

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
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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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Chapter 5. Vignale and the wine connection

Economic and religious prerequisites from Etruscan to medieval periods

Vita vinum est!

Petron. *Sat.* 34

Introduction

With the site of San Giovenale and the archaeological evidence associated with viniculture, it feels relevant to dedicate an entire chapter to clarify the history and material culture of wine on the Italian peninsula.⁷¹⁸ It is the authors' belief that a more in-depth knowledge of this relatively new and stimulating topic can further explain the history of wine in a wider perspective, and also, more specifically, to illuminate ancient Vignale and its surroundings. As such, *Chapter 5* explores both the economic and the ritual aspects of wine, comprising the various periods identified by the early excavations and modern surveys alike, but also through new and old literature—the latter frequently with new significances.

The importance of Vignale was recognized when modern excavations exposed ancient features that have been interpreted as cultivation trenches (CT1–3) on a plateau that already held a strong link to viticulture and wine, not least being the connection to viniculture indicated by the very name of Vignale (*Fig. 192*). Furthermore, during our first inventory in 2006, a number of wine presses (*pestarole*) were encountered, three wine presses were documented (WP1–2 and one along the Fammilume brook), which could be compared to the wine presses already documented at San Giovenale. These latter wine presses are located in the Borgo area next to the Acropolis and in the surrounding areas such as the Pietrisco Bridge Complex.

The findings of a number of vessels, sometimes perforated, can also possibly be linked to sacrifices of wine (see, for

instance, *Cat. no. 55, Figs. 112, 215*). As dedications, these can be associated with various deities. Religious dedications have, for instance, been documented at the Bridge Complex. Against this background, new interpretations of finds of possible ritual nature can be presented, for example, the terracotta ram's head (*Cat. no. 67, Fig. 113*). The Vinum Project, headed by the University of Siena, was initiated in 2004 in order to identify and locate wild grapes at archaeological sites in Toscana and Lazio.⁷¹⁹ In 2007 VAP located wild vines at various places in San Giovenale and therefore decided to incorporate Vinum's interesting topic into the current project.

Chapter 4 described some Vignale features associated with the cultivation, production, and consumption of wine, and it was noted that some aspects were possibly connected to rituals. In this chapter we will discuss wine-making from two perspectives; firstly, from a more profane point of view, including relevant parts of the production process (*chaîne opératoire*), and the importance of the *chaîne opératoire* for Vignale as a wine production site over several centuries; and secondly, from a sacred point of view, covering the Etruscan era up to the medieval period.⁷²⁰ However, one should keep in mind that any separation between the religious and the profane spheres should be taken with caution: for example, and as we shall see, during antiquity Dionysos/Fufluns was ever-present when wine was being produced.

Vignale's tableland (*Fig. 193*) and its surrounding slopes will be in focus, although the whole of the San Giovenale area will be discussed. Today a large area of the Vignale plateau is cultivated with grapes, olives and almonds, but there is only

⁷¹⁸ "Viticulture" refers to the science, study, and production of grapes, while "viniculture" refers to the same thing, but for grapes specifically for wine. The terms are in general used somewhat interchangeably. However, the current authors use "viticulture" when discussing the more practical aspects of horticulture/growing and when defining assorted species, but "viniculture" when embracing the entire process where wine is the end product, see also *Note 43*.

⁷¹⁹ Ciacci & Zifferero 2005, table 1 shows possible research areas including San Giovenale and Luni sul Mignone. Luni has been investigated by the Vinum Project, see Valleslonga 2012b, while San Giovenale was studied by VAP in 2007–2011.

⁷²⁰ Martínón-Torres 2002; Izzet 2007, 26, 36, 89; Perkins 2012, 41; Miller 2017; Backe Forsberg & Holmgren 2016b.



Fig. 192. *Vignale and the wine connection. A Late Etruscan haruspex (a person who inspects animal entrails for the reading of omens) here offering wine in front of wild vine, Vitis sylvestris (photograph by A. Scienza and illustration by F. Luciani).*

scant evidence of an ancient practice of viticulture (Figs. 74–75).⁷²¹ What evidence there is raises questions, such as why were some wine presses located within habitation areas and some seemingly outside? Why are cultivation trenches for vines not present before the 5th century BC? To answer questions such as these we need to become acquainted with the general history of wine. This will be considered in this chapter.

