

Report on the Excavations of the Gioiella-Vaiano Villa 2016-2019

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Since 2015, the Trasimeno Archaeological Project has been investigating a Roman villa located between the localities of Gioiella and Vaiano in the territory of Castiglione del Lago. A preliminary surface survey of the site (2015) indicated that the villa was occupied from the 2nd century B.C. through the 3rd century A.D. While there is extensive evidence for an Etruscan presence in the region, the Gioiella-Vaiano Villa is the first Roman period site to be scientifically investigated. Of particular interest is understanding the changing role of the villa in the economic and social life of Central Italy from the mid-Republican to the late Imperial periods.

Four seasons of excavation (2016-2019) has revealed a bath house with a partially preserved hypocaust system and a monumental nymphaeum with a water basin and walls decorated to look like the interior of a cave. Although systematic analysis of the finds has not yet been completed, preliminary observations indicate imported objects (e.g. decorative marbles and amphora) suggesting that in the early Imperial period the owners of the villa were wealthy and had access to networks outside of Central Italy. Several brick stamps have been recovered with the name L.ATALLIANI, which may represent an owner of the villa in the early Imperial period. It appears at least during the first centuries A.D. the villa served as a locus for economic production as well as for the display of social status and power.

Introduction

The Trasimeno Archaeological Project is a multi-year project to investigate the archaeological heritage in the territory of the commune of Castiglione del Lago (PG). Excavation of the Gioiella-Vaiano Villa site has been conducted by DePauw University, Intrageo, and the Umbra Institute Summer Archaeology Program in cooperation with the Soprintendenza Archeologia, belle arti e paesaggio dell'Umbria¹. After a field survey in 2015², excavation of the Gioiella-Vaiano Villa site began in 2016. Four campaigns have been completed, and an excavation season was planned for 2020, but was interrupted by the global pandemic caused by COVID-19. This re-

¹ All archaeological projects are collaborative. We are grateful for the support of the representatives from the office of the soprintendente, G. Altamore (2015-2017) and P. Romi (2018-2019), and the members of the ArchaeoClub Castiglione del Lago-Trasimeneo (M. Sabba, president). We also acknowledge our undergraduate participants, who worked hard and with good cheer: Rebecca Kerns (DePauw U., GIS Assistant 2017-2019), Giancarlo Santarelli (Università degli studi di Perugia, Field Assistant 2018-2019), Sam DeBacker (U. of Puget Sound, Field Assistant 2018), Adam Rathbun (DePauw U., GIS Assistant 2016); 2016: Manon Carter (DePauw U.), Charlotte Delay (DePauw U.), Grant Verlin (Ramapo College), Sara Wall (Penn State U.); 2017: Matthew Berman (Dickinson College), Jack Conway (U. of Virginia), Emma Gosciminski (U. of Connecticut), Marissa Gouker (Hood College), Ellen Hambricht (Independent), Dalton Hoelscher (Washington U. in St. Louis), Jack Leahy (DePauw U.), Corinne Lee (DePauw U.), Miranda Lord (St. Michael's College), Stephanie Ramser (Chatham U.), Conner Reed (DePauw U.); 2018: Sarah Hennessey (DePauw U.), Mia Manney (DePauw U.), Caleb O'Brien (DePauw U.), Samantha Petri (Ohio State U.), Nicole Roenicke (James Madison U.), Mahayla Roscoe (DePauw U.), David Sharabani (College of Charleston), Marissa Sorini (DePauw U.), Morgan Stamper (DePauw U.), Shannon Sutton (Boston U.), Ansley Whitmer (U. of Illinois Chicago); 2019: Garrett Denaro (U. of Connecticut), Maggie Ephraim (DePauw U.), Abigail Gile (DePauw U.), Trevor Hale (Penn State U.), Matthew Hatch (DePauw U.), Kayla Kane (Wellesley College), Charlie (James) Locke (DePauw U.), Leila Payer (Grinnell College), Benton Thompson IV (The College of Wooster), Michael Troutman (DePauw U.), Wilson Wolf (DePauw U.).

² See BEVAGNA *et al.* 2016.

port provides an overview of what we now know about the topography and geology of the site, and a preliminary report on the excavations, highlighting the *nymphaeum* in the Central Area of the site and the bath complex on the lower terrace.

The Gioiella-Vaiano Villa (Comune of Castiglione del Lago) is located between the towns of Gioiella and Vaiano on a gentle hill overlooking Lago di Chiusi near the border between Tuscany and Umbria (fig. 1). Local residents have long known that there was an ancient site below the modern plough-soil. Maps of the area refer to this hill or possibly a slightly higher rise (Poggio S. Maria) to the northeast, as “La Villa”³. However, no prior excavation has been conducted in the area. Preliminary evidence suggests that the site was occupied from the 2nd c. B.C. through the 3rd c. A.D. A central question for our project concerns the changing role of a villa in Central Etruria from the mid-Republican to the late Imperial periods.

The environs of the site consist of a group of rolling hills between Lago Trasimeno, Lago di Chiusi, and Lago di Montepulciano, just east of the Val di Chiana. Geologically, the sediments of these hills were formed in a fluctuating coastal environment (consisting of both marine and continental braided fluvial deposits) during the late Pliocene to middle Pleistocene, ca. 3.60 – 0.78 mya. Those sediments (which in the locality of “La Villa” vary from sand to silty clay) have subsequently undergone tectonic uplift that has created a southeasterly dip to the bedding, and riverine incision that drains southward⁴. As uplift, drainage, and drying progressed, remnant pockets of deeper water formed the district’s lakes. The current shape of the terrain largely resembles that in place ca. 500 B.C.⁵. However, during the Etruscan and Roman periods, the river Clanis ran sluggishly south within the Val di Chiana and widened into areas of open water today called “Lago/Chiaro di Montepulciano” and “Lago/Chiaro di Chiusi” (the latter was mentioned by Strabo, and both have been mapped as lakes since at least 1551)⁶. The Clanis eventually continued into the Tiber river just to the southeast of *Velzna/Volsinii Veteres* (Orvieto), on its way to Rome⁷.

The Etruscan presence in the territory of Castiglione del Lago, which was probably within the ambit of Chiusi (Etruscan *Clevisin*; Roman *Clusium*), is largely known from chance finds and limited exploration⁸. Material from tombs on the southwest side of Castiglione del Lago and from deposits at Poggio S. Maria and Podere Fontegallo (both just northeast, up the slope from the Gioiella-Vaiano Villa site) attest to occupation since the 7th c. B.C.⁹. Most of the evidence for pre-Roman period activity is funerary, and that evidence tends to cluster along a “Ridge Road” that runs from Villastrada in the south to Petrignano in the north (fig. 1). This must have been a high-ground ancient route that linked Chiusi with Cortona; its line essentially divides the Lago Trasimeno watershed from the Val di Chiana watershed¹⁰. The sites being investigated by our project are oriented in the latter direction, just SW of a bend in the Ridge Road, and north of the “Shore Road”—possibly ancient—which marks passage around the high-water edge of the lake and appears on maps as early as 1664¹¹ (fig. 2).

Tomb material of the 5th c. B.C. has been recovered at Bruscalupo, about midway between Villastrada and Ceraso, as well as at “La Villa,” Gioiella, and Pozzuolo¹² (fig. 1). Evidence in this area west of Lago Trasimeno seems to drop off in the 4th c. B.C., which Renzetti sees as a rupture of the previously developed equilibrium between city and countryside (and perhaps also the balance amongst the Etruscan cities of Cortona, Pe-

³ The site is also included in the catalog of villas and sites compiled by the Soprintendenza Archeologica dell’Umbria in 1983: *Ville e insediamenti* 1983. The site is located at approximately 43.07142 degrees Latitude 11.963102 degrees Longitude (WGS84), or N 4773236 E 2272751 (Gauss-Boaga Monte Mario 2 [East]).

⁴ BIZZARRI *et al.* 2015, esp. fig. 1; BIZZARRI *et al.* 2011; LUCILIA 2004: 180-85. See also PUCCI, MASCIONE 2003: 303-06; GIROTTI, MANCINI 2003; and ALEXANDER 1984: 528-30.

⁵ BATINO 2014: 186; PIZIOLO, SARTI 2011.

⁶ Strabo 5.2.9; the RICASOLI 1551 survey labels each feature as a ‘Chiaro’. The depth of Lago di Chiusi was first measured in 1820-21 between the low and high-water marks of ca. 19-21.5 braccia fiorentine (11.1-12.6 m.): STUCCHI 1820-21.

⁷ TALBERT 2000, Map 42 (Arretium-Asculum); ALEXANDER 1984: 530-32; FOSSOMBRONI 1835: 16-22. In 1780 the Papal States and the Grand Duchy of Tuscany established the *Argine di Separazione*, “Separation Levee,” at Chiusi Scalo, and the waters of Lago di Chiusi and the northern section of the Chiana now drain north into the Arno River as engineered by the massive 19th-c. land reclamation project directed by Fossombroni and Manetti (ALEXANDER 1984: 542-47; FOSSOMBRONI 1835, MANETTI 1840).

⁸ The most detailed treatments of the area have been by RENZETTI 2011, PAOLUCCI 2002, PAGNOTTA 1984, BIANCHI BANDINELLI 1925. RENZETTI 2011: 241 posits that Chiusan control of the area north of Lago di Chiusi began in the late 7th c. B.C., reaching its peak in the 6th-5th c. B.C. BRUSCHETTI 1997: 10-23 also has a historical overview.

⁹ RENZETTI 2011: 237-44; PAOLUCCI 2002: 165-66; cf. also PAGNOTTA 1984: 40.

¹⁰ RENZETTI 2011: 238.

¹¹ LANDINI, PULEGA 1664.

¹² RENZETTI 2011: 239 (esp. n.15), 244-246; PAGNOTTA 1984: 42.



