

# Castiglione del Lago, Gioiella-Vaiano excavation, 2016 season report

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*This paper presents the results of the first season of excavation at the Gioiella-Vaiano villa site in the territory of Castiglione del Lago. The 2016 excavation season followed an intensive survey of the site conducted in 2015 and is part of a larger project to reconstruct the Etruscan and Roman presence between Lago Trasimeno, Lago di Chiusi, and Lago di Montepulciano. An overview of the geological and cultural history of the region provides context for the excavation. Based on data from the 2015 survey and a geophysical survey, the 2016 season focused on the eastern limits of the site. Although few architectural remains were uncovered (the notable exception being a long drain framed by tiles but without a floor), material from the site indicates that it was likely an extensive villa that included facilities for dining, bathing, storage, and manufacturing.*

## Introduction and context

A Roman-period site at località 'Gioiella-Vaiano' underwent an initial phase of excavation in 2016 by the Umbra Institute Summer Archaeology Program in cooperation with Intrageo and DePauw University (Greencastle, Indiana, USA), under a permit granted to the Comune di Castiglione del Lago by the Ministero dei Beni e delle Attività culturali e del Turismo, Direzione Generale Archeologia (Prot. n. DG 4159, Class n. 34 31 07 / 1431, 22 aprile 2016). The first season of excavation at the Gioiella-Vaiano site followed an intensive survey of the site conducted in 2015 and a preliminary geophysical survey conducted in May of 2016.<sup>2</sup> In conjunction with the excavation, we also continued an extensive survey of the Gioiella-Vaiano environs and an investigation of the environmental and geological history of the region. This report presents the results and preliminary analysis from the 2016 season.

The Gioiella-Vaiano site, near the locality known as 'La Villa,' is located on the slopes of a hill overlooking the north shore of Lago di Chiusi in the territory of Castiglione del Lago, Perugia, Umbria, between the villages of Porto, Gioiella, and Vaiano, near the border between Tuscany and Umbria (Fig. 1).<sup>3</sup> The environs consist of a patch 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 tends to angle downward from northwest to southeast, and riverine incision that drains southward.<sup>4</sup> The current shape of the terrain largely resembles that in place ca. 500 BC.<sup>5</sup> However, during the Etruscan and Roman periods, the river Clanis ran south, rather sluggishly, within the Val di Chiana and through Lago di Montepulciano and Lago di Chiusi (post-Pliocene lake remnants) before it drained into the Tiber river just to the southeast of Velzna/Volsinii Veteres (Orvieto).<sup>6</sup>

The Etruscan presence in the territory of Castiglione del Lago, which was probably within the ambit of Chiusi (Etruscan *Clevsin*; Roman *Clusium*), is largely known from chance finds and limited exploration.<sup>7</sup> Material from tombs on the southwest side of Castiglione del Lago and from deposits at Poggio S. Maria and Podere Fontegalio (both just northeast, up the slope from our project site) attest to occupation since the 7th century BC.<sup>8</sup> Most of the evidence for pre-Roman period activity is funerary, and that evidence tends to cluster along the '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/Lago di Chiusi watershed.<sup>9</sup> The sites being investigated by our project are oriented in the latter direction.

Tomb material of the 5<sup>th</sup> century BC has been recovered at Bruscalupo, about midway between Villastrada and Ceraso, as well as 'La Villa,' Gioiella and Pozzuolo (Fig. 1).<sup>10</sup> Evidence in this area west of Lago Trasimeno seems to drop off in the 4<sup>th</sup> century BC, 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, Perugia, and Chiusi as they respond to Roman incursions), excepting a possible important sanctuary at Casamaggiore, where five votives were found.<sup>11</sup> During the Hellenistic period (3<sup>rd</sup>-2<sup>nd</sup> c. BC), 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 con-

necting to Lago Trasimeno and especially upon high ground overlooking the north side of Lago di Chiusi or the Val di Chiana to the west.<sup>12</sup>

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 capital.<sup>13</sup> In southern Umbria as a whole, a number of rural villas dating from the 1st c. BC have been identified, also generally following major routes of communication such as the Via Flaminia, the Via Amerina, and the Tiber.<sup>14</sup> In the west-central part of Umbria around Lago Trasimeno, only a few villas have been systematically excavated. These include the Villa at Ossaia,<sup>15</sup> located between Cortona and the northwest shore of Lago Trasimeno, and the villa at Passignano sul Trasimeno (Loc. Quarantaia),<sup>16</sup> on the northeast shore of the lake. Both sites are nestled in the lower slopes of the Apennines and thus have a different aspect and underlying geology than our site (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. BC to the 1st c. AD. However, by the 2nd c. AD new owners had transformed the villa into a more industrial property. The Villa at Passignano sul Trasimeno, which was occupied only from the 1st c. AD to the beginning of the 2nd century, may present more immediate parallels with what we know so far about the Gioiella-Vaiano site, in particular its focus on agricultural facilities and possible industrial production, except that our site appears to be earlier.

About 800 m. east of our site, on the slopes of Piè Maggiore/Poggio S. Maria, is a Roman cistern and a possible stretch of ancient roadway, both identified in 2015 (Figs. 1-2). The cistern has standing walls, and during the 2016 field season, its perimeter was mapped by GPS survey. 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 a series of square (settling?) basins, now buried, step down the slope from the base of the cistern. Certainly the landscape would have been perfect for ceramic production: excellent clay, abundant water, fuel from forests,<sup>17</sup> and proximate waterways to ship the results. At the Vaiano-Gioiella site, the focus of our project, the 2015 intensive surface survey revealed that the location was occupied, but perhaps not continuously, from the 2nd century BC to the 3rd century AD. 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 components.<sup>18</sup>

### 2016 Excavation

Prior to the start of excavations in 2016, limited geophysical investigation was carried out at the site based on the 2015 intensive survey.<sup>19</sup> 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. 4a, 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 sand, which, if dry and highly porous, becomes strongly resistant to electrical waves (like brick or stone). The sand deposits date to the Pliocene.<sup>20</sup> Although this was not what we initially expected to find, ground-testing through our 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 squares B1 and B2 (described below) precisely matches a decrease in resistivity between two highly resistant patches of soil (Fig. 4b). Toward the middle of the season we did a second (ground-penetrating radar) test, which identified the limits of a large tile deposit in square C2, later excavated (see below).

