

## Preliminary Report on the 2013 Field Season of the American Excavations at Morgantina: Contrada Agnese Project (CAP)

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*This article provides a preliminary report on the 2013 excavations carried out by the American Excavations at Morgantina (Sicily): Contrada Agnese Project (CAP). The 2013 season marked the start of this multiyear research and excavation project aimed at investigating both the urban planning of the city and the lives of its residents, with a specific focus on the periods of occupation and cultural transformation from the third to first century BCE. During the first season, three trenches were excavated in two parts of the ancient city. Their locations were chosen, in part, based on the results of a geophysical survey, conducted on the archaeological site in the spring of 2012. This preliminary report presents the significant stratigraphic units and material finds encountered in each trench, along with a provisional outline of the phases of activity, setting the developments observed in each trench within the broader historical and archaeological context of the urban center at Morgantina.*

### Introduction

2013 marked the first season of the American Excavations at Morgantina: Contrada Agnese Project (CAP), a multiyear research and excavation project designed to investigate developments taking place in the urban center of Morgantina between the third and first centuries BCE. Excavations were carried out with the permission of the Co-Directors of the American Excavations at Morgantina (AEM), Dr. Malcolm Bell III and Dr. Carla Antonaccio, and in cooperation with the Parco Archeologico Regionale di Morgantina and the Soprintendenza ai Beni Culturali e Ambientali di Enna. Alex Walthall served as Project Director. Randall Souza and Jared Benton served as Area Supervisors, responsible for excavations in the agora and Contrada Agnese, respectively. James Huemoeller served as Project Architect<sup>1</sup>.

Stratigraphic excavations were conducted in two areas of the archaeological site: the ancient agora and an *insula* located at the western end of the ancient city, in the Contrada Agnese itself (fig. 1). The specific research objectives for each trench will be discussed below. In addition to sharing significant stratigraphic units and material finds recovered from the 2013 excavations, this report offers a provisional identification of the successive phases of activity encountered and identified in the three trenches opened by CAP. We expect that the preliminary dates, phasing, and description may be revised or further refined, following complete analysis of the ceramic and environmental material, analyses that are either currently in progress or scheduled for the summer of 2014.

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<sup>1</sup> Concurrent with our excavations, several project members worked to advance concomitant research objectives of CAP. Dr. Robyn Veal (Cambridge) carried out the collection and analysis of the archaeobotanical and environmental materials with the assistance of Erika Weiberg (UNC-Chapel Hill). That analysis will continue in 2014. Object conservation and treatment was performed by Dr. Karen Abend (University of Catania) and Aislinn Smalling (University College London). James Huemoeller worked to develop field methods for incorporating photogrammetry in recording the progress of on-going excavations and in documenting standing architecture on the site. David Massey (Indiana University), with the assistance of Ben Gorham (University of Virginia), was responsible for overseeing our geo-spatial database and improving on-site GIS applications. Leigh Lieberman (Princeton University) served as our project's Data Manager and was charged with both managing our current digital data and developing a database that will allow us to meaningfully integrate current and future data collected at the site with that collected by previous excavations at Morgantina. She was assisted in her efforts by Annie Truetzel (Princeton University) and Mali Skotheim (Princeton University).



Fig. 1. City Plan of Morgantina with areas of the agora and Contrada Agnese highlighted.

## Excavations in the Agora

### Trench I.150

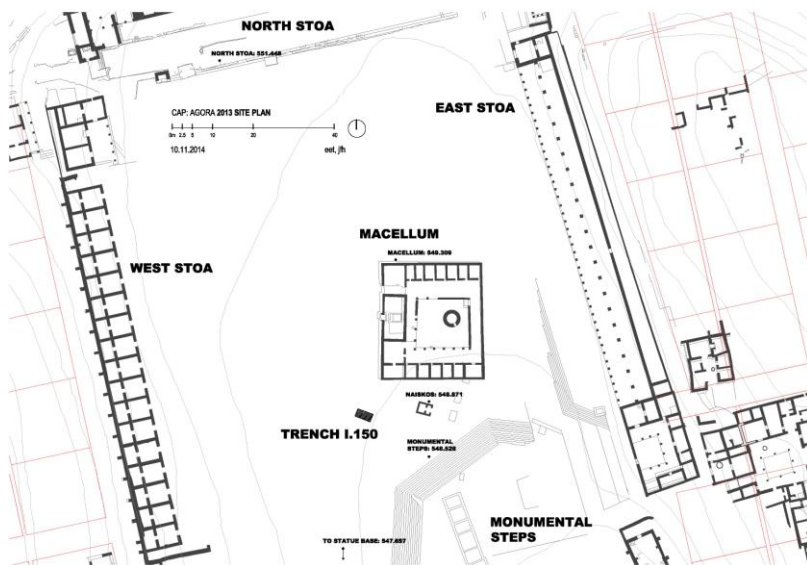


Fig. 2. Plan of the agora at Morgantina with location of trench I.150 indicated.

Trench I.150 was located in the upper agora in a previously unexcavated space that lies between the West Stoa, *macellum*, and monumental staircase (fig. 2). Despite CAP's focus on the residential *insula* of the Contrada Agnese proper, a decision was made to open a trench in the agora as well, prompted by the findings of a geophysical survey conducted at the site in March 2012. The geophysical survey, carried out by a team of researchers led by Dr. Michael Heinzelmann (Universität Köln), indicated the possible presence of a large, rectangular structure (ca. 16m x 6m, according to the survey interpretation) with tripartite internal room division located just south of the *macellum* and monumental staircase<sup>2</sup>. The monument also appeared to share its orientation with a *naiskos* of Hellenistic date that was itself located only several meters away to the east. Trench I.150 was sited over the northwest corner of the structure, as it was indicated on the plans produced by Dr.

Heinzelmann's team. It was hoped that excavation here might confirm the results of the geophysical survey and, in the process, bring to light a previously unknown public structure in the agora.

In its final form, trench I.150 measured 4m x 2m in plan (fig. 3). At a depth of -1.71m, after reaching a beaten earth surface that extended over the entire trench, excavations were continued only in the western half of the trench (2m x 2m) to a depth of -2.67m below the current agora surface. No trace of the monument identified by the geophysical survey was ultimately discovered, leading us to conclude that the survey's interpretation suffered from inaccuracies, possibly due to interference caused by the proximity of a modern drain. Yet despite the absence of

<sup>2</sup> The results of this geophysical survey are currently in preparation by BUSS *et al.* Dr. Sandra Lucore and Dr. Monika Trümper organized and supervised the survey for the AEM.