Fig. 1. The territory of Castiglione del Lago, the sites of the villa (V) and cistern (C), the north-south ridge road (red) that divides the watersheds of Lago Trasimeno and the Val di Chiana/Lago di Chiusi, the route (yellow), at Villastrada, that connects west to Chiusi, and the Levee of Separation (green) marking the 1780 north-south Chiana watershed. (GoogleEarth; P. Foss).

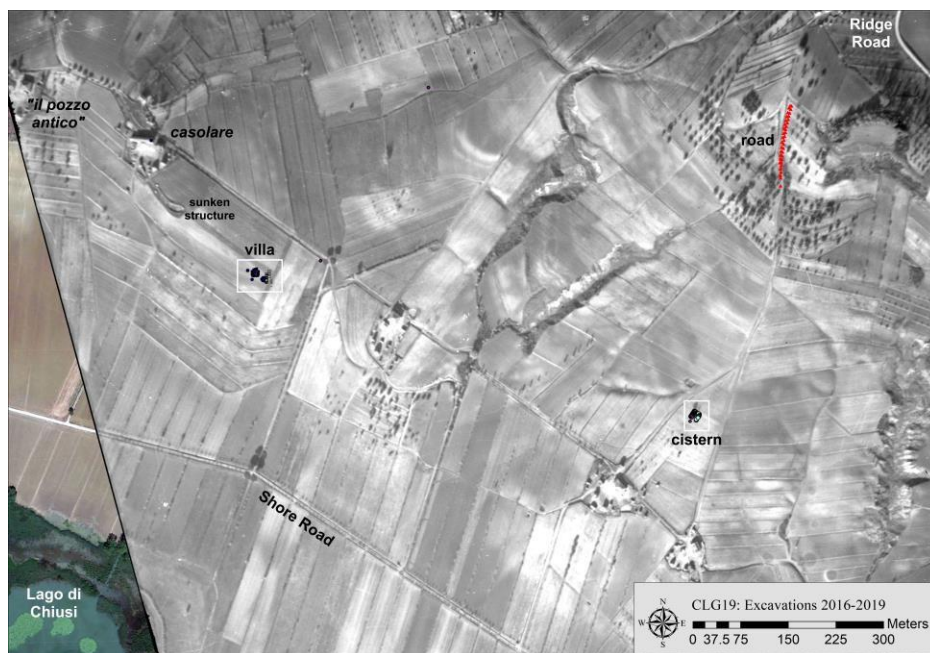


Fig. 2. Detail of the project area showing the villa site, road, cistern, casolare, and sunken structure, overlain on a 1941 aerial photo (Istituto Geografico Militare 122-1-17mv). (GoogleEarth/ArcGIS 10; P. Foss).

rugia, and Chiusi as they responded to Roman incursions), excepting a possible important sanctuary at Casa maggiore where five votive statuettes dedicated to Cel were found in 1902¹³. During the Hellenistic period (3rd-2nd c. B.C.), evidence extends more broadly across the landscape: numerous tombs and necropoleis occupy the same north-south communications corridor ("Ridge Road"), but also appear along routes connecting to Lago Trasimeno and especially upon high ground overlooking the north side of Lago di Chiusi or the Val di Chiana to the west¹⁴.

During the Roman Republican and early Imperial periods, this area "tra i laghi" flourished due to its terrestrial, lacustrine, and fluvial resources, as well as its accessibility to Rome via the Clanis and Tiber rivers, and the Via Cassia, by which local residents could supply cultivated, hunted, and foraged products to the capital¹⁵. In southern Umbria as a whole, a number of rural villas dating from the 1st c. B.C. have been identified, also generally following major routes of communication such as the Via Flaminia, the Via Amerina, and the Tiber¹⁶. In the west-central part of Umbria around Lago Trasimeno, only a few villas have been systematically excavated. These include the Villa at Ossaia¹⁷, located between Cortona and the northwest shore of Lago Trasimeno, and the Villa at Passignano sul Trasimeno (Loc. Quarantaia)¹⁸, on the northeast shore of the lake (fig. 1). Both sites are nestled in the lower slopes of the Apennines and thus have a different aspect and underlying geology than our site, which is well west of Lago Trasimeno. The extensive and well-documented excavations at the Villa at Ossaia have revealed an estate that functioned as a luxury home in the 1st c. B.C. to the 1st c. A.D. However, by the 2nd c. A.D. new owners had transformed the villa into a more industrial property; in the 3rd c. A.D. it became an important residence again and continued to be occupied until the 5th c. A.D. The Villa at Passignano sul Trasimeno was occupied only from the 1st c. A.D. to the beginning of the 2nd century, and appears to have focused on agricultural facilities and industrial production rather than serving as a place of *otium* for its owners.

About 800 m east of our site, on the slopes of Piè Maggiore/Poggio S. Maria, is a cistern and a possible stretch of ancient roadway (figs. 1-2). The road has a sunken profile, and awaits investigation. However, the cistern has standing walls of clearly Roman construction, probably 1st to 2nd century A.D. based on the brick work. During the 2016 field season we mapped its perimeter by GPS survey¹⁹. It is nearly perfectly square, measuring about 10.5 m (E-W) x 10.2 m (N-S) on its badly eroded exterior faces. Material from the cistern site in the antiquarium at Castiglione del Lago, particularly a rectangular bronze tile stamp with an enigmatic two-line inscription (MDIIVSF | RVFKVSΓ), suggests that the cistern was used for levigating clay for terracotta production. The present landowners claim that there is a series of square basins, now buried, that step down the slope from the base of the cistern; such basins could have been used for settling. Certainly, the landscape would have been perfect for ceramic production: excellent clay, abundant water, fuel from forests²⁰, and proximate waterways to ship the finished items. It is also possible that this cistern was used to irrigate fields on the lower slopes of the hill around the villa. This cistern is too far below the villa site to have served the residence itself. However, the land-owner of the villa site (sig. Lucio Bucci) has reported to us that when he acquired the land in the 1950s there was near the top of the hill an open, sunken rectangular structure, just below and SE of the *casolare* and farm buildings, which he filled in order to plant his crops. This sunken structure appears visible

¹³ RENZETTI 2011: 246-56; PAGNOTTA 1984: 62. The votives were discovered by the landowner but no official excavation took place. The Vatican photographed the statuettes in 1936 (see COLONNA 1976-1977) but did not acquire them. After the 1930's there is no record of their location.

¹⁴ RENZETTI 2011: 256-64; and PAGNOTTA 1984: 87-88.

¹⁵ BIANCHI BANDINELLI 1925: 513. Pliny, *Historia Naturalis* 14.11 and 18.12, respectively mentions the vines and wheat in the region of *Clusium*; Strabo 5.2.9 discusses abundant fish, aquatic birds, and aquatic plants (e.g., papyrus, reeds, and reed tufts used for stuffing beds and pillows) from the Chiana River valley (ancient Clanis) and Lago Trasimeno, as well as their transport via rivers to Rome; see RAIMONDI 2001: 109-10. For road systems, see COLIVICCHI, ZACCAGNINO 2008: 73-79; RAIMONDI 2004; MOSCA 2002; and HARRIS 1965; for river traffic, see KEENAN-JONES 2013: 249-50, with analysis of Pliny, *Historia Naturalis* 14.53-54; also WILSON 2008 for the technology and economy of irrigated horticulture in the lower Tiber valley.

¹⁶ COLIVICCHI, ZACCAGNINO 2008: 69-79; fig. 3.29.

¹⁷ GUALTIERI 2014; FRACCHIA 2006; FRACCHIA, GUALTIERI 1996.

¹⁸ BRUSCHETTI 1997. Bruschetti summarizes the scattered evidence for other villa sites in the area of Trasimeno on pp. 36-37, including a villa at 'Poggio Santa Maria', which seems to denote the site we are excavating for this project.

¹⁹ The cistern was previously studied and published by W. Pagnotta (see PAGNOTTA 1984).

²⁰ PUCCI, MASCIONE 2003: 315-20, in a chapter by Di Pasquale, provides analysis of the carbon from the Marcianella ceramic factory about 1.6 km W of Chiusi, which permits a hypothetical reconstruction of local arboreal resources from the 3rd c. B.C. – 2nd c. A.D. Results indicate oak forests upon the plains and low hills in a humid-subhumid Mediterranean climate, featuring holm oak, turkey oak, downy oak, maple, hornbeam, European beech, and silver fir, the last of which is cited by Livy as an item supplied by Chiusi to help build the Roman fleet that invaded Africa in 205 B.C. (Livy 28.45.18).

on aerial photography from both 1941 and 1954 (fig. 2). We suspect that this may have been another cistern, serving the needs of the villa itself, but have not yet had an opportunity to test that hypothesis.

The 2015 intensive surface survey, which centered on the area where the heaviest concentration of materials was visible on the surface, revealed that the location was occupied, perhaps not continuously, from the 2nd c. B.C. to the 3rd c. A.D. The survey recovered various evidence: mosaics, lead piping, sculpted marble, amphorae, dolia, a loomweight and spindlewhorl, two bronze coins, *vernice nera*, *sigillata italica*, and nearly 880 kg. of tile, suggesting at least two large buildings (one to the south, and one to the north) with agricultural, residential, and thermal components²¹.

General Stratigraphy of the Site

Prior to excavation in 2016, we carried out a limited geophysical prospection. Initial results looked promising, indicating a potential floor surface in an area where materials collected from the 2015 survey had suggested the presence of a building (fig. 3a, b, d: areas marked in dark red, indicating high electrical resistivity—that is, low moisture content). However, the areas of high resistance turned out to be natural sediment, namely a thick layer of highly porous orange sand, which, when dry, becomes strongly resistant to electrical waves (in the same way as brick or stone). The sand deposits date to the Pliocene²². Although this was not what we initially expected to find, ground-testing through excavation has improved our understanding of the local natural sedimentation, and how it correlates to the resistivity results. For instance, a drain feature excavated in B1 and B2 (described below) precisely matches a decrease in resistivity between two highly resistant patches of soil (fig. 3b). Toward the middle of the 2016 campaign we did a second GPR test, which identified the limits of a large tile deposit in C2, later excavated (see below). A more extensive GPR program is planned for summer 2021.