⁷²¹ Pohl as well as del Chiaro, the excavator on Vignale in 1959, believed that the large *fossae* on the summit of Vignale (CT1–3) were trenches for vines. Pohl 1985 has also stated that during the Etruscan era the grape harvest from the Vignale plateau was transported to the wine presses on the Borgo. If this hypothesis is true, it may indicate that WP1 and WP2, as well as the recently discovered monumental *pestarola* on the northern side of the Fammilume brook (all described in Chapter 4), are a later phenomenon. Parallel cultivation trenches, such as CT1–3, indicate cultivated grapes, see, for instance, Verg, *G.* 2.273–2.288.

THE TOPONYMY OF VIGNALE AND THE ETYMOLOGY OF WINE

The toponymy of Vignale and Casale Vignale, as well as the place names Vignolo and Vigna at nearby Luni sul Mignone, refers to places where grapes are cultivated. It also expresses how the vine was trained.⁷²² The word for wine can be traced back several thousand years to the Near East and the Eastern Mediterranean area.⁷²³ The Etruscan word *vinum*, which according to some scholars is a loan word from an unknown language, has been detected in several Etruscan texts such as the Hellenistic Linen Book from Zagreb (*Liber Linteus*).⁷²⁴ Here the two words *huslna vinum* were designated to young wine, i.e., not aged, and were used as an offering during the invocation of a god or a goddess. Likewise we see *vinum* together with two other words such as in *vinum trin flere*, which may be interpreted as a ritual together with an incantation.⁷²⁵ *Vinum* also occurred together with the word for libation (*vaci, vacl*), as is also the case in *Tabula Capuana*.⁷²⁶

⁷²² The words Vignolo and Vigna have the same meaning as Vignale, see Bengtsson 2001, 58, n. 33.

⁷²³ The linguistics of the word wine derives from the Georgian word *ghvino*, the Arabic *wain*, the Hittite *wiyana*- and the Mycenaean Greek *wono-* (*wo-no-go-so* meaning wine-coloured). The Latin word is *vinum*, Italian *vino*, English *wine*, German *Wein*, French *vin*, Russian *vino*, Old Irish *fin*, and Rumanian *vie*. The word is also connected with grape, vineyard, edible fruit, and with compounds of words, such as clusters of grapes and wine steward, Tuck *et al.* 2015, 6; McGovern 2003, 33–34, for the Proto-Indo-European language words (PIE). For words connecting to viticulture in the Balkans, see Mladenova 1998, 21.

⁷²⁴ On the word *vinum* in Etruscan texts and the translation of the Etruscan word *traula* (*trau vinum pruxs*), see Van Der Meer 2007, 4, 11, (*v.i.n.u.m.* on the *Liber Linteus* IX.7), *vinum* in Wallace 2008, 129, 9.9, see, for example, Tuck *et al.* 2015, 6–10. *Liber Linteus* is a linen book (c. 3.40 × 0.45 m), twelve columns pages, “folded in a zigzag pattern” used by *haruspices* for consulting rituals. The text was originally found as wrappings on a mummy, though probably written in Etruria, based on the fact that no Egyptian names are mentioned, Van der Meer 2007, 10–11. The text is a public official document showing a ritual calendar (for funerary rituals) used by several priests (*haruspices* included). Van der Meer 2007, 42, *Vinum huslna* = young wine (*Liber Linteus* 3.4, 8.6 *vinum laivism.acilth.ame* (*laivis-m*). There are no words referring to the cult of Dionysos/Fufluns in the text. This may be due to the anti-Dionysiac influences before 186 BC, when the Roman senate forbade the Fufluns/Pacha cult. References to the wine god may be hidden in words such as Farthan (Genius) which had a Dionysiac character, Van der Meer 2007, 9. On the word *vinum* see, for example, Brogyanyi & Lipp 2016.

⁷²⁵ Pieraccini 2011, 135; 2016a.

⁷²⁶ Van der Meer 2007, 80–81 (3.15–16); 2011, 134–135; 2014, 162–163. The *Tabula Capuana* is dated to c. 470 BC. Various translations by scholars of the word libation (*vacil*) on *Liber Linteus* 3.15 and on the Capua tile, Van der Meer 2007, 80–82, *vacl.vinum, vinum.thic.vacl* (wine and water), *ET* 2014, *Liber Linteus* XI.2, XI.4, *vinum.usi* (*Liber Linteus* III.18). The word *vacil* has been interpreted as offerings to various deities in public rituals on special days. The libation could be performed at various occasions by a *haruspex*, such as before a divination of a sheep’s liver, before the slaughter of an animal, etc. See Van der Meer 2011, 38; Pieraccini 2011, 135. Considering the 6th-century BC Etruscan inscription *mul* (to give) on the outside of a bucchero *kantharos* found at the



Fig. 193. The western promontory of Vignale showing the modern cultivation of grapes, olives, and almonds. The Etruscan cultivation trenches are positioned under the grassland left of the flock of sheep, upper right corner, looking south-west (photograph by R. Holmgren).