Weather conditions limited the 2016 season to approximately 15 days of fieldwork between 6 June and 4 July. Four (4 x 4 meter) excavation squares were opened on the eastern edge of the site (Fig. 3), encompassing the two sections of the resistivity test as well as concentrations of sigillata and common wares from the 2015 survey. Based on the features and artifacts uncovered, three broad chronological phases can be identified above the natural sediment: (1) the construction of a drainage channel (US 22) and the early phase of a stone wall (US 15), both identified in squares B1 and B2; (2) modification of that wall (US 46, 47, and 48); and (3) the abandonment and destruction of the site, debris from which was excavated in all four squares (Figs. 5-6). The natural sediment, which consisted of a layer of pure sand, was reached in squares A1 and B1 (Fig. 6). That sand is consistent with the ‘surface’ indicated by the geophysical survey (see above).

The most interesting feature of the 2016 season was the drainage channel cut into the natural sand. The channel was cut in a roughly east-west alignment and came to a clear end, marked by a horizontal tile, just inside the south-eastern corner of square B1. The channel extends at least 6.5 m. to the west, that is, towards the central part of the site,

but its overall length and starting point remain to be discovered. The cut for the channel (US 11) varied, but was approximately 68 cm deep and 45 cm wide. Within the channel, roof tiles were pitched in pairs to form a triangular covering (Fig. 7). We removed two sets of the pitched tiles, one set in B1 and the other in B2 (Fig. 6: US 11 and US 45). In both cases we were surprised to discover that there was no base to the channel system—the pitched tiles sat directly on the natural sand—and the accumulated fill within the tiles did not include any materials except for fragments of carbon, which we sampled (analysis is not yet complete). We hypothesize that the channel and the pitched tiles were constructed as a drainage system, and that—even without a tile base—the dense sand would have provided a usable surface for run-off, and eventually natural absorption of liquids, possibly from a thermal installation or other structures uphill. Brief experimentation with water runoff on the excavated sand surface in A1 demonstrated its surprising efficacy for drainage. It is possible that the ‘gap’, or decrease in electrical resistivity, found directly beneath the drainage channel by our geophysical prospection (Fig. 4b) was formed by repeated seepage of liquids and organics through the floor of the drain. Terracotta drains are not uncommon at early imperial sites in the region, and they vary in construction type, but all have built floors (drains at the villa at Passignano sul Trasimeno and the large cistern at Camarelle near Chianciano Terme were constructed of flat pan tiles set between masonry side walls;<sup>21</sup> at the Villa at Ossaia, large terracotta pipes were used).<sup>22</sup> The closest parallel to our drain is a drainage channel at the terracotta manufactory at Marciannella, just west of Chiusi. That drainage channel seems to have been installed in the late 3<sup>rd</sup> to early 2<sup>nd</sup> c. BC in order to move rain water southeast off the hill and away from the kiln complex while it was being built; it was constructed of pan tiles set vertically on either side of an open trench with tiles for flooring that at its head measured about 42 cm wide, broadening to ca. 75 cm near its outlet.<sup>23</sup>

Parallel and to the north of one segment of the channel is a short stone wall (Figs. 8-9). Stratigraphically, it appears that the channel was constructed first and that the wall was a later addition, perhaps as a retaining effort against the sand on the north side. During at least part of the wall's history, the tops of the pitched tiles in the channel were visible, because debris from the wall fell directly on top of the tiles. In both B1 and B2, excavation of the fill on both the north and south sides of the pitched tiles did not reveal much material. In order to control for any stratigraphic distinction and the possibility that fill was packed against the lower part of the tiles to stabilize them at the time of construction, we removed the fill as two strata. Although we noted more debris in the upper stratum (UJSS 21 and 20 in B1, UJSS 38 and 39 in B2) than the lower one, there does not seem to be a chronological distinction. Overall, this fill includes fragments of cooking, dining, and storage wares, as well as a few pieces of *tubuli* and a segment of a column tile for *suspensurae* (e.g., Fig. 12), giving the impression that the channel was open and the upper part of the tiles was exposed while it was in use. Eventually, layers of debris completely covered the channel and accumulated against the wall.

The wall itself appears to have at least three phases based on the construction technique, as well as the fact that the fill immediately above the channel (UJSS 37 and 36) may run underneath the western edge of the wall (which itself may be a late repair). Analysis of the ceramics from the strata running under and against the later wall construction (US 36 and UJSS 30, 33, and 34 respectively) has not been completed. However, we note that evidence of kiln activity, in the form of both tile and metal wasters, appears only *above* the level of wall repair. This suggests that industrial activity at the site was introduced at a later phase (as at the Villa at Ossaia)<sup>24</sup>—a hypothesis that we can test in future seasons.