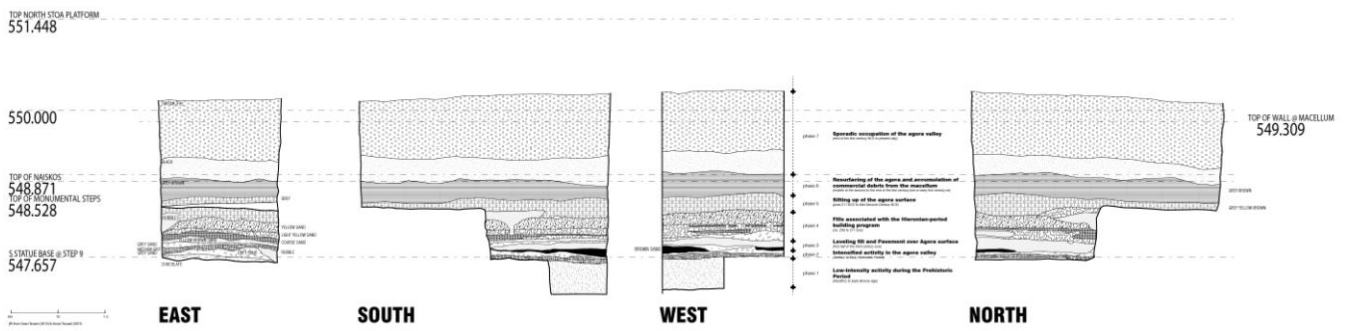


Fig. 3. Sections through trench I.150.



Fig. 4a. Trench I.150, photograph showing saggio dug into cioccolato.

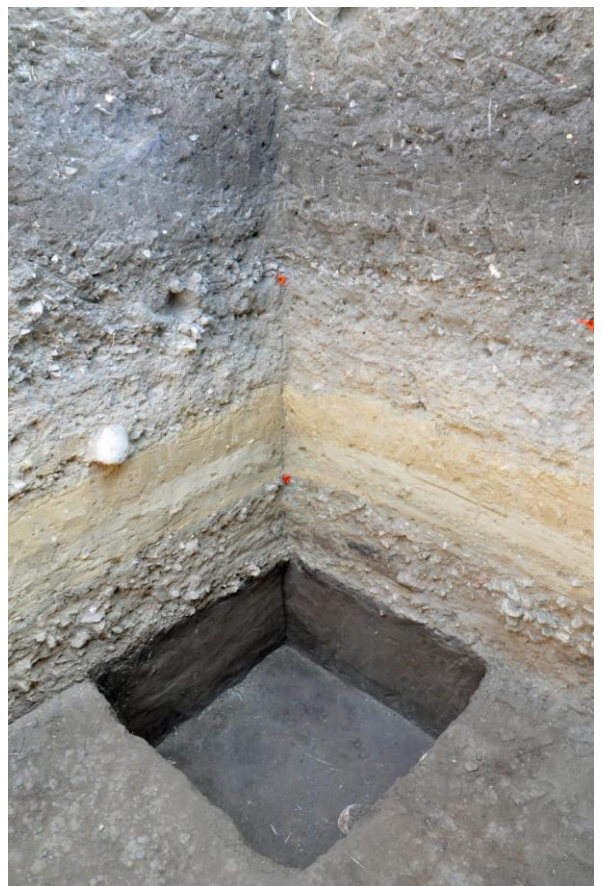


Fig. 4b. Trench I.150, photograph showing southeast corner of the trench.

monumental architecture, the excavation of trench I.150 produced an exceptional window into the history of human occupation in the agora, from prehistory to the present day.

*Phase 1: Low-intensity activity during the Prehistoric Period (Neolithic to Early Bronze Age)*

The first phase of activity was represented exclusively by evidence for chipped stone industry, recovered from the deepest excavated stratum, a layer of dark brown, loamy soil that is locally referred to as “cioccolato” (figg. 4a and 4b)<sup>3</sup>. Upon reaching a consistent layer of this *cioccolato* across the extent of trench I.150, excavators dug only a small *saggio* (1m x 1m x 50cm in depth) into the stratum, which nevertheless produced a quantity of stone artifacts. The lithic flakes and blade fragments that were recovered, even if not direct evidence for inhabitation of the agora valley, would appear to reflect some form of low-intensity occupation in the immediate area (fig. 5). Most notable among the lithic fragments are two obsidian flakes, which are likely to be debitage, or production debris from

<sup>3</sup> In an unpublished manuscript summarizing the results of a geological survey of the site and region conducted in the 1950s, Dr. Sheldon Judson (Princeton University) suggests that this soil developed under a forest cover of oak and other broad-leaved deciduous trees. When excavated to its full depth, the *cioccolato* has been found to rest on a layer of sterile yellow sand, identified by Dr. Judson as one of several unconsolidated sediment layers that form the Serra Orlando ridge.



Fig. 5. Lithic flakes and blade fragments recovered from the deepest stratum of trench I.150.

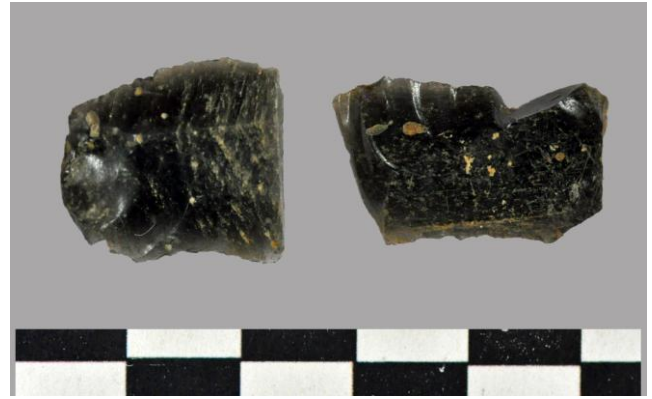


Fig. 6. Obsidian flakes recovered from deepest stratum of trench I.150.

ties during the Neolithic period from Lipari and Pantelleria<sup>4</sup>. While we are awaiting XRF source analysis of the obsidian chips recovered in trench I.150, preliminary analysis suggests the source was Lipari, from which a distinctive grey-blue, sometimes translucent, calcalkaline obsidian was quarried<sup>5</sup>.

