

# What's beyond the Etruscan bridge?

Analysis and dating of the Vignale plateau

San Giovenale. Results of excavations  
conducted by the Swedish Institute  
of Classical Studies at Rome and  
the Soprintendenza alle Antichità  
dell'Etruria Meridionale  
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Dust jacket: The enigmatic Stone Platform excavated on Vignale in 1959, looking north-west (photograph by C.W. Welin, courtesy of SIR). See p. 183, *Fig. 155*.

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## ABSTRACT

Yvonne Backe Forsberg & Richard Holmgren, *San Giovenale VI:2–3. What's beyond the Etruscan bridge? Analysis and dating of the Vignale plateau* (Skrifter utgivna av Svenska Institutet i Rom 4°, 26:6:2–3), Stockholm 2024.

The Etruscan site of San Giovenale has been excavated periodically since 1956. From the beginning the main focus has been the question of settlement remains. However, a fundamental area within the site had still not undergone the inquiry necessary for a complete understanding of the site as a whole. The Vignale plateau, connected to the main site by an Etruscan bridge, was surveyed and partly excavated in 1959–1960, but not published. The Vignale Archaeological Project (VAP) began new investigations in 2006 that aimed to answer the question of “What's beyond the Etruscan bridge?” This publication focuses on the initial investigations of 1959–1960, augmented by new ground- and aerial remote sensing surveys.

The current volume is divided in six chapters. Through an introduction, and geological/topographic and historical/archaeological settings (*Chapters 1–3*), the reader achieves a general understanding of Vignale within a larger framework. The main archaeological studies of various features on the plateau, their function and dating are covered in *Chapter 4*, where Vignale from the Final Bronze Age to medieval times is approached with an emphasis on the Etruscan periods. The study of the latter investigates the connection to Vignale's sister plateau (the Acropolis area), and the plateaus' connection to the surrounding landscape. An intrinsic aspect of Vignale is the association with wine over time. *Chapter 5* therefore elaborates on wild and domesticated vines with emphasis on production, ritual, and material remains, concluding with a summary and synthesis in *Chapter 6*. Two extensive appendices follow, one detailing the material remains and data connected to the southern Bridge Complex, and the other a treatise on the Etruscan awareness of their local mineral salt, alunite.

*Keywords:* San Giovenale, Vignale, Etruscan, viniculture, viticulture, cisterns, infrastructure, necropolis, remote sensing, LiDAR, aerial, bridge, ram's head, settlement, photography, defence structures, platform, quarry, wine press, alun, alunite

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# Appendix I. Catalogue and artefact analysis from the trenches on the southern Bridge Complex

## Introduction

The investigations on the southern bank of the Pietrisco brook were conducted in 1959–1960 by the *Squadra volante* (the “flying squad”), and between 1961–1963 by Stig Forsberg.<sup>1061</sup> The excavation, which covered an area of 17 × 30 m, is positioned on a slope with dense vegetation of trees and bushes. This small, gentle west–east slope is bordered to the south by the steep cliff of the northern side of the Vignale plateau and to the north by the ravine of the Pietrisco brook (Figs. 6, 224–225).<sup>1062</sup>

## Excavation trenches 1961–1962, architectural features, strata, and find numbers

Three main trial trenches (Trench West 1, Trench East–West, Trench East 2) on the southern bank of the deep ravine of the Pietrisco brook (Figs. 19, 226–227) yielded some architectural remains which comprised the wall foundations of Wall P in the western edge of the ravine (Trench 1) followed by a south-west extension ending in a rock-cut basin named Trench West (Figs. 226–227, 229).<sup>1063</sup> The traces of the collapsed stone abutment on the southern bank of the brook (Trench 1) corresponded well to those found on the northern bank. Another wall (Wall O) in Trench East (= Trench 2), running in a south-

east–north-west alignment was found c. 20 m east of Wall P and lined up with Wall L in the northern bank.<sup>1064</sup> Trench East was extended in Trench 3 behind the south-eastern road (Fig. 228). Trench East–West was dug between Trench West 1 and Trench East 2 (plan on Fig. 227) to a depth of 0.6 m and divided into two levels of 0.3 m each with an extension (Trench 4) up the slope to the northern edge of the Vignale slope. The space between Wall P and Wall O contained two levels of earth packings mixed with tufa stones. Also present was a small “piazza”, formed of two distinct levels of river pebbles and tufa stones set as a paved surface, with the later level replacing the earlier one. These surfaces produced a mix of pottery and tiles (Figs. 226–227, 229–231).<sup>1065</sup> The edge of the southern abutment was not as intact as the northern abutment due to a collapse of the conglomerate layer. The features on the southern bank, i.e., the northern slope of the Vignale hill, were hastily investigated and the documentation was therefore lacking many measurements and descriptions. Some of the archaeological finds from both sides of the brook have previously been analysed and published with drawings and photographs.<sup>1066</sup> Therefore, the aim in this appendix is to publish the architectural, ceramic, as well as other remains from the southern trenches more thoroughly.

As mentioned, the trenches listed below were dug in 1961–1962 by Forsberg and they have primarily been discussed by Forsberg and Thomasson, as well as by Backe Forsberg.<sup>1067</sup> The finds from each context were given a specific number which

<sup>1061</sup> On the excavations in 1959–1963, see CEÖ notebook I 1959; CEÖ notebook II 1959; CEÖ notebook IV; SF notebook I 1961; SF notebook II 1962; SF notebook III 1963; Hanell 1962, 304–305, figs. 279–280. Pohl excavated on the northern side of the Bridge Complex in 1960.

<sup>1062</sup> *San Giovenale* I:7, 3. The westernmost end of the plateau is c. L 200 m, W 80 m, and ASL 174 m, but the entire promontory up to the Blera–Civitella Cesi road measures c. 1.2 km.

<sup>1063</sup> Backe Forsberg 2005, figs. 36, 62.

<sup>1064</sup> Backe Forsberg 2005, figs. 30, 44a, 62.

<sup>1065</sup> Backe Forsberg 2005, figs. 30, 62.

<sup>1066</sup> Backe Forsberg 2005, figs. 23–24, 29–31, 36, 44b, 52, 62.

<sup>1067</sup> Forsberg 1984; Backe Forsberg 2005, 50–51, 63, 75–78, 80, 85, 87, 102–104, nn. 419, 472, 583, tables 3–4, 24–27, 32–34, 36, figs. 2a–b, 3, 23–24, 29–31, 35–36, 44a, 62, 82, 89–91. A trial trench was dug in 1960 by Östberg but no finds have been registered, see section on the Bridge Complex in CEÖ notebook 1960, 66–67; Hanell 1962, fig. 279.



Fig. 224. Excavation of the remains of the Bridge Complex on both banks of the Pietrisco brook, with Casale Vignale necropolis at the upper left. The northern side of the Vignale plateau is seen to the right with the Tolfa Mountains in the distance (photograph taken from north-west in 1963 by S. Forsberg, courtesy of SIR).

was prefixed with the year of excavation—creating the following system of documentation: Trench 1 along the southern bank of the Pietrisco brook (Find no. 61-61), Trench East surface layer (Find no. 61-62), Trench East–West stratum 1 (Find no. 62-809), Trench East–West strata 1–2 (Find no. 62-811), Trench East–West stratum 2 (Find no. 62-810), two layers of tufa blocks and river pebbles in stratum 2 (Find no. 62-812), Trench West, surface layer (Find nos. 61-64, 62-813),<sup>1068</sup> with stone foundation west, eastern entrance surface layer (Find no. 61-63), south-eastern entrance (Find no. 61-65), Trench 3 Vignale slope on east road, surface layer (Find no. 62-814).

#### TRENCH I. NORTHERN END OF WALL P— THE WESTERN RETAINING WALL OF THE SOUTHERN ABUTMENT

In October 1960 when the excavators started to clear the southern slope of the Pietrisco brook of trees and bushes, they first found a construction at the edge of the ravine consisting

of tufa blocks in five courses. This structure came to be identified as the northern end of Wall P, previously connected to the southern abutment (Figs. 224, 226, 229).<sup>1069</sup> Some of the blocks (0.9 × 0.5 × 0.48 m) from this missing abutment were detected in the ravine below, together with the conglomerate that had previously supported the structure but was now collapsed. The subsequent aim of the excavations was to follow how far these remaining coursed blocks extended south and thus to verify the direction of any presumed roads. At this stage no measurements were taken and the only documentation comprised some photographs and a sketch plan. During the campaigns in 1961 and 1962, a 5 × 18 m Trench 1 was opened running south from the bank of the Pietrisco brook. Wall P was then completely uncovered, and measured to a length of c. 18 m, with a width of c. 1.1–1.9 m. The construction was made with headers and stretchers with two to three blocks in width, and curved gently towards the south-west. At the southern end of the wall a basin-like oval stone structure was discovered (L 2.8 × W 1.6 m, diam. of oval mouth

<sup>1068</sup> The plan was used in Backe Forsberg 2005, fig. 62.

<sup>1069</sup> CEÖ notebook 1960, 66–67.



*Fig. 225. A closer view of the architectural remains of the Bridge Complex under excavation on both banks of the Pietrisco brook, seen from the west of the brook (photograph taken in 1963 by S. Forsberg, courtesy of SIR).*

0.8–0.9 m). The overall function of the feature is unknown, but from the photograph it is possible to see a small channel which together with the basin (?) may have functioned as a drainage for water coming from the northern slope. The measurements of the header stones in the upper course were 0.6–1.0 m long and 0.45–0.6 m wide.

#### TRENCH EAST (= TRENCH 2) WITH WALL O— THE EASTERN RETAINING WALL AND THE SOUTH-EAST ROAD TOWARDS THE VIGNALE PLATEAU, TRENCH 3

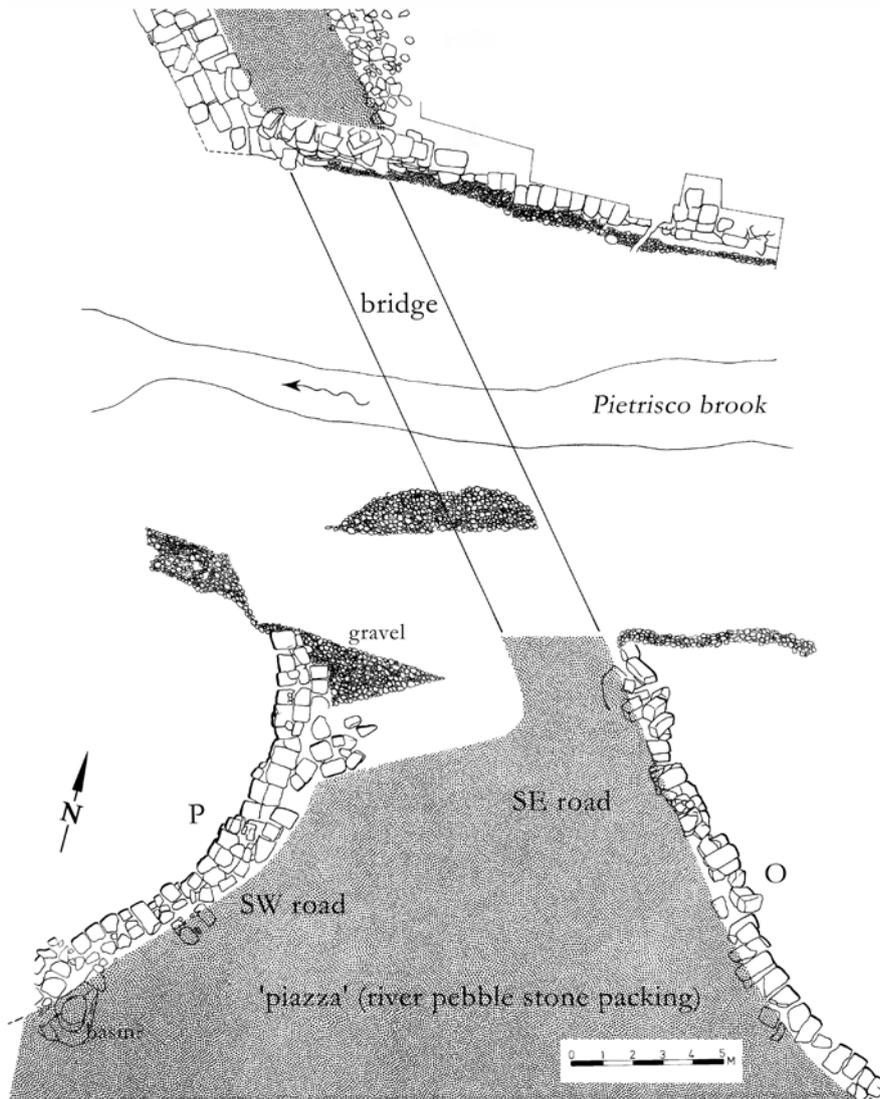
*Figs. 18–19, 226–228*

When cleaning the area in a late stage of the excavation in 1961, a second wall construction (Wall O) was found *c.* 20 m further to the east of Wall P. It measured *c.* 1.2–1.7 m in width and *c.* 19 m in length, *c.* 1.5 m in height, slightly curving towards south-east. It was directly in line with the so-called “*sperone*” wall (Wall L) on the northern bank of the Pietrisco

brook (*Fig. 226*).<sup>1070</sup> These walls formed the foundation of the Via Pontalto road which connected the two banks of the brook via Bridge 1. As in the case of Wall P, the north-west end of Wall O had collapsed together with the eroded underlying conglomerate. The huge rectangular tufa blocks of the wall have the same south-east–north-west orientation as the blocks on the northern side of the brook (*Fig. 18*). Wall O was surviving to three surviving courses in height and with one to two ashlar blocks in width, a similar arrangement of headers and stretchers as in Wall P. The following measurements were taken: Course I: header H 0.40–0.55 × W 0.6–0.7 m. Course II: header H 0.4–0.55 × W 0.45–0.65 m. Course III: header H 0.25–0.55 × W 0.35–0.65 m, stretcher L 0.6–1.35 × W 0.5–0.6 × H 0.45–0.5 m.