After the modification of the wall, the site appears to have been destroyed and abandoned. A compact layer of mostly roof tiles was excavated in the southwest corner of square B2 (US 18). This tile layer appeared to extend towards the south and west. Thus we decided to open the adjoining square to the south, C2, but because of time constraints we moved two meters to the south and only excavated a 1 x 4 meter segment of C2. Here we encountered the same dense accumulation (Figs. 5, 6, 10). The deposit consisted almost entirely of roof tiles, a few floor tiles, and at least one piece of *cocciopesto* flooring. In just the 1x4 meter area excavated in C2, we recovered over 153 kg of tile. The density and distribution of the building material indicates that it was purposely dumped at this location.

In contrast, the accumulation of debris excavated to the north of the channel and the wall appears to be the result of recent agricultural activity spreading artifacts from the further up the slope (to the north and the west). This debris, approximately 50 cm below the topsoil, consists of a range of ceramic materials, including dining wares (*sigillata italica*), storage vessels, and cooking wares. In both A1 and B1, this debris came down upon the natural sand (the ‘surface’ indicated in the geophysical survey), into which the drainage channel was cut.

Although few architectural remains were uncovered in 2016, the materials recovered from the debris layers indicate that at the height of its occupation the overall complex was extensive, including structures for dining, food preparation and storage, industrial production, and bathing. Among the many pieces of *sigillata italica* (*Arretina*) recovered, are several examples with manufacturers' stamps, including an *in planta pedis* with the initial A M (probably) for Aulus Manneius, another with A M PRV for Aulus Manneius Prudens, and one, we suspect, with CN A for Gnaeus Ateius (Fig. 11).<sup>25</sup> One curious fragment of cooking ware is inscribed with the letters PR(I).

Evidence for a thermal complex includes several examples of *suspensurae* tiles (Fig. 12), *tubuli* for heating the walls, and mosaic fragments. Finally, the recovery of numerous artifacts with traces of burning, including a large tile waster (Fig. 13), indicates that ceramics and possibly metals were produced at this complex, perhaps in its second phase (see above), which looks more and more like a villa of the early imperial period.

*The excavation team thanks the Soprintendenza for the opportunity to work at the Gioiella-Vaiano site. We are also grateful for the support and collaboration of the Sindaco and Comune di Castiglione del Lago.*

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## Figure captions:

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

Fig. 2. Detail of the project area showing the 'villa' site, likely road, and cistern. (GoogleEarth/ArcGIS 10; P. Foss).

Fig. 3. Plan of the excavation site showing the squares excavated in 2016: A1, B1, B2, C2 (ArcGIS 10; P. Foss).

Fig. 4. Resistivity sections at the excavation site: (a) W-E section; (b) S-N section, showing the location of the drain; (c) position of the sections at the site [intersecting at the SE corner of square A1], including surface elevations for the end-points of the resistivity sections, and showing the location of the excavated squares A1, B1, B2, and C2; (d) details of the resistivity setup (Massimiliano Mazzocca and P. Foss).

Fig. 5. Plan of the area excavated in 2016. North at right (S. Spiganti).

Fig. 6. Composite photo of the excavated areas. North at left. The natural sediment is visible in squares A1 and B1; the channel and wall can be seen in squares B1 and B2. In area C2 partially excavated destruction debris is visible (S. Spiganti).

Fig. 7. Detail of the pitched tiles within the channel, square B1. View west (S. Spiganti).

Fig. 8. Section drawing of the stone wall in B1-B2 (UJSS 15, 46, 47, 48), and the tile channel below and to the side. View from the south (S. Spiganti).

Fig. 9. Wall and channel in area B2 (UJSS 11, 15, 46, 47, 48). View to the north (S. Spiganti).

Fig. 10. Photo of square C2 looking west at the accumulation of tile debris: US 19 (S. Spiganti).

Fig. 11. Examples of sigillata with manufacturers' stamps, from A1 (P. Foss).

Fig. 12. Quarter-round tiles for suspending a floor with pilae, from A1 (P. Foss).

Fig. 13. Large tile waster from A1 (P. Foss).

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<sup>2</sup> BEVAGNA ET AL., 2016 reports on the initial 2015 field season and its field survey.

<sup>3</sup> Approximately 43.07142 degrees Latitude 11.963102 degrees Longitude (WGS84), or N 4773236 E 2272751 (Gauss-Boaga Monte Mario 2 [East]),

<sup>4</sup> BIZZARRI ET AL., 2015, ESP. FIG. 1; BIZZARRI ET AL., 2011; LUCILIA 2004, 180-85. SEE ALSO PUCCI AND MASCIONE 2003, 303-06; GIROTTI 2003; ALEXANDER 1984, 528-530.

<sup>5</sup> BATINO 2014, 186; PIZZIOLLO AND SARTI 2011.

<sup>6</sup> TALBERT 2000, MAP 42 (ARRETIUM-ASCULUM); ALEXANDER 1984, 530-32; FOSSOMBRONI 1835, 16-22.

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

<sup>8</sup> RENZETTI 2011, 237-44; PAOLUCCI 2002, 165-66; cf. also PAGNOTTA 1984, 40 AND CARTA ARCHEOLOGICA.

<sup>9</sup> RENZETTI 2011, 238.

<sup>10</sup> RENZETTI 2011, 239 (esp. n.15), 244-246; PAGNOTTA 1984, 42.

<sup>11</sup> RENZETTI 2011, 246-56; PAGNOTTA 1984, 62.

<sup>12</sup> RENZETTI 2011, 256-64; PAGNOTTA 1984, 87-88 AND CARTA ARCHEOLOGICA.

<sup>13</sup> 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 Lago di Chiusi and Lago Trasimeno, as well as their transport via rivers to Rome; see RAIMONDI 2001, 109-10. For road systems, see COLIVICCHI, F. AND ZACCAGNINO, C., 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.

<sup>14</sup> COLIVICCHI, F. AND ZACCAGNINO, C., 2008, 69-79; Fig. 3.29.

