

**American Excavations at Morgantina – South Baths Project 2013
Preliminary Report
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The South Baths excavation project took place under the auspices of both the Parco Archeologico Regionale di Morgantina, directed by Arch. Enrico Caruso, and of the Soprintendenza ai Beni Culturali e Ambientali di Enna, with Dott.ssa Fulvia Caffo, Superintendent; and under the authority of the directors of the American Excavations at Morgantina, Prof. Malcolm Bell III (University of Virginia) and Prof. Carla Antonaccio (Duke University). Excavations began July 22 and ended August 16, 2013, and were directed by Prof. Sandra K. Lucore (American Excavations at Morgantina/Seikei University, Tokyo) and Prof. Monika Trümper (Free University of Berlin). Staff consisted of Dr. Henry K. Sharp (field supervisor), Dr. Italo Giordano (field assistant), Professor D. Shelley Stone (ceramicist), Karen Abend (conservator), Giancarlo Filantropi (draftsman), and Daven Reagan (inventory and find database). The crew included American, German, and Italian students: Americans from Duke University, University of North Carolina at Chapel Hill, and Northern Virginia Community College: Elizabeth Baltes, Bailey Benson, Emma Buckingham, Michael Carr, Devin Devrai, Elizabeth Djinis, Maura High, Sarah Hilker, and Erin McInerney; Germans from the Free University of Berlin: Denise Baur, Rebecca Henzel, and Laila Sack; and Italians from the Universities of Catania and Pisa: Silvia Ferreri and Dafne Le Mura. Two local workers, Filippo Campanello and Bruno Cristiano, supported the crew for several days. The project was generously by the Gladys Kriebel Delmas Foundation and the Loeb Classical Library Foundation.



2013 Excavation Team: L-R, back: S. K. Lucore, D. Baur, L. Sack, D. Devrai, H. Sharp, E. Baltes, G. Filantropi, M. Carr, I. Giordano, M. Trümper; front: S. Hilker, E. Djinis, E. McInerney, E. Buckingham, D. Le Mura, R. Henzel, B. Benson, S. Ferreri

The overall goal of the three-year project is to complete the excavation the South Baths and the adjacent West Sanctuary of Demeter and Persephone in Contrada Agnese, both of which were first excavated in 1971 and then again briefly explored in 2005, 2009, and 2010. The 2013 season was focused on the South Baths that are located at the intersection of Plateia B and Stenopos 14 West, diagonally across from the North Baths. Exploration of the South Baths aimed at reconstructing the extent, design, accessibility, circulation pattern, decoration, bathing program, water management systems, overall function, and date and history of this complex, as well as its relationship to the intersection and the surrounding buildings.

Fieldwork began with a thorough cleaning of spaces that had been excavated previously, partially or entirely (marked p or e in the following): room 1 (p), room 2 (p), room 3 (p), room 4 (p), room 6 (e), room 7 (p), room 8 (p), room 9 (e). The partially excavated rooms were then fully revealed and explored in greater detail with various soundings. Excavation was continued in terrain that had not been officially excavated thus far (room 5). The entire area was denominated trench 33, and subdivided into 10 sub-sections. Investigation determined that preservation of the remains is affected by reuse of the building in antiquity, subsequent collapse of the building in antiquity, systematic spoliation of walls and other features (in antiquity or later), deterioration after the 1971 excavation, clandestine activity presumably after 1971, and plowing activity (pre- or post-1971). The following activities were carried out:

- Two soundings in room 1 in areas not investigated in more detail in 1971 (33-03 in the W, and 33-08 in the E).
- Two trenches in room 2; the northern half (33-02) was disturbed by clandestine activity; the southern part, partially revealed in 1971 and again in 2009, included a small area of intact tile fall; the center, obviously also disturbed, was not excavated.
- Room 3 was fully excavated.
- Room 4 was fully excavated (33-02), revealing an intact tile fall in large parts of the room.
- Room 5 was cleaned down to a presumably intact tile fall (33-10); two small soundings were made in the SW corner and along a wall in the N, presumably the N facade of the building.
- A small trench in the SE corner of room 6 (33-04), under deteriorated opus signinum pavement, provided a sealed construction deposit with diagnostic finds, and thus the most important evidence for dating the construction of the South Baths.
- Focus was on room 7 (33-01), the furnace, which has not yet been fully excavated; excavation reached the original ancient level in the western half and stopped at a secondary use level in the eastern half.
- Room 8 was fully excavated (33-05, 33-07); largely disturbed by clandestine activity and modern plowing, an intact tile fall was found only in a limited area of the SE corner.