The word *vinea* (*vina*) found on the *Tabula Cortonensis* bronze tablet may indicate a vineyard with the vines trained on trees.⁷²⁷ Furthermore, the word *vinum* has been found inscribed on various types of archaeological remains, such as on a *cippus* stone found near Siena. The inscription reads *vinum sacni-tle(?)* and *santi*, which may suggest a title of a priest.⁷²⁸

Bridge Complex “*sacellum*”, see Backe Forsberg 2005, fig. 91:4; Colonna & Backe Forsberg 1999, 67, no. 17, figs. 4:17, 5:17 (“sacrifice!”, or “give!”). Another ritual word is the Etruscan word *alike* (to give) inscribed on the outside of a bucchero cup, see Colonna & Backe Forsberg 1999, 65, no. 7, figs. 2:7, 3:7; Backe Forsberg 2005, 153, fig. 91:10. Gran Aymerich & MacIntosh Turfa 2013, 397, 400–401, suggested that bucchero *kantharoi* were used as ritual vessels.

⁷²⁷ The *Tabula Cortonensis* is dated to the 2nd century BC. Braconi 2010, 156–157; Wallace 2008, 197–213; de Simone 2007, 1–3.

⁷²⁸ ET 2014, AS4.5. “Roman augurs were the religious official of the vineyard”, and “‘Vinu’ was an essential part of the secular and religious life in Etruria”, see Pieraccini 2011, 135–136.

The word *vinun* has also been found inscribed on a *dolium* body sherd from Gravisca.⁷²⁹

ANCIENT SOURCES

Apart from the written sources already mentioned, there are no Etruscan texts preserved on agriculture or more specifically on wine-making. The only ancient texts on viticulture are those of the four Roman agricultural authors Cato (234–149 BC), Varro (116–27 BC), Columella (AD 4–70), and Palladius (4th–5th centuries AD?).⁷³⁰ Worth mentioning

⁷²⁹ Perkins & Attolini 1992, 122, see also Cristofani *et al.* 1985, 143. The *pitheos* body sherd with the word *vinun* inscribed on the exterior is dated to the 6th century BC and was found in building epsilon (ε) in the Gravisca sanctuary, see ET 2014, Ta 0.6; Johnston & Pandolfini 2000, 72, 74, fig. 14:398.

⁷³⁰ Hedberg 2015, 265–269; Cato (*Agr.* 104–126 on wine); Hedberg 2015, 270–276; Varro (*Rust.* 1.8–9 on wine, 1.25 on soil good for vines, 1.26 on support for vines, 1.54 on crop rotation and harvesting grapes, 1.58 on preservation of grapes, and 1.65 on fermentation). On Columella, see Ingemark & Wikander 2015, 458–466. On Palladius’ work,



Fig. 194. Ceiling mosaics with a scene depicting viticulture in Santa Costanza in Rome (photograph by Y. Backe Forsberg, © courtesy of l'Ufficio Comunicazioni Sociali del Vicariato di Roma).



Fig. 195. Copy of a porphyry sarcophagus with the gable portraying the pressing of grapes with the must floating into barrels, Santa Costanza in Rome. The original sarcophagus, dated to 354 AD, is displayed in the Vatican Museums. The relief figures on the long sides of the sarcophagus are small putti gathering grapes from vine scrolls. The symbols depicted, for example vine scrolls, wine, garlands, rams, and peacocks are a mixture of pagan and Christian (photograph by Y. Backe Forsberg, © courtesy of l'Ufficio Comunicazioni Sociali del Vicariato di Roma).