While settlement activity in the agora valley during the Early Bronze Age (Castelluccio period) is well-attested by material finds including pottery, weaving tools, and bronze jewelry, the discovery of obsidian debitage from the deepest stratum of trench I.150 may help to push occupation in the area as far back as the Neolithic period<sup>6</sup>. This is not wholly unexpected, as ample evidence for Neolithic activity, and possibly settlement, has come to light both in excavations on the nearby Cittadella hill and through intensive field survey at various sites in the territory surrounding the Serra Orlando ridge<sup>7</sup>. Yet while the obsidian itself may have arrived on the island during the Neolithic, we cannot rule out the possibility that these tools were used at a later time. The continued use of lithic tools, including obsidian, throughout the Copper Age and into the Early Bronze Age is a well-documented phenomenon both at Morgantina and in Sicily more generally<sup>8</sup>. Ultimately, the question of whether Phase 1 belongs to the Neolithic, Copper, or Early Bronze Age may only be resolved by further excavation. In any case, the lithic assemblage recovered from the trench points to some form of blade manufacture or working in the agora valley in the prehistoric period.

### Phase 2: Intensified activity in the agora valley (Archaic to Early Hellenistic Period)

In the stratigraphic units immediately above the *cioccolato* layer excavators encountered a loose, sandy stratum with a heavy concentration of ceramics and bone, clearly suggestive of a more intensive use of the agora valley than in Phase 1. This stratum was not the product of a single, intentional action, but rather the result of gradual accumulation — perhaps over the course of centuries — of soil, small stones, ceramic debris, and bone, totaling a depth of 5-18cm. The earliest ceramic material identified from the stratum corresponds in date to the resettlement of Morgantina on the Serra Orlando plateau that followed the destruction of the Archaic city around the decade of 460/450 BCE<sup>9</sup>. This stratum was encountered across the full extent of the trench at this depth (2m x 2m) and was

<sup>4</sup> LEIGHTON (2001, 74-76).

<sup>5</sup> We would like to thank Dott.ssa Laura Maniscalco for her assistance in providing initial identification of the obsidian and other lithic tools recovered in trench I.150. For obsidian, TYKOT *et al.* (2013).

<sup>6</sup> Obsidian, while a common element of the Neolithic toolkit on Sicily, was largely replaced by flint and quartzite tools by the Early Bronze Age; MS IV, 88.

<sup>7</sup> For Cittadella, see MS IV, 20: "While the sherds in question are not numerous, they clearly imply some activity, and perhaps a settlement, on the Cittadella hill in the late Neolithic or early Copper Age." THOMPSON (1999, 82-98) identifies several sites in the territory surrounding Morgantina with stone tools and pottery of the Neolithic period.

<sup>8</sup> For Obsidian in EBA contexts at Morgantina, see MS IV, 88.

<sup>9</sup> WALSH (2012, 128-30; 2006, Chapter 3) analyzes the ceramic material recovered from fifth-century contexts on Serra Orlando, deciding, on balance, that the resettlement of Morgantina on the Serra Orlando ridge postdates 449 BCE; see also PR XII, 320-1; BELL 2000. For archaeological evidence of mid-fifth century destruction at the Archaic settlement on the Cittadella, see PR II, 156 and PR III, 172; see also ANTONACCI (1997, 186-7). These destruction contexts have in the past been associated with the capture of Morgantina by the Sikeli leader, Duketius, an event (the capture, not the destruction) described by Diodorus Siculus (11.78.5).





Fig. 7. Mold-made shell-shaped feet of two black-gloss tripod bowls, trench I.150; uncataloged.

horizontally well-defined. This layer was not easily distinguished from the stratum above, which may suggest that the first leveling fill of Phase 3 was deposited directly onto the uneven surface of the Archaic-Early Classical accumulation.

*Phase 3: Leveling fill and Pavement over Agora surface (first half of the third century BCE)*

Phase 3 represents a major resurfacing of the open agora in the first half of the third century BCE, to judge from the portion excavated in trench I.150. Although the agora valley had served as the civic and commercial center of the new settlement on the Serra Orlando ridge since the mid-fifth century, the strata comprising Phase 3 appear to be the earliest intentional intervention. The first activity was the addition of a leveling fill, which raised the elevation of the agora surface approximately 15cm.

The mixed nature of this deposit, which contained Classical and Hellenistic ceramics with no discernable stratigraphic relationship, leads us to identify it as an intentional fill, deposited in a single action. Of greatest diagnostic value in establishing the date of the fill are two mold-made shell-shaped feet of black-gloss tripod bowls. This shape was produced locally at Morgantina from the first quarter of the third century BCE (fig. 7)<sup>10</sup>.

A hard-packed layer of fine sand (1.5cm in thickness) was laid down immediately above this fill, sealing

it and creating a uniform surface. This beaten-earth surface extended across the entire trench (which was restricted to 2m x 2m at this depth). Although we can only speculate as to how much of the open agora this surface covered, the fill and resurfacing may be reasonably associated with the increased activity documented in the agora during the first half of the third century<sup>11</sup>. Judging from the limited accumulation of material above, this surface did not remain exposed for long before it was buried by the addition of more fill layers that constitute the activity of Phase 4.

*Phase 4: Fills associated with the Hieronian-period building program (ca. 250 to 211 BCE)*

Above the early third-century surface of Phase 3 were found several thick deposits of light-yellow sandy soil, intermittently mixed with a light-gray clay, extending over the entirety of the excavated area (2m x 2m). These densely-packed deposits reached a fairly consistent depth of 25cm. The fills contained few material inclusions, suggesting that the sand was quarried for the specific purpose of creating the fill<sup>12</sup>. The source of the sand was certainly local, as this light yellow sand has been found throughout the Serra Orlando ridge in natural accumulations<sup>13</sup>.

We have interpreted the alternating sand and clay layers as intentional fills deposited in the upper agora as part of the monumental building campaign that transformed the agora in the middle decades of the third century BCE. It has long been recognized that the addition of the monumental staircase, as a transitional point between the city's upper and lower agora, would have necessitated raising the elevation of the agora surface north of the staircase to match the elevation of the highest step. This must have occurred twice, as construction of the staircase oc-

<sup>10</sup> MS VI, nos. 24, 24A-C. This shape is paralleled by examples from the Athenian Agora; see ROTROFF (1997, 107-8, no. 311), who dates the production of shell-footed bowls in Athens from before ca. 275 BCE to before ca. 225 BCE.

<sup>11</sup> PR XII, 338. Future comparative analysis of the use of sand beds as paving layers could provide additional insight into any potential maintenance of the agora surface and will be investigated further by members of the AEM.

<sup>12</sup> This light-yellow sand seems to have commonly served as a leveling fill for Hieronian period building projects at Morgantina.