<sup>15</sup> GUALTIERI 2014; FRACCHIA, 2006.

<sup>16</sup> 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.

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<sup>17</sup> PUCCI AND MASCIONE 2003, 315-20, in a chapter by DI PASQUALE, provides analysis of the carbon from the Marcianella ceramic factory just SE of Chiusi, which permits a hypothetical reconstruction of local arboreal resources from the 3rd c. BC – 2nd c. AD. 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 BC (Livy 28.45.18).

<sup>18</sup> BEVAGNA ET AL. 2016, 5-17.

<sup>19</sup> The geophysical survey was carried out by Dr. Geol. Massimiliano Mazzocca (GeoPro, Perugia). Two intersecting survey lines, one roughly N-S (74 m. long; absolute error 1.75%), and the other roughly E-W (99 m. long; absolute error 1.32%), intersected at a point where a concentration of materials had been located during the 2015 survey (N 4773234.95 E 2272773.65, Gauss-Boaga Monte Mario 2 [East]). Electrode spacing was 0.50 m.

<sup>20</sup> For the early geological history of the Val di Chiana, see above, n. 4.

<sup>21</sup> Passignano: 1st-2nd c. AD: BRUSCHETTI 1997, 29-21, TAV. 4-5, 7; Camarelle: PAOLUCCI 1988, 33, TAV. XXXIII-XXXVII.

<sup>22</sup> Second c. AD: GUALTIERI 2014, 79-81, when the property was converted to terracotta production. PUCCI AND MASCIONE 2003, 303-06

<sup>23</sup> PUCCI AND MASCIONE 2003, 28-29, ATTIVITÀ 7, FIGS. 16-17, 22.

<sup>24</sup> GUALTIERI 2014, 111 FF.

<sup>25</sup> A. OXÉ ET AL., 2000; OCK Types 1059.2 (probably A. M[ANNEIUS]), ca. AD 30-70; 1107.3 (A. M[ANNEIUS] PRU[DENS]), after ca. AD 30; 278.98 tabella ansata variant (perhaps CN. ATEIUS), ca. 15 B.C. – A.D. 50 and after.



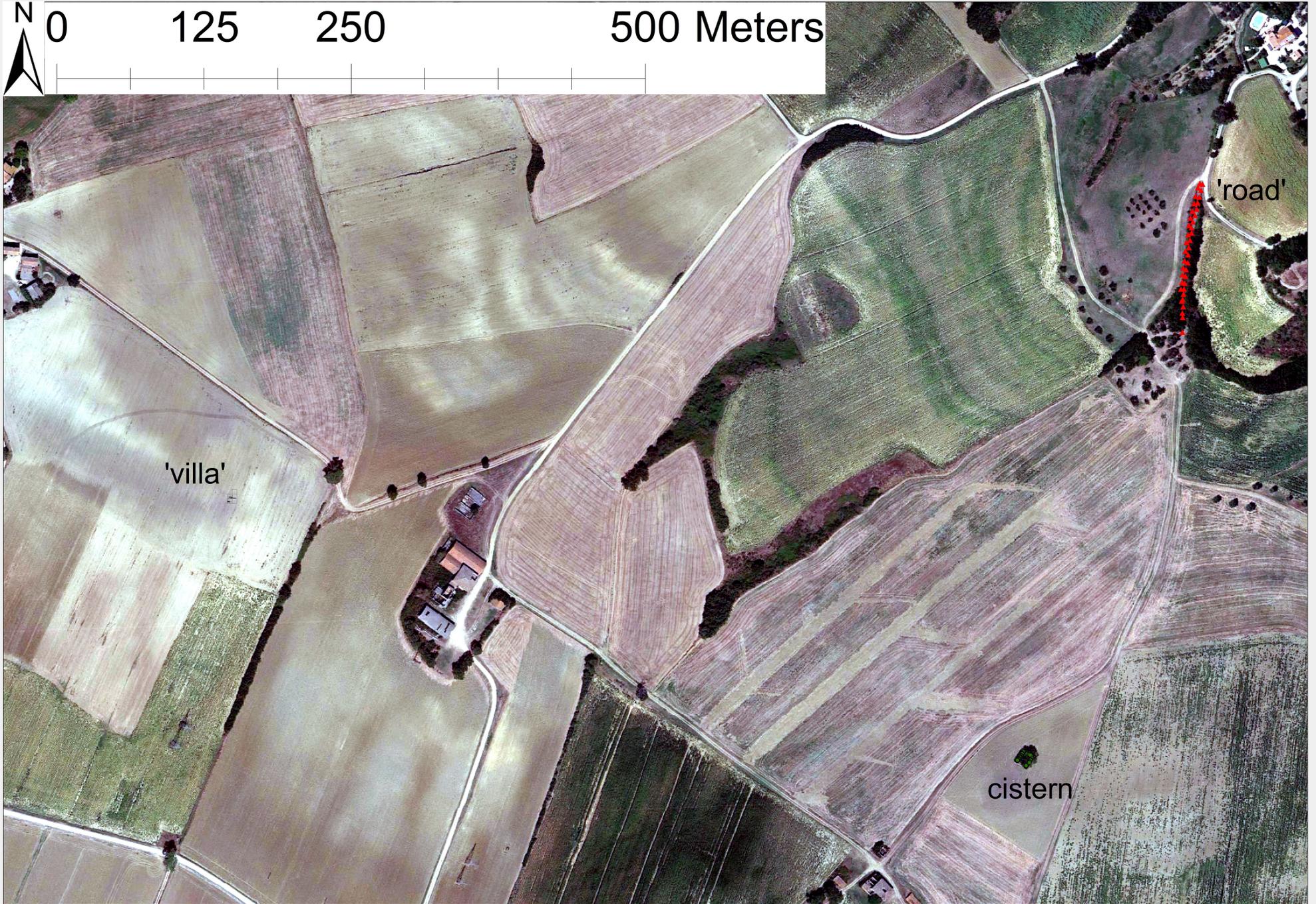


Fig. 2. Detail of the project area showing the 'villa' site, likely road, and cistern. (GoogleEarth/ArcGIS 10; P. Foss).