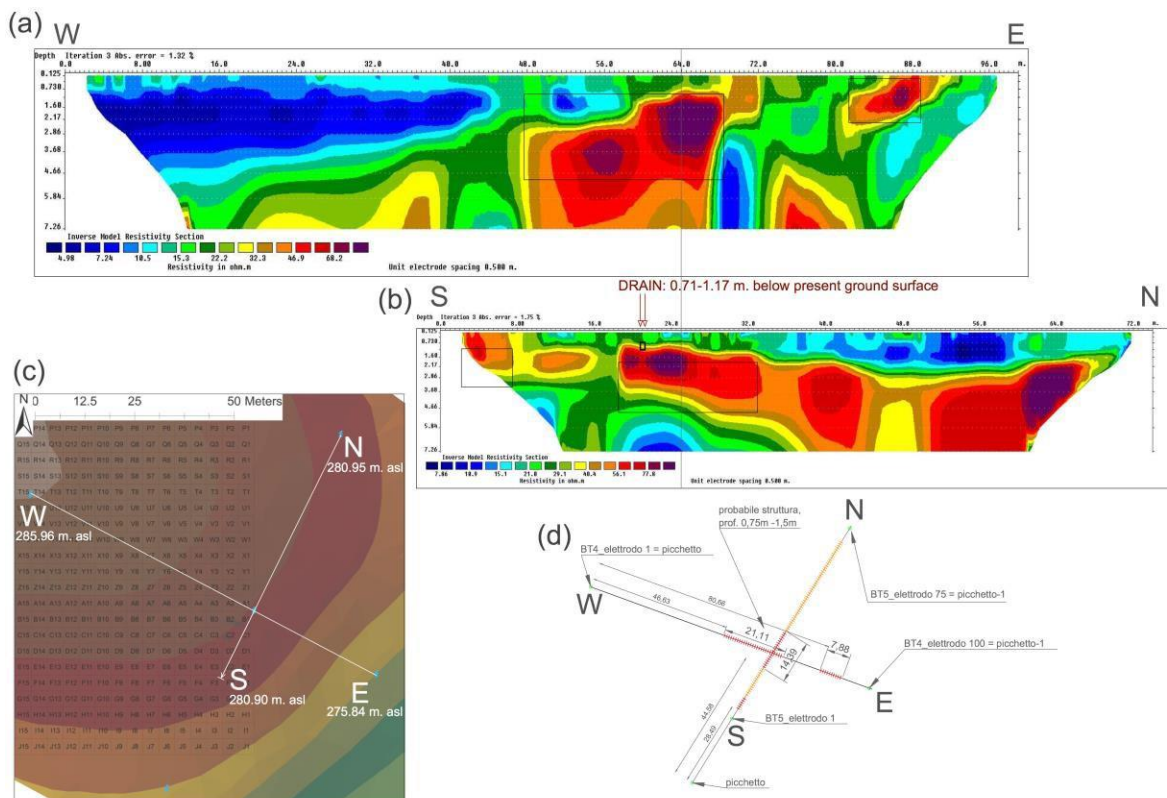


Fig. 3. Results of resistivity testing conducted in 2016: (a) W-E section; (b) S-N section, showing location of the later excavated drain; (c) site plan showing position of the resistivity sections intersecting at the SE corner of A1 (grid is 4 x 4 m); and (d) details of the resistivity setup (Massimiliano Mazzocca and P. Foss).

²¹ BEVAGNA *et al.* 2016: 5-17.

²² For the early geological history of the Val di Chiana, see above, n. 4.

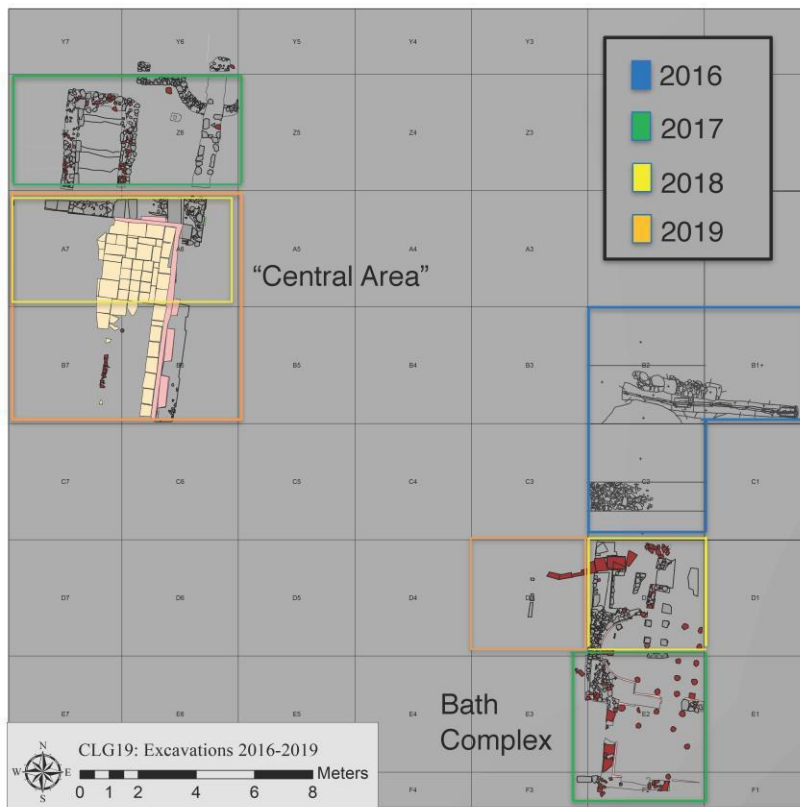


Fig. 4. Plan of the excavation site showing the areas excavated in 2016-2019 (ArcGIS 10; P. Foss and R. Kerns).

After four excavation campaigns we now have a better understanding of the underlying geology of the site and how that correlates with the resistivity work done in 2016. The hill is composed of layers of natural sand, which in some areas is very close to the surface, and clay fills. Based on the current topography, resistivity, and excavation data, it appears that the Roman occupants of the site built at least two terraces into the south-westerly slope of the hill. On the southeast, the lowest terrace was carved out of the sand stratum, and the sand itself was used as part of the architecture of the site. In this area we have located the bath complex and evidence of a drainage system (areas B1, B2, D2, D3, E2; fig. 4). Here the remains are relatively close to the surface. However, in the Central Area there is more than two meters of fill, deposited over a long period of time from the Roman abandonment of the site to the modern era when the family that currently owns the property significantly modified the surface of the hill for

agricultural production. The difference in elevation from the “top” of the Central Area to the approximate floor level of the Bath Complex is almost 3.0 meters²³. We suspect that there was an upper terrace as well but that the Roman levels there have mostly been destroyed by its reconfiguration for agriculture. We await further GPR analysis to know for certain.

Although the excavations are ongoing and we do not yet have datable material from foundation levels, we can hypothesize five general phases for the site: 1) Late Republican to early Imperial construction and use; 2) Renovation in the early Imperial period (probably in the mid to late 1st c. A.D.); 3) Late reuse of Imperial-era structures (late 2nd to the 3rd c. A.D.), primarily for agricultural and industrial work; 4) Abandonment with occasional activity; 5) Modern ploughing that resulted in the re-distribution of building debris.

The Republican phase of the villa is, so far, represented by fragments of black glaze pottery in mixed fills around the site (and from the survey in 2015), and evidence of earlier floors (i.e., *opus signinum*) reused in bedding for the tile floor of the Imperial-period *nymphaeum*. The bath complex probably dates to the late Republican period and may have been embellished in the Imperial period based on fragments of decorative marble found in the fill. However, its chronological relationship to the structures in the Central Area is not yet certain.

In addition to the possible refurbishment of the bath complex, the early Imperial phase of the villa is represented by the construction of a large *nymphaeum* in the Central Area. This massive building project combined Roman concrete construction with an Imperial-period fascination for the control and display of water. This large rectangular structure is comprised of a tile and *cocciopesto* water basin, and niched walls decorated to mimic the interior of a grotto. The monumental scale of this building in terms of both size and decoration is on par with structures found in the most luxurious villas on the Bay of Naples. Its construction indicates a change

²³ This is based on measurements taken at the top of the stairway (see below) in Z7 and the approximate floor level of the bath in E2.

in the status of the owners to a family with a more prestigious public role, perhaps connected to a magistracy at Chiusi (Clusium) as well as the socio-political world of Imperial Rome²⁴.

At some point, probably in the later part of the 2nd c. A.D., the *nymphaeum*—and perhaps the bath complex—went out of use. This may have coincided with the construction of walls to the northeast of the *nymphaeum* and the features for controlling drainage further to the east. However, the building remained accessible through the later history of the villa and was used as a dump for unwanted pottery and food waste. The site was eventually abandoned, but we know that at least some of the structures were still standing and accessible during the Medieval period. Several limestone blocks from the *nymphaeum* were robbed out for the construction of the *casolare* in the 14th c., and a single piece of *invetriata* was recovered from the base of a stairway leading to the water basin (see below). It may be at this time that the superstructure of the *nymphaeum* finally collapsed. Between the Medieval and Modern eras there is evidence of intermittent use of the site, perhaps by herders²⁵. The latest stratigraphic phase corresponds to modern agricultural work on the site, which involved extensive re-positioning of ancient building debris, probably to fill-in and cover over what remained of the features in the Central Area.