<sup>13</sup> In his unpublished manuscript (v.s. n. 3), S. Judson notes that at various places along the Serra Orlando ridge this unconsolidated sand layer also contained visible lenses of clay and sandy clay, which may account for the mixture of sand and clay encountered by excavators in the strata comprising the Phase 4 fills.



Fig. 8. Trench I.150, photograph showing runoff channel that formed in agora surface sometime in the last decade of the third or first half of the second century BCE.

maintain the elevation and integrity of the agora's surface through regular pavement and maintenance during the Hieronian period.

#### *Phase 5: Silting up of the agora surface (Post-211 BCE to Mid-Second Century BCE)*

The following phase is distinguished by the accumulation of soil and debris over the surface of the Hieronian-era agora. This phase may be tied historically to the decades following 211 BCE, after the city was handed over to Moericus and his Iberian mercenaries, when there appears to have been a general abeyance in the care and maintenance given to civic architecture, the open surface of the agora notwithstanding<sup>15</sup>. Princeton's excavations in the 1950's documented the rapid silting up of the lower agora, leading excavators to conclude that within only a matter of decades after the fall of the city in 211 BCE, soil had accumulated to the level of the tenth step of the monumental staircase<sup>16</sup>.

Our findings correspond nicely with the general picture of neglect in the last decade of the third and early decades of the second century BCE. Over time, runoff channels formed in the exposed surface of the open agora. one of these channels was encountered in the western half of trench I.150 that ran the length of the trench in a roughly north-south direction, following the natural slope of the agora valley (fig. 8). The narrow channel, which measured approximately 50cm at its widest point, was filled with small and medium-sized stones as well as with ceramic debris and bone.

#### *Phase 6: Resurfacing of the agora and the accumulation of debris from the macellum (middle of the second to the end of the first century BCE or early first century CE)*

The agora was not allowed to remain in a state of degradation indefinitely. As some point in the second century, the portion of the agora surface exposed by trench I.150 (4m x 2m) was resurfaced. The runoff channel that formed in Phase 5 was filled in with medium-sized stones and a layer of hard-packed, light-brown soil laid over the

<sup>14</sup> PR I, 152; PR II, 161; for a revised chronology of the two building periods, see PR XII, 331. H. Allen in his preliminary report on excavations between 1967 and 1969 (PR X, 366) relates the discovery of "two new strata" in his probe behind the monumental staircase that lie between the *cioccolato* and the surface of the Hieronian period agora. These, he speculates, may have been fill associated with the construction of the staircase.

<sup>15</sup> Livy (26.21.9-13; 17); ERIM (1958, esp. 85-6); PR XII, 340: "more typical [of the second and first centuries BCE] is the gradual deterioration of the aging public buildings of the Greek period, large parts of which were given over at the end to commercial or industrial purposes."

<sup>16</sup> For silting up of lower agora, see PR I, 152; PR II, 161. For silting of the upper agora in the late third and second century, see PR I, 154.



Fig. 9. Bronze coin of Katane from trench I.150, inv. 13-44.

entire area, raising the surface elevation by 5cm to 10cm. It was after reaching this level that it was decided to restrict further excavation to the western half of the original trench.

The timing of this redevelopment can be established with some degree of precision by the numismatic evidence recovered from the earth packing below this new surface. Within the leveling fill, excavators recovered a small bronze coin (fig. 9), struck at Katane between 210 and 170 BCE<sup>17</sup>. The coin, which shows some, but not excessive wear, provides a reliable *terminus post quem* for the installation of the beaten-earth surface that covered the channel and extended over the entirety of trench I.150.

The renovation to the agora surface may correspond in date to the construction of the nearby *macellum*<sup>18</sup>. After decades of relative neglect, the agora once again became a center for commercial activity and required restoration. Above this surface, excavators found a thick deposit (32cm in depth) of light brown soil with a great concentration of ceramics, animal bone, tile fragments, and charcoal<sup>19</sup>. Given its proximity to the commercial building, we have interpreted this deposit as refuse that gradually accumulated in the vicinity of the *macellum*.

Among the material found within the dump, excavators recovered a lead trade weight (fig. 10) in the form of a thick square base surmounted by a shaft handle. With a preserved weight of 246.3g, this weight may have been a Roman unit of measure known as a *dadrans*, equivalent to roughly three-quarters of a Roman pound<sup>20</sup>. Excavators also recovered three bronze coins from the dump context. These are:

1. Inv. 13–17: AE, 9.50g, 22mm; *Obv.* Head of Zeus r. / *Rev.* Warrior charging r.; at right, Π.; Mamertine, ca. 212–200 BCE; MS II 235. (fig. 11, *top*).
2. Inv. 13–15: AE, 9.97g, 28mm; *Obv.* Head of Zeus l. / *Rev.* Biga r., driven by Nike; ΣΥΡΑΚΟΣΙΟΝ, in exergue; Syracuse, after 212 BCE; MS II 385. (fig. 11, *middle*).
3. Inv. 13–16: AE, 8.25g, 30mm, cut in half; *Obv.* Head of Janus with features of Pompeius Magnus / *Rev.* Prow r.; below, IM[P]; Sicily, 43–36 BCE; RRC 479/1, MS II 692. (fig. 11, *bottom*).



Fig. 10. Lead trade weight recovered from commercial dump associated with the *macellum*, trench I.150, inv. 13-35.

<sup>17</sup> Inv. 13-44, 2.20g, 15 mm; *Obv.* Head of Apollo, laureate, r. / *Rev.* Isis standing r.; Katane; ca. 210-170 BCE; MS II 142. The date of this prolific issue remains in question. In her recent study of the Roman mint of Katane, Casabona (1999) dates the Apollo/Isis issue to the decade between 216/5-206 BCE. MATTINGLY (2000) offers a more conservative date for these coins, suggesting that minting may have taken place as late as the first three decades of the second century BCE. The near-to-total absence of these coins from secure pre-211 BCE contexts at Morgantina, as noted by BUTTREY (1965), offers a strong indication that a second-century date (*pace* Casabona) for the introduction of the this issue is to be preferred.

<sup>18</sup> The *macellum* at Morgantina is the subject of a forthcoming study, currently in preparation, by H. Sharp and J. Spurza. The building's construction is presently dated to the second half of the second century BCE on the basis of numismatic and ceramic material recovered from contexts identified by the original excavators as builder's trenches; see PR I, 154-155; ERIM (1958, 81). STONE (2002) has proposed that the construction of the *macellum* was a reflection of Rome's administrative efforts to stabilize the island following the slave revolt of 135-132 BCE. We note that the forthcoming study by Drs. Sharp and Spurza may yield evidence to reconsider the current dating of the building.