Fig. 196. Marble sarcophagus of the martyr San Lorenzo (c. 4th century AD), in the porch of San Lorenzo fuori le mura, Rome. Depicted is a grape harvest where the figure at the far right is holding a falx for cutting grapes (photograph by Y. Backe Forsberg, © courtesy of l'Ufficio Comunicazioni Sociali del Vicariato di Roma).

are also Vergilius (70–19 BC), Pliny the Elder (AD 23–79), and Cassianus Bassus (7th century AD), the author of *Geoponica*.⁷³¹ Although not being Etruscan *per se*, Roman agrarian authorship was inevitably influenced by Late Etruscan wine customs. Important sources on medieval viticulture come from the religious Order of Cistercians.⁷³²

There are countless depictions of various stages of wine-making from early antiquity onwards. Examples of such scenes rendered on Attic vases can be seen in *Figs. 205* and *209*. Examples of a mosaic ceiling and two sarcophagi with imagery related to wine-making are illustrated in *Figs. 194–196*.⁷³³

WILD AND DOMESTICATED VINES

The juice of freshly pressed grapes (must) was fermented into wine, using either wild or domesticated grapes. This has been documented from the Neolithic Age through the Bronze and Iron Ages, and from wide areas around the globe. There are several theories on how viniculture spread from Eurasia to Europe and other continents.⁷³⁴ The wild grape, *Vitis vinifera* L. subsp. *silvestris*, is one subspecies out of almost one hundred which grow wild in Asia, Europe, and North America (*Figs. 197–198*). Worth mentioning is the 2007 discovery of the early winemaking site in the Armenian Areni-1 cave, which is suggested to have used domesticated grapes. Here a terracotta wine press was found which contained traces of malvidin (a natural pigment found in, for example, red grape skins). This is interpreted as the eldest winery recorded, dated to at least c. 4100 BC (*Fig. 199*).⁷³⁵

In 2004–2006 a team of Italian scientists (archaeologists, botanists, and chemists from the Universities of Milan and Siena) started the “*Progetto Vinum—Un progetto per il riconoscimento della vite silvestre nel paesaggio archeologico della Toscana e del Lazio settentrionale*”, also known as the Vinum Project. The project was initiated in order to map the occurrence and the distribution of wild vine at Etruscan

and Roman archaeological sites in Tuscany and northern Lazio. Furthermore, their aim was to find various methods to analyse the germ plasm of wild vine and compare it to par-domesticated and domesticated vine, in order to establish their various characteristics. The ecological, morphological, and physiological studies of seeds and leaves were also very important aspects of the Vinum Project's work.⁷³⁶ The project members have also studied remains of pollen and seeds of both wild and domesticated vine from various sites in Etruria and northern Italy, dated to the Neolithic, Bronze, and Iron Age periods as well as the Orientalizing and Archaic periods.⁷³⁷

The venture focused on archaeological sites along the rivers in Tuscany and southern Lazio, where the environment was suitable for wild vine.⁷³⁸ The Mignone river system with its tributaries became an important part of the research.⁷³⁹ The vine study project extended in new directions with the Archeovino project in 2006–2008 at Scansano (Grosseto),⁷⁴⁰ and the Senarum Vine project in 2008–2012.⁷⁴¹

According to several researchers, the spread of viniculture in Italy began during the Bronze Age.⁷⁴² However, this date may be pushed further back, as pips of wild vine that indicated wine-making were found in La Marmotta, an Early Neolithic village discovered on the bottom of Lake Bracciano, just outside Anguillara Sabazia. The settlement is dated to c. 5700–5230 BC.⁷⁴³ Patrick Edward McGovern argues that the Phoenicians brought the knowledge of viniculture to Italy during the Early Iron Age, at the time when ships were used for transporting *amphorae*, commodities, and vines for transplanting. The Phoenician colony at Motya became an important place for viticulture. McGovern nevertheless points out that the Etruscans already knew the techniques of fermenting beverages before the Phoenicians and the Greeks arrived in Italy in the 9th century BC.⁷⁴⁴ To-

Opus agriculturae, a practical handbook on agriculture, especially wine-making, probably written some time between 360–445 AD, see Hedberg 2015, 284–288; 2009, 467–468.

⁷³¹ Hedberg 2009, 458–459, 467–468; 2015, 285, 288; White 1970, 45–46; Dalby 2011 (*Geoponika*).

⁷³² On medieval monasteries and the use of wine, see Giannichedda 2007, 27–33, esp. wooden wine presses.

⁷³³ White 1970, *figs. 56, 59–60* show a wine press and wine-treading in shallow vats on a mosaic from St-Romain-en-Gal and on a relief from the Museo Archeologico in Venice.