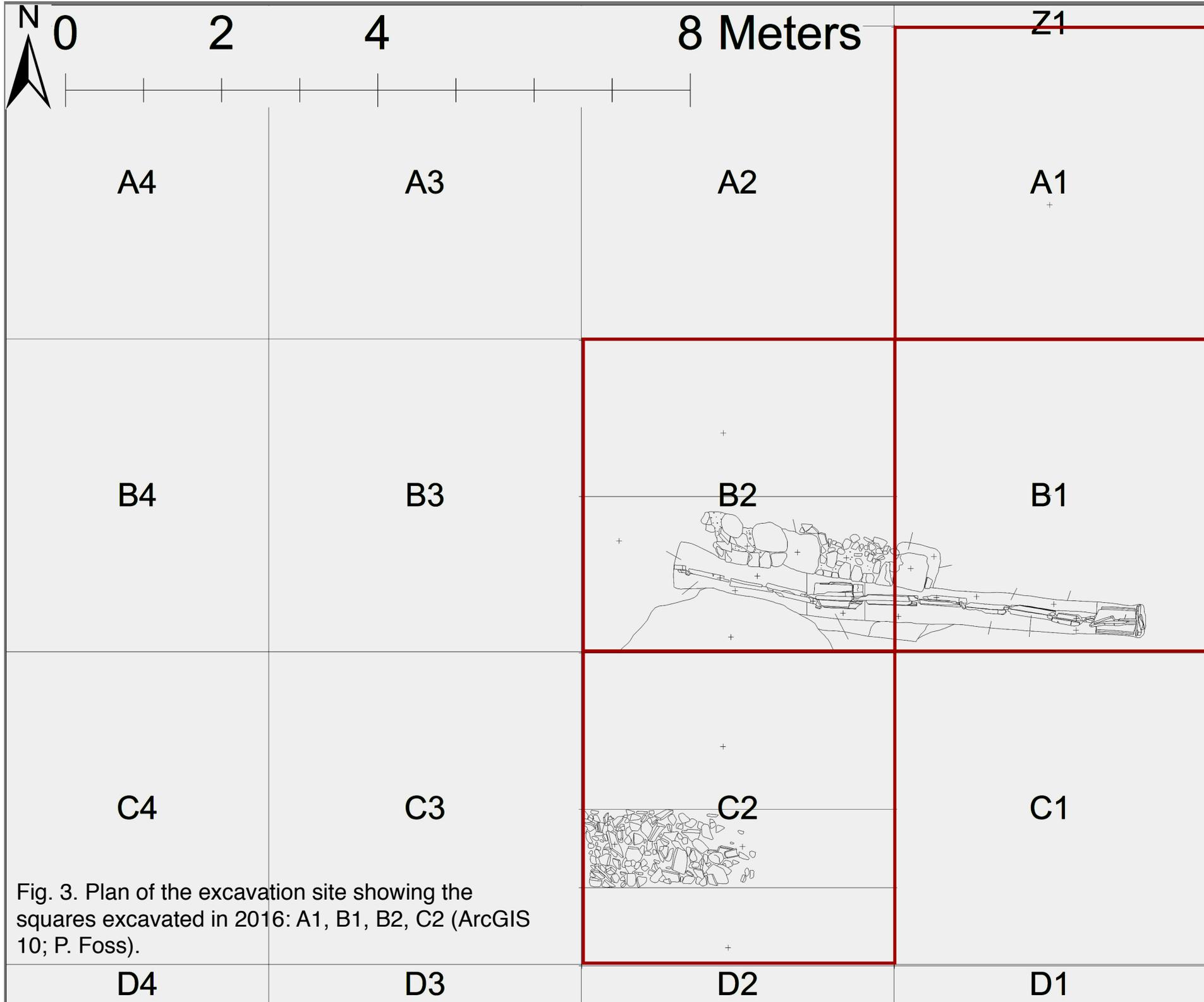


Fig. 3. Plan of the excavation site showing the squares excavated in 2016: A1, B1, B2, C2 (ArcGIS 10; P. Foss).