The Central Area

Excavation in the Central Area of the Villa has focused on uncovering a monumental building that can now be identified as a *nymphaeum*. Archaeological deposition in this area, formed by both natural accumulation and deliberate in-filling to create a gentle slope suitable for agricultural activity, is over 2.5 m deep. Just to the north of the excavated area there was no evidence of material culture, indicating an artificial terrace that extended from the north edge of Z6/Z7 more than 12 m to the south (fig. 5). It is likely that this terrace continued both to the east and the west of the excavated area. The depth of the fill in this area, which contained dense concentrations of building debris, slowed down the excavation but also ensured that Roman period remains were preserved well above their foundations.

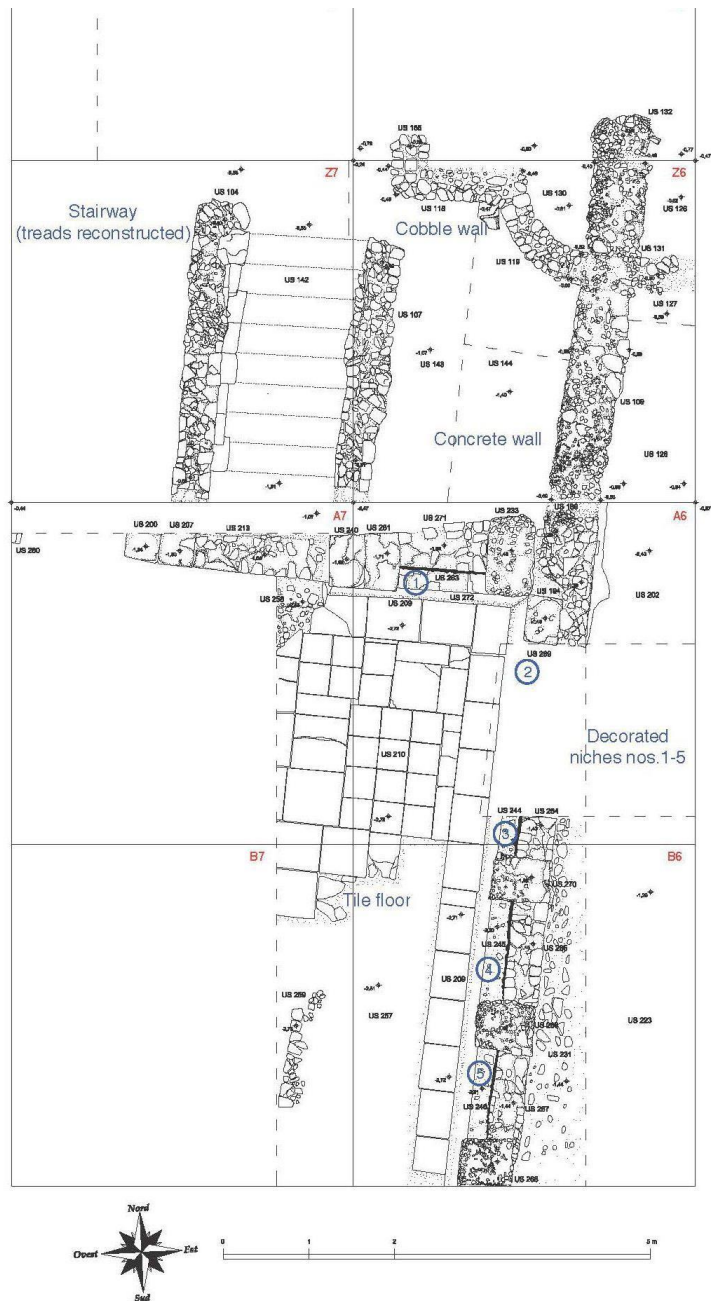


Fig. 5. Plan of the structures excavated in the Central Area, 2017-2019; *nymphaeum* with tile floor and decorated niches (nos. 1-5, no. 2 is unexcavated) in A6/A7/B6/B7, and stairway to the north in Z7; late cobble and concrete walls to the northeast in Z6 (AutoCad; S. Spiganti).

²⁴ The significance of Clusium as an urban center in the Imperial period is debated, in part because archaeologically the Roman city is not well known. However, a variety of epigraphic evidence suggests that, like any provincial city in Roman Italy, Clusium had wealthy local landowners who also held magistracies in the city. See Paolucci 1988: 24-45.

²⁵ For example, in Z6 between the accumulated layers of fill there was a concentration of burnt wood and stones indicative of a campfire. In A6/A7 there is also evidence of persistent burning between the collapsed concrete walls (161 and 162, see fig. 6).



Fig. 6. Aerial photograph of the excavated area of the nymphaeum (A6/A7/B6/B7, 2019); north at the top. Large pieces of collapsed tile and concrete construction are visible to the left (west); deposits below the collapsed concrete remain unexcavated except for the very north of A7. Excavated areas to the north are backfilled in this photograph (photo Soprintendenza Archeologia, belle arti e paesaggio dell'Umbria).



Fig. 7. Excavated area of the nymphaeum (A6 and B6, 2019); view north showing the tile floor, north and east walls (photo R. Schindler).

After three seasons of excavation (2017-2019), the eastern half and the north wall of the monumental building have been uncovered (figs. 5 and 6). The interior width of the building is 6.30 m and its length is at least 8.50 m. The southern limit of the building has not been determined. The floor, constructed of large terracotta tiles, is best preserved on the north and along the east wall and mortared into a low, but thick, wall of *cocciopesto* that rises 0.40 m above the floor to create a water-proof basin. The walls above the *cocciopesto* consist of alternating pilasters and niches (figs. 7 and 8). There are at least four niches on the east side (nos. 2-4 on the plan, fig. 5) and likely a fifth just to the south of the excavated area. On the north side, one niche (no. 1) has been exposed on the east and there is probably a second on the west²⁶. Between those two niches, in the very center of the north wall, a stairway descends from the terrace above. Assuming that the structure was symmetrical, there should be another five niches on the west (unexcavated) side of the building, totalling 12 niches. However, the south side of the building remains unexcavated and, therefore, the configuration of the south wall and any possible entryway on that side are unknown. Given the building's north-south orientation, with a direct view over the Clanis River Valley/Lago di Chiusi toward Chiusi, we hypothesize a porticoed façade that would have allowed users to enjoy both interior and exterior views. Based on the large, collapsed segments of Roman concrete and tile construction that were uncovered in the upper fill of the western side of the building (see aerial photograph, fig. 6), it is likely that the roof was vaulted. The scale and design features of this structure, particularly the large water basin and niched walls, identify this structure as a *nymphaeum*²⁷.

Details of the building's decoration, which plays on the Roman interest in blending nature and artifice, further contributes to its identification as a *nymphaeum*. The pilasters and niches, which rise above the wall of the basin, are formed by limestone blocks stacked on top of each other (the pilasters) alternating with inset segments of cobble wall (niches) (fig. 8). Each pilaster is 0.54 m wide and each niche 1.05 m; the preserved height of the walls above the *cocciopesto* basin averages 0.85 m. The top of the basin forms the bottom of each niche, creating a narrow surface that varies in depth from ca. 0.27 m in the south niche (no. 5) of the east wall to ca. 0.15 m in the niche (no. 1) on the north wall, a depth that is not sufficient to hold sculpture. Along the east wall, the ashlar of the pilasters do not sit directly on the basin; there is a gap of 0.10-0.13 m packed with sediment. On the north side, however, there is a thick tile between the ashlar and the top of the basin (fig. 9).

²⁶ To the west the north wall extends into the unexcavated baulk between A7 and Z7.

²⁷ On the typology of *nymphaea* and grottos in Roman villas, see BUSEN AND GRÜNER 2018: 196-199.



Fig. 8. East wall of the nymphaeum (B6, 2019); view east showing detail of niches (nos. 4 and 5), pilasters, the basin wall, and the tile floor (photo S. Spiganti).



Fig. 9. North wall of the nymphaeum (A6, 2019); view north showing a detail of niche (no. 1) to the east of the stairway and the tile between the top of the basin and the last pilaster (photo S. Spiganti).



Fig. 10. Detail of niche (no. 5) decorated with plaster embedded with small cobbles and pieces of blue pasta vitrea creating the effect of a grotto (2019) (photo S. Spiganti).

The back wall of each niche is surfaced with *cocciopesto* itself embedded with small, rough limestone cobbles, and pieces (*tesserae*) of blue glass paste (*pasta vitrea*), which would have reflected light from the water in the basin below (fig. 10). The textured surface of the niche walls and the reflective pieces of glass paste were intended to give the appearance of a “natural” grotto wall. This contrasts with the “artificial” decoration of the pilasters, which were surfaced with a base layer of cement and then decorated with painted plaster in solid colors (red, yellow, white, and black). Although there are a few places where the plaster appears to have slipped off the walls and accumulated against the pilasters, none of the painted pieces are preserved *in situ* and it is not yet possible to reconstruct a decorative scheme. Some of the recovered fragments show evidence of having been repainted, suggesting a renovation to the building²⁸.

Another interesting, and perhaps dramatic, feature of the *nymphaeum* is the stairway bisecting the north wall. This feature, uncovered in Z7 in 2017 and now back-filled, descends 1.20 m from north to south (figs. 5 and 11). Its two parallel walls are constructed of tile and cobbles above a series of well-cut travertine blocks that are precisely shaped so that, on the interior face of each wall, they protrude at regular intervals forming what appear to be the footings for steps. Between the walls a concrete ramp of tile and mortar arches down

²⁸ Over 500 pieces of painted plaster were recovered from the lower fills in A6, A7, and B6.



Fig. 11. Stairway (Z7, 2017); view north (photo R. Schindler).