⁷³⁴ McGovern 2003, *maps 1–2, 7–15*, see the Palaeolithic hypothesis and the Noah hypothesis. See also McGovern 2012.

⁷³⁵ The shortnings *Vitis vinifera* for domesticated vine, and *Vitis silvestris* for wild vine are used in *Chapter 5*. Holmgren excavated in Areni-1 Cave in 2013; Holmgren 2013; McGovern 2003, *maps 1–2; 2012, 145*; Areshian *et al.* 2012, 124; Wilkinson *et al.* 2012.

⁷³⁶ Scienza *et al.* 2005, 47–53; Mori Secchi 2005; Ciacci *et al.* 2012b, 25. See also Zifferero 2005; 2010a; 2010b; Ciacci & Zifferero 2005, 30–31, *table 1*, shows possible research areas including San Giovenale and Luni sul Mignone. Luni was investigated by the Vinum Project, see Valleslonga 2012b while San Giovenale was explored by VAP in 2007–2012.

⁷³⁷ Forni 2012, 109–111, *fig. 2, table 1*; Delpino 2007, 134; Thurmond 2016, 22–23 on La Marmotta (c. 5700–5230 BC) which was probably abandoned due to climate change and floods. See also the grape pips of wild vine and the cultivated vine found at Gran Carro in the Bolsena area, dated to the Neolithic and Early Bronze Age, Thurmond 2016, 23, 34.

⁷³⁸ Ciacci & Zifferero 2005. On the Vinum Project, see Masi 2012b; Imazio *et al.* 2012.

⁷³⁹ Ciacci & Zifferero 2005, 35, *table 1*; Giannace 2010, 80–83.

⁷⁴⁰ Ciacci *et al.* 2007; Firmati *et al.* 2012; Del Re 2012.

⁷⁴¹ Ciacci & Giannace 2012; Ciacci *et al.* 2012b, 14–15; Ciacci & Giannace 2010.

⁷⁴² Forni 2012, 108–112.

⁷⁴³ Thurmond 2016, 22–23, on La Marmotta. See also Delpino 2007, 134.

⁷⁴⁴ Forni 2012, *figs. 1–2*, distribution maps; McGovern 2012, 147; 2009, 189–193.



Fig. 197. Wild vine fruiting with grapes in the Maremma area in southern Tuscany (photograph by A. Scienza).



Fig. 198. *Vitis vinifera* L. subsp. *sylvestris*. A leaf from a female (left) and male plant (right) (illustration after Negri 1931, 9, figs. 9–10).

day wild vine still grows over large areas of Italy, where it is especially found in warm, damp gullies and along rivers.⁷⁴⁵ San Giovenale is such an area.

⁷⁴⁵ Forni 2012, esp. 102–110, fig. 2. See the new theory of local wild vines used for wine-making in Thurmond 2016, 23.

THE WILD VINE AT SAN GIOVENALE

The results of the Vinum Project are interesting for the discussion of domesticated as opposed to wild grapes.⁷⁴⁶ The project has identified some problems regarding the rock-cut basins which have been interpreted as wine presses.⁷⁴⁷

In 2006 VAP became increasingly aware of the flowering wild vines (*Vitis sylvestris*) in San Giovenale, and keen eyes

⁷⁴⁶ Ciacci & Zifferero 2005; Ciacci *et al.* 2007. The discussion of indigenous viticulture, wild grapes as opposed to domesticated, and imported Greek knowledge of wine production is highlighted in this project. See also Thurmond 2016.

⁷⁴⁷ Wine press, also known as *palmentos*, *pestarola*, or *calcatorio* in Italian as mentioned above, De Sena 2005, appendix 1, 143–146, has listed 58 Roman sites with remains of wine and/or oil production (*calcatorium* and *torcularium*, *dolia in situ*) in Rome's hinterland, most located east of Rome towards Tivoli according to fig. 2. The chronology of the farms and villas ranged from Late Republican phase (12), Early Imperial phase (18) to Late Roman phase, 4th–5th centuries AD (12). Several sites could not be dated, De Sena 2005, 139. See also Klynne, A. 2005, 3–5. On the origin of *palmentos*, see Thurmond 2016, 23–25 who also makes a distinction between bedrock-cut wine presses (*palmenti rupestri*) and other types. On wine presses, see 'Wine presses (WP)' in 'Manufacturing features' in Chapter 4.