<sup>19</sup> Analysis of the faunal material recovered from trench I.150, which includes both the bones of terrestrial mammals and bivalve shells, is scheduled to be completed by Dr. Michael MacKinnon (Winnipeg) during summer 2014.

<sup>20</sup> Additional lead weights of similar form were found within the *macellum* during excavations of the 1950s. For discussion concerning the uncertainties involved in identifying the "ideal" weight of the Roman *libra*, see CRAWFORD (1974, 590-3), who endorses an approximate 324g.





Fig. 11. Three bronze coins recovered from commercial dump associated with the macellum, trench I.150; top: inv. 13-15, middle: inv. 13-16, bottom: inv. 13-17.

The halved as and the *terra sigillata* cup, both recovered from the upper levels of the dump, together serve as a useful *terminus post quem* for the abandonment of the dump and the nearby *macellum*, which seems to have fallen victim to a violent episode that befell the city in the decade of the 30s BCE<sup>23</sup>. The findings from trench I.150 are in accord with the archaeological evidence and historical sources that point to the general abandonment of Morgantina in the late first century BCE or the early first century CE<sup>24</sup>.

Fig. 13. Fragment of a terracotta theatrical mask; inv. 13-48.

<sup>21</sup> BUTTREY (1972).

<sup>22</sup> Traces of a suspension hole at the top left of the fragment suggest the mask was originally intended to be hung on a wall. The best parallel for the youthful male mask type from Morgantina is a magenta ware vessel that takes the form of a New Comedy mask; MS I, no. 948. A well-preserved example of a similar type of terracotta suspension mask from ancient Amisos, dated to ca. 150 BCE, is now in the Louvre (VEX.2010.3.104).

<sup>23</sup> For the destruction of the *macellum* in the late first century BCE, see STONE (2002) 17.

<sup>24</sup> STONE (2002); Strabo 6.2.4.



Fig. 12. Italian *terra sigillata* cup fragment recovered from Roman era dump, trench I.150; uncataloged.

Of particular chronological significance is the halved as (inv. 13-16), which was struck in Sicily by Sextus Pompey between 43 and 36 BCE, but – as Ted Buttrey has convincingly argued – was only cut in half during the decade of the 20s BCE.<sup>21</sup> This matches well with the latest datable ceramic material recovered from the stratigraphic units comprising

the dump, including a fragmentary base of an Italian *terra sigillata* cup (produced ca. 10 BCE – 20 CE; fig. 12). Also noteworthy among the material encountered within the dump was a fragment of a terracotta theatrical mask (inv. 13-48; fig. 13) of a type previously unknown at Morgantina. Although only a portion of the mask survives, it can be easily identified as a character from New Comedy and most likely a representation of a young male character (perhaps Pollux no. 13 or no. 16), recognizable by the thick, rolled-fillet worn around the forehead<sup>22</sup>.





*Phase 7: Sporadic occupation of the agora valley (End of the first century BCE to present day)*

Our narrow window into the agora offered little material evidence for activity during the two millennia following the widespread abandonment of the urban center in the late first century BCE or early first century CE. The strata that accumulated above the Roman-era dump formed a thick deposit (ca. 30 cm in depth) of densely compacted, dark brown soil that contained very few ceramic inclusions. This represents the accumulation of soil and the decomposition of organic material over the many centuries when the Serra Orlando ridge saw only sporadic occupation and the agora valley returned to an agrestal state. Above this layer, excavators encountered a thick stratum of light brown soil (ca. 1.0m in depth), which contained materials belonging to a nearby *palazzo* that was occupied between the seventeenth and early twentieth century. This stratum, which terminates at the present day surface of the agora, represents a period when the agora valley was given over to agriculture.

*Observations*

Trench I.150 offered an exceptional glance into the occupation of the agora valley over a period of more than four millennia. While our work did not produce evidence of the rectangular monument suggested by the geophysical survey, the data collected has allowed us to refine our picture of the agora's development and thereby clarify previous work carried out during Princeton's excavations of the 1950s and 1960s. The complete stratigraphic sequence documented in trench I.150 will undoubtedly inform future excavations in the area, which may seek to further clarify the nature and extent of the efforts made to maintain the open surface of the agora during the third and second centuries BCE.

*Excavations in the Contrada Agnese*

*Trenches VI.34 and VI.35*

Concurrent with the excavations in the agora, two trenches were opened in an area of the archaeological site known locally as the Contrada Agnese (fig. 14). Situated at the western edge of the ancient city, the area under investigation lies inside of the ancient city walls, not far from the city's west gate bastion and just south of *plateia* B, one of the two major east-west avenues that ran through the city. Few controlled excavations have been conducted in the Contrada Agnese. Of note are the excavations that have revealed two monumental bathing complexes and a sanctuary of Early Hellenistic date<sup>25</sup>. The geophysical survey of 2012 revealed that a