While several areas remain to be explored—full excavation of rooms 5 and 7, investigation of the area to the W of rooms 7 and 8—this year's campaign yielded important results and allows for a preliminary assessment of the main questions.

- Extent: The E facade of the building is largely robbed out, but its foundation was securely identified in room 1; the narrow W wall of room 9 was probably not the W facade of the baths, but cleaning to the W of this wall revealed only bedrock. Thus, the EW extension (including walls) is at least 18.30 m. The northern border of the baths has not yet been fully

revealed: the possible north wall of room 5 and the poorly preserved north wall of room 8 are not aligned. The NS extension is at least 18.10-18.60 m. Future investigation will show whether the building was fully rectangular, including in the as yet unexplored NW area.

- Design: The building seems to be roughly rectangular, filling one standard lot of the Morgantina insula system. So far, nine separate spaces have been securely identified, and two or three more may occupy the unexplored NW corner. Most walls are approximately parallel or set at right angles; slight deviations from rectilinearity are typical in Morgantina, as, for example, in the nearby North Baths. The most notable exception is currently the W wall of room 8, whose irregular course requires further investigation. All walls are built in the typical Morgantina technique, with double faced limestone rubble walls; width varies significantly, but is commonly determined by specific functions and needs (e.g. reinforcement of the tholos W wall where the floor level of the adjacent room 1 descended to the praefurnium area of furnace 7).
- Accessibility and circulation pattern: Since many walls are robbed out down to foundation level and not a single threshold was found, assessment of the circulation pattern is challenging. Conclusive traces in pavements (notably in rooms 3, 4, and 6) and general considerations suggest the following. Rooms 1, 2, 4, 5 and 8 all had separate entrances from the adjacent streets (Plateia B and Stenopos 14 West). Room 1 most likely also gave access to corridor 3, and certainly to the praefurnium area to the W of room 7. Room 4 had a door to room 3 in the SW corner; and room 3 gave access to the tholos 6 via a narrow door at the NW. Rooms 2 and 5 may have been entirely independent rooms, accessible only from the street; this may have been the case for room 8 as well, but rooms 6 and 8 most likely had openings (for drawing water and circulation of heat) to room 7. Room 9 is a water reservoir and therefore needed no doors.
- Decoration: Most significant are the opus signinum pavements that survive, in widely varying conditions of preservation, in rooms 3, 4, 6, 8 and 9. Walls were probably consistently covered with plaster, but remains were only found in situ in room 1 (S wall), room 3 (E wall and bench), room 4 (N and W walls), room 8 (E wall), room 9 (E, S, W walls). Tiny fragments of colored plaster were found in soundings of room 6 and room 2. X Ray Fluorescence sampling was undertaken on various remains of pavements and wall plaster by Samantha Stout and Dr. Antonino Cosentino, the results (forthcoming) of which may further clarify their manufacture and function. Thickness and consistency of wall plaster varies, certainly in accordance with the function of rooms; thus, the plaster in the water reservoir room 9 has opus signinum quality and was thickly applied, with the seam between pavement and walls reinforced by an additional layer.
- Water management systems: Thorough cleaning showed that room 9, erroneously identified as a suite of two bathing rooms in 1971, was a water reservoir which is obvious from its specific features, location, and the lack of doors. While no inlet or outlet could be identified, it was most likely—like the reservoir in the North Baths (room 10)—supplied by water from the surrounding roofs of the South Baths, the adjacent Sanctuary to the south, and possibly a neighboring building to the west. Its location at the lowest point of the Baths seems curious, but it lies conveniently close to the praefurnium area and the furnace (7). If a well existed, as in the North Baths, it could only have been located in the as yet unexplored NW area. The bathing rooms must have been drained, as is usual in baths (cf. the North Baths with their abundance of drainage channels and openings), but not a single drainage channel or

outlet could be identified. Several pavements are clearly sloped, obviously in order to facilitate the evacuation of waste water, but the destination of this water remains unknown:

- channel-like depression along the W wall of room 4, inclined to the S (to room 3);
 - the pavement of room 3 is inclined quite steeply from N to S;
 - the pavement of tholos 6 seems to slope from the center to the E wall, suggesting an evacuation in the SE (but the feature in the SE, identified as a channel leading into the tholos in 1971, is clearly not a channel, but some kind of gap/depression in the floor of currently unknown function);
 - the pavement of room 8 seems to slope from N to S;
 - the pavements at the N end of room 3 and at the S end of room 8 rise steeply where these floors encountered the S and N walls respectively of room 7, obviously to prevent water on the floors from entering the furnace.
- Heating: Room 7 is securely identified as a bottle-shaped furnace of the type that is typical of Greek public baths in Sicily and South Italy, and served for heating the water used for bathing. Further excavation of the furnace revealed, in contrast to previous assumptions, that the praefurnium is in the W and the flue in the E. The furnace is smaller and significantly less deep than its equivalent in the North Baths suggesting that less water was heated here (and that requirements and technologies differed). Since the western half had been partially excavated in 2010, focus was first on the eastern half where at a high elevation a construction appeared that could be identified as a secondary cooking hearth. This feature probably incorporated the S wall and possibly the flue of the original furnace, but was defined at the north by a wall built of reused material; its eastern boundary consists of a single reused type one vaulting tube, the same type as the older form of vaulting tube found in the North Baths. Thick ash layers and broken cooking vessels found in the structure suggest that this was used as a stove for cooking, either for a longer period or for particularly intensive large-scale cooking activities. While this secondary stove has been left intact for now, the western half of the furnace was excavated down to the original level of use. It revealed a clearly visible firing chamber in the west (about 0.90 m EW), flanked by curved narrow tile walls with a clay layer applied to the surface; the opening/stoke hole in the west had been blocked later, most likely when the secondary hearth was installed. At the bottom of the firing chamber, a narrow central channel was found, made of terracotta pipes that most likely continued all the way to the flue, facilitating the functioning (drawing) of the furnace. To the E of the firing chamber and rising to a height above the narrow channel are two platforms, made of stones and fragments of broken tiles, that flank a central large heating channel and originally supported the (metal?) water vessels. While the general function of these bottle-shaped furnaces is known, crucial details (e.g., size, shape, material, position, accessibility of the water vessels, or the question of how the vessels and furnace were covered) are still debated. Here, important evidence survives that may answer some of these questions, especially when the furnace is further explored in future campaigns. Most significant are the remains of opus signinum on the tile side walls of the furnace and platforms and finds from the upper strata of the entire furnace area (found in 2010 and this year): large fragments of opus signinum/plaster with various imprints; and fragments of square pan tiles with central holes (two intact examples) and without central holes (at least one intact example). These were all recorded as significant architectural finds, but understanding their reconstruction and precise function requires further research. No comparable material has been found in the furnaces of any other baths; the circumstances of their excavation suggest that these elements may come

from the roof of the furnace or (less likely) from some construction in connection with the water vessels. Although the N and S walls of the furnace are robbed out to foundation level and were entirely destroyed in some areas by clandestine activities, traces in the pavements of rooms 6 and 8 suggest that both rooms had openings to the furnace, located close to the firing chamber.