Fig. 199. Exterior of the Areni-1 cave complex in Armenia, during excavation in 2013, looking south (left). Inside the cave a terracotta wine press, 0.60 m deep and 1 m wide, was installed into the ground (arrowed feature, right image). The findings are interpreted as the oldest winery recorded to date, c. 4100 BC (photographs by R. Holmgren).

spotted wild vine climbing up into the trees at several locations (Figs. 200–201).⁷⁴⁸

Since the Vinum Project encompassed places along the river Mignone with its tributaries, though not including San Giovenale,⁷⁴⁹ VAP investigated the gullies of the Vesca river, and the Pietrisco and Fammilume brooks. These are ideal habitats for wild vines, which thrive at a height of c. 125 m ASL. Here, the wooded slopes are shady and generate a warm, damp atmosphere. The plants are twined around various kinds of broad-leaf deciduous trees (mostly maples, elms, holly trees, and poplars) where they climb to the tree tops in search of the sun. In the autumn and winter seasons, one can find the bare thick stems of the vines hanging like tropical lianas. According to farmers in the area, these vines have gradually become

rare.⁷⁵⁰ In 1957 Carl Fries photographed dark blue wild grapes at the site.⁷⁵¹

There are a few differences between wild and domesticated plants. The wild vine has both male and female plants, the difference between which is displayed by the leaves,⁷⁵² with sexually dimorphic, differing patterns of veins and shapes (Fig. 198).⁷⁵³ The pips of wild vine are smaller and more heart-shaped than the longer and thinner seeds of the domesticated vine (Table 14).⁷⁵⁴

One of VAP's enquires was how and when the people from the early Etruscan up to the Medieval periods utilized plants of wild vine, and if this could be identified in the archaeological material.

⁷⁴⁸ Many thanks go to our friends Romano De Silvio from Civitella Cesi and the late Rosario Guido, former president of Consorzio Agrario di Blera, for invaluable help in locating the wild vine. Cf. also Zifferero 2011, figs. 2–4, 4a.

⁷⁴⁹ Ciacci & Zifferero 2005, 15–40. On the Vinum Project, see Masi 2012b; Imazio *et al.* 2012.

⁷⁵⁰ We thank inhabitants from Blera and Civitella Cesi for this information, see also Mladenova 1998, 38–46 on inhabitants in the Balkans still using the sour fruits of wild vine for making vinegar and grape jelly and the vine buds for pickles. The leaves were also used for making dolmades.

⁷⁵¹ Fries 1962, pl. 30A. The colour photograph, which is now missing, was taken by Fries. However, the text states that Jan Mark was the photographer which, according to Mark, is erroneous.

⁷⁵² Negri 1931, figs. 9–10; Bendinelli 1931; Zifferero 2011, 112, fig. 4.

⁷⁵³ See McGovern 2003, pl. 1 for some characteristics of domesticated vine. Olmo 2006, 32–34, table 3.1.

⁷⁵⁴ Negri 1931, figs. 13–14, see also Mori Secci 2005, figs. 1–3.



Fig. 200. The Etruscans initially harvested the wild grapes, *Vitis sylvestris*, in the warm, damp ravines. The twining vine stems are still to be found growing near the sites. This was also the mystical environment where one could expect to encounter Fufluns, the wine god himself (photograph by R. Holmgren).

Fig. 201. Flowering vines of *Vitis sylvestris*, located along the Fammilume brook in San Giovenale (photograph by Y. Backe Forsberg).

Table 14. Characteristics of wild and domesticated vines The table is based on Negri 1931; Mori Secci 2005; Scienza et al. 2005; Olmo 2006; McGovern 2003; Ciacci & Zifferero 2007, 249–268, figs. 7–8, 13, 15–16. See also Imazio et al. 2012, 602–603, table 1; Thurmond 2016, 22–23.

<i>Vitis</i>	<i>Vitis vinifera</i> L. subsp. <i>sylvestris</i>	<i>Vitis vinifera</i> L. subsp. <i>vinifera</i>
Sex	male and female plants; the female plant bears the grapes	Hermaphrodites; self-fertilization
Leaf	differing forms for male and female plants	various forms
Pips	smaller, heart-shaped with short beak	larger, oblong form with long beak
Blossoms	on female plant, yellow almost fluorescent	greenish blossoms
Grape	small grapes in dispersed clusters	larger grapes in clusters
Colour of fruit	black or reddish blue	various colours
Stem	long stems, winding round trees	short stems, trained on various cultivation systems
Habitat	damp riverbanks and ravines, often found at archaeological remains	on slopes and plateaus

The production of wine at Vignale from Etruscan to medieval periods

To better understand past production processes of wine-making, we need to look more closely at the finds and indirect evidence from various time periods.⁷⁵⁵ This section will expand on all features involved in the production of wine on Vignale, including cultivation, the collecting of wild and domesticated grapes, treading and pressing, storing, trading, and consumption.