Fig. 12. Bottom of the stairway in the north wall of the nymphaeum (A7, 2018); view north. Limestone ashlars are in line with the stair walls excavated in 2017 (marked with a dotted yellow line). Two ashlars can be seen to the west; the east side of the stairway is just visible in the east bulk (photo S. Spiganti).

from the top of the two walls²⁹. There is no evidence for the actual treads, which could have been made out of material that was either easily removed (e.g., marble slabs) or deteriorated over time (e.g., wood). However, if the stairway was meant for people to access the room, it would have led them directly into the pool of water, seemingly with nowhere to stand or walk once they reached the bottom. There is the possibility that the stairway served to direct water into the basin, perhaps as an attractive cascade or, running beneath wooden planks covering the concrete ramp, simply as the source of fresh water for the basin³⁰. This water would presumably have been channeled from further up the slope. We suspect, based on reports from the landowner (see above), that there was a cistern at the top of the hill just below the medieval *casolare*. Such a cistern could have been fed by a natural spring in the area. The property just to the west of the *casolare*, for example, is known today as “il pozzo antico” (fig. 2).

Unfortunately, the precise architectural relationship between the stairway and the *nymphaeum* is obscured by the baulk between areas Z7 and A7 (fig. 5)³¹. The bottom of the stairway is identified in A7 and A6 by limestone ashlars, two each on either side of where the stairway would open into the north side of the *nymphaeum* (figs. 12 and 13). These ashlars align with the north wall of the *nymphaeum*. In A6, the two blocks to the east of the stairway clearly rest on top of the *cocciopesto* basin. This was probably also the case to the west of the stairs, which has not yet been excavated to the same depth. Between the ashlars, long tiles are laid perpendicular to the stairway. These may form the bottom step, but they rest above a rough cobble and tile construction that appears more like a blockage of the stairway than an original feature. In fact, in A6, the *cocciopesto* basin appears to have been cut right at the interior line of the stairs and, at that same time, a part of the tile floor against the north wall was damaged (fig. 13). Clearly the water basin was redesigned and/or repurposed at some point. If the stairway was originally constructed at the same time as the basin, then it may have been a component of the decorative water features of the *nymphaeum*. In this case, the repurposing of

²⁹ We have speculated that the concrete structure may be the top of a vault that is part of a cryptoporticus below and perpendicular to the stairway (i.e., along the line of the terrace). While we would expect at least one cryptoporticus at a villa of this size, we have not had an opportunity to test this hypothesis.

³⁰ For example, a marble-faced stepped cascade was built into the back center of a *nymphaeum-triclinium* (83) in the Praedia of Julia Felix at Pompeii (GEORGE 1986; PARSLow 1989).

³¹ Z6 and Z7 were backfilled at the end of the 2017 season. When A6 and A7 were opened in 2018, we had to leave a baulk between the two areas. The bottom of the stairway was reached in 2018 in A7, but we did not reach the tile floor of the *nymphaeum* before the end of the 2018 season (fig. 11); that was accomplished only in A6 at the end of 2019 (fig. 12).

the basin also involved blocking the bottom of the stairway. On the other hand, it is possible that the stairway was a later addition to the structure that necessitated cutting into the *cocciopesto* wall of the basin and perhaps altering the function of the building.

The preserved layout of tile floor also raises questions about the original design of the *nymphaeum* and its later reuse. In the area excavated, the floor does not extend across the entire length of the building (fig. 7). It is best preserved in the northeast corner of the building and directly against the east wall. The tiles vary in size, except for those along the basin edge, and there is no discernible pattern to how they were laid. The preserved central part of the flooring ends approximately at the juncture between A6/A7 and B6/B7 but the row mortared to the bottom of the basin continues along the east wall (fig. 5). While a few of the tiles at the edge of the preserved section are damaged, most appear to have clean edges, especially those next to the basin. The good preservation of the tile edges suggests two possibilities: the tile floor originally continued across the rest of the building and eventually the tiles in the middle were carefully removed, or the tiles never covered the entire floor area of the *nymphaeum* and there was some other feature in the center of the space. If the tile floor stretched across the building from basin wall to basin wall, it would imply that the entire interior space of the building was a large pool of water, raising the question of whether people would have entered the space or only enjoyed it from the exterior. If the tiles did not continue, we might imagine some alternate flooring in the center of the building where people could stand or recline for dining, but there is no evidence yet of what that feature might have been.

The fill deposit immediately above the floor level included significant concentrations of what appears to be decomposed/burnt pieces of *pietra fetida*, the local Chiusan sulfur-bearing limestone. This was particularly notable in areas where the tiles were disturbed or did not exist (i.e., towards the central part of the floor area). The reason for these concentrations at this level is uncertain, but pieces of *pietra fetida* are found throughout the fill deposits in the Central Area, suggesting that the material was used in the construction of the villa, perhaps as a source for lime plaster³². In the northwest corner of the excavated floor area, against the wall at the bottom of the stairway, the tiling was damaged, probably at the same time as the cut was made in *cocciopesto* basin wall (see above and fig. 13). Directly below the tiles were concentrations of white paste that may be remnants of lime plaster, similar to what we found above the floor level. Below this were thick pieces of *cocciopesto* that have a smooth surface embedded with small blue-black *tesserae*. This appears to be a type of *opus signinum*, indicating either an earlier floor in the same area or materials from a different structure that were chopped up and used as a bedding course, with a layer of plaster between the bedding and the new tile floor. Aside from the reused *opus signinum*, which was more commonly used during the Republican era, there was no datable material from below the floor.

Together, the decorated niches and pilasters, along with the pool of water and possibly the stairway, would have projected an elaborate display that combined nature and art in a manner typical of *nymphaea* found in the richest villas on the Bay of Naples³³. However, several questions remain regarding the design and construction of the building, such as the layout of the southern side and the function of the stairway. Most problematic, however, is the configuration of the water pool. The basin walls are directly below the niched walls, causing us to wonder whether there was a floor for people to walk or dine on inside the room. One possibility is that



Fig. 13. Detail of the north wall of the nymphaeum showing the two ash-lars at the bottom of the east side of the stairs (A6, 2019; see also fig. 11); view north. The rough cobble construction is visible below the tiles at the bottom of the stairs. Also visible is a cut into the *cocciopesto* basin and broken floor tiles (photo S. Spiganti).

³² Samples of the decomposed material were retrieved and await analysis.

³³ See ZARMAKOUPI 2014: 152-57.

there was a raised platform in the center of the building that was later removed (see above). This might explain the absence of tiles for the floor in the central and southern part of the building. A parallel for this design can be found in the *nymphaeum* of Claudius' villa at Baiae, which, in addition to a raised central area for dining, also has a series of niches along the walls³⁴. Another possibility is that there was a raised wooden floor above the pool. This hypothesis is based on the observation that on the east side of the building there a gap between the top of the *cocciopesto* basin and the bottom of the pilasters. One explanation may be that there were wooden slats between the stone and the top of the pool. This is, however, not a satisfactory solution, as such a feature would have covered the water, one of the decorative elements of the room, and there is no indication of how such a floor would have been supported as it extended laterally from the walls toward the center of the room. Moreover, on the north side of the room the pilasters have a tile footing under them (see fig. 9).

Later history of the Central Area

After its initial construction and use phase, the *nymphaeum* building and the surrounding area went through several modifications, which may be associated with both a change in the building's purpose and a shift in the overall function of the villa. While more precise dating for each phase awaits further excavation and detailed analysis of the ceramics, we can present an overview of the later architecture and its relative stratigraphy.

The first change to the *nymphaeum* occurred when the wall of the *cocciopesto* basin was cut into at the bottom of the stairway. As noted above, it is not yet clear whether this was done to construct the stairway or to block it up. The tile and stone construction at the bottom of the stair (to the west of the cut) is very similar to the technique used for the exterior face of a north-south wall in the northeast corner of the building (**194** on the plan, fig. 5). That wall is constructed of well laid but irregular pieces of limestone, except for what appears to be a small window part way down the wall. The top of this aperture is formed by a double row of flat tiles (perhaps repurposed floor tiles) (fig. 14). Since we have not excavated the interior of this part of the wall, the function of the aperture is uncertain, but it was likely for light or ventilation³⁵.

The building eventually went out of use but remained accessible. During this phase there is evidence of deliberate dumping of trash. For example, at the base of the stairway the fill included large fragments of cooking wares, many of which joined together, indicating that they had been deposited shortly after they were no longer being used, as well as fragments of painted wall plaster, tiles, and a large concentration of bivalve shells (fig. 15). Above this level, the ceramic material in the fill becomes more fragmentary and includes a greater variety of wares, suggesting that those levels had accumulated over a long period of time, probably due to erosion from further up the slope. In the lowest fill excavated inside the stairway in Z7, there was a single shard of *inve-triata* indicating that the stairway, and perhaps other parts of the *nymphaeum*, remained exposed into the Medie-



Fig. 14. Northeast corner of A6 (2018); view west of the exterior face of the stone and tile wall with aperture 194 (below) and the concrete wall 189 (above) (photo R. Schindler).

³⁴ TOCCO SCIARELLI 1983, tav. I.

³⁵ The heavy debris layers in this area of the site impeded excavation. Due to time constraints in 2018, only the northeast and southwest sections of A6 were excavated, which has left a segment of the east wall of the *nymphaeum* unexcavated (see fig. 5). Also due to time constraints in 2019, excavation focused on clearing the interior of the *nymphaeum* building, thus the exterior of the wall is unexcavated in square B6. This has left uncertain the stratigraphic relationship between the construction to the northeast of the building and the southern extension of the east wall.



Fig. 15. Detail of pottery and other materials dumped at the bottom of the stairway (A7, 2018); view east (photo R. Schindler).



Fig. 16. View north of Z6 (2017): late concrete wall (109) and earlier cobble wall (118/119/131). The well-head cover is visible in situ between the cobble wall and the unexcavated sediment to the west; the east wall of the stairway is visible (photo R. Schindler).

val period. In addition, two of the ashlar blocks that served as footings for the stairs were pulled out of the stairway walls. It is likely that these were used in the construction of the *casolare* in the 14th century since similar stones are visible in that structure.