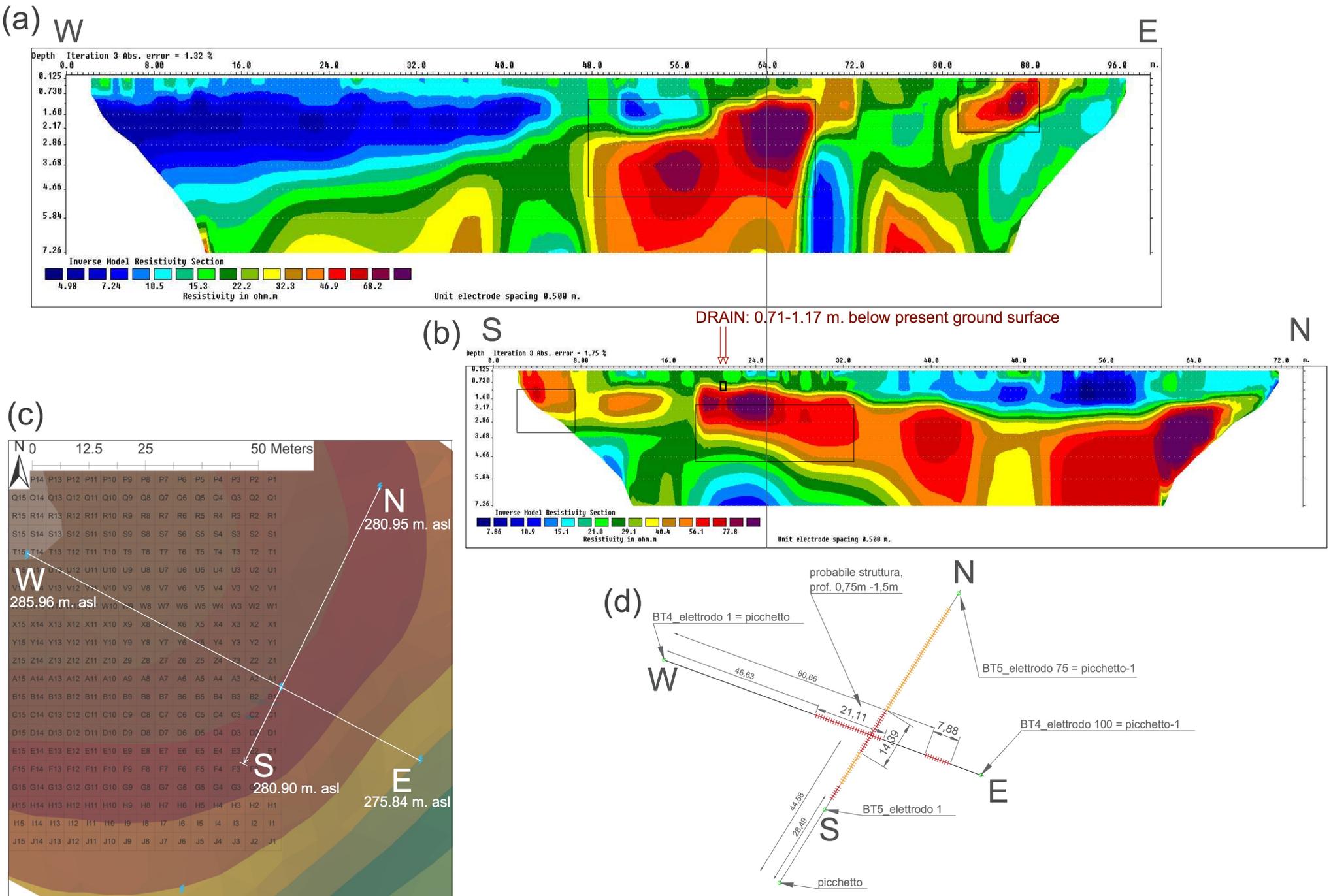
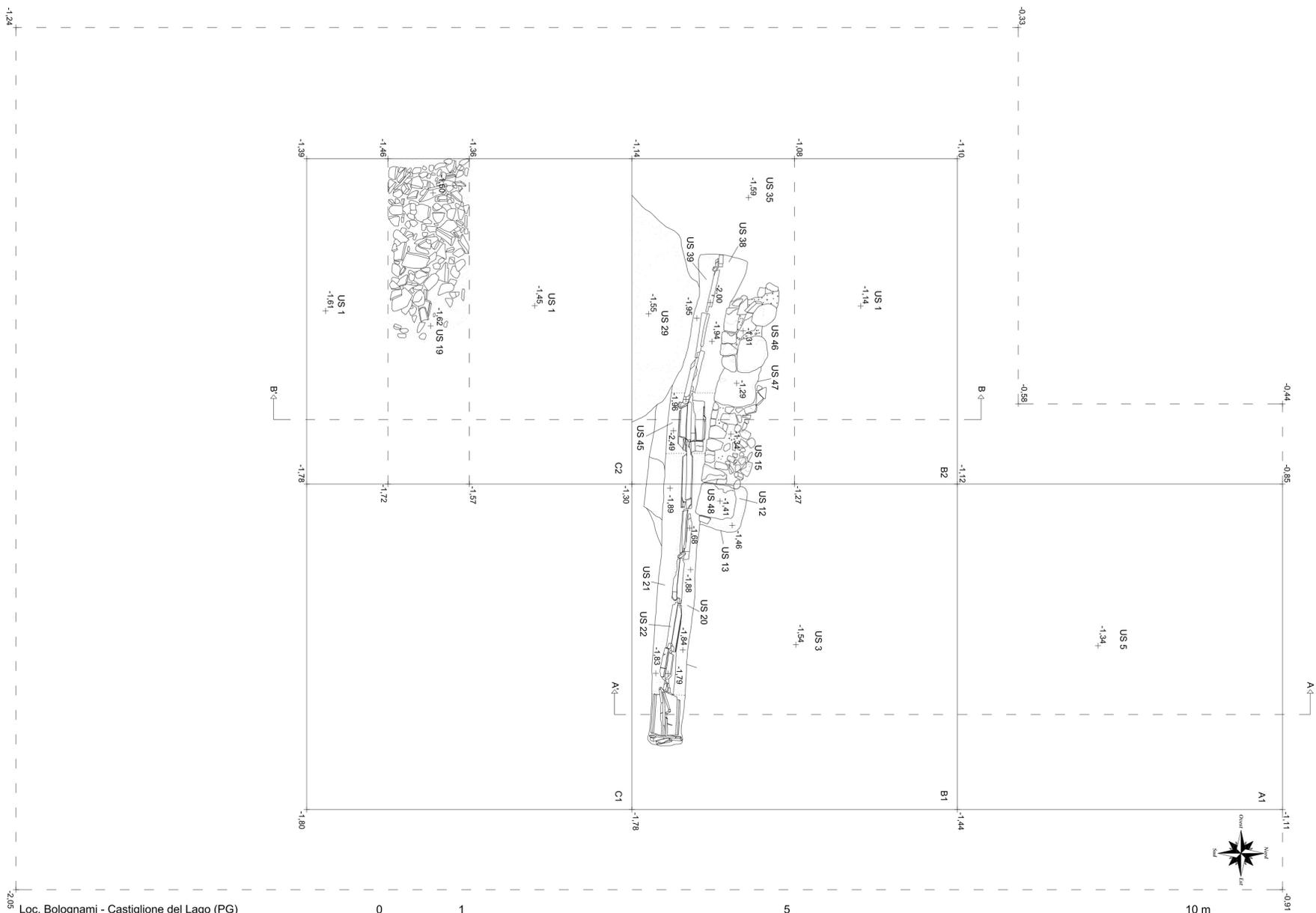