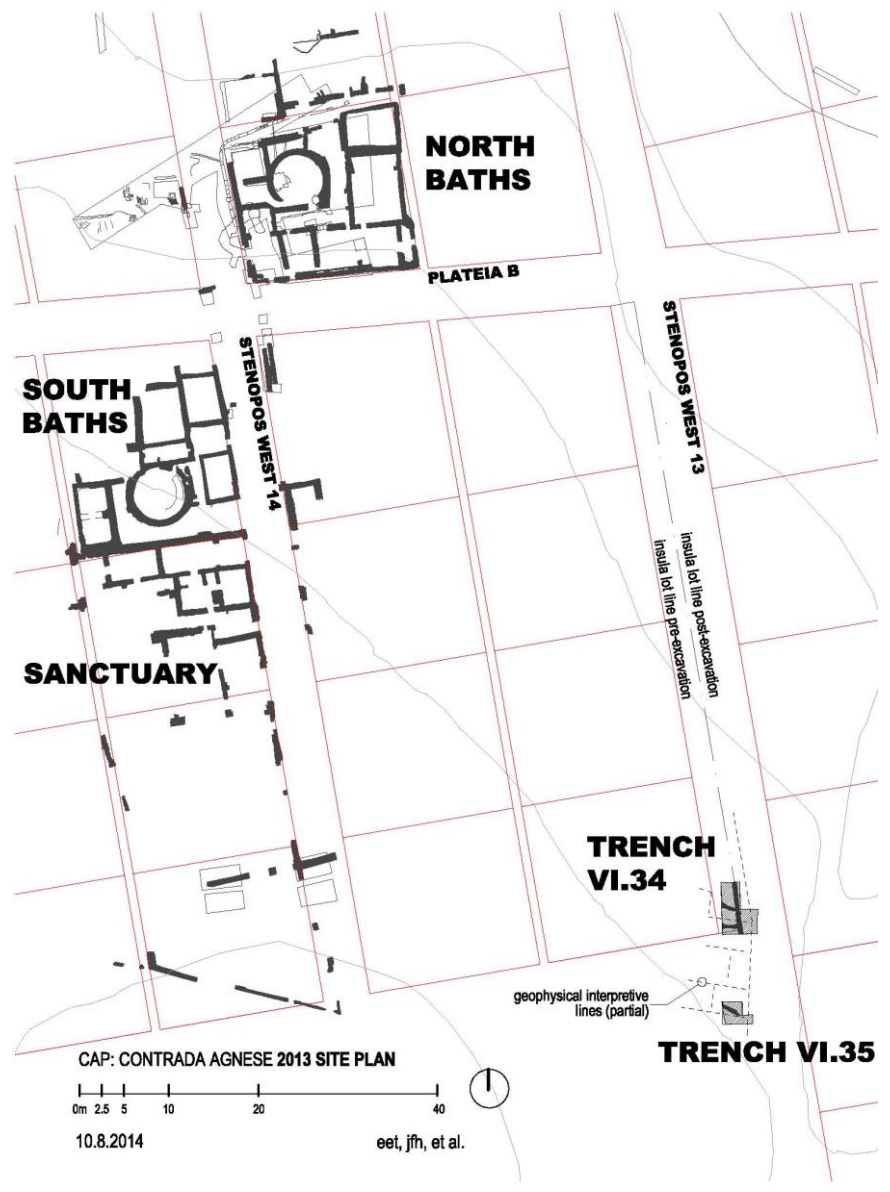


Fig. 14. Plan of Contrada Agnese with the locations of trenches VI.34 and VI.35 indicated.

<sup>25</sup> LUCORE (2009; 2013). A final report on the North Baths is currently being prepared by Dr. Sandra Lucore. Both the South Baths and adjacent sanctuary are presently being investigated by Dr. Lucore and Dr. Monika Trümper. Limited excavations in both the North and

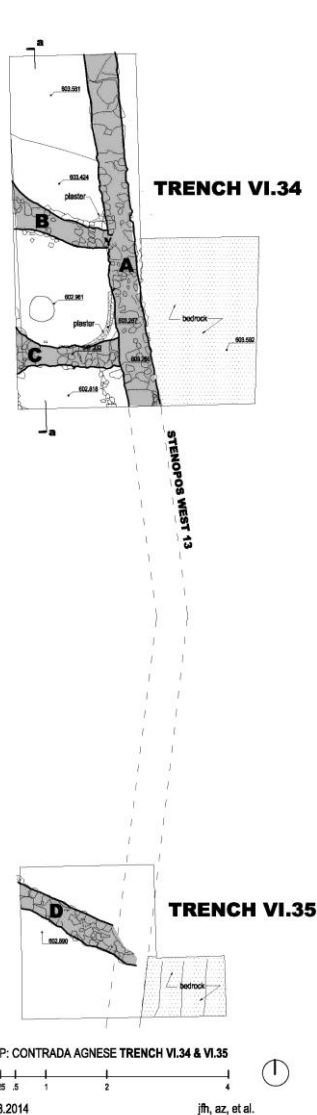


Fig. 15. Plan of trenches VI.34 and VI.35, showing deviation in stenopos W13.

densely occupied city block lies to the south of *plateia* B and between the north-south streets, *stenopoi* W13 and W14<sup>26</sup>. In the AEM's naming conventions, this block is referred to as *insula* W13/14S.

The landscape of the Contrada Agnese today is largely defined by a ridge of limestone bedrock that rises from one to four meters above ground level and runs along the eastern side of the valley. The terrain slopes gradually to the south and to the west with an outcropping of limestone bedrock visible at the Agnese ridge.

The decision to excavate in the Contrada Agnese was motivated by several objectives. Principal among them was to further develop our understanding of the stratigraphy in this area. A related goal was to determine how city planners and builders reconciled the urban grid plan and lot divisions with irregularities in the landscape, such as the Agnese ridge. Both the geophysical survey and the 2013 excavations revealed deviations in the orthogonal plan. Our preliminary investigations of 2013 were promising, despite the discovery that the area appears to have suffered from clandestine excavations in the past. In the coming seasons, we aim to identify the nature of the activity (i.e. domestic, commercial, industrial, etc.) that took place in this city block and determine what, if any, relationship was shared with the neighboring bath complexes and sanctuary. Early excavations on the Serra Orlando ridge, conducted in the 1950s and 1960s, focused primarily on the monumental architecture of the agora and the well-appointed Hellenistic houses that occupied the surrounding hills and valleys. In choosing the *insula* W13/14S, we hope to shift attention onto those who lived and worked on the outskirts of the ancient city. In terms of urban planning and development, our investigations aim to establish when this part of the ancient city, and principally *insula* W13/14S came to be occupied. We expect that further excavation and survey, planned for 2014 and beyond, will help to clarify these and other research questions.

Two trenches (VI.34 and VI.35) were opened in the Contrada Agnese by CAP along the eastern side of *insula* W13/14S in a portion of the block that corresponds to the hypothetical division between Lots 8 and 10 (fig. 15). As was the case in the agora, trenches VI.34 (6m x 4m, *max. dimensions*) and VI.35 (2.5m x 3m, *max. dimensions*) were sited with reference to the findings of the geophysical survey. In particular, the survey results were used to locate trenches that would help to substantiate the deviation of *stenopos* W13 visible in the images produced by the ground penetrating radar and resistance survey.

*Phase 1a: Construction of stenopos W13 and insula wall (probably 3rd Century BCE)*

The earliest construction identified in trenches VI.34 and VI.35 are cuts in the bedrock made to create a level surface for the road and to accommodate a north-south wall (wall A). Aided by the geology of the Contrada Agnese, builders utilized the naturally occurring layer of unconsolidated yellow sand for the surface of *stenopos* W13. Along the western edge of the road, builders cut a shelf in the bedrock on which the foundations of wall A were set. Once completed, wall A served both as a retaining wall for *stenopos* W13 and as the eastern boundary of *insula* W13/14S. It was constructed of rubble masonry set without use of mortar. Given the poor preservation of the wall (with respect to its elevation), it is difficult to say whether its construction followed the dual-faced technique typical of such walls at Morgantina, in which the exterior side consisted of larger limestone blocks and the interior side of smaller irregular stones. With a thickness of 0.48–0.50m, wall A reflects the typical construction standards of domestic architecture at Morgantina<sup>27</sup>. No portion of wall A was found in trench VI.35, and only the cut in the bedrock remained. Nevertheless, this cut was sufficient to establish that the orientation of the wall (and the adjacent *stenopos* W13) deviated from the portion exposed in trench VI.34 (fig. 16).