To the east of the stairway, in the northeast corner of Z6, is an apsidal wall (119/131), open to the north, constructed of river cobbles mortared together with broken tile and ceramics. A segment of this wall extends 1.5 m to the west (118) and then makes a short return to the north but does not continue (figs. 5 and 16). The east side of this feature remains unexcavated. At first, it appeared that the semi-circular section may have been part of a well. During excavation, the sediment inside the apsidal area was always wetter than the fill outside the wall, even as excavation continued well below the level of the modern plough soil. Also, in the fill next to the cobble wall, part of a terracotta well-head cover (*puteal*) was recovered (inv.19.6.6948, fig. 16). However, the semi-circular part does not continue to the north, and the entire structure abruptly ends just inside square Y6. Moreover, there was no evidence of construction or human activity immediately to the north of this feature³⁶. Perhaps the cobble wall (118/119/131) was used as a retaining wall as part of an effort to control water run-off in this area. Excavations in 2017 did not reach the bottom of the cobble wall, so the chronological relationship between this wall and the stairway to the *nymphaeum* is not yet clear. A Dressel 2-4 Italian amphora handle mortared into the exterior face of the apse indicates that the wall probably dates to after the first half of the 1st c. A.D. and may be much later than that.

At a yet later date, a north-south concrete wall (109) was constructed up to and over the cobble wall; to the south it extends over the outside wall of the *nymphaeum*'s north-east corner (194, see above). This late wall was constructed in sections of poured concrete. It is not clear whether the builders dug into the existing fill to construct the wall or if some sort of framing system was used; excavation did not reveal a foundation trench on the west side, but we did not excavate on the wall's east face. The wall is capped by concrete sections formed to look like large stones. This "cap" runs over the cobble wall, bisecting the semi-circle, and over the fill to the north. Like the cobble wall, however, it comes to an end just north of Z6. The concrete construction of this wall is a technique not seen in the villa's other excavated structures and we believe this wall is very late in the history of the site. This concrete wall is founded on a fill level of debris from the villa containing a mix of pottery styles as well as the *puteal* mentioned above and a large fragment of volcanic stone that was part of the *catillus* for a mill (inv. #780277). Although the concrete wall was constructed after the *nymphaeum* itself went out of use, it is not yet clear how much of that building was still standing and being used for a different purpose.

³⁶ Test trenches in Y6 and Y7 revealed sterile soil to the north of the cobble wall and the stairs. While it thus appears that the Central Area is disconnected architecturally from any structures to the north and west, it is also possible that this area is the interior of a large court above the *nymphaeum*.

It is possible that the concrete wall served as a retaining wall to prevent erosion down the slope to the south-east.

At some point, perhaps even in early modern times, the superstructure of the *nymphaeum* collapsed, leaving two large segments of Roman concrete construction (see fig. 6) just below the modern ground level on the west side of the building³⁷. The deposits at this level are densely packed with building material, including roof tiles, bricks, and stones. The disturbed nature of these levels suggest that they are the result of agricultural work on the hillside in the early to mid-20th century, perhaps as part of a project to smooth over the terraced surface of the hill.

The small finds in these upper levels also indicate a mixed fill originating from different areas of the site. For example, in addition to a variety of flooring materials, such as tile, *opus spiccatum*, and *opus signinum*, we recovered domestic objects, such as bone hair pins, oil lamps, and a few coins. Among the ceramics there are examples of *sigillata italica*, *parete sottile*, and storage vessels, including several *vinaria* bases. This mixture of material indicates both the disturbance of the upper strata of the site and the probability that a good deal of the villa lies to the west and north of the *nymphaeum*, i.e., further up the slope.

The Lower Terrace and the Bath Complex

Survey data from 2015, reports from the landowners, and a modern cut from a back-hoe provided evidence that the bath complex for the villa was located to the southeast of the Central Area. Four seasons of excavation in this area (2016-2019) have revealed a drainage system to the north (squares B1 and B2) and at least three rooms of the bath complex (squares D2, E2, D3, and E3; see figs. 4 and 17). The drainage system runs west to east and consists of a channel cut into the natural sand that is covered by pitched tiles set at an angle (fig. 18). These tiles were placed directly above the sand, which served as the bottom of the drain, perhaps because of its absorptive qualities. During excavation we removed two sections of tiles to explore the fill inside the drain but no material culture was present. On the east end, a single tile blocked the end of the drain. On the west, the drain continued beyond the limit of the excavated area and its alignment was roughly perpendicular to the *nymphaeum*, but any possible connection to that building remains to be explored.

To the south of the drain, a test trench in square C2 revealed a dense concentration of building material: 153 kg within an area 1x4 m. (fig. 4). The deposit consisted almost entirely of roof tiles, a few floor tiles, and at least one piece of *cocciopesto* flooring with almost no accumulated sediment. This deposit clearly continues to the north, south, and west. The density and distribution of the building material indicates that either it was purposely dumped at this location or that it collapsed from a building just to the west.

To south of that debris is the bath complex. Three rooms have been identified, two of which have hypocaust floors: an apsidal room on the north side that may have been the *caldarium* (Room B), and a rectangular room to the south that may have been the *tepidarium* (Room A). Traces of a third room (Room C), also rectangular, are found to the west of the possible *tepidarium* (fig. 17). To the east, the contemporary surface of the hill begins to slope down and the archaeological remains have been significantly disturbed by modern agricultural activity. In both D2 and E2, we encountered dense deposits of collapsed building material just below the plough soil. In addition, a modern back-hoe cut that runs diagonally through areas E3 and E2 complicates the stratigraphy. To the west and north, in area D3, the modern accumulation of fill is much deeper than the areas to the east and south, and is more like the depositions encountered in the Central Area.

Removal of the debris deposits in D2 and E2 revealed the substructure of the hypocaust system for Rooms A and B (figs. 17, 19, and 20). Room A, to the south (area E2), is 2.56 m wide and at least 3.14 m long, but the eastern limit is not yet known, as areas E1 and F1 remain unexcavated. The hypocaust system in this room was damaged by the modern back-hoe cut, but at least eight sets of *pilae* preserve one or more circular tiles *in situ*. In order to preserve the *pilae*, not all of the accumulated debris was removed. One column, in the northwest corner of the room, was constructed of quarter-rounds and is slightly wider than the others. Other examples of quarter-round tiles were excavated in the debris layers of A1 and B2 in 2016³⁸. A short opening

³⁷ The larger piece visible in the southwest corner of fig. 6 continues into the unexcavated areas to the south and west. This segment also preserved the arc of the original construction, an indication that it was part of a ceiling vault.

³⁸ In 2017 we also found quarter-rounds in the upper fill of Z7, which is up the slope to the northwest of the bath complex, suggesting that another structure at the villa had a raised floor or columns made of brick.

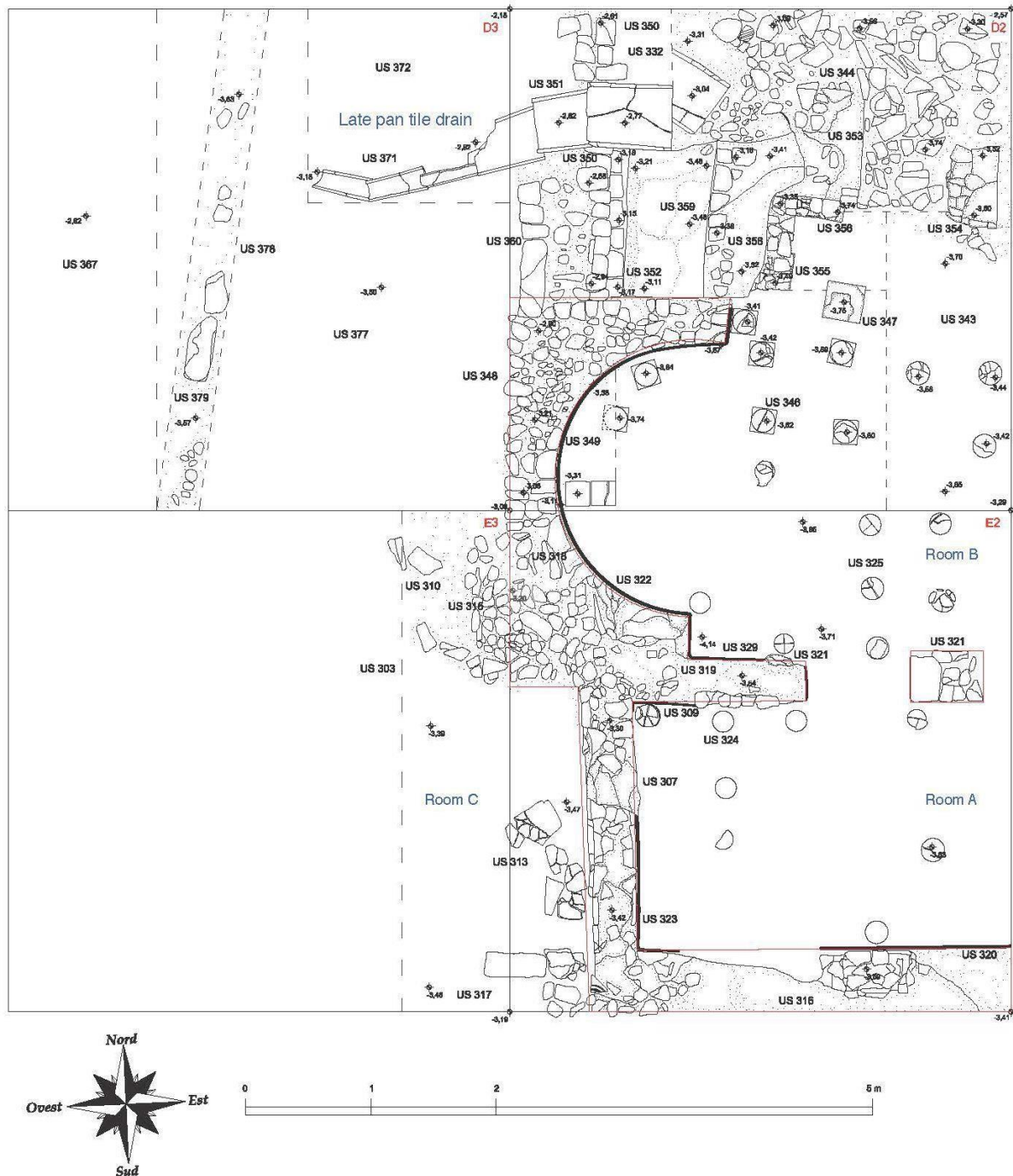


Fig. 17. Plan of the Bath Complex; red lines indicate the preserved walls of the complex and heavy black lines indicate a preserved layer of cocciopesto coating the walls (AutoCad; S. Spiganti).

between this room and the one to the north (Room B) indicates that the hypocaust system connected both rooms.