Fig. 4. Resistivity sections at the excavation site: (a) W-E section; (b) S-N section, showing the location of the drain; (c) position of the sections at the site [intersecting at the SE corner of square A1], including surface elevations for the end-points of the resistivity sections, and showing the location of the excavated squares A1, B1, B2, and C2; (d) details of the resistivity setup (Massimiliano Mazzocca and P. Foss).



Loc. Bolognami - Castiglione del Lago (PG)  
 DePauw University Prof.ssa Rebecca Schindler, Prof. Pedar Foss  
 The Umbra Institute  
 Intrageo Dott. Stefano Spiganti  
 Soprintendenza Archeologia dell'Umbria Dott. Giovanni Altamore

- Planimetria generale  
 Coordinate Gauss-Boaga  
 P0: E: 2272761,603; N: 4773236,954; Q.slm. 283,105 m  
 P1: E: 2272744,942; N: 4773224,673; Q.slm. 282,351 m

Fig 5. Plan of the area excavated in 2016. North at right (S. Spiganti).

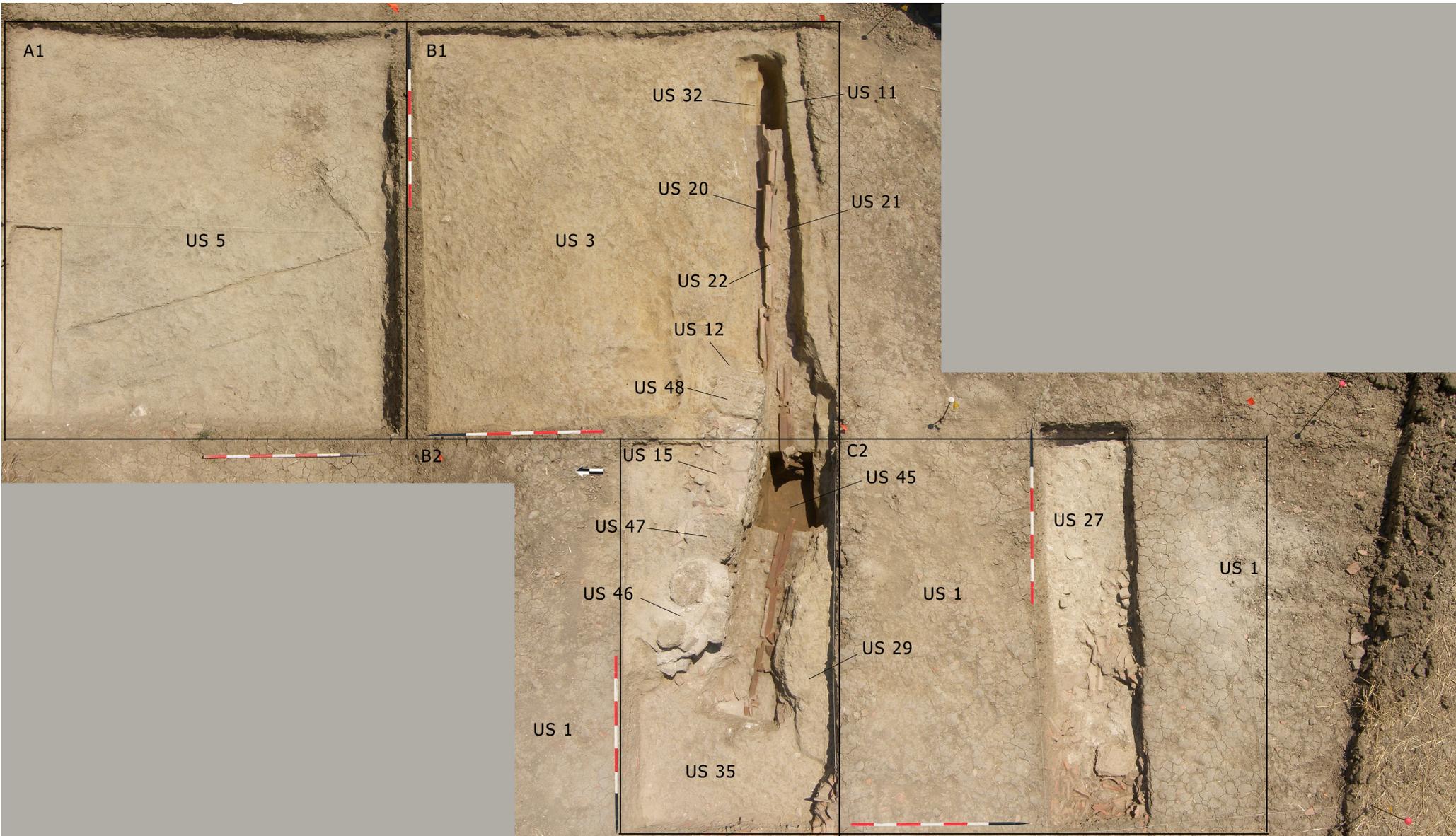


Fig. 6. Composite photo of the excavated areas. North at left. The natural sediment is visible in squares A1 and B1; the channel and wall can be seen in squares B1 and B2. In area C2 partially excavated destruction debris is visible (S. Spiganti).