<sup>1070</sup> SF notebook I 1961, 43–44. See further ‘Via Pontalto and Via Vignale Nord with Ramp 1’, and ‘Discussion—the roads, bridges, and ramps of Vignale’ in *Chapter 4*.

Plan



Section

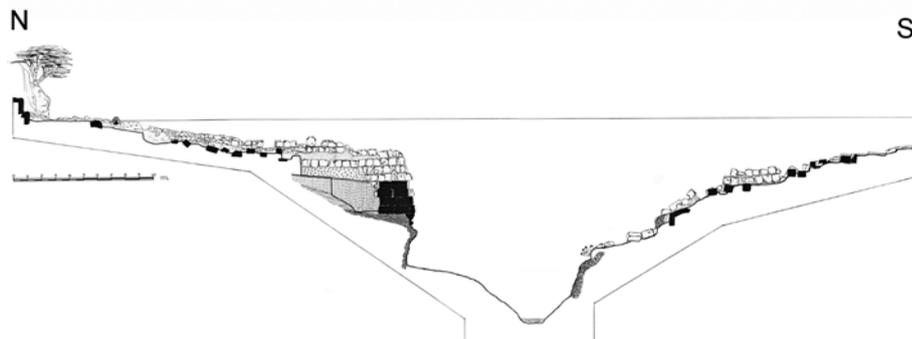


Fig. 226. General plan and section of the Bridge Complex excavation with focus on the southern bank on the Vignale slope. Note Walls P and O flanking the small pebbled "piazza" (drawing by R. Holmgren after V. Cicino).

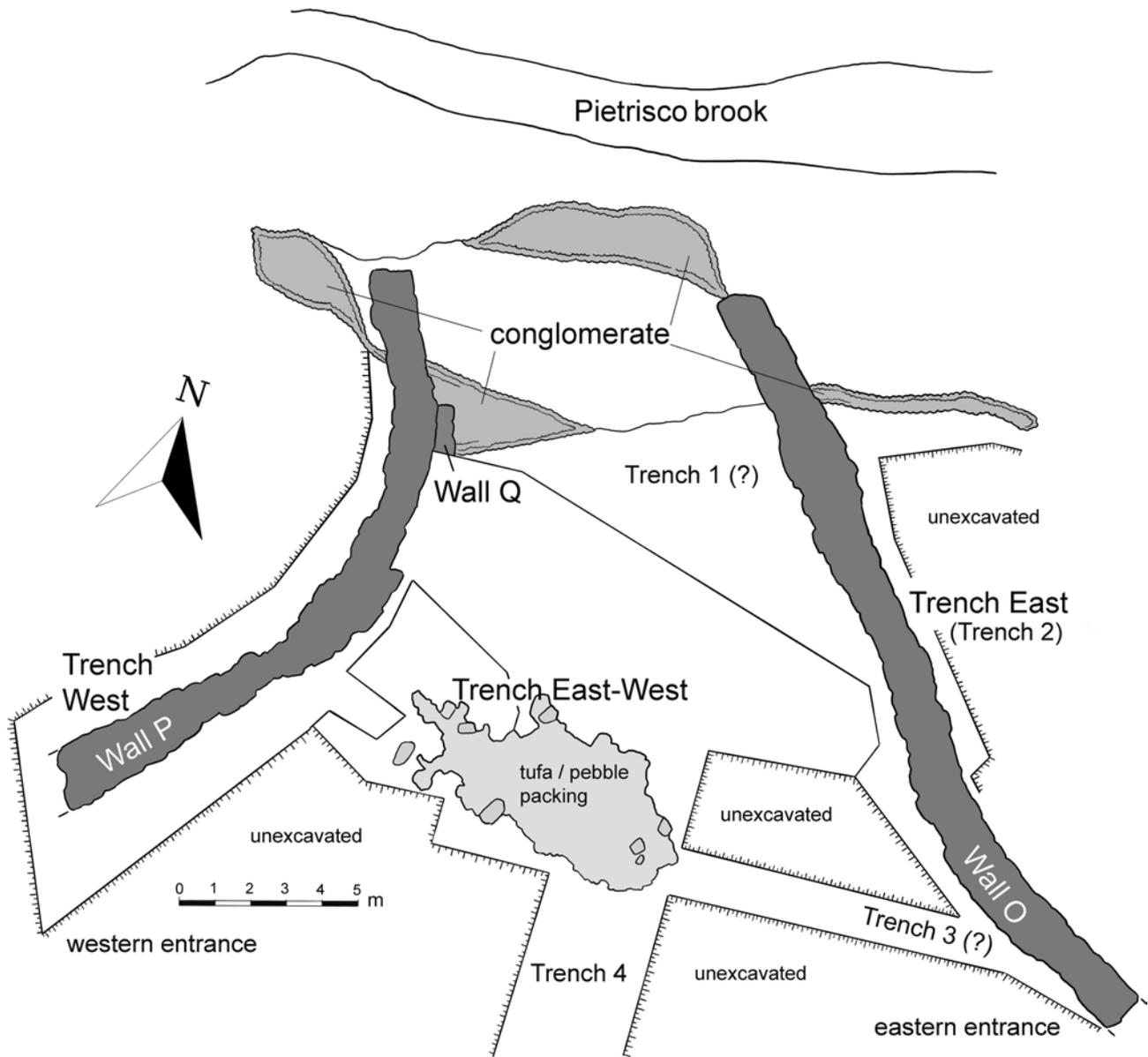


Fig. 227. Simplified plan of the Bridge Complex excavation (southern bank of Pietrisco brook), marked with trenches and other important features. Due to the lack of precise documentation in 1963, it is not possible to determine the extent of the test trenches, or their exact boundaries (drawing by R. Holmgren).

### TRENCH EAST–WEST—THE “PIAZZA” WITH TUFA AND RIVER-PEBBLE PAVING

*Figs. 226–227, 229–231*

An east–west trench *c.* 5 m wide and *c.* 16 m long was dug between Trench West and Trench East, and unsurprisingly named Trench East–West. The space between Walls O and P consisted of a dense and rather deep packing of soil, tufa blocks, and medium-sized river stones in two different levels, both of which formed a paved surface. The area could be in-

terpreted as a “piazza” adjacent to the bridge. A modern and perhaps vivid analogy to the configuration of a bridge with surrounding open paving and a sacred building/chapel with a fountain outside can still be seen at the small medieval bridge over the Biedano river at Blera.<sup>1071</sup> Furthermore, the combination of the crossroads near a bridge, a piazza, and a fountain next to an old, small Christian chapel dedicated to a local

<sup>1071</sup> Santella 1981, 52–53.



*Fig. 228. The Bridge Complex northern foundation with the south-east road (Via Vignale Nord) leading over Bridge 1 south to the Vignale plateau, Trench 3, looking north-west (photograph in 1963 by S. Forsberg, courtesy of SIR).*

saint could also be vital to the understanding of the last phase of the ancient Bridge Complex at San Giovenale. The latter combines the apsidal house (House 3A) with a *pestarola* (for water?) with a platform/altar at its entrance (Fig. 232).

## Catalogue

The items collected from the trenches during the excavations in 1961–1963 on the southern side of the Bridge Complex (Figs. 227, 229) consisted of 1,013 pieces of ceramics, ter-



*Fig. 229. Wall P under excavation with the pebbled “piazza” still to be unearthed. Compare wall position with the plans in Figs. 226–227, looking south (photograph in 1962 by S. Forsberg, courtesy of SIR).*



*Fig. 230. At the right of the photograph, two layers of river pebbles and tufa stones form separate levels of a “piazza” on the southern bank of the Bridge Complex. The two distinct phases of the “piazza” are connected to various rearrangements after the 550/530 BC earthquake. Wall O is seen at the left of the photograph, looking east (photograph in 1962 by S. Forsberg, courtesy of SIR).*

racotta objects, roof tiles, and metal (Figs. 233–241).<sup>1072</sup> The catalogue contains 119 of the 165 selected diagnostic items marked with letters BRS, R, S, Q, Y, W, as well as with

<sup>1072</sup> Many pottery and tile fragments and bones were discarded during the fieldwork in 1959–1963.

*Tegula*, *Imbrex*, and *Kalypter*, comprising various pottery fabrics, terracotta objects, tiles, and metals.<sup>1073</sup> Some of the

<sup>1073</sup> 26 fragments of pan tiles, cover and ridge tiles (approx. four tiles) and two pieces of clay lining were registered and processed from various trenches on the south side of the Pietrisco brook. Only a few of these are



Fig. 231. A more detailed view of the upper, more recent level of river pebbles and tufa stones in the "piazza". Compare to Fig. 230, looking east (photograph in 1962 by S. Hallgren, courtesy of SIR).



Fig. 232. Photograph of the cobble stone pavement, the "piazza", at the medieval bridge over the Biedano river at Blera. The small building is an old sacred building/chapel. The cobbled "piazza" in connection with the bridge and the sacred building are an interesting analogy to the infrastructure surrounding the Etruscan Bridge Complex with House 1 in San Giovenale (photograph in 2004 by Y. Backe Forsberg).

items from the southern side have previously been analysed, drawn, photographed, discussed, and illustrated by Backe Forsberg.<sup>1074</sup> Her publication also includes a detailed list of finds and pottery.

The catalogue is organized following the system used for the trenches investigated on the northern slope of Vignale in 1961–1962. The unique find nos. SGBRS 61-61–61-65 refer to the 1961 excavation on the southern side of the Bridge Complex, and 62-809–62-814 to that of 1962. The finds are listed under several categories, starting with pottery fabrics with a unique catalogue number (*no.*, with the prefix *App. 1*), for every item. The total content in each trench is summed up in a table showing context, items, and forms.<sup>1075</sup>

included in the present catalogue. On tile fragments sampled and refitted from both the northern and southern banks of the Pietrisco brook, see Backe Forsberg 2005, 60, 62, 85, tables 4, 36. The tiles were divided into four fabric types: a) brownish-red clay, brownish-red slip, grey core, very coarse, stone inclusions, white specks, micaceous, b) brown coarse clay, dark grey core, reddish slip, micaceous, c) reddish-yellow coarse clay, yellowish-brown slip, grey core, white and brown grits, sandy, rough, micaceous, d) dark reddish-brown very coarse clay, dark brown slip, well fired.

<sup>1074</sup> References to the text in Backe Forsberg 2005, 51–56, 60–63, 75, figs. 2, 23–24, 29–30, 35–36, 44a–b, 52, 62, 75, 89–90, 95, tables 3–4, 25, 33–34.

<sup>1075</sup> Several of the items are illustrated in Backe Forsberg 2005, figs. 75, 82, 89–90, 94a, 95.

