tiles on the Corcyraeans locked up in a public building. Xenophon (*Hell.* 6.5.9) also omits female participation in the tile-barrage on the Tegeans. Both of these tile-barrages occurred during mopping up operations, when the immediate threat to the women and the city had passed and, accordingly, the proper conduct of warfare—as a male activity—could be restored. In the Corcyraean episode, at least, Thucydides notes that the tile-throwers also shot arrows, a good indication that soldiers, *i.e.*, men, were the primary combatants in this phase. Thus tiles were not an exclusively feminine weapon in the classical and Hellenistic periods. Who threw tiles—whether soldiers or traditional non-combatants—depended upon the phase and location of the battle.

From the Late Republic through the Empire the pattern in the evidence changes markedly: tiles-throwers are almost always described in gender-neutral or masculine terms. In Appian's discussion of the violence at the consular elections in 100 B.C., for example, "everyone" (πάντων) and "the people" (οἱ δέ) strip up tiles from the roof of the Curia and throw them on three magistrates trapped inside (*BCiv.* 1.4.32). The Curia was a public building and perhaps women did not participate in the incident; Appian is too vague to permit a conclusion. In 88 B.C. "many and unarmed people" (ὁ πολὺς καὶ ἄνοπλος δῆμος, *Plut. Sull.* 9) resisted Sulla's first attack on Rome with tiles, probably from their housetops. The tile-throwers at least appear to be civilians. Again, no gender distinctions occur. Tacitus is also vague (*Hist.* 3.71, *egressi*) about the Flavian tile-throwers during their defense against a Vitellian attack on the Capitol in 69. The context suggests, however, soldiers, senators, equites, and women, including the distinguished and bellicose Verulana Gratilla (*Tac. Hist.* 3.69). Cassius Dio, likewise imprecise in his discussion of Flavian attacks on Vitellian positions, refers to tile-throwers simply as "the multitude of their adversaries" (64.19.3, ὑπὸ τοῦ πλήθους τῶν ἀνθισταμένων).

³⁰ The Spartan tile-barrage of 195 B.C. (*Liv.* 34.39.5–12) does not admit a conclusion about the identity of the tile-throwers.

More than a century later, Herodian attributes tile-throwing from housetops only to "those in the city" (1.12.8, οἱ ἐν τῇ πόλει) during the disturbances in 190 surrounding the fall of Cleander. In the civil war of 238 the tile-throwers on the roofs are a "mob" (7.12.5, οἱ ὄχλοι), which certainly included men and probably women (7.12.1-4). In a somewhat more garbled account of the same conflict, the author of the *Historia Augusta* has simply "the people" (*Max. et Balb.* 10, *populum*) throwing tiles, stones, and pots into the street at no one in particular and for no specific reason. Finally, when a crowd attacked the house of the urban prefect Lampadius in 365, his "friends and neighbors" (*Amm. Marc.* 27.3.8, *vicinorum et familiarum*) came to his rescue with a tile-barrage from the roofs.

This shift in terminology, beginning with the Late Republic and continuing into the Empire, is not limited to Rome. Philo implicitly attributes tile-throwing in the Alexandrian riots of 38 to "the usual unemployed and layabouts" (*Leg.* 128, τινὲς τῶν ἀργεῖν καὶ σχολάζειν εἰωθότων). Nor is the term for the tile-throwers at Cremona in 69 gender-neutral: the Flavian *milites* (*Tac. Hist.* 3.30) bent on dislodging the city's Vitellian defenders. Perhaps most significantly, Ammianus (26.6.17) imputes to the usurper Procopius an expectation that the *populus* will shower him with tiles as he paraded through the streets of Constantinople. Many centuries earlier, Dionysius of Halicarnassus and Pausanias had a quite different expectation of the identity of the tile-throwers. In the sample considered here, only one of twelve cases dating from the first century B.C. and later specifically mentions a woman tile-thrower: Theodoret (*H.E.* 5.4.5-9) reports that an Arian woman in 378 assassinated Eusebius of Samosata by dropping a roof tile on his head. The incident is unconnected to any larger disturbance or battle.

Theodoret's example demonstrates that women could still take part in tile-throwing, and indeed one would expect nothing else given previous patterns and the frequent domestic setting of the tile-barrage. Women might have even predominated at times in the tile-throwing crowd. Similarly, the example of soldiers using tiles at Cremona in 69 suggests that, as at Corcyra in 425 B.C. and Tegea in 370 B.C., tile-throwing continued to be a tactical option for an army. Apparently new, however, is the more prevalent use of gender-neutral terms for civilian tile-throwers. Such terms, along with the specific contexts in which references to tile-throwing occur (e.g. *Plut. Sull.* 9; *Tac. Hist.* 3.69-71; *Hdn.* 7.12.1-7), strongly suggest a more mixed-gender,

mixed status tile-throwing crowd composed of men and women, freeborn and slave, young and old. The tile-throwing crowds of the Imperial period probably exhibited no distinctive characteristic and hence were described simply by such terms as δῆμος and *populus*.