THE VINEYARDS—WILD VINE VERSUS CULTIVATED VINE

The grapes from the cultivated vine (*Vitis vinifera* L. subsp. *vinifera*) and the wild vine (*Vitis vinifera* L. subsp. *sylvestris*) were two kinds of crops, probably used simultaneously during the Etruscan period as well as the Roman, Byzantine and medieval ages.⁷⁵⁶ The wild vine present today along the watercourses could be a relict of earlier cultures settled in the area.⁷⁵⁷ An interesting piece of archaeobotanical evidence from San Giovenale is the imprint of a grape seed on a body fragment of a brown impasto bowl found in a Villanovan hut context beneath the Etruscan House III, Area F on the Acropolis.⁷⁵⁸ The imprint was noticed, but not photographed or described at the time of the discovery.⁷⁵⁹ After a later, closer study it could be confirmed that the imprint resembled a grape seed, probably either of *Vitis sylvestris* or *Vitis vinifera*. The heart-shaped form resembles seeds from wild vine found at various places in Etruria (Figs. 202–203).⁷⁶⁰ Seeds of *Vitis*

sylvestris are smaller, thicker and have a shorter beak than domesticated grapes (Table 14).⁷⁶¹

The three parallel cultivation trenches found on Vignale (CT1–3) gave rise to VAP's investigation of various vine-training systems described in the Roman agriculturist texts. There are two traditional vine systems a) “the autochthonous”, vines on living trees (*arbustum vivo*), and b) the oriental tradition spread by the Greeks, where the vines were supported on dead trees or segments thereof (*vinea*) (Fig. 204).⁷⁶² At present, it is not known which of these two systems is the older.

Originally the indigenous plants of *Vitis vinifera* L. subsp. *sylvestris* were harvested in the wild. During the early Etruscan period the wild vine was possibly planted near a living tree (poplar, elm, or ash) for support—so-called *arbustum vivo*, a system which Columella advocated.⁷⁶³ Pliny the Elder, for example, decided to avoid this particular vine-training system since, according to elder viticulturists, it caused serious high-fall accidents among the labourers. The best-quality grapes grew high up in the trees but the largest quantity was collected from the lower branches.⁷⁶⁴ Therefore, the landowners preferred much lower trees as support for the vines (*arbustum vivo*). In a later phase, chestnut posts the height of a man were used as support (*arbustum morto*) (see Fig. 223).

Regarding the vineyards, Columella also described four additional ways for growing and supporting the vine: a) *vitis prostata* where the tendril of a vine was left to grow along the soil without any support;⁷⁶⁵ b) *vitis capitata* where the vines were grown as standards, with a straight stem and mop-like ‘head’ of branches;⁷⁶⁶ c) *vitis iugata* where the grape vine was supported by a single wooden post or two posts in shape of a

⁷⁵⁵ The theory and method of production chains/processes (*chaînes opératoires*) of various objects have been used by several scholars, see Izzet 2007. For a more substantial description of the method, see, for example, Miller 2017, 14–19.

⁷⁵⁶ Imazio *et al.* 2012, 601–602, table 1.

⁷⁵⁷ Giannace 2012, 493–516.

⁷⁵⁸ Pers. comm. by Cecilia Klynne; see also Klynne, C. 2002. The brown impasto body sherd was found in House III, shaft 1965:2, str. 4B2, and was labelled 65–19, see figs. 3–5, table 7, p. 22. Unfortunately the grape seed was neither photographed nor recorded in str. 4B in *San Giovenale* IV:1, 52, 57, 88–89, figs. 25, 40.

⁷⁵⁹ The imprint was studied by VAP in more detail using plasticine.