APP. 1, NOS. 1–25: TRENCH EAST–WEST, STRATUM I,  
FIND NO. SGBRS 62-809

*Figs. 233–234, Table 16*

**Bucchero**

**App. 1, no. 1.** (*Fig. 233*). Lid. Rim fragment of lid. Bucchero. Ordinary bucchero, very grey and worn fabric (type 1). Est. diam. 31 cm. Find no. 62-809 (BRS11).<sup>1076</sup> Backe Forsberg 2005, fig. 90:16.

**App. 1, no. 2.** (*Fig. 233*). Bowl. Ring-base. Bucchero. Diam. of base 10.5 cm. Find no. 62-809 (BRS13). Backe Forsberg 2005, fig. 90:15.

**Red slip**<sup>1077</sup>

**App. 1, no. 3.** (*Fig. 233*). Bowl/lid. Ring-base. Red slip. Diam. 5.6 cm. Find no. 62-809 (BRS1).

**App. 1, no. 4.** (*Fig. 233*). Bowl/lid. Rim fragment. Red slip. Conical rounded shape with rounded thickened inward leaning rim; H 2.5 cm; th. of rim and body 0.4–0.7 cm. Too small for est. of diam. Find no. 62-809 (BRS16).

**App. 1, no. 5.** (*Fig. 233*). Lid/bowl. Rim fragment. Red slip. Conical shape. Thickened flat rim. Est. diam. 11 cm. Find no. 62-809 (BRS18).

**App. 1, no. 6.** Bowl. Rim fragment. Red slip. Conical body with outwards leaning thickened and pointed rim. Too small for est. of diam. Find no. 62-809 (BRS29).

**App. 1, no. 7.** (*Fig. 233*). Lid/bowl. Rim fragment. Red slip. Rounded shape with rounded thickened rim; th. of body 0.4–0.6 cm, H 2 cm. Too small for est. of diam. Find no. 62-809 (BRS32).

**App. 1, no. 8.** (*Fig. 233*). Lid/bowl. Rim fragment. Red slip. Conical body with rounded thickened rim. Est. diam. 21 cm. Find no. 62-809 (BRS34).

**App. 1, no. 9.** (*Fig. 233*). Small jar. Rim fragment. Thickened rounded lip. Red slip. Ovoid shape. Short neck. Est. diam. 12 cm. Find no. 62-809 (BRS31).

**App. 1, no. 10.** (*Fig. 233*). Jar. Two rim fragments. Cut-off rim, thickened pointed lip. Red slip. Ovoid shape. Est. diam. 14.5 cm. Find no. 62-809 (BRS24–25).

**Internal red slip**<sup>1078</sup>

**App. 1, no. 11.** (*Fig. 233*). Basin. Conical shaped body with thick flat slightly inturned rim. Very coarse clay. Internal red slip. Too small for est. of diam.; th. of rim and body 1.2–3 cm. Find no. 62-809 (BRS4). See *Caere* 3:2, fig. 575:N4b7.

**App. 1, no. 12.** (*Fig. 233*). Jar. Rim fragment. Internal red slip. Ovoid shape. Out-turned almost almond-shaped lip. Est. diam. 16 cm. Find no. 62-809 (BRS26), Backe Forsberg 2005, fig. 90:5.

**App. 1, no. 13.** (*Fig. 233*). Small jar. Rim fragment. Internal red slip. Out-turned rim, squarish lip. Est. diam. 10.5 cm. Find no. 62-809 (BRS27). Backe Forsberg 2005, fig. 90:2.

**App. 1, no. 14.** (*Fig. 233*). Large jar. Rim fragment. Internal red slip. Out-turned triangular rim. Est. diam. 29 cm. Find no. 62-809 (BRS28).

**App. 1, no. 15.** (*Fig. 233*). Jar. Rim fragment. Internal red slip. Ovoid shape. Short neck. Almond-shaped slightly rounded lip. Est. diam. 18.5 cm. Find no. 62-809 (BRS35).

**App. 1, no. 16.** (*Fig. 233*). Jar. Rim fragment. Internal red slip. Ovoid globular shape. Short neck with protruding slightly rounded lip. Est. diam. 16 cm. Find no. 62-809 (BRS42).

**App. 1, no. 17.** Jar. Rim fragment. Internal red slip. Ovoid cylindrical shape. Short neck. Out-turned oblique rim. Est. diam. 18.5 cm. Find no. 62-809 (BRS38).

**App. 1, no. 18.** Bowl/basin. Rim fragment. Internal red slip. Out-turned thickened lip. Too small for est. of diam. Find no. 62-809 (BRS36).

**App. 1, no. 19.** (*Fig. 233*). Bowl/lid. Rim fragment. Internal red slip. Slightly rounded body with thickened rounded lip. Est. diam. 13.5 cm. Find no. 62-809 (BRS37). Backe Forsberg 2005, fig. 90:8.

**App. 1, no. 20.** (*Fig. 233*). Bowl/lid. Rim fragment with rounded lip. Internal red slip. Conical shape. Est. diam. 14 cm. Find no. 62-809 (BRS39). Backe Forsberg 2005, fig. 90:10.

**Attic black-glaze**

**App. 1, no. 21.** (*Fig. 233*). Cup/*kylix*. Nine handle, base, and body fragments of almost half a cup, horizontal arched ring-handles and ring-base. Fine pinkish-red clay. Shiny black glaze. Attic black-glaze. Est. diam. of rim 12.5 cm; est. diam. of base 4.5 cm; H 5.1 cm. Find no. 62-809 (R3). Backe Forsberg 2005, fig. 90:24. See also Emiliozzi 1974, pl. 128. Date: Late 5th century BC.

**Etrusco-Campanian black-glaze (Campana C)**

**App. 1, no. 22.** (*Figs. 233–234*). *Pyxis* or *lekane*. Nine joining fragments of horizontal rounded ring handle, rim, and body fragments find no. 62-809, and one rim fragment of SG-BRN 62-726 (R12), diam. of rim 15 cm; H 6 cm; th. of wall 0.4 cm, see Backe Forsberg 2005, fig. 90:27; ring-base 62-809 and 62-811 (R13), diam. of base 6 cm, th. of base 0.6 cm, (see *App. 1, no. 43*) with two impressed palmettes inside base may belong to this *lekane* (Backe Forsberg 2005, fig. 90:28). See Morel 1969, pl. 123 (4250, 4253a1) dated to *c.* 300 BC; Morel 1969, pl. 143 (4712a1). South Italian import or (4714a1) Campana C ware, *Agora* XII; Jehasse & Jehasse 1973, 177, pl. 138, see, for example, form *pyxis* 2077 pl. 138, found in tomb 96 (1968/1) dated to 280–250 BC. Di Giuseppe 2012,

<sup>1076</sup> The selected items were given an identification number from BRS1 to BRS176 (Bridge South).

<sup>1077</sup> Cf. Pohl's description of red-slip ware in *San Giovenale* II:4; III:3; V:2.

<sup>1078</sup> Cf. Pohl's description of internal red-slip ware in *San Giovenale* II:4; III:3; V:2.

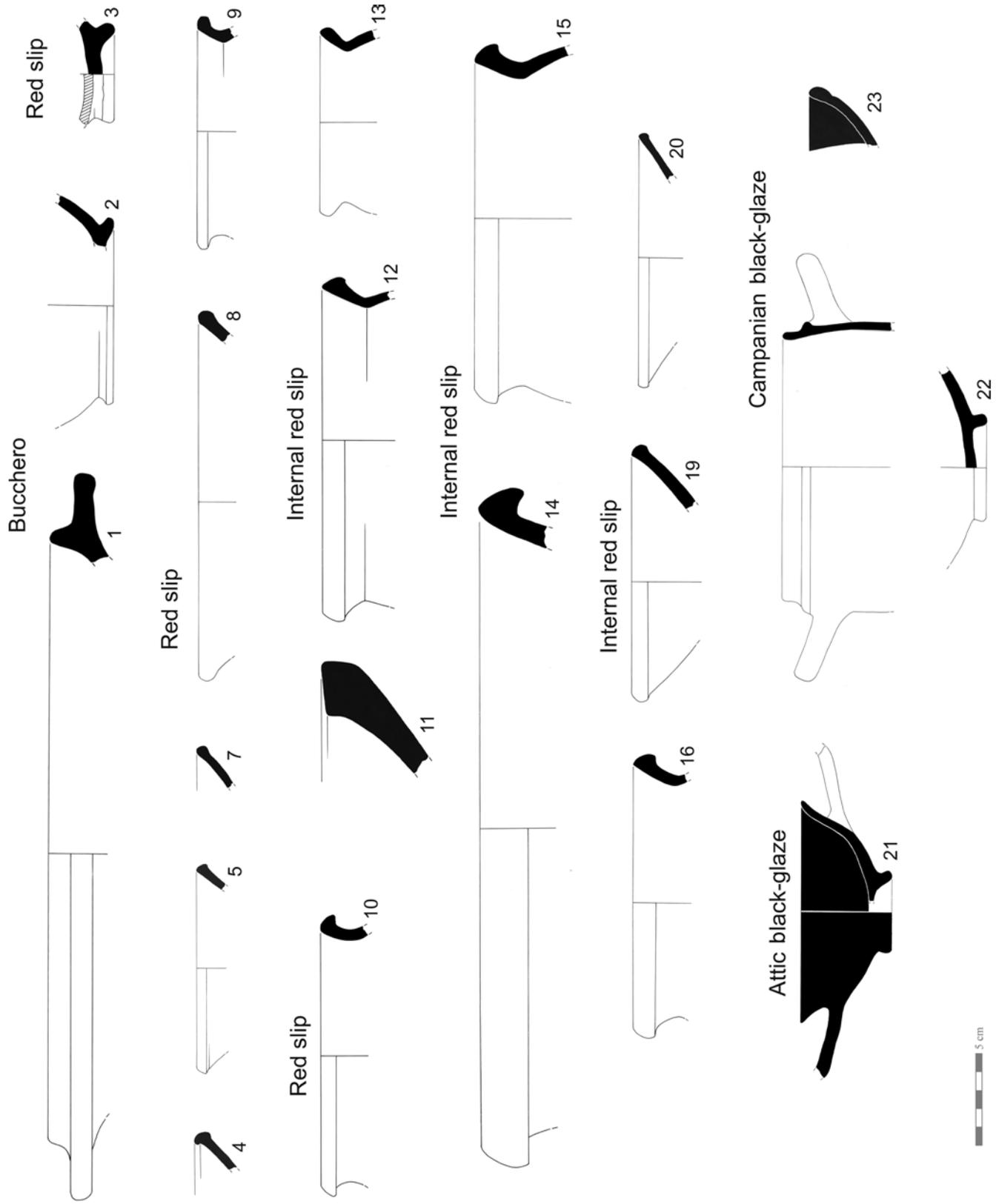


Fig. 233. Finds in Trench East-West stratum 1. SGBRS 62-809 (App. 1, nos. 1-5, 7-16, 19-23) (drawings by R. Hohngren).



Fig. 234. Etrusco-Campanian black-glaze lekane. SGBRS 62-809, 811 (App. 1, no. 43) (photograph by B. Tobiasson, courtesy of SIR).

130–131, discusses the Veian workshops producing the Campanian black-glaze pottery from the end of the 4th to the first half of the 3rd centuries BC with a revival around the second half of the 2nd century BC with a dip to the Augustan period. According to Morel 1969 the Rome-Lazio workshops ceased production in the middle of the 3rd century BC; see also Slej 2008, 61–67, figs. 99–130, on discussion of characteristics for black-glaze pottery (nomenclature, clay, glaze, form, chronology, origin, production). The Campana C pottery from the Castor and Pollux excavations was dated from the 2nd to 1st centuries BC, Slej 2008, 66; see, for example, Jehasse & Jehasse 1973, 269, 305, *lekane* pls. 129–130:30 *ceramique de vernis noir sans decoration*, tomb 53:972, pl. 128, form 133, dated to 325–300 BC.

**App. 1, no. 23.** (Fig. 233). Bowl. Rim fragment of rounded bowl with thickened rim, black-glaze inside and outside. L 4.8 cm; H 4 cm; th. 0.5–0.7 cm. Too small for est. of diam. Find no. 62-809 (R14). Backe Forsberg 2005, fig. 90:23.

#### Medieval pottery

**App. 1, no. 24.** Bowl. Body fragment. Coarse ware. Grey gritty clay. Find no. 62-809a.

**App. 1, no. 25.** Jug. Spout. Fine grey clay. Find no. 62-809b.

#### APP. 1, NOS. 26–40: TRENCH EAST–WEST, STRATUM 2, FIND NO. SGBRS 62-810

Fig. 235, Table 16

#### Red slip

**App. 1, no. 26.** (Fig. 235). Jar. Rim fragment. Short neck, cut-off rim, rounded hanging lip. Red slip. Est. diam. 21 cm. Find no. 62-810 (BRS71). Backe Forsberg 2005, fig. 90:7.