To the north, the lower walls and *pilae* of Room B are better-preserved; the modern level of the hill is higher here and therefore this room was protected by deeper fill levels. Room B is 3.63 m wide and at least 3.57 m long from the inside of the apse to the eastern edge of D2. The apse is 2.14 m in diameter (approx. 7 Roman feet) and is positioned closer to the south wall, making the room asymmetrical (fig. 17). On the north



Fig. 18. Pitched tile drain in B1 (2016); view west (photo R. Schindler).



Fig. 19. Hypocaust substructure of Room A and the southern section of Room B (E2, 2017); view west (photo R. Schindler).

side of the room there is an opening between wall segments **356** (on the west) and **354** (on the east) that is almost 0.50 m wide. The dense debris here made excavation very difficult and we do not know how far to the north this opening extends. However, this is likely the stove hole for the hypocaust system.

In Room B we were able to preserve 18 sets of *pilae in situ*, most of which were constructed with one large square tile laid directly on the *cocciopesto* sub-floor and round tiles stacked above. Several *pilae* are preserved to their full height of 0.63 m (two Roman feet). One column (**347**), on the north side of the room, is comprised of square tiles, four of which remain *in situ*; this more secure foundation indicates the need to support something heavier above. Almost all of the flooring above the *pilae* has been destroyed. However, between areas D2 and E2 there is a small section of black and white checkerboard mosaic (see fig. 20). Fragments of mosaic retrieved from Room A and Room B, as well as hundreds of individual black and white *tesserae*, indicate similar patterning in both rooms. Only the area within the apse in Room B does not appear to have had a mosaic at the floor level. Also, the sub-floor here appears to have been reinforced, suggesting that the floor of the apse was meant to support a terracotta or stone water basin (*labrum*), which would be typical in the *caldarium* of a bath house. Although no evidence for such a basin was recovered in D2 or E2, a nearly complete water pitcher was found lying on the sub-floor of the hypocaust (fig. 21). The pitcher appears to have been abandoned in the bath when the complex went out of use and later fell through the floor as the building collapsed.

In both Room A and Room B, the interior walls are coated with a layer of fine pink *cocciopesto* (figs. 17 and 20). In the southwest corner of E2, we noted a similar treatment on the west face of the west wall of Room A, indicating a third room (C). This area, however, has not been excavated. To the north, in D3 (fig. 17), excavations in the east half of the square did not reveal architectural remains from the period of the bathhouse. However, at the very end of the 2019 season, a segment of a north-south wall of unworked stones (**379**), parallel to the walls of the bathhouse, was uncovered 2.2 m to the west of the back of Room B. The preserved top of this



Fig. 20. Hypocaust substructure of Room B (D2, 2018); view north. The cocciopesto wall surface is visible in the apse, the north side of which is directly against the compacted sand sediment; a segment of mosaic flooring is in the foreground; and the late pan tile drain is visible in the background (photo R. Schindler).



Fig. 21. Water pitcher in situ on the bottom of the hypocaust floor of Room B (D2, 2018) (photo S. Spiganti).



Fig. 22. Fragments of pane glass, excavated from the Bath Complex (CLG17) (photo J. Conway).

wall is approximately 0.30 m below the preserved height of the bath walls and 0.40 m above the sub-floor of the bath (fig. 22). The relationship between this feature and the bath complex is not yet known but it appears to represent an early phase in the history of the villa.

At the end of the 2019 season, we also reached the level of the natural sediment into which the supporting wall for Room B had been constructed. There is no evidence of a foundation trench, and no datable material was recovered from the base of the wall³⁹. The matrix of this natural sediment is primarily sand, although we noted some patches of clay spread throughout the deposit. This is the same natural sand that we observed in A1/B1 and in the bath complex. In this area of the site, the natural sand is very close to the contemporary surface of the hill⁴⁰. This sand deposit is calcareous and dense, which makes it simultaneously easy to cut through but also highly supportive of structures; it also provides good drainage. The sub-structures of both Rooms A and B, i.e., the hypocaust systems, were formed by precise cuts into that sand. The floors were then surfaced with water-proof plaster and the walls lined with the fine pink *cocciopesto* (fig. 20). Cobble support walls are vi-

³⁹ The sediment deposited just above the foundation level of the wall contained only one body sherd from an amphora, four body sherds of common ware, four black *tesserae*, two animal bone fragments, and one fragment of a bronze pin (*spillone*); nothing is datable.

⁴⁰ Before the 2016 season, the preliminary resistivity survey (see above) consisted of two transects, one north-south and one east-west crossing at the southeast corner of A1 (where the 2015 surface survey had indicated a concentration of *sigillata italica*), which indicated a 'surface' in the area of A1/B2. This turned out to be the sand sediment, which when dry is highly resistant to electrical signals.



Fig. 23. Excavation area D3 (2019); view north. Segment of early stone wall is visible to the west; the back wall of the bath complex is to the east; and late pan tile drain is to the north (photo R. Schindler).

sible above the sand layer, but due to the inconsistent depth of the sand deposit, those walls appear at different levels. None of the original bath complex walls are preserved above the level of the hypocaust. However, a significant number of *tubulus* fragments retrieved from the fills both inside and outside of the rooms of the bath-house indicate that the walls were relatively thick and that a system of convection heating was installed throughout.

The potential elegance of the bath complex is evidenced by the presence of pane glass and worked marble. In both E2 and D3, large fragments of windowpane glass were recovered (see fig. 22 for fragments from E2). Enough pieces from D3 fit together to estimate that a single pane was at least 0.20 x 0.17 m. Given where the glass was found it is possible

that these panes were from windows that faced south. This would make sense in regard to both heat and light, and would present an elegant façade to anyone approaching from the direction of Chiusi. The only worked marble discovered so far on the site comes from the area of the bath complex. This includes two cornice pieces, one of grey marble and the other of a white marble streaked with purple. Although small, both are well carved and their variety suggests the ability to import luxury items from across the empire⁴¹.

At some point in antiquity the bath complex went out of use. The hypocaust was filled in by the collapse of the building and sometime after that event the area was repurposed. Two north-south stone walls (**350** and **352**) were constructed against the support wall for the back of the apse in Room B (see figs. 17 and 20). These later walls were partially built on the natural sand stratum and partially on debris from the previous phase that appears to have been collected in this area specifically to support the new construction. This debris stratum contained building material similar to the other fills in the bath complex, including two fragments of circular tiles from *pilae*, but here we encountered a lot more carbonized material, perhaps because the stoke hole for the bath was on the north (see above). Among this debris was also a small stone base with cuttings to support a bronze statue, perhaps from the earlier decoration of the bath.⁴²

On top of walls **350** and **352**, and extending to the west, there is a partially preserved channel constructed from reused roof tiles laid west to east (**351**, see figs. 17, 20, and 23). Three of these are relatively well-preserved pan tiles, with a possible fourth on the east end. The last pan tile on the west is broken on its north-west corner, creating an angle that directs towards upside down cover tiles that continue the line further westward. The beginning and end points of this channel are as yet unknown. It does have the same west-east orientation as the channel excavated in B1/B2 and the bottom of both drains are at the same elevation. Both appear related to efforts to channel water away from the Central Area but until we can connect the stratigraphy of the Central Area to the Lower Terrace, we cannot be certain.

FINDS

A full analysis of the materials recovered from the site has not yet been conducted. Here we present a preliminary discussion of select objects.

Pottery

Although a thorough analysis of the ceramics recovered from the site has not yet been undertaken, we have initiated two preliminary studies. In 2018, for his Tesi di Laurea at the Università degli Studi di Perugia,

⁴¹ The origin of these pieces awaits further analysis of the marble. The only marble recovered on the survey in 2015 is also from this area. Approximately 20 meters to the south-east of E2, in sector 3270, was a small piece of fine white marble carved with folds representing either a section of drapery from a sculpture or a floral molding from architectural decoration (BEVAGNA *et al.* 2016, fig. 9). ⁴² The stone base may be marble, but, if so, it is not of a high quality.

Giancarlo Santarelli catalogued and studied the stamped and decorated fragments of *sigillata italica* recovered from the site between 2015 and 2017⁴³. Observations from that study are summarized here. In 2019, under the direction of prof. James Mills of DePauw University, we began a petrographic and geochemical analysis (using DePauw's scanning electron microscope) of a selection of coarse wares from the site. Results from that project are forthcoming.

The 2016 excavations on the eastern edge of the site (A1, B1, and B2, see fig. 4) produced a significant number of *sigillata italica* fragments, at least seven of which have *bolli* on the inside of the base. Three additional *sigillata italica* with *bolli* on the base were recovered in 2017 and 2018. All of the stamped sigillata pieces come from stratigraphic units at or near the surface, deposits formed during the recent reworking of the site's topography for agricultural purposes, indicating that the domestic area where these dining wares were stored was upslope, to the north and west of the area excavated. Most of the legible stamps are from known Arretine workshops, which is not surprising given the proximity of the villa to Arretium. Production dates range from the late 1st c. B.C. to the 2nd c. A.D. Here we present a few examples.