South Baths, as well as in the sanctuary, identified as being sacred to the goddesses Demeter and Persephone, were carried out in 1970 and 1971; PR XI, 370-82.

<sup>26</sup> For the survey, v.s. n. 2.

<sup>27</sup> BELL (2010, 732) reports that the average length of the Greek foot used at Morgantina was between 32cm and 33cm. With regard to the thickness of wall A, this would translate to a unit of roughly one and a half Greek feet.





Fig. 16. Trenches VI.34 and VI.35, photograph showing deviation in the direction of stenopos W13, looking north.



Fig. 17. Trench VI.34, photograph showing stenopos W13 and walls A, B, and C, looking north.

The surface of *stenopos* W13 exposed in trenches VI.34 and VI.35 was scarred by a number of grooves and cuts, the majority of which appear to have been made by a modern tractor or plow. However, one pair of parallel cuts, each approximately 10cm wide and set 25cm apart, extended in a direction that appeared to respect the orientation of wall A. Similar cuts of the same width and spacing were found in the portion of ancient road exposed in trench VI.35, but with a different orientation that respected the direction of the cut made for the retaining wall farther to the south. The alignment of the cuts with respect to the wall suggests they were made at a time when the wall could have influenced their formation, opening up the possibility that they are the remains of wheel ruts cut into the surface of the street. Further excavation along *stenopos* W13 would likely help to confirm or disprove this working hypothesis.

#### *Phase 1b: Elaboration of interior space (probably 3rd Century BCE)*

The next phase, or perhaps more correctly identified as a sub-phase, was defined by the elaboration of interior space (fig. 17). In trench VI.34, excavators revealed portions of two rubble walls (oriented roughly east-west) that meet wall A at an oblique angle and run in roughly parallel lines approximately 1.5m apart. These walls (walls B and C) were clearly added subsequent to the construction of the wall A, as they abut but do not bond with the masonry of wall A. They are less substantial than wall A, averaging only 0.35m in thickness, and were constructed from a *bricolage* of rubble and fragmentary terracotta elements (roof tiles, bricks, hydraulic pipe), which may account for their poor state of preservation.

The two walls in trench VI.34 divide the interior space into three units, which we are for the time identifying as rooms: the north room, the middle room, and the south room. Only the eastern-most portion of these rooms was exposed by the 2013 excavations. At present, the full dimensions of the rooms are unknown, as is whether or not there was communication between the rooms or with the *stenopos*, immediately to the east. Traces of *cocciopesto* floors still *in situ* were identified in the southeast corners of both the north and middle rooms. In the same locations, undecorated wall plaster was partially preserved on the interior face of wall A, as well as on the north faces of walls B and C. Modern clandestine excavations may be to blame for the destruction of the floors in the middle and south rooms<sup>28</sup>. A fourth wall (wall D) was discovered in trench VI.35, located approximately nine meters south of wall C. Wall D has the same width, construction technique, and orientation as walls B and C. It would also appear that wall D shared a similar relationship with wall A as walls B and C in that it abutted, but did not bond with, the western face of wall A. Thus, wall D may likely belong to the same phase as walls B and C.

Assigning a date to either Phase 1a or 1b is made difficult by the fact that excavators found few undisturbed contexts within trenches VI.34 and VI.35. What little diagnostic material was recovered from undisturbed strata in the middle and south rooms of trench VI.34 can be cautiously assigned to the late fourth and third century BCE, suggesting a date of occupation during or after that time. It should be noted here that our excavations in trenches VI.34 and VI.35 revealed standing architecture that closely matched the interpretations of the geophysical survey. In future seasons, the geophysical survey will continue to inform our investigations in the Contrada Agnese.

<sup>28</sup> Careful excavation in the middle room actually revealed evidence for two large pits – one inside of the other – that were dug through the ancient floor. The discovery of a battery at the bottom of the inner pit isolates its formation within recent decades. The date of the larger cut, which was dug and backfilled – only to be partially re-excavated by modern-day *clandestine* – could not be determined beyond its precedence to the smaller cut.



Fig. 18. Bronze needles from trench VI.34; inv. 13-51 and 13-52.

### Phase 2: Use and Abandonment

Little can be said about the use and abandonment of the rooms defined by walls A, B and C. The interior portions of these rooms contained little evidence from undisturbed contexts. Excavators found widespread evidence of disturbance by modern plowing and clandestine excavation, making it difficult to establish either the chronology of the spaces or the nature of activities that occurred there (domestic, commercial, religious). Among the numerous objects recovered from the rooms were fragments of four terracotta figurines, ceramic tokens, several discoid loom weights, and a pair of bronze needles—these last two found together next to wall C in the south room (fig. 18). With the

possible exception of the bronze needles, all the objects were recovered from disturbed contexts and thus may be unreliable indicators of the activities that took place in these rooms.

### Observations:

Trenches VI.34 and VI.35 produced evidence, albeit limited, that points to an initial occupation of *insula* W13/14S in the late fourth or early third century BCE<sup>29</sup>. We are aware that the absence of evidence of earlier occupation may be in part due to the limited scope of our investigations to date and to the fact that the bedrock is so high in this area. Nevertheless, if the *insula* was, in fact, only first occupied in the late fourth or early third century, we would like to know why this portion of the Serra Orlando ridge only came to be settled then, and how builders dealt with the urban grid plan, itself a relic of the fifth century BCE. In response to the first question, we might speculate that the expansion was due, in part, to an increase in the urban population of Morgantina during this period. The residential settlements that appeared on the Cittadella hill at roughly the same moment may support the idea that population pressures necessitated new construction at the peripheries of the urban center<sup>30</sup>.

The urban grid plan and lot divisions, which date back to the fifth century BCE, appear to have been largely respected and only when an insurmountable obstacle was encountered were deviations made. The builders negotiated the Agnese Ridge, which runs at an intersecting path with the orthogonal plan, by altering the orientation of the *insula* and the adjacent *stenopos* W13. Further excavations are planned for 2014 in other parts of the Contrada Agnese, where we hope to test this hypothesis by focusing on lot divisions within *insula* W13/14S.