**App. 1, no. 27.** Small jar. Rim fragment. Red slip. Cut-off thickened almond-shaped rim. Cylindrical shape. Find no. 62-810 (BRS72). Est. diam. 10.5 cm.

#### Bucchero

**App. 1, no. 28.** Bowl. Rim fragment. Ordinary bucchero. Rounded rim. Est. diam. 9 cm. Find no. 62-810 (BRS79).

**App. 1, no. 29.** (Fig. 235). Bowl. Rim fragment. Ordinary bucchero. Rounded rim. Est. diam. 9 cm. Find no. 62-810 (BRS80).

**App. 1, no. 30.** (Fig. 235). Bowl. Flaring ring-base with body. Bucchero. Incised cross on the outside of the body. Diam. 7.3 cm; th. of base 1.1 cm; th. of body 0.7–0.8 cm. Find no. 62-810 (BRS48). Backe Forsberg 2005, fig. 90:14; Colonna & Backe Forsberg 1999, 77, table 25, fig. 8:42; *Caere* 3:1,

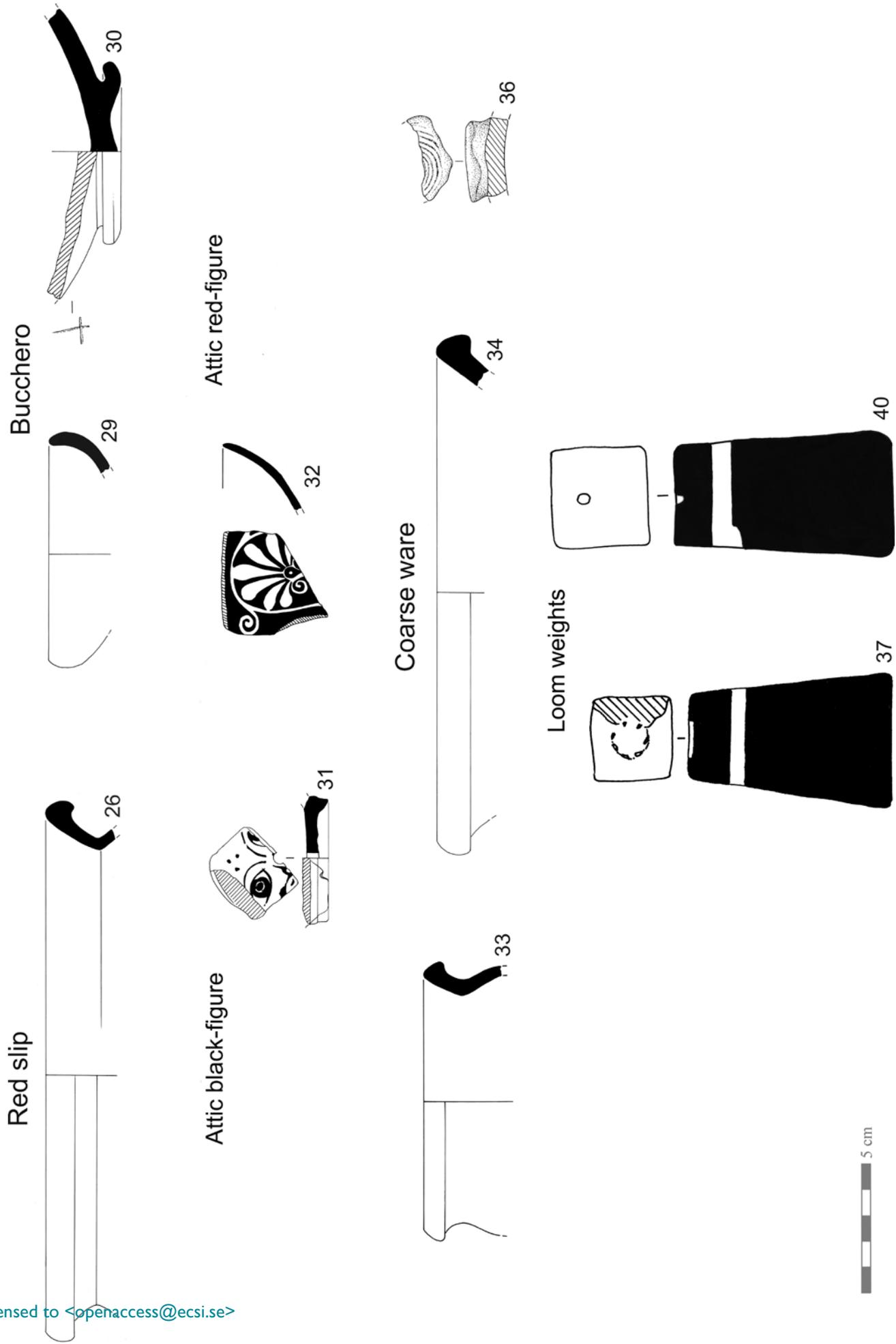


Fig. 235. Finds in Trench East-West, stratum 2. SGBRS 62-810 (App. 1, nos. 26, 29-34, 36-37, 40) (drawings by R. Holmgren).

fig. 380:E51.28–29; see also Archaic impasto bowl, *Caere* 3:2, fig. 517:Kc 28.6 (the base-ring).

#### *Attic black-figure ware*<sup>1079</sup>

**App. 1, no. 31.** (*Fig. 235*). Cup/*kylix*? Two bottom fragments of tondo and one fragmentary stem, all joining, possibly of an eye-cup. Fine light red micaceous rather loose clay, red slip worn off. Decorated inside with two almost complete large eyes and a complete nose and part of mouth of a Medusa. Three black incised dots forming a triangle in the forehead. A drilled perforation made after firing in the middle of the nose and a small drilled perforation probably for mending, black-glazed on the stem which has a circular ridge painted in weak red (7.5R 4/4). Diam. of stem 5 cm; th. of perforation 0.5 cm. Find no. 62-810 (45) and find no. 60-002 (45), Trench 1, str. 2. north side of the Pietrisco brook. *Early Rome* III, figs. 277:8, 278:3, 6; IV:2, figs. 171:10–12; 171:16 (perforation in mouth?). Date: *c.* 480 BC; see Backe Forsberg 2005, fig. 89:5.

#### *Greek imports: Attic red-figure ware*

**App. 1, no. 32.** (*Fig. 235*). Cup. Rim fragment with handle attachment, inturned rim. Fine light red micaceous clay (2.5YR 6/8). Est. diam. 24 cm; H 4.2 cm; W 4 cm; th. 0.3 cm. Slip worn off at reserved parts, possibly indicating a bad quality or an Italian imitation (?); a lustrous well-preserved black glaze. Decorated with a palmetto with the petals free-standing surrounded by a circle with a spiral on the upper part on both sides. Inside the heart of the palmetto a red point which has some affinities with the *Meister der Ranke* Painter (Find no. 62-810 [18]). Dated to the 5th century BC. Backe Forsberg 2005, figs. 82:7, 89:9. Cf. *CVA Schloss Fasanerie* 1, Taf. 24:2; *CVA Mannheim* 1, Taf. 21:5; *CVA Heidelberg* 1, Tafs. 7:1, 16:6. Epiktetos collaborated with the potters Hischylos, Nikosthenes, Andokides, Pamhaios, Python, and Pistoxenos; eye-cups by the Hischylos Painter, see Laviosa 1965, tav. XIIIb, LIV, inv. no. 1888; Boardman 1979, quite similar to the palmettos on the Euphronios Bowl (525–505 BC). On the Brygos Painter at San Giovenale, see Backe Forsberg 2009b.

#### *Coarse ware*<sup>1080</sup>

**App. 1, no. 33.** (*Fig. 235*). Small jar. Rim fragment with out-turned slightly thickened and oblique lip. Ovoid shape. Find no. 62-810 (BRS66). Est. diam. 10 cm. Backe Forsberg 2005, fig. 90:6.

**App. 1, no. 34.** (*Fig. 235*). Jar. Rim fragment with thickened almond-shaped rim. Find no. 62-810 (BRS64). Est. diam. 20 cm.

**App. 1, no. 35.** Jar/*dolium*. Rim fragment with almond-shaped out-hanging thick lip. Ovoid-globular? Find no. 62-810 (BRS73). Est. diam. 24 cm.

**App. 1, no. 36.** (*Fig. 235*). Lid. Knob with marks of potter's wheel. Find no. 62-810 (BRS69). Diam. of rim 3.4 cm.

#### *Loom weights*<sup>1081</sup>

**App. 1, no. 37.** (*Fig. 235*). Truncated pyramidal shape, smoothed sides, use of wear, decorated with a round dented deep impressed pattern made with a shell or a carved rosette in bone, motif 7 cf. *San Giovenale* V:2, motif a. Light brownish very gritty clay, many large white and brown inclusions, buff slip. Base slightly damaged. H 8.1 cm; th. 5.4 cm; W 5.5 cm; weight 271 g. D. of hole: 0.4–0.45 cm. Wear use. Decorated with motif 7, a round dented impressed pattern made by a shell? Trench East–West, str. 2. Find no. 62-810 (W6).

**App. 1, no. 38.** Truncated pyramidal shape, heavily worn, transversal horizontal perforated hole, a round hole on top, motif 4. Brownish-red gritty clay, micaceous, very worn. H 7.5 cm; th. 5.3 cm; W 4.8 cm. Trench East–West, str. 2; weight 205 g, approx. half a side missing; calculated weight 320 g. Find no. 62-810 (W9).

**App. 1, no. 39.** Truncated pyramidal shape, transversal horizontal perforated hole, straight sides. Light brownish, very gritty clay, with large black, brown, and white inclusions; yellowish buff slip; no decoration on top. Use wear. Pres. H 6.8 cm; th. 4.5 cm; W 4.6 cm; weight 108 g. approx; calculated weight 180 g. Base missing; Diam. of hole: 0.55–0.60 cm. Find no. 62-810 (W7).

**App. 1, no. 40.** (*Fig. 235*). Truncated pyramidal shape, almost rectangular, transversal perforated hole, damaged in one corner, worn, a small round hole on top, motif 4. Reddish-brown very gritty clay, reddish-brown slip. On short side an inscribed Etruscan letter *u* (?). An unsuccessful attempt to make another transversal hole just beside the other hole. Use wear; the weight has been bevelled at an angle at base. Trench East–West, str. 2. H 9.1 cm; th. 5.5 cm; W 5.5 cm; weight 341 g; calculated weight 350 g; small fragments missing; Diam. of hole: 0.5–0.7 cm. Find no. 62-810 (W8). Similar letters on bucchero bowls and cups were found on the northern side of

<sup>1079</sup> On Greek imports at the northern part of the Pietrisco Bridge Complex, see Backe Forsberg 2005, 75–77, figs. 82, 89, table 24.

<sup>1080</sup> Cf. Pohl's description of coarse ware in *San Giovenale* II:4; III:3; V:2.

<sup>1081</sup> Backe Forsberg 2005, 77–78, 80, 26, nn. 418, 424–425, figs. 82, 94a:1–7, 25a–b. Twenty-six Archaic terracotta loom weights and one small burnished impasto Proto-Villanovan loom weight were found at the Bridge Complex (see Backe Forsberg 2005, fig. 94a:1–7). The loom weights will be further discussed in Landenius Engren's textile project at San Giovenale and Acquarossa, forthcoming. On textile production, gift to the gods, and the amount of metal objects, see Backe Forsberg 2005, 117, 155, table 27.