- Furniture and finds: With the exception of a built bench or benches in room 4 and a low built “shelf”/ “bench” in room 3, no built features survive that would point to a specific use of rooms. The tile fall and destruction deposit in room 4 revealed a number of items whose use corresponds well with a bath building, such as fragments of amphorae, small (oil/perfume) vessels, basins, and tubs; however, at least some of them (such as the fragments of a hip-bathtub with stepped bottom) were clearly not found in situ, suggesting that the abandonment and post depositional process of this building was complex. The tile fall in the SE corner of room 8 included fragments of at least one terracotta statuette (bust?), most likely also not found in situ.
- Function of rooms: Size, shape, location, and decoration (esp. with waterproof pavements) help to determine the function of rooms, also in comparison with those of better preserved baths (esp. North Baths).
 - Tholos 6 was most likely equipped with hip-bathtubs, to which may testify faint traces in the pavement and rubble structures serving as supports (the latter more clearly visible in 1971; today, only a “bench” along the E wall survives that may have supported the seat part of the hip-bathtubs). Hot water was supplied from the adjacent furnace, presumably through an opening in the north wall.
 - Corridor 3 served as the main access to the tholos, with a door to room 4 and possibly also to room 1; the low “shelf” at the W wall, without comparison in Greek baths, may have been used for the storage of vessels or other items.
 - Room 4 was probably the “apodyterion” or vestibule and entrance room, with bench/es for changing and relaxing and basins for preliminary ablutions.
 - Room 1 is surprisingly large and includes several features and structures that cannot yet be fully explained. It may have been multifunctional, providing access to the praefurnium of furnace 7, and probably serving as storage space for the complex, with possibly another (service?) entrance to the tholos via corridor 3.
 - The identification of room 9 as a water reservoir and room 7 as a furnace is indisputable, even if certain details concerning how they functioned still remain to be determined.
 - Room 8 was certainly one of the bathing rooms because of the opus signinum pavement and connection to the furnace. While it clearly resembles large distributive rooms in other western Greek baths, such as room 8 in the North Baths, it lacks their crucial characteristic, notably the link to a collective immersion pool. Such an immersion pool requires connection with a central praefurnium or its own praefurnium and heating channel, which here would only be possible to the W of room 8. Excavation in this area has not yet revealed any conclusive traces, however, either of an immersion pool or another room with opus signinum pavement (and immersion pool). Thus, for now room 8 can only be described as an independent, remarkably large “bathing” room without connection to any of the other bathing rooms (4, 3, 6) and without any other conclusive features (benches, basins, tubs). Full

exploration of the NW area of the building may clarify the function of room 8 and change this picture.

- Finally, rooms 2 and 5 with simple earth floors may have been independent rooms without any immediate connection to the baths proper, usable e.g. as shops; full excavation of room 5, however, may confirm a different interpretation.
- Bathing program: The most surprising result of this season is perhaps that the bathing program of the South Baths, as currently known, is unusual, or rather sub-standard, in the western Mediterranean context. While the South Baths include the tholos with hip-bathtubs that is common to all known western Greek public baths, they lack the most innovative feature of these baths, notably the communal immersion pool with hypocaust channel. It cannot be entirely excluded that this pool was located in the still unexplored NW area of the building, but no conclusive traces were found immediately to the W of room 8. Furthermore, the design and circulation pattern of securely identifiable bathing rooms are unusual: the characteristic unit of tholos with two small ante rooms with benches, which appears in the North Baths and the baths of Syracuse and Megara Hyblaea, is absent here; and the path through rooms 4 and 3 to the tholos is strangely sinuous. Full assessment of the bathing program of the South Baths must await complete excavation of the building, but even at this point remarkable differences between the South Baths and North Baths (and other Sicilian baths) are obvious and require further explanation.
- Date and history: The first excavator, Hubert H. Allen, had reconstructed the history of the South Baths based on stratigraphic soundings in the tholos and the SW corner of room 1 as well as assessment of the relationship of walls, esp. in the SW corner of the building. According to Allen's interpretation, the original building would have been constructed in the late fourth or early third century BCE, with floors on a much lower level than that of the baths; later the baths would have been installed (probably with several phases in the tholos, and in any case on a higher level) and used until 211 BCE when they were abandoned. This argumentation cannot be entirely followed today because the SW corner of the building was disturbed by post-1971 plowing activities (the large blocks visible on K. Schaar's 1971 state plan as "in situ", are scattered today) and the soundings undertaken by Allen are not sufficiently documented: the material found in the lowest strata provides only a general terminus post quem, and the presumed existence of earlier floor levels could not be confirmed this year.
 - Sounding 33-03 in room 1 revealed a possible beaten earth floor slightly above bedrock that may have been the original floor level of this room, which functioned as part of the baths.
 - Sounding 33-04 in tholos 6 did not yield any clearly identifiable earlier floor level although it was dug down to the level at which Allen saw the earlier floor in the tholos.