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<sup>29</sup> Similar dates for initial occupation of the area were proposed by H.L. Allen, based on his excavations of 1970-71; PR XI, 371-6. This is also in agreement with the current dating for the construction of the North Baths; LUCORE (2009; 2013).

<sup>30</sup> For third-century houses on the Cittadella, see PR II, 157; PR V, 280; PR VI, 141.



in the Contrada Agnese, Dr. Sandra Lucore and Dr. Monika Trümper (Freie Universität Berlin), who are the directors of the South Baths and West Sanctuary of Demeter and Persephone excavations.

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#### ABBREVIATIONS

- MS I BELL M., 1981. *Morgantina Studies, vol. I, The Terracottas*. Princeton.  
MS II BUTTREY T.V., ERIM K., GROVES T. and HOLLOWAY R.R., 1989. *Morgantina Studies, vol. II, The Coins*. Princeton.  
MS IV LEIGHTON R., 1993. *Morgantina Studies, vol. IV, The Protohistoric Settlement on the Cittadella*. Princeton.  
MS VI STONE S., 2014. *Morgantina Studies, vol. VI, The Hellenistic and Roman Pottery*. Princeton.  
PR I STILLWELL R. and SJÖQVIST E., 1957, "Excavations at Serra Orlando", in *American Journal of Archaeology* 61: 151-59.  
PR II SJÖQVIST E., 1958. "Excavations at Serra Orlando (Morgantina): Preliminary Report II", in *American Journal of Archaeology* 62: 155-64.  
PR III STILLWELL R., 1959. "Excavations at Serra Orlando: Preliminary Report III", in *American Journal of Archaeology* 63:167-73.  
PR X ALLEN H., 1970. "Excavations at Morgantina (Serra Orlando) 1967-1969: Preliminary Report X", in *American Journal of Archaeology* 74: 359-83.  
PR XI ALLEN H., 1974. "Excavations at Morgantina (Serra Orlando), 1970-1972: Preliminary Report XI", in *American Journal of Archaeology* 78: 361-83.  
PR XII BELL M., 1988. "Excavations at Morgantina, 1980-1985: Preliminary Report XII", in *American Journal of Archaeology* 92: 313-42.

#### BIBLIOGRAPHY

- ANTONACCIO C.M., 1997, "Urbanism at Archaic Morgantina," in *Urbanization in the Mediterranean in the 9th to 6th Centuries BC. Acta Hyperborea* 7: 167-94.  
BELL M., 2000, "Camarina e Morgantina al Congresso di Gela," in *Un ponte tra l'Italia e la Grecia. Atti del simposio in onore di Antonino di Vita*, Padua: 291-297.  
BELL M., 2010, "Serra Orlando," in *Bibliografia Topografica della Colonizzazione greca in Italia e nelle isole tirreniche*, vol. 18, Pisa: 724-51.  
BUESS M., HEINZELMANN, M., LUCORE, S.K., STEIDLE, S., TRÜMPER, M., ANTONACCIO, C., and M. BELL, III. *In preparation*. "Geophysical Survey at Morgantina".  
BUTTREY T.V., 1965, "The Morgantina Excavations and the Date of the Roman Denarius", in *Atti del Congresso internazionale di Numismatica 1961*, Rome: 261-67.  
BUTTREY T.V., 1972, "Halved Coins, the Augustan Reform, and Horace, Odes I.3", in *American Journal of Archaeology* 76: 31-48.  
CASABONA M., 1999, "Le monete di Catana ellenistica fra Roma e le influenze orientali", in *Rivista italiana di numismatica e scienze affini* 100: 13-46.  
CRAWFORD M.H., 1974, *Roman Republican coinage*, London.  
ERIM K., 1958, "Morgantina", in *American Journal of Archaeology* 62: 79-90.

- JUDSON S., "Geology and Geography of Morgantina, Sicily". Unpublished manuscript held in the American Excavations at Morgantina Archive at Princeton University.
- LEIGHTON R., 1999, *Sicily before history: an archaeological survey from the Palaeolithic to the Iron Age*. Ithaca.
- LEIGHTON R., and BARTOSIEWICZ L., 2012, *Prehistoric houses at Morgantina: excavations on the Cittadella of Morgantina in Sicily, 1989-2004*, London.
- LUCORE S.K., 2009, "Archimedes, the North Baths at Morgantina, and early developments in vaulted construction," in C. Kosso and A. Scott (eds.), *The Nature and Function of Water, Baths, and Bathing and Hygiene from Antiquity through the Renaissance*, Leiden: 43-59.
- LUCORE S.K., 2013, "Bathing in Hieronian Sicily," in S.K. LUCORE and M. TRÜMPER (eds.), *Greek Baths and Bathing Culture. New Discoveries and Approaches* (BABESCH Suppl. 23), Leuven: 151-79.
- MATTINGLY H., 2000, "Methodology and history in third century Sicilian numismatics", *Schweizerische numismatische Rundschau* 79: 35-48.
- NICOLETTI F., 1996. "Le industrie litiche oloceniche: forme, materie prime e aspetti economici," in R. LEIGHTON (ed.), *Early Societies in Sicily: New Developments in Archaeological Research*. Accordia Specialist Studies in Italy 5, London: 57-69.
- ROTROFF S., 1997, *The Athenian Agora XXIX, Hellenistic Pottery: Athenian and Imported Wheelmade Tableware*. Princeton.
- STONE S., 2002, "Sextus Pompeius, Octavianus and Sicily", in A. POWELL, K. WELCH, A.M. GOWING (eds.), *Sextus Pompeius*, Swansea: 135-165.
- THOMPSON S.M., 1999, "A Central Sicilian Landscape. Settlement and Society in the Territory of Ancient Morgantina (5000 BC - AD 50)" (unpublished diss. Univ. of Virginia, Charlottesville).
- TUSA S., 1987, *La Sicilia nella Preistoria*. 2<sup>nd</sup> edition, Palermo.
- TYKOT R.H., FREUND K.P., VIANELLO A., 2013, "Source Analysis of Prehistoric Obsidian Artifacts in Sicily (Italy) Using pXRF", in R.A. ARMITAGE, J.H. BURTON (eds.), *Archaeological Chemistry VIII*, Washington D.C.: 195-210.
- WALSH J., 2006. "Ethnicity, Trade, and Daily Life: Domestic Assemblages from Fifth-century BCE Morgantina (Sicily)," Ph.D. dissertation, University of Virginia.
- WALSH J., 2012, "Urbanism and Identity at Classical Morgantina", *Memoirs of the American Academy in Rome* 56/57: 115-36.