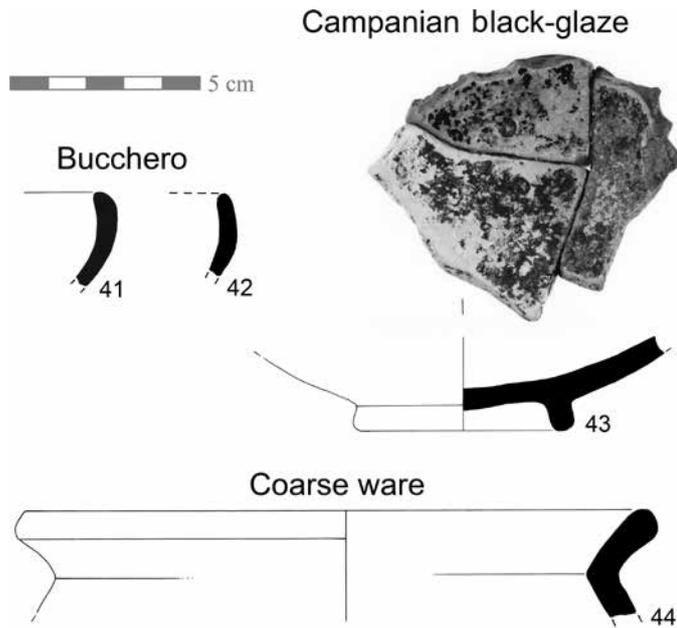


Fig. 236. Finds in Trench East–West strata 1–2. SGBRS 62-811 (App. 1, nos. 41–44) (drawings by R. Holmgren).

the Pietrisco Bridge Complex and interpreted as the letter *u*, see Colonna & Backe Forsberg 1999, 68–74, 76–81, figs. 2:2, 5, 3:5a, 4:17, 5:17, 6:24–25, 7:24, 8:41. Backe Forsberg 2005, 77–78, figs. 91–92, table 25.

**APP. 1, NOS. 41–46: TRENCH EAST–WEST, STRATA 1–2, FIND NO. SGBRS 62-811**

Fig. 236, Table 16

**Bucchero**

**App. 1, no. 41.** (Fig. 236). Bowl. Rim fragment. Light grey fabric. Worn. Rounded inturned rim; th. 0.3–0.5 cm; L 2.5 cm. Find no. 62-811 (BRS81). Too small for est. of diam. Backe Forsberg 2005, fig. 90:13.

**App. 1, no. 42.** (Fig. 236). Bowl. Rim fragment. Light grey fabric. Rounded slightly inturned rim; th. 0.3–0.5 cm; L 2.3 cm. Find no. 62-811 (BRS148). Too small for est. of diam. Backe Forsberg 2005, fig. 90:12.

**Etrusco-Campanian black-glaze (Campana C)**

**App. 1, no. 43.** (Figs. 233–234, 236). Bowl/*lekane*. Ring-base, three fragments forming a complete base. Two shallow impressed palmettos inside bowl. Black, lustrous glaze outside and reserved underside. Find no. 62-811 (R13). Joining two base fragments from find no. 62-809. Diam. 6 cm; th. 0.7 cm. Backe Forsberg 2005, 77, n. 410, table 24, fig. 90:28. Same fabric as *lekane* R12 (App. 1, no. 22), which may indicate that the base belongs to the *lekane* (App. 1, no. 43). However, the two impressed palmettes make us somewhat confused since Campana C ware to our knowledge is undecorated. One al-

ternative may be to attribute it to the *L'atelier des petites estampilles* thus dated from the end of the 4th century to the middle or end of the 3rd century BC. Rome/Latium. Cf. the discussion above in App. 1, no. 22. Etrusco-Campana B ware in Etruria has been dated to the 2nd–1st centuries BC and Campana C ware also dated to the 2nd–1st centuries BC. *L'atelier des petites estampilles* in Rome has been dated to 300–265 BC by Morel 1969 but later researchers date the workshop to the end of the 3rd century BC. The Campana C ware has a grey fabric with a black glaze on top, is dated to 150–50 BC, and produced at Sicily.

**Coarse ware**

**App. 1, no. 44.** (Fig. 236). Jar. Out-turned rim with rounded lip. Ovoid shape. Short neck. Est. diam. 17 cm. Find no. 62-811.

**Metal**

**App. 1, no. 45.** Iron bolt. Upper part of bolt, very much corroded, Trench East–West str. 2, Find no. 62-811. Backe Forsberg 2005, 81–83, 102, table 27, figs. 93, 95:2 bolt from the northern side but quite similar to bolt 62-811.<sup>1082</sup>

**Tile**

**App. 1, no. 46.** Cover tile/*imbrex*. Three joining rim fragments. Find no. 62-811.

<sup>1082</sup> On metalworking, see Backe Forsberg 2005, 117.

**APP. 1, NOS. 47-81: TRENCH EAST-WEST,  
STRATUM 2, ABOVE PEBBLE PACKING/PAVEMENT,  
FIND NO. SGBRS 62-812**

*Fig. 237, Table 16*

**Primitive impasto<sup>1083</sup>**

**App. 1, no. 47.** (*Fig. 237*). Jar with two handles? One horizontal tube-handle with wall, W of handle included wall 3.7 cm. Primitive impasto. Find no. 62-812 (BRS12). Date: Final Bronze Age/Proto-Villanovan (?).

**Bucchero**

**App. 1, no. 48.** Cup. Rim fragment. Black bucchero. Find no. 62-812 (BRS144). Too small for est. of diam.

**App. 1, no. 49.** Cup. Horizontal handle. Ordinary bucchero. Find no. 62-812 (BRS147).

**App. 1, no. 50.** (*Fig. 237*). Bowl. Ring-base. Ordinary bucchero. Th. of base 0.7 cm; L 2.1 cm; H 1 cm. Find no. 62-812 (BRS145). Too small for est. of diam.

**App. 1, no. 51.** (*Fig. 237*). Bowl. Ring-base. Ordinary bucchero. Th. of base 0.5 cm; L 1.9 cm; th. of wall 0.5-0.7 cm; H 1.9 cm. Find no. 62-812 (BRS146). Too small for est. of diam.

**Red slip**

**App. 1, no. 52.** (*Fig. 237*). Bowl/lid. Rim fragment. Out-turned, thickened lip, th. of wall 0.5-0.9 cm, L 2.2 cm. Too small for est. of diam. Red slip. Find no. 62-812 (BRS105).

**App. 1, no. 53.** *Dolium*. Rim fragment. Red slip. Find no. 62-812 (BRS113).

**App. 1, no. 54.** (*Fig. 237*). Jar. Rim fragment. Short neck. Est. diam. 16.5 cm. Triangular lip. Red slip. Find no. 62-812 (BRS115).

**App. 1, no. 55.** (*Fig. 237*). Small jar. Red slip. Long neck. Rim fragment with thickened out-turned hanging rim, slightly rounded lip. Est. diam. 11.5 cm. Find no. 62-812 (BRS118).

**App. 1, no. 56.** (*Fig. 237*). Jar. S-shaped globular. Red slip. One rim fragment with protruding rim, rounded lip. Est. diam. 16 cm. Find no. 62-812 (BRS121). Backe Forsberg 2005, fig. 90:1.

**App. 1, no. 57.** (*Fig. 237*). Jar. Ovoid shape. Red slip. Short neck. Rim fragment with out-turned slightly rounded thick lip. Est. diam. 20 cm. Find no. 62-812 (BRS125).

**App. 1, no. 58.** (*Fig. 237*). Stamnoid jar. Globular shape. Red slip. Short neck. Rim and body fragment. Thick inturned rim with oblique lip. Est. diam. 13 cm. Find no. 62-812 (BRS123).

**App. 1, no. 59.** (*Fig. 237*). Bowl. Ring-base. Diam. 5.3 cm; th. 0.6-1.3 cm. A small perforation in the middle of the base

made before firing, diam. 0.5 cm. Red slip. Find no. 62-812 (BRS140). Backe Forsberg 2005, fig. 90:11.

**App. 1, no. 60.** (*Fig. 237*). Basin. Conical bowl/basin with thickened flat rim. Red slip. Est. diam. 35 cm. Find no. 62-812 (BRS120). Backe Forsberg 2005, fig. 90:9.

**App. 1, no. 61.** (*Fig. 237*). Basin. Conical rounded shape. Red slip. Rim fragment, thickened slightly inward-leaning rounded rim. Est. diam. 37 cm. Find no. 62-812 (BRS119).

**App. 1, no. 62.** (*Fig. 237*). Bowl. Ring-base. Red slip. Diam. 5.3 cm; H 2.4 cm; th. 1.1 cm. Find no. 62-812 (BRS138).

**Red/orange ware (African red slip ARS?)**

**App. 1, no. 63.** Bowl/lid. Rim fragment. Est. diam. 33 cm. Find no. 62-812 (BRS106). Backe Forsberg 2005, fig. 90:31.

**App. 1, no. 64.** Jar. Rim fragment. Too small for est. of diam. Find no. 62-812 (BRS107).

**App. 1, no. 65.** (*Fig. 237*). *Amphora*/jar. Ovoid shape. Red ware. Rim fragment with out-turned cut-off rim with column-like lip, th. 1.8 cm. Est. diam. 20 cm. Find no. 62-812 (BRS132). Backe Forsberg 2005, fig. 90:32; see Colonna 1992, fig. 76:48, 49.

**Coarse ware**

**App. 1, no. 66.** (*Fig. 237*). Bowl. Coarse ware. Rim fragment. Inturned rounded rim. H 3.3 cm; th. of wall 0.5-1.0 cm. Too small for est. of diam. Find no. 62-812 (BRS101).

**App. 1, no. 67.** Bowl/lid. Coarse ware. Rim fragment with inturned rounded rim. Too small for est. of diam. Find no. 62-812 (BRS102).

**App. 1, no. 68.** Jar. Coarse ware. One rim fragment. Too small for est. of diam. Find no. 62-812 (BRS103).

**App. 1, no. 69.** (*Fig. 237*). Small jar. Coarse ware. Ovoid shape. Rim fragment with out-turned rim, angular lip. Est. diam. 11.5 cm. Find no. 62-812 (BRS108).

**App. 1, no. 70.** Jar. Coarse ware. Rim fragment. Too small for est. of diam. Find no. 62-812 (BRS109).

**App. 1, no. 71.** (*Fig. 237*). Miniature/small jar. Coarse ware. Ovoid shape. Rim fragment. Out-turned rim with rounded lip. Short neck. Est. diam. 9 cm. Find no. 62-812 (BRS110). Backe Forsberg 2005, fig. 90:3.

**App. 1, no. 72.** (*Fig. 237*) Jar. Coarse ware. Rim fragment, thickened lip. Cylindrical shape. Short neck. Est. diam. 13.5 cm. Find no. 62-812 (BRS111).

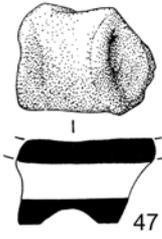
**App. 1, no. 73.** Jar. Coarse ware. Rim fragment. Too small for est. of diam. Find no. 62-812 (BRS112).

**App. 1, no. 74.** Jar. Coarse ware. Rim fragment. Too small for est. of diam. Find no. 62-812 (BRS114).

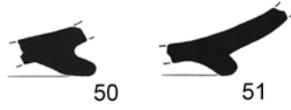
**App. 1, no. 75.** Jar. Coarse ware. Rim fragment. Ovoid shape. Short neck. Thickened rim with slightly angular lip. Est. diam. 16 cm. Find no. 62-812 (BRS117).

<sup>1083</sup> Cf. Pohl's description of primitive impasto in *San Giovenale* II:4; III:3; V:2.