Several features found this year do provide, however, important information about the construction date and the history of the baths.

- The sealed construction deposit in trench 33-04 (tholos 6) included a Persephone/Bull coin, dated to shortly after 310 to 290 BCE. The pottery from this trench (contexts 5, 6, 14) all belongs to the third, probably mid third century BCE, suggesting a construction date for the pavement (and the tholos/baths) somewhere in the third century BCE, which can probably be refined further to the mid or second half of the third century BCE.

- The north foundation wall of the water reservoir (9) includes in its eastern half a remarkable round impression with a diameter of 0.22 m that corresponds exactly to the width of the type 1 vaulting tubes found in the North Baths. Thus, such a vaulting tube may have been used here in the wall construction, similar to the use of reused vaulting tubes in the W wall of room 6 of the North Baths; this would chronologically link the construction of the two bathing complexes and even suggest that the South Baths postdate initial building phases (and vaulting experiments) of the North Baths. (In contrast, the type 1 vaulting tube found reused in the secondary hearth in room 7 has no chronological implications.)
- All walls that were specifically constructed for the South Baths (E wall of room 1 and various features in room 1; E, S, and W wall of room 9) were set against the “double” north wall of the Sanctuary: this “double” wall consists of a well-built stone wall in the southern part (0.50 m wide) and a battered narrower wall (0.33 m wide) in the northern part; the southern part was founded at a much deeper level than the northern section, which was the only part of the double wall that was plastered and would have functioned as protection against water that ran down the slope in this area before the construction of the South Baths. This double wall clearly extends all the way across to Stenopos 14 West, and the E facade wall of room 1 is set against the plastered battered wall. The crucial corresponding intersection in the W (SW corner of the South Baths) no longer survives. The available evidence suggests, however, that the Sanctuary was constructed (and fully finished/ functioning) before the baths.
- Several rooms of the baths give evidence of repairs (e.g., pavements/ thresholds of rooms 4 and 6), but no major remodeling can be identified. The most notable feature is the reuse of the furnace and its transformation into a cooking stove; but there are no conclusive finds (only pottery and coins broadly dated to the third century BCE) that would precisely date this transformation (e.g. to 211 BCE or shortly after 211 BCE). The lack of later second and first century BCE pottery in the fill of the stove suggests, however, that the stove went out of use in the early second century BCE.

Conclusion:

The 2013 excavations of the South Baths produced important and interesting results that have clarified several crucial aspects of the building and at the same time have posed new questions. The building exists coherently within the corpus of other known Greek public baths from Sicily and south Italy, yet because of the similarities the differences found thus far in the South Baths are particularly intriguing and require explanation. The apparent lack of provision for the new form of luxury bathing in a heated communal immersion pool could help to explain the presence of two bathing complexes in the same area, a situation among Greek public baths that is thus far unique to Morgantina. The South Baths, limited to the more rudimentary traditional form of individual cleansing bathing, may have served a different clientele than that envisioned for the North Baths, perhaps women, or other less privileged social groups. The presence in the building of at least some spaces that were not used for bathing suggests a less exclusive purpose for the South Baths complex and thus perhaps a broader relationship with other buildings or facilities in the area. The primary aim of future excavation (plans in progress for 2014) is to reveal completely the remainder of the building and all of its preserved features in order to pursue

further these and other provisional interpretations and understand the role of the South Baths in the bathing culture of Morgantina.



South Baths, before excavation from N



South Baths, after excavation, from N