Why had the composition of the tile-throwing crowd changed? The shift can perhaps best be understood against the changing definitions of citizenship for the urban dweller. In the classical and Hellenistic eras and through most of the Early and Middle Republic, the male citizen of a city was by definition a soldier, and thus, during attacks on a city, a large portion of the male population could resist in the streets with the conventional weapons of war, leaving the women, slaves, and children to tile-throwing. As a result of Roman conquest and the demands of maintaining an overseas empire, the Late Republic saw the gradual disappearance of these citizen armies and the emergence of a permanent professional and largely volunteer force under the direction of Rome.³¹ Recruits tended to be drawn from small towns and the countryside rather than from such large cities as Rome, from which most evidence for tile-throwing comes.³² Moreover, by the Early Empire, if not before, Rome had begun to disarm at least some of its subjects.³³ As a result, urban populations were woefully ill-equipped and untrained for battle, especially for the sort of pitched urban battles of earlier periods. For many urban dwellers—men and women alike, whether free, freed, or slave—the safest and perhaps most effective resistance during invasions of a city or

³¹ On citizen armies see *supra* n.26. The bibliography on the Roman Imperial army is enormous; especially useful on the demise of citizen armies and the emergence of professionalism are R. E. Smith, *Service in the Post-Marian Roman Army* (Manchester 1958); G. Webster, *The Roman Imperial Army* (New York 1969) 1–27, esp. 17, 22; Garlan, *War* (*supra* n.26) 103–17; L. Keppie, *The Making of the Roman Army* (London 1984) 53–62, 180f, and “The Army and the Navy,” in *CAH*² X (1996) 371, 378; on volunteers, cf. P. A. Brunt, “Conscription and Volunteering in the Roman Imperial Army,” in his *Roman Imperial Themes* (Oxford 1990) 188–214.

³² On recruits see P. A. Brunt, “The Army and the Land in the Roman Revolution,” *JRS* 52 (1962) 74, and (*supra* n.26) 95f, 386f; Garlan, *War* (*supra* n.26) 106f.

³³ On the disarmament of civilians see R. MacMullen, *Roman Social Relations* (New Haven 1974) 35 with n.26; P. A. Brunt, “Did Imperial Rome Disarm Her Subjects?” in *Themes* (*supra* n.31) 255–66. In the Alexandrian riots of 38, when tiles were in fact used, Philo suggests (*In Flacc.* 86–91, 94) that possession of weapons was illegal at least for Jews.

during urban battles between rival factions of soldiers was to throw roof tiles from house tops.³⁴ Though difficult to measure, the importance of the roof tile as a weapon probably became more important for urban populations in the Late Republic and Imperial period, if only because other measures of military defense were impractical.

Conclusion

Throughout classical antiquity the roof tile remained an effective weapon in urban conflicts. There is ample evidence, both physical and literary, that roof tiles could kill and cripple; and though rarely alone sufficient in defeating an enemy, the roof-tile barrage was tactically significant in urban struggles, both in holding off attackers and in forcing the capitulation of refugees. That women were often the tile-throwers in the classical, Hellenistic, and Early Republican periods marks at least a partial breakdown of the traditional gender boundaries of warfare in classical civilization. At the same time, the roof tile was almost the perfect weapon for women: effective, not requiring great physical strength to inflict great physical damage, and useable without leaving the feminine/domestic sphere, namely, the home.

Most probably the composition of the tile-throwing crowd changed in the Late Republic and Empire: many more men now joined in the tile-barrage from roof tops. The causes for this change were perhaps many and individual, but one natural and broad context for understanding the development was the end of the citizen army and, with it, an end of the traditional military preparedness of urban populations. Nevertheless, the ready availability of the roof tile ensured a continued and some-

³⁴ For a particularly telling example of the difficulties of raising a civilian army in Imperial Rome, see Hdn. 7.12.1–7, where the civilians fought with “improvised weapons and whatever they happened upon” (ὄπλοις τε αὐτοσχεδίοις καὶ τοῖς προστυχοῦσιν ὠπλίζετο, 7.12.1). When the “mob” (οἱ ὄχλοι, 7.12.5) was easily defeated by the veterans in the street battle, they fled to the roof tops to throw tiles. During the urban warfare of 69, the Roman populace—Tacitus does not distinguish gender—stood on the sidelines much like amused spectators at the games; Tacitus understands the behavior as a sign of political and civic degeneracy rather than military unpreparedness (*Hist.* 3.83.1; *Ann.* 1.15).

times even effective rôle in warfare and riot for the ancient urban dweller.

APPENDIX

Tile-Throwing and Near Tile-Throwing Incidents³⁵

(Cases are presented according to sources, date, location, type of incident, and identity of the tile-throwers.)