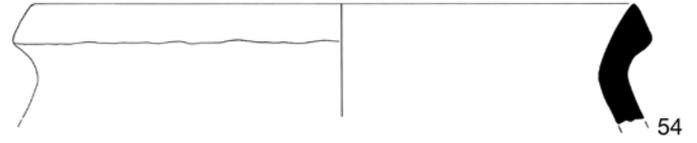
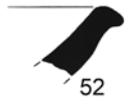
Primitive impasto



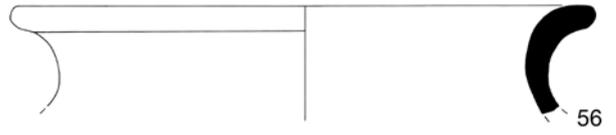
Bucchero



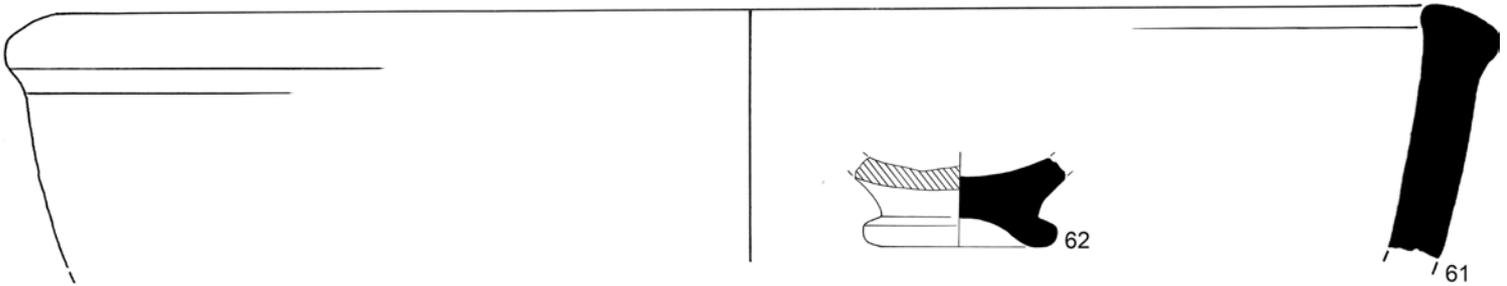
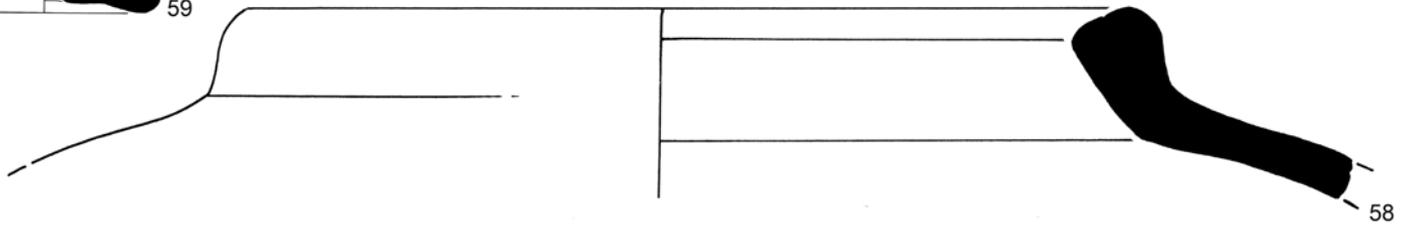
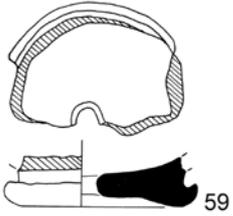
Red slip



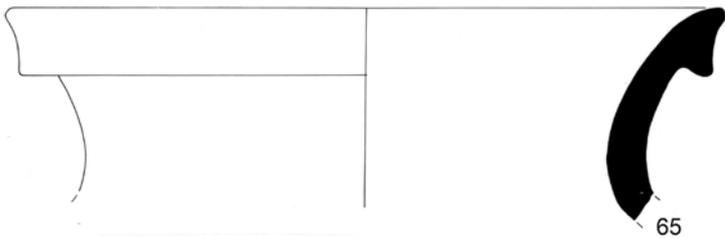
Red slip



Red slip



Red ware



Coarse ware



Coarse ware

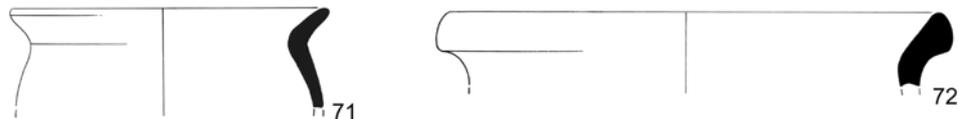


Fig. 237. Finds from French East-West, above pebble packing/pavement str. 2. SGBRS 62-812 (App. 1, nos. 47, 50-52, 54-62, 65-66, 69, 71-72) (drawings by R. Holmgren).

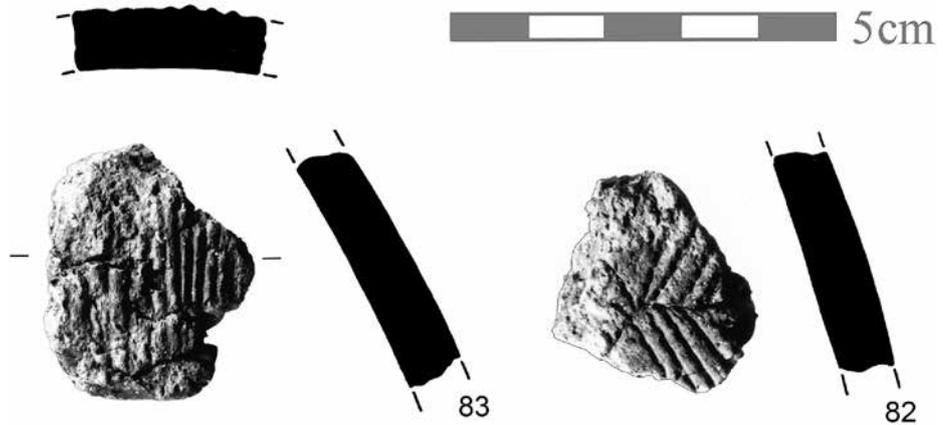


Fig. 238. Late Neolithic sherds in Trench West, Western entrance, surface layer. SGBRS 62-813 (App. 1, nos. 82–83) (drawings by R. Holmgren, photograph by B. Tobiasson).

**App. 1, no. 76.** Basin. Coarse ware. Rim fragment. Conical rounded basin. Thickened slightly inward-leaning rounded lip. Est. diam. 37 cm. Find no. 62-812 (BRS128).

#### Terracotta cooking stand

**App. 1, no. 77.** Cooking stand. One projecting arm of Scheffer type IIA.<sup>1084</sup> Coarse light reddish-brown clay, gritty, white, brown, and black inclusions, micaceous, thin buff slip, greyish on top. Trench East–West, str. 1–2. Find no. 62-812. Dated to the 6th century BC.

#### Greek imports: Attic black-glaze

**App. 1, no. 78.** *Skyphos* (?). Fragment of horizontal rounded handle. Fine light red-red (2.5YR 6/8–5/8) micaceous clay. Black lustrous glaze outside and reserved underside. Slip worn off. Find no. 62-812 (33).

**App. 1, no. 79.** Cup. Horizontal ring-handle. Black lustrous glaze outside and reserved underside. Find no. 62-812.

#### Metal

**App. 1, no. 80.** (Fig. 237). Iron. Bottom slag. Fairly flat on top, dense, piece of carbon visible, much corroded. W 6 cm; weight 119 g. Find no. 62-812. Backe Forsberg 2005, 81–82, 102, nn. 441, 585, 587, table 27, figs. 93, 95:19; Guidi *et al.* 2005, 73, 75, table 2.<sup>1085</sup>

#### Tiles<sup>1086</sup>

**App. 1, no. 81.** Pantile or ridge tile? Raised border fragment. Fabric a) brownish-red clay, brownish-red slip, grey core, very coarse, stone inclusions, white specks, micaceous. Find no. 62-

812 (*Tegula* 96 or *Kalypter* 3, difficult to discern due to the raised border).

#### APP. 1, NOS. 82–88: TRENCH WEST, SURFACE LAYER, WESTERN ENTRANCE, FIND NO. SGBRS 62-813

Fig. 238, Table 16

#### Primitive impasto (*Tolfa Allumiere*)<sup>1087</sup>

**App. 1, no. 82.** (Fig. 238). Closed form. Biconical jar? Small body sherd with impressed herring-bone pattern, L 2.7 cm, W 2.5 cm, th. 0.8 cm. Surface layer. Find no. 62-813a. Dated to the Late Neolithic period *c.* 3300 BC (*Pienza Palidoro* style). Backe Forsberg 2005, fig. 75:1.

**App. 1, no. 83.** (Fig. 238). Closed form. Biconical jar (?). Small body sherd with impressed vertical stripes, L 2.3 cm, W 2.5 cm, th. 0.8 cm. Find no. 62-813b. Dated to the Late Neolithic period *c.* 3300 BC (*Pienza Palidoro* style). Backe Forsberg 2005, fig. 75:2.<sup>1088</sup>

#### Clay lining

**App. 1, no. 84.** Clay lining. Two fragments. Find no. 62-813.

#### Tiles<sup>1089</sup>

**App. 1, no. 85.** Pantile. Raised border fragment. Fabric b) brown coarse clay, dark grey core, reddish slip, micaceous. Find no. 62-813 (*Tegula* 47).<sup>1090</sup>

**App. 1, no. 86.** Pantile Wikander 1986 type 1. Raised border fragment. Fabric a) brownish-red clay, brownish-red slip, grey

<sup>1084</sup> Scheffer 1981, 28, 43–44, figs. 2–3, 11; Backe Forsberg 2005, 80–81, n. 428, figs. 85–86a, table 26.

<sup>1085</sup> On metalworking, see Backe Forsberg 2005, 117.

<sup>1086</sup> Four pantiles and three cover tiles were recorded in this area.

<sup>1087</sup> Cf. Pohl's description of primitive impasto (*Tolfa Allumiere*) in *San Giovenale* II:4. Backe Forsberg 2005, 63, fig. 75:1–2, table 3.

<sup>1088</sup> Our thanks go to the late Prof. Pär Göran Gierow and Prof. Francesco di Gennaro, who kindly discussed the fragments and their dating. See Backe Forsberg 2005, 52, 87, n. 247, fig. 75:1–2.

<sup>1089</sup> Eight pantiles and three cover tiles were registered in 1962.

<sup>1090</sup> Wikander 1986, fig. 2.

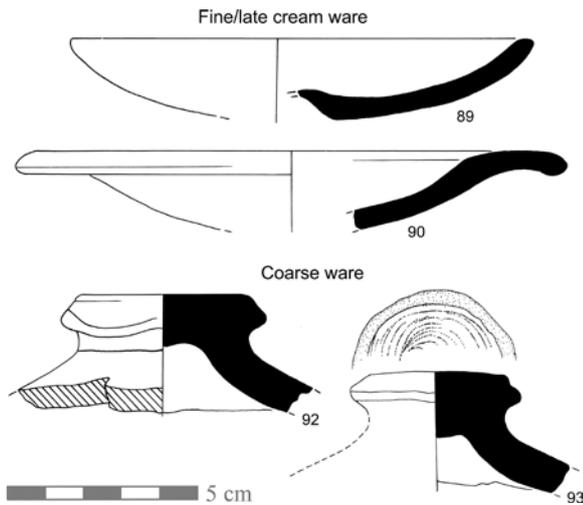


Fig. 239. Finds in Trench East-West, Eastern entrance, surface layer. SG-BRS 62-814 (App. 1, nos. 89–90, 92–93) (drawings by R. Holmgren).

core, very coarse, stone inclusions, white specks, micaceous. Find no. 62-813 (*Tegula* 94).

**App. 1, no. 87.** Pantile Wikander 1986 type 1. Raised border fragment. Fabric a) brownish-red clay, brownish-red slip, grey core, very coarse, stone inclusions, white specks, micaceous. Find no. 62-813 (*Tegula* 95).

**App. 1, no. 88.** Pantile Wikander 1986 type 2. Raised border fragment, bevelled. Fabric b) brown coarse clay, dark grey core, reddish slip, micaceous, Find no. 62-813 (*Tegula* 93). Wikander 1986, figs. 2, 143:17.

#### APP. 1, NOS. 89–98: TRENCH EAST–WEST, SURFACE LAYER, EASTERN ENTRANCE, FIND NO. SGBRS 62-814

Fig. 239, Table 16

##### *Fine/late cream ware*<sup>1091</sup>

**App. 1, no. 89.** (Fig. 239). *Patera*. Rim fragment. Est. diam. 11 cm; H 2 cm. Find no. 62-814 (BRS143). Backe Forsberg 2005, fig. 90:26.<sup>1092</sup>

**App. 1, no. 90.** (Fig. 239). Plate. Rim and body fragment with long protruding rim, rounded lip. Rounded body, shallow plate. Est. diam. 15 cm. Find no. 62-814 (BRS149). Backe Forsberg 2005, fig. 90:25.

**App. 1, no. 91.** *Amphora*. Band-handle. Find no. 62-814 (BRS154).

<sup>1091</sup> Cf. Fuglesang's description of late cream ware, Fuglesang 1997–1998.

<sup>1092</sup> A mistake in Backe Forsberg 2005, fig. 90:25 where a late cream *phiale/patera* with an *omphalos* has been given the wrong number; the correct number is 90:26 (no. 25 is a late cream plate).

##### *Coarse ware*

**App. 1, no. 92.** (Fig. 239). Lid. Rounded knob. Flat upper surface overside. Oblique lip. Diam. 5.5 cm. Find no. 62-814 (BRS150). Backe Forsberg 2005, fig. 90:19.