The earliest example identified is an *in planta pedis* inside an inscribed circle (inv. 779532). The partially preserved inscription reads "L.GEV" = L. GELLIVS. It can be dated between 15 B.C. and 50 A.D., i.e., between the Augustan and Tiberian periods⁴⁴. The production of this workshop is well-known in northern Italy and in the northern provinces.

Although none of the readable *bolli* are identical, two *in planta pedis* inscriptions, and a possible third, may be related to the workshop or family of A. Manneius in Arretium (figs. 24 and 25):

- "A.M" = A. M(ANNEIVS); after 30 A.D.⁴⁵ (inv. #765274, A1, 1).
- "A.M.PRU" = A. MA(NNEIVS?) PRV(DENS?); after 30 A.D.⁴⁶ (inv. #765276, A1, 1).
- "A.MVR" = A. M() VR(BANVS?); after 30 A.D.⁴⁷. (inv. #765194, 0; [no photo]).

From the late 1st or 2nd c. A.D. is another *in planta pedis* on a vase with a ring base (inv. 765508): IUUL. FIR. = C. IULIVS FIR(MVS). From the same period, on the base of a plate (inv. #19.6.1481), an *in planta pedis* preserves: "C.C.F.F" = C. C() F() F(). The same *bollo* can be seen on a complete plate now in the Museo Archeologico Nazionale di Chiusi from the site of Pantani, Le Gore (Torrita di Siena). Although the location of this workshop is not known, the *bolli* have been dated between the end of the 1st c. A.D. and the first half of the 2nd c. A.D.⁴⁸.



Fig. 24. Bollo "A.M" = A. M(ANNEIVS) *in planta pedis* on the base of a cup or small bowl; after 30 A.D. (A1, 1, Inv. #765274, 2016) (photo R. Schindler).



Fig. 25. Bollo "A.M.PRU" = A. MA(NNEIVS?) PRV(DENS?) *in planta pedis* on the bottom of a plate; after 30 A.D. (A1, 1, Inv. #765276, 2016) (photo R. Schindler).

⁴³ SANTARELLI 2018.

⁴⁴ Cfr. OXÉ *et al.* 2000, n. 879 (737): Arezzo?

⁴⁵ Cfr. OXÉ OXÉ *et al.* 2000, n. 1059 (53, 908).2.

⁴⁶ Cfr. OXÉ OXÉ *et al.* 2000, n. 1107 (925).3.

⁴⁷ Cfr. OXÉ OXÉ *et al.* 2000, n. 1061 (910).2.

⁴⁸ Cfr. OXÉ OXÉ *et al.* 2000, n. 459 (343): unknown workshop location.



Fig. 26. Lamp with cornucopia design (A6, **180**, Inv. #18.5.3946, 2018) (photo R. Kerns).



Fig. 27. Two Firmalampen of identical shape with bolli on bottom that read "VIBIA" (B6/B7, **226**, Inv. #19.6.8125 and 19.6.8126, 2019) (photo R. Kerns)

Lamps

Several distinct lamp types were recovered from the upper fills inside the *nymphaeum*, at least four of which are nearly complete. The following are preliminary observations.

From the upper debris deposit (A6, **180**) in the Central Area is one lamp of orange clay with a circular body, a short nozzle, and a ring handle (inv. #18.5.3946; fig. 26). This form is comparable to Loeschcke type VIII, dating from the 1st to the 3rd c. A.D.⁴⁹ Although the surface is worn, a cornucopia design is preserved on the discus. The shoulder is plain except for two inset globules on either side of the handle and two, probably three, raised globules in front of the nozzle. The nozzle itself is broken. On the bottom is an illegible *planta pedis*. Both the globules and the *planta pedis* are a characteristic of lamps of this type from the eastern Mediterranean, particularly in the 2nd c. A.D. The footprint is always plain in such examples and ours may be as well⁵⁰.

Also, from the upper debris levels of the Central Area (**226**) come two almost complete lamps (the nozzles are broken) that are identical in form but may be of different fabrics, although one may simply have been exposed to greater heat than the other (inv. #19.6.8125 and 19.6.8126; fig. 27). This biconical lamp can be identified as a *Firmalampen* with its circular body and slightly elongated nozzle. The central fill area is depressed with a distinct lip that continues around to highlight the nozzle. There is no decoration save for three raised vertical bands spaced around the body. Both lamps have a raised *bollo* on the bottom: VIBIA(NI). These lamps are comparable to Loeschcke type X and Buchi type Xa, which originated in the Po Valley in the late 1st century A.D. and continued into the 3rd c.⁵¹

A third, almost complete, lamp appears to be a regional biconical type in a grey clay (inv. #19.6.1370, fig. 28). Although broken on each end, it would have had a ring handle and an elongated nozzle. This lamp was found stuck against one of the pilasters of the *nymphaeum* in a level of debris that included pieces of multi-colored *intonaco* that appear to have slid off of the wall (**191**). This stratum was at the same depth as a deposit

⁴⁹ BUSSIÈRE, WOHL 2017.

⁵⁰ BUSSIÈRE, WOHL 2017: 193-4 and cat. 409 (from southern Anatolia).

⁵¹ BUSSIÈRE, WOHL 2017: 308. A close parallel, also with a version of "VIBIA" on the *bollo*, comes from the sanctuary of Diana Umbronensis at Scoglietto (see: BRANDO 2015: 222, tav. 79).

of partially complete cookware and pottery excavated from the bottom of the stairs (**204**) that appear to have been dumped at a time when the villa was still in use but the *nymphaeum* itself had been abandoned.

Brick stamps

Two complete examples of a brick stamp preserving the name L.ATALLIANI were recovered from the Central Area fill (**221**) in B6/B7. The first, inv. #19.6.7453, was found in the upper strata of mixed fills that were probably pushed down into this area from the upper terrace of the villa (fig. 29). The second consists of two joining fragments [not inventoried in 2019], from the fill (**253**) just above the deposit of sandy-clay covering the tile floor of the *nymphaeum*. This stamp matches three partial examples recovered from the surface of the site in 2017, for a total of five examples of the same stamp⁵². Among the published brick stamps from Italy, Atallianus is not attested. The “-ianus” ending for a *cognomen* suggest that at some point, either L. Atallianus himself, or one of his ancestors, changed their social status, perhaps through adoption, and that the original *cognomen* was Atallius⁵³. Further research is necessary to determine whether L. Atallianus was the owner of the villa at the time that the *nymphaeum* was constructed, or simply the manufacturer of the bricks⁵⁴.

Several other partial stamps have been recovered from the site. A surface find from 2017 preserves “CL•MN” (fig. 30), and another recovered from **247**, a fill level from the abandonment and destruction of the *nymphaeum*, preserves “C•L•A.” It is possible that the ‘A’ on the second stamp is part of an ‘M’ and the two stamps are the same. On a brick from the surface of the bath complex, is a partial stamp preserving “-ORVM” (with the “R” and the “V” combined) (inv. #780149; fig. 31).

Coins

Several examples of bronze coins have been recovered from the Central Area of the site. All those coins come from deposits related to the destruction and abandonment of the site and therefore none are significant for dating. Although none of the coins has undergone cleaning and conservation, one is legible and can be identified as a sestertius of Faustina the Younger, wife of Marcus Aurelius (A6, **180**, inv. #18.5.3973; fig. 32). On the obverse is a bust of Faustina with the legend FAVSTINA AVGUSTA. On the reverse is the image of Juno holding a *patera* in one hand and a staff in the other; a peahen, Juno’s sacred animal, is also visible. Based



Fig. 28. Bi-conical lamp in grey clay (A6, **191**, Inv. #19.6.1370, 2018) (photo R. Kerns).



Fig. 29. Complete brick stamp: “L.ATALLIANI” (B6/B7, **221**, Inv. #19.6.74, 2019) (photo R. Kerns).

⁵² The three partial stamps are: “L.A.”; “L.ATALI”; and “/LLIAN(I)”.

⁵³ For Roman naming conventions and the addition of “-ianus” to create a new cognomen, see “Appendix III: Roman Onomastics” in BRUUN, EDMONDSON 2015.

⁵⁴ Another partial example of the same stamp is in the Antiquarium of Castiglione del Lago. According to local history it was found at Località Castagni, Fraz. Piana di Castiglione del Lago, 3.2 km west of Castiglione del Lago.



Fig. 30. Partial brick stamp: "C.L.AM/" (surface find, 2017) (photo J. Conway).



Fig. 31. Partial brick stamp: "-ORVM" (300, Inv. #780149, 2017) (photo J. Conway).



Fig. 32. Sestertius of Faustina the Younger, obverse: portrait of Faustina with the legend "FAVSTINA AVGUSTA"; reverse: Juno with a patera accompanied by a peahen (A6, 180, Inv. #18.5.3973, 2018 (photo R. Kerns).

on the style of Faustina's portrait, this coin probably dates between A.D. 169 and Faustina's death in A.D. 175⁵⁵.

Summary

Although many questions remain regarding the chronology and overall plan of the Gioiella-Vaiano Villa site, it is apparent that over the course of its long history the villa played a significant role in the economic, social, and political life of the territory west of Lago Trasimeno. Topographically, the villa is well-situated to take advantage of both river and road systems to transport goods to markets, both local and beyond. In the Imperial period, the presence of the bath complex and particularly the *nymphaeum* are evidence of owners/occupants

⁵⁵ The coin can be identified as coming from Group III of Faustina II's coins; cf. MATTINGLY 1976, plate 55, no. 13.

who are concerned with their social and political status, both within the territory of *Clusium* and in relation to the imperial court at Rome. Future research at this site promises to contribute further to our overall understanding of the economic and social role that such villas played in the development of Roman Umbria and southern Tuscany.

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