1. Paus. 4.21.6: mid-7th c.; 2nd Messenian War; Eira; invasion; γυναῖκες (expected)
2. Dion. Hal., *Ant. Rom.* 6.92.6: 490s B.C.; Corioli; invasion; γυναῖκες
3. Thuc. 2.4, Aen. Tact. 2.6, Diod. 12.41.6: 431 B.C.; Plataea; invasion; women, children, slaves (Thuc.: τῶν γυναικῶν καὶ οἰκετῶν; Aen: τὰ γύναια καὶ οἰκέται; Diod.: τῶν δ' οἰκετῶν καὶ τῶν παίδων)
4. Thuc. 3.74: 427 B.C.; Corcyra; civil war; γυναῖκες
5. Thuc. 4.48: 425 B.C.; Corcyra; civil war; soldiers (4.47, διὰ δυοῖν στοίχοιν ὀπλιτῶν; 4.48, ἐτόξευον κάτω)
6. Diod. 13.56.7: 409 B.C.; Selinus; invasion; τὰ πλήθη τῶν γυναικῶν καὶ παίδων
7. Plut. *Mor.* 241B.5: uncertain; Sparta; punishment; τις τὸν υἱὸν θεασαμένη
8. Liv. 5.21.10: 396 B.C.; Veii; invasion; *a mulieribus ac servitiis*
9. Xen. *Hell.* 6.5.9: 370 B.C.; Tegea; civil war; soldiers (6.5.7, ἐκφέρονται τὰ ὄπλα)
10. Plut. *Pyrrh.* 34.2: 272 B.C.; Argos; invasion; πενιχρᾶς καὶ πρεσβυτέρας ... γυναικῶς
11. Polyae. *Strat.* 8.69: mid-3rd c. B.C. ? (date of the Aetolian partition of Acarnania?); Acarnania; invasion; γυναῖκες
12. Paus. 4.29.5: 214 B.C.; Ithome; invasion; ὑπὸ τῶν γυναικῶν

³⁵ This material derives from a word search of *tegul-* and *κεραμ-* using the TLG and PHI disks on an Ibycus for the following authors: Aen. Tact., App., Ar., Arist., Cass. Dio, Clem. Alex., Dem., Dio Chr., Diod., Dion. Hal., Ephorus, Euseb., Hdn., Hdt., Joh. Malalas, Joh. Chr., Joh. Damas., Jos., Liban., Lucian, N.T., Origen, Paus., Philo, Philostr., Pl., Plut., Polyae., Polyb., Soc. Schol., Soz., Strab., *Suda*, Thuc., Xen., and Apul., Asc., Amm. Marc., Caes., Cato, Cic., *Dig.*, Flor., Gell., Juv., Liv., Luc., Mart., Nepos, Ov., Plaut., Plin., Plin. Min., Quint., Sall., *S.H.A.*, Stat., Suet., Symmachus, Tac., Val. Flac., Val. Max., Vell. Pat., Vitruv.

13. Liv. 34.39.5–12: 195 B.C.; Sparta; invasion; soldiers? (*ex tectis non tela modo sed tegulae quoque inopinantes perculerunt*)
14. Sall. *Iug.* 67.1: 109 B.C.; Vaga; revolt; *Ad hoc mulieres puerique pro tectis aedificiorum saxa et alia quae (tiles?) locus praebebat certatim mittere*
15. App. *BCiv.* 1.4.32: 100 B.C.; Rome; civil war/riot; πάντων, οἱ δὲ
16. Plut. *Sull.* 9: 88 B.C.; Rome; civil war/invasion; ὁ πολὺς καὶ ἄνοπλος δῆμος
17. Philo *Leg.* 127.5: A.D. 38; Alexandria; riot; τινὲς τῶν ἀργεῖν καὶ σχολάζειν εἰωθότων (*Leg.* 128.1)
18. Tac. *Hist.* 3.30: 69; Cremona; civil war; *milites*
19. Tac. *Hist.* 3.71: 69; Rome; civil war; soldiers and civilians (3.71, *egressi*; 3.69, *mixto milite et quibusdam senatorum equitumque ... Subierunt obsidium etiam feminae*)
20. Dio 64.19.3: 69; Rome; civil war; uncertain: civilians on roofs, soldiers in the street? (συχνοὶ δὲ καὶ αὐτῶν ἀπὸ τε τῶν στεγῶν τῶν κεράμῳ βαλλόμενοι καὶ ἐν ταῖς στενοχωρίαις ὑπὸ τοῦ πλήθους τῶν ἀνθισταμένων ὠθοῦμενοι ἐκοπτοντο)
21. Hdn. 1.12.8: 190; Rome; riot; οἱ ἐν τῇ πόλει
22. Hdn. 7.12.5; cf. *SHA, Max. et Balb.* 10.7: 238; Rome; οἱ ὄχλοι (Hdn. cf. 7.12.1), *populum* (*SHA*)
23. Amm. Marc. 27.3.8: 365; Rome; riot; *vicinorum et familiarum*
24. Amm. Marc. 26.6.16f: 365; Constantinople; feared violence against Procopius; *populus* (26.6.17)
25. Theodoret *HE* 5.4.5–9: 378; Doliche; assassination; γυνή τις τῆς Ἀρειανικῆς νόσου
26. Liban. *Or.* 19.36: 387; Antioch; riot; uncertain: possibly civilian defenders of houses threatened with fire? (τοὺς μὲν οὖν κáοντας παρέδωκε τῷ δικαστηρίῳ τὰ διὰ τῶν κεραμίδων τραύματα).³⁶

UNIVERSITY OF PUGET SOUND

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