Fig. 7. Detail of the pitched tiles within the channel, square B1. View west (S. Spiganti).

Loc. Bolognami - Castiglione del Lago (PG)  
QQ. B1/B2\_Prospetto E-W visto da S

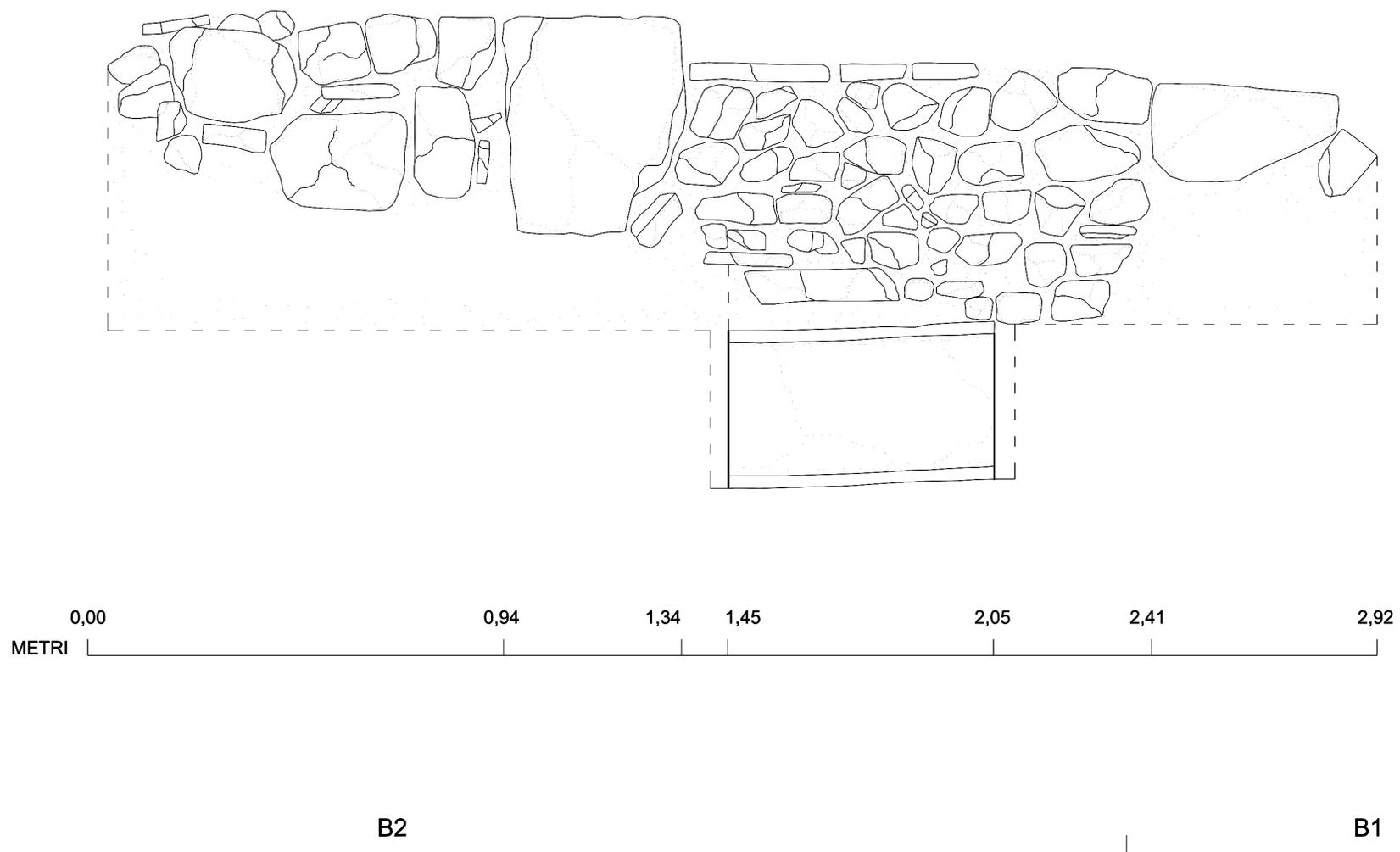


Fig. 8. Section drawing of the stone wall in B1-B2 (UUSS 15, 46, 47, 48), and the tile channel below and to the side. View from the south (S. Spiganti).



Fig. 9. Wall and channel in area B2 (UUSS 11, 15, 46, 47, 48). View to the north (S. Spiganti).



Fig. 10. Photo of square C2 looking west at the accumulation of tile debris: US 19 (S. Spiganti).

A M(anneius) – 30-70 d.C. /AD  
Arezzo

A M(anneius) PRV(dens) – 30 d.C. /AD →  
Arezzo?



CN A(teius)? – I sec. a.C./d.C.  
1<sup>st</sup> c. BC - AD

L RA(sinius)? – I sec. d.C./AD

?

CLG 16

A1. USA

0

5 cm



Fig. 11. Examples of sigillata with manufacturers' stamps, from A1 (P. Foss).

settori di pilastrino  
quarters of a brick colonette



A1.051

CLG 16



no. 765417

Fig. 12. Quarter-round tiles for suspending a floor with pilae, from A1 (P. Foss).

scoria  
della lavorazione  
delle tegole

kiln waster



A1.USA

CLG 16

0 5 cm



CLG 16 A1USA  
765428

Fig. 13. Large tile waster from A1 (P. Foss).