**App. 1, no. 93.** (Fig. 239). Lid. Rounded knob. Flat on top with marks of potter's wheel. Oblique lip. Diam. 4.5 cm. Find no. 62-814 (BRS155). Backe Forsberg 2005, fig. 90:17.

##### *Tiles*<sup>1093</sup>

**App. 1, no. 94.** Pantile. Wikander 1986 Type 1. Raised right border fragment. Brown clay, exterior grey, secondary burning, vitrified. Find no. 62-814 (*Tegula* 45). Backe Forsberg 2005, fig. 94a:24; *San Giovenale* V:2, pl. 107:WA-1713, WA-1719–1720.

**App. 1, no. 95.** Pantile. Wikander 1986, Type 1. Raised right border fragment. Fabric c) reddish-yellow coarse clay, yellowish-brown slip, grey core, white and brown grits, sandy, micaceous. Find no. 62-814 (*Tegula* 46); Wikander 1981, fig. 2:9.

**App. 1, no. 96.** Pantile. Wikander 1986 Type 1. Raised right border fragment. Fabric c) reddish-yellow coarse clay, yellowish-brown slip, grey core, white and brown grits, sandy, micaceous. Find no. 62-814 (*Tegula* 91); see Backe Forsberg 2005, fig. 94a:20.

**App. 1, no. 97.** Pantile. Unknown type. Raised right border fragment. Fabric a) brownish-red clay, brownish-red slip, grey core, very coarse, stone inclusions, white specks, micaceous. Find no. 62-814 (*Tegula* 48). Similar in profile to the tiles with extremely high raised border found at the Pietrisco Bridge Complex, Wikander 1981, 82–83, figs. 12, 13:58; 1986, 45–47, figs. 21:67–72, 55:58. See also Backe Forsberg 2005, fig. 94a:24.

**App. 1, no. 98.** Ridge tile. Wikander 1986 type I? Raised border fragment. Fabric c) reddish-yellow coarse clay, yellowish-brown slip, grey core, white and brown grits, sandy, micaceous. Find no. 62-814 (*Kalypter* 1); Wikander 1981, fig. 9:42, 44.

#### APP. 1, NOS. 99–105: TRENCH EAST, SURFACE LAYER, FIND NO. SGBRS 61-62 AND TRENCH WEST, SURFACE LAYER, FIND NO. SGBRS 61-64

Fig. 240, Table 16

##### *Red slip*

**App. 1, no. 99.** (Fig. 240). Jar. Red slip. Rim fragment. Short neck with out-turned thickened rim. Est. diam. 13.5 cm. Find no. 61-62 (S159).

**App. 1, no. 100.** Pantile. Wikander 1986 type I? Raised border fragment. Fabric a) brownish-red clay, brownish-red slip,

<sup>1093</sup> Backe Forsberg 2005, table 4.

grey core, very coarse with stone inclusions and white specks, micaceous. Find no. 61-62 (*Tegula* 53).

#### Red ware

**App. 1, no. 101.** (*Fig. 240*). Large bowl/lid. Red ware. V-shaped body. Very thick inturned rim. Thin body wall with clear marks from the potter's wheel inside. Two rim and body fragments, th. of rim 0.9–1.1 cm, th. of wall 0.3–0.4 cm. Reddish-brown gritty clay. Find no. 61-64 (BRS175). Est. diam. 33 cm. Backe Forsberg 2005, fig. 90:31.

**App. 1, no. 102.** (*Fig. 240*). Jar. Red ware. Fragment of flat base, rather thin at bottom. Fabric as BRS 175. Find no. 61-64 (BRS166). Too small for est. of diam.

**App. 1, no. 103.** (*Fig. 240*). *Dolium*/jar. Red ware. Fragment of flat base with thickened wall, th. 1–1.5 cm, th. of base 0.6–1.5 cm, W of base 2.7 cm. Fabric as BRS175. Find no. 61-64 (BRS176). Too small for est. of diam.

**App. 1, no. 104.** Pantile. Wikander 1986 type 1. Raised right border fragment. Fabric c) reddish-yellow coarse clay, yellowish-brown slip, grey core, white and brown grits, sandy, micaceous, Find no. 61-63 (*Tegula* 100). Wikander 1986, fig. 116:TegJ1.

**App. 1, no. 105.** Loom weight. Truncated pyramidal shape, large, lower part, worn, large transversal perforated hole, a deep impressed oblique groove on one side. Reddish-brown very gritty clay with large white and brown inclusions, micaceous, light brown slip. Base 7 × 7 cm; weight 450 g. approx., top missing. Diam. of hole: 0.65–0.75 cm. Decorated with motif 4, a deep impressed oblique groove on one side. Find no. 61-64 (W15).

#### APP. 1, NOS. 106–119: TRENCH 3, EAST OF THE ROAD, SURFACE LAYER AND EXTENSION OF TRENCH EAST–WEST, FIND NO. SGBRS 61-65

*Fig. 215, Table 16*

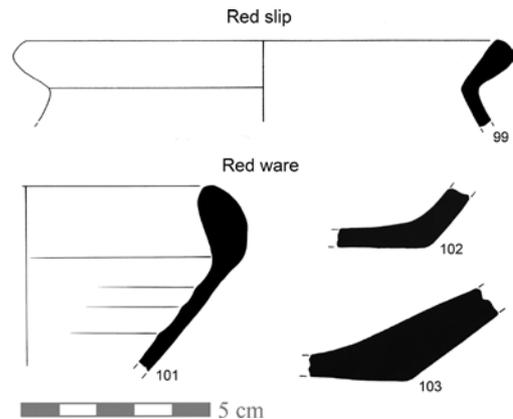
#### Etrusco-Corinthian ware

**App. 1, no. 106.** (*Fig. 241*) Jug/jar. Etrusco-Corinthian ware. Flat column-base and body fragment. Est. diam. 9 cm. Find no. 61-65 (Q85). Backe Forsberg 2005, fig. 90:20.

**App. 1, no. 107.** (*Fig. 241*). Jug/jar. Etrusco-Corinthian ware. Column-base slightly elevated bottom. Est. diam. 15 cm. Find no. 61-65. Backe Forsberg 2005, fig. 90:21.

#### Coarse ware

**App. 1, no. 108.** (*Fig. 241*). *Pithos*. Coarse ware. Rim fragment. Large thick rounded protruding rim, 6 × 4 cm, with vertical neck 2.3–2.5 cm. Too small for est. of diam. Find no. 61-65a. Backe Forsberg 2005, fig. 90:30.



*Fig. 240. Finds in Trench East surface layer. SGBRS 61-62; Trench West surface layer. SGBRS 61-64 (App. 1, nos. 99, 101–103) (drawings by R. Holmgren).*

#### Red slip

**App. 1, no. 109.** Jug. Red slip. Fragment of base. Too small for est. of diam. Find no. 61-65b.

**App. 1, no. 110.** Bowl/lid. Red slip. Ring-base. Diam. 4 cm. Find no. 61-65c.

**App. 1, no. 111.** (*Fig. 241*). Basin with four crosswise-placed lug feet. Red slip. Foot raised from bottom of basin, W 6 cm, th. of foot 1.5–4.0 cm, th. of wall 1.1–4.0 cm. Red slip. Find no. 61-65d; see *Ficana* IV, 123, baking cover or large bowl, three examples of basins with perforation made before firing in the wall and one in the foot. The most recent item found is dated to 630–500 BC. Cf. also *Cat. nos. 48–51* and *App. 1, no. 112*.

**App. 1, no. 112.** (*Fig. 241*). Basin with four crosswise-placed lug feet. Foot bent at the top and raised from bottom of basin. W 3.5 cm, th. of foot 0.5–2.6 cm. Red slip. Find no. 61-65e. Cf. also *Cat. nos. 48–51* and *App. 1, no. 111*.

#### Etrusco-Campanian black-glaze

**App. 1, no. 113.** (*Fig. 241*). Plate. Etrusco-Campanian black-glaze. Two rim fragments. Broad overhanging rim rounded lip. Est. diam. 21 cm. Black matt glaze interior and exterior. Shallow bowl (Morel 1981, 17162). Dated to 280–220 BC. Find no. 61-65 (Q42). Backe Forsberg 2005, fig. 90:22.

#### Fine cream ware

**App. 1, no. 114.** Large bowl/basin. Fine cream ware. Large thickened oval rim 1.5 × 2.0 cm, th. of wall 1 cm. Est. diam. 33 cm. Loose, fine cream fabric. Find no. 61-65 (Q54).

#### Red slip

**App. 1, no. 115.** (*Fig. 241*). Lid. Knob. Red slip. Flat on top, slightly sagging. Diam. 3.5 cm. Red slip. Find no 61-65f. Backe Forsberg 2005, fig. 90:18.

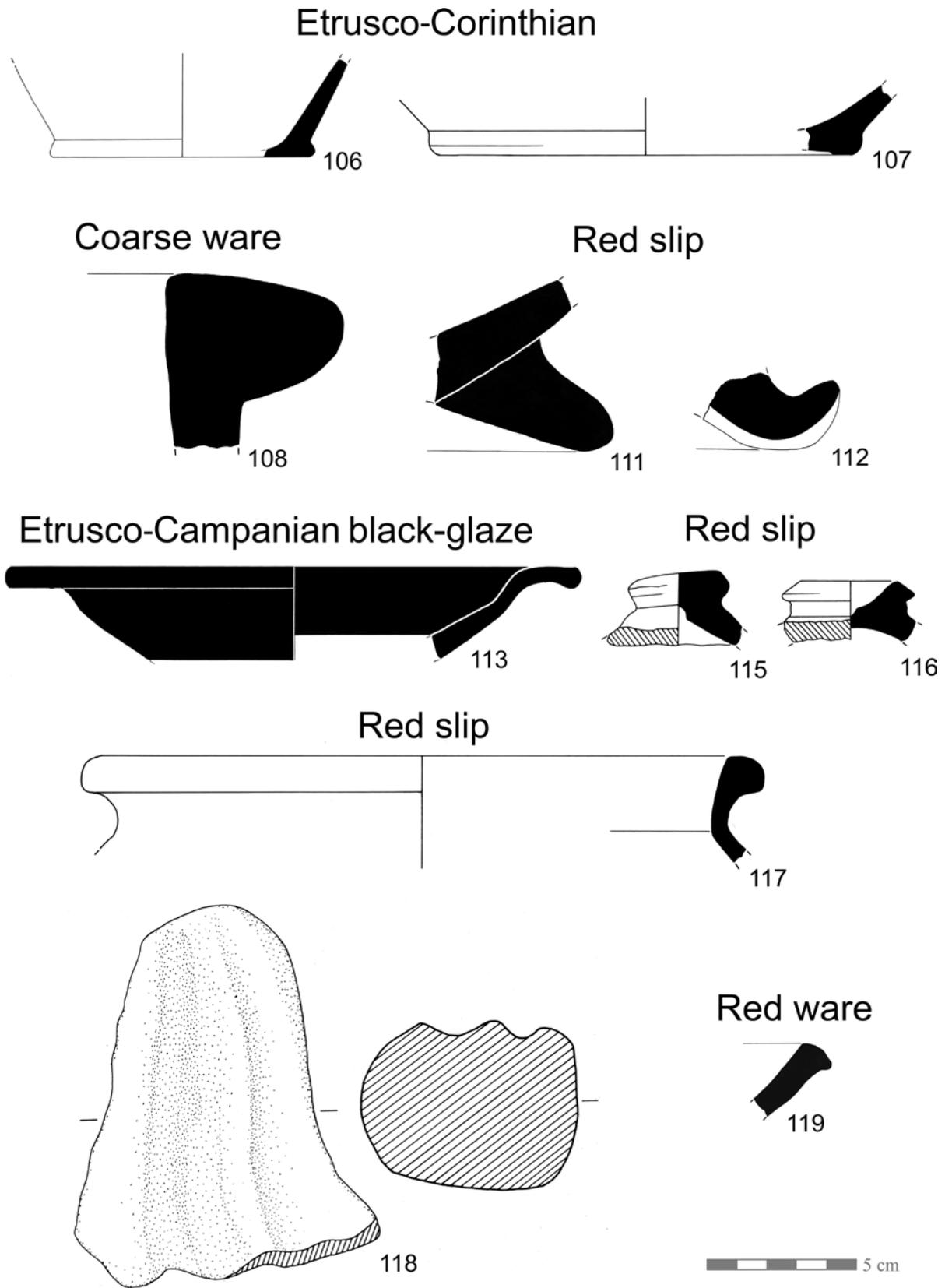


Fig. 241. Finds in Trench 3. East of the road. SGBRS 61-65 (App. 1, nos. 106-108, 111-113, 115-119) (drawings by R. Holmgren).

**App. 1, no. 116.** (Fig. 241). Lid/bowl? Red slip. Top of lid. Concave inside. Diam. 4.5 cm. Find no. 61-65g. Backe Forsberg 2005, fig. 90:19.

**App. 1, no. 117.** (Fig. 241). Large jar. Red slip. Rim fragment. Ovoid-global shape. Thick out-turned rim. Short neck. Est. diam. 22 cm. Find no. 61-65h. Backe Forsberg 2005, fig. 90:7.

**App. 1, no. 118.** (Fig. 241). Basin with four crosswise-placed lug feet. Red slip. Pyramidal-shaped lug foot with two 0.5 cm-deep vertical grooves on the front side, smooth back side. L 13 cm; W 5.0–10.5 cm; H 7.5 cm. Find no. 61-65i.

#### *Red ware/African red slip?*

**App. 1, no. 119.** (Fig. 241). Basin. Red ware/African red slip? Rim fragment. Th. 0.8–1.1 cm. Too small for est. of diam. Find no. 61-65j. Backe Forsberg 2005, fig. 90:29.

## Comments on the finds

The pottery fabrics unearthed in the trenches on the southern side of the Bridge Complex, i.e., at the bottom of the northern slope of the Vignale hill, correspond largely to fabrics found in the remains of the Bridge Complex north of the brook as well as the pottery found in wells and trenches unearthed on the Vignale plateau in 1959–1960 (see *Chapter 4, Tables 1–23*). Bucchero fragments of fine, ordinary, and light grey fabric were recovered in the surface layer, in strata 1–2, and above the pebble pavement. The most common fabric comprised red slip and coarse wares and coarse ware with internal red slip.

Attic imports were represented by a few Attic black- and red-figure fragments as well as Attic black-glaze ware, especially from stratum 2. The Attic black-figure cup with a Medusa head pictured on the tondo fragment (*App. 1, no. 31*) had a small hole drilled in the mouth, made after firing, which has been interpreted either as a mending hole or as a perforation hole for libation, common in the debris of sanctuaries.<sup>1094</sup> Perforations in the bottom of drinking vases, cups, and bowls also occurred in other fabric such as bucchero, Greek Attic ware, red-slip, and coarse wares on Vignale as well as at the northern side of the Bridge Complex (*Cat. nos. 31, 55, 59, 119, Figs. 112, 215, 237*). Similar examples of perforated holes in bottoms of coarse ware *ollae* were found in Veii and two bases of unidentified vessels found at Ficana.<sup>1095</sup> The many

fragments of Attic import vases, which were found in the debris of the bridge and the buildings on the northern side of the Pietrisco brook, indicate that the crossing over the brook was a place of attentiveness to the gods and spirits present.<sup>1096</sup> Greek imports of pottery (for drinking, pouring, and serving) are mainly found in tombs but occasionally also discovered in habitations and sanctuaries.<sup>1097</sup>

Fragments of roof tiles (pantiles Wikander 1986 types 1–2, cover tiles Wikander 1986 types I–II, and one ridge tile Wikander 1986 type II) were found in the surface layer and in strata 1–2 among the river pebbles in the pavement, the so-called “piazza” in the East–West trench. The pantiles of types 1 and 2 were made of four different kinds of fabric (a–d), which may indicate a production during various periods.<sup>1098</sup> Several of the tiles, especially those from strata 1–2, seem to be Archaic. The few roof tile fragments found on the southern bank of the brook may either be filling debris from the buildings in the northern Bridge Complex or debris derived from the habitation on the westernmost tip of Vignale, where roof tiles are scattered all over the plateau, mainly in the western part of TS2 area (*Figs. 27–28, 121*). The architectural terracottas found in the northern Bridge Complex are more uniform, even though they have been used over a long period of time.<sup>1099</sup>

Terracotta objects such as a cooking stand of Scheffer 1982, type II (*App. 1, no. 84, Fig. 124*), and loom weights (*App. 1, nos. 37, 68–69, 105–106*), indicate that Archaic debris from the household sphere was used as filling material in the trenches above the southern bridge abutment. Furthermore, a red-slip bowl with a perforated hole, positioned in the ring-base and made before firing, was also found (*App. 1, no. 59, Fig. 237*). The same phenomenon is common in pottery bases in many votive deposits over the entire Etruscan area—examples have been found at Veii and Caere. On the northern Bridge Complex there are several examples present.<sup>1100</sup> One black bucchero *kantharos*, found in cistern WI-6 on the summit of the Vignale plateau, has the same typical perforation in the base (*Cat. no. 55, Fig. 112*). As described above, it is likely that the vessel found in cistern WI-6 was used in a libation ritual together with the other finds of possible ceremonial char-

<sup>1094</sup> The cup (*App. 1, no. 31*) was mended with two refitted base fragments, one found on the southern bank of the Pietrisco brook (Find no. 62-810 [45]) and the other on the northern bank (Find no. 60-002 [45]), Backe Forsberg 2005, fig. 89:5.

<sup>1095</sup> For perforated vessels at San Giovenale cf. ‘Pouring a libation—acclaiming abundance through wine’ in *Chapter 5*. For other sites, see *Ficana IV*, 112, 115, 122–123, fig. 83:388 flat base, fig. 84:399 ring-foot, two unidentified vessels in dark coarse ware, one base and one ring-foot,

were perforated with a hole at the centre of the bottom made before or after firing. See several examples of perforated *ollae* found in Veii, Acconcia *et al.* 2009, fig. 28:2, n. 204; Belelli Marchesini 2009b, 69, fig. 3:2 (*pozzo*).

<sup>1096</sup> Backe Forsberg 2005, 98–99, table 32, figs. 82, 89–90.

<sup>1097</sup> Regter 2003.

<sup>1098</sup> Backe Forsberg 2005, 116–117, n. 664, fig. 94a; Wikander 1981; 1986, fig. 2; 2013. Lindahl *et al.* 2006; Winter *et al.* 2009.

<sup>1099</sup> Backe Forsberg 2005, fig. 94a:19–24, 26–27.

<sup>1100</sup> Backe Forsberg 2005, 102, figs. 89:5, 90:11, 106.

Table 16. Pottery and small finds in SGBRS find nos. distributed in various contexts on the northern slope of Vignale, including items not catalogued.

Find nos.	61-62	61-64	61-65	62-809	62-810	62-811	62-812	62-813	62-814	Total
Ware/object										
Primitive impasto							1	2		3
Etrusco-Corinthian			2							2
Bucchero				2	3	2	4			11
Red slip	1		8	8	2		11			21
Attic black-figure					1					1
Attic red-figure					1					1
Attic black-glaze				1			2			3
Etrusco-Campanian black-glaze		3	1	2		1				7
Orange-red ware (African red slip?)			1				3			4
Fine/late cream ware			1						3	4
Coarse ware/internal red slip			1	10	4	1	11		2	29
Medieval ware				2						2
Terracotta loom weight		1			4					5
Terracotta cooking stand							1			1
Clay lining		1						1		2
Tile	1					1	1	4	5	12
Metal						1	1			2
<b>Total</b>	<b>2</b>	<b>5</b>	<b>14</b>	<b>25</b>	<b>15</b>	<b>6</b>	<b>35</b>	<b>7</b>	<b>10</b>	<b>119</b>

acter deposited in this particular cistern.<sup>1101</sup> The iron objects, bottom slag, and the bolt found in strata 1–2 above and in the pebble pavement may be dated to the Archaic period or later. Debris from metalworking, unearthed in the northern Bridge Complex, was found in levels dated from *c.* 675–565 BC (the pre-construction phase 3) and through the building phases 1–3 (560–400 BC).<sup>1102</sup>

It is tempting to associate these metal remains, as well as those from the northern Bridge Complex, with the metalworking area in House A, with associated features (Ac, Ae, Af, Ag), in the northern part of the habitation on Borgo NW. These are dated to Period 1 (7th century BC), and Period 2 (575–*c.* 530 BC) with a renewal of the metal production in Period 3, after the destructive earthquake.<sup>1103</sup> The slag, hammer-scale, and metal objects were analysed by Giolj Guidi, Claudio Giardino, and Giorgio Trojsi together with samples from the Acropolis and the iron slag from the Pietrisco Bridge Complex.<sup>1104</sup> The results are significant for the site of San Gio-

venale showing indications of metalworking, since the tests showed an important production of various metal objects made in iron, copper, bronze, and lead. The metal objects were discovered in the settlement areas as well as in the surrounding necropoleis.<sup>1105</sup> Another important factor for an economically productive metalworking industry is the proximity of San Giovenale to the metalliferous Tolfa Mountains.<sup>1106</sup> Of note are the many tiny fragments of iron hammer-scale found in Floor 2 and in Hearth 2 of House A, area Ac on the Borgo. The authors concluded that these indicate the hammering of heated iron and that forge-work had taken place in House A. Indirectly the tiny hammer-scale fragments show that forge-furnaces and anvils must have been nearby, since such installations and objects are necessary for the shaping of iron.<sup>1107</sup>

## DATING

The debris from the southern side of the Fosso del Pietrisco brook contained pottery dated to various periods from Late Neolithic, Archaic to late medieval (8th century AD). However items dating from the 6th–5th centuries BC but also from the 3rd century BC, including pottery, terracotta objects such as loom weights,

iron forging have been sampled from the large, oval, red hearth and the floor (str. 4, Floor 2, in House 2 dated to Period 2, 575–*c.* 530 BC). *San Giovenale* V:2, 35.

<sup>1105</sup> Backe Forsberg 2005, 102–103, nn. 584–585, 587.

<sup>1106</sup> Guidi *et al.* 2005, fig. 1. See also *Appendix 2* on alum in the same area.

<sup>1107</sup> Guidi *et al.* 2005, 73–84, figs. 2–3, 10–13, 15–17, tables 1–3.

<sup>1101</sup> See further ‘Pouring a libation—acclaiming abundance through wine’ in *Chapter 5*.

<sup>1102</sup> Backe Forsberg 2005, 88, 90, 92, 102, table 27.

<sup>1103</sup> *San Giovenale* V:1, 12, 152–153.

<sup>1104</sup> The iron bottom slag (*App. 1, no. 80*, see catalogue above) from the southern side of the Pietrisco brook contained magnetite, goethite, and wüstite, Guidi *et al.* 2005, 73–75, table 2. Backe Forsberg 2005, 81–82, 102–103, nn. 584–587, metal objects, figs. 93, 95, table 27. *San Giovenale* V:1, 54, 88, 94, 96, 103, 152–153, fig. 89 on the metalworking area Ac with two hearths House 1 and 2 (Floors 1b and 2) one over the other, where many burnt tufa fragments and metal fragments indicating

cooking stands, and roof tiles, were represented in the two excavated strata. The finds seem to have been filling material taken either from the northern side of the Vignale plateau, or from the plateau's habitation area. An indication in favour of the northern side are the presence of some joining pottery fragments on the southern abutment (*App. 1, nos. 22, 31, 43*).

The Attic imports such as black-figure vessels can be dated to 550–460 BC, the red-figure from *c.* 520–480 BC, and the black-glaze to the 6th–5th centuries BC, while the Etrusco-Archaic black-glaze ware may be dated to 500–400 BC. There is a clear difference between vessels found on the northern and the southern sides of the Pietrisco brook. Vessels on the southern side are more frequently dated to late 5th–4th centuries BC. The late cream ware has been dated to 200 BC,<sup>1108</sup> and the black-glazed *lekane* with its flat base and two impressed

marks (*App. 1, nos. 22, 43*) may be attributed to Campana C ware dated to the 2nd century BC. Bridge 1 and Via Vignale Nord were rebuilt due to the destruction caused by one or several earthquakes. When the last rebuilding episode took place is however impossible to say. The apsidal building on the northern side of the brook was dated to the 5th century BC by earlier scholars. The apse however, is not considered an Etruscan architectural element. Thus, the third and fourth building phases may be redated to the Roman or Byzantine period, since this form first appeared in Roman architecture, and was used onwards (*Figs. 221, 232*). So far we do not have any architectural remains from the Roman period, apart from the Roman *loculus* tomb on the westernmost tip of Vignale (*TS2, Fig. 27*) and the tile graves close to the chapel on the main Acropolis.

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<sup>1108</sup> Cf. Fuglesang 1997–1998.