⁷⁶⁰ On wild grape pips found in a Neolithic village at the bottom of Lake Bracciano, see Thurmond 2016, 22–23. See also Delpino 2012, 190; Py & Py 1985, 74. On seeds found at various places in Italy from the Middle to Late Bronze Age, and Early Iron Age, Aranguren *et al.* 2007, 90–95, figs. 3–4. Aranguren *et al.* 2012, 125–131, figs. 2–3 on hundreds of pips both from wild vine and domesticated plants found at San Lorenzo a Greve, in a Middle Bronze Age *fossa*. See also Mariotti Lippi *et al.* 2012, 119–124, fig. 2, on Final Bronze Age grape seeds from San Lorenzo a Greve, Firenze. Costantini 2007, 98–105, figs. 3–5 on deposit of grape pips found in tomb 126, in the Chiaramonte—Sotto la Croce (7th century BC), uncertain whether they are from domesticated grapes or wild grapes. Grape seeds were found at Pizzica Pantanello at Metapontino, a site where it has been possible to study the cultivation of vines from

the 6th–1st centuries BC. These were discovered through flotation and investigated by new technological methods. See Costantini & Costantini Biasini 2012, 133–140, fig. 5. One pip of *Vitis sylvestris* was found among fruit and seeds in a room of an Etruscan farm in Pian D’Alma, Grosseto (Italy), dated to the 6th century BC, according to Mariotti Lippi *et al.* 2003, 163, table 3; 2012, 122. Hundreds of waterlogged grape pips were discovered in two deep wells dated to Etruscan, Roman, and Langobardic periods at Cetamura del Chianti. The grape pips were suggested to have been thrown into the wells intentionally as a sacrifice, similar to the 82 carbonized pips found in a votive pit, Thomson de Grummond 2017, 15–16. On ancient DNA (aDNA) analysis of five grape seeds, see Wales *et al.* 2017, 294–302, esp. fig. 5 showing date, and colour of wild as well as domesticated vine fruit. The method is a new aDNA concept which has resulted in three types of grapes with white and dark berries. The wild seed was the oldest dated to 480–390 BC, and the youngest domesticated grape pip was dated to 220–375 AD. On morphometric analysis of grape pips from well #1 at Cetamura, see Bouby *et al.* 2017, 289–293.

⁷⁶¹ Mori Secci 2005, 69, figs. 1–3; Bouby *et al.* 2017.

⁷⁶² Braconi 2007, 161.

⁷⁶³ Ciacci & Zifferero 2007, 266–268; Columella, *Rust.* 3.2.15–17, 5.6.17.

⁷⁶⁴ Plin. *NH* 17, 199; Columella, *Rust.* 4.19.3, 5.6.24.

⁷⁶⁵ Columella *Rust.* 4.2.2, 5.5.17–19.

⁷⁶⁶ Columella, *Rust.* 5.5–16; Rytkönen 2009, 547.



Fig. 203. A. and H. Lönnerheden visiting San Giovenale, here seen identifying grape clusters growing in the trench surrounding tumulus tomb 240 on Casale Vignale—wild vines, or domesticated vines run wild? Right: pips from the same grapes can be seen enlarged. (photograph by Y. Backe Forsberg).

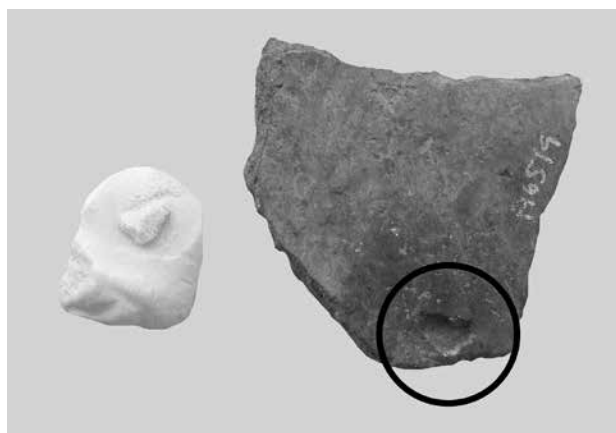


Fig. 202. Modelling clay impression of an imprint from a probable grape seed found on the outside of a brown impasto bowl. Recovered in a Villanovan hut context beneath the Etruscan House III, Area F on the Acropolis. The sherd measures 4.6 cm wide and 4 cm high (photograph by Y. Backe Forsberg).

cross;⁷⁶⁷ d) *pergula*, a framework of supporting a vine on trees, a system where vines were trellised often forming a small outdoor space.⁷⁶⁸ This system for growing vines up trees that form part of a pergola was also advocated by Pliny the Elder.⁷⁶⁹ In

Re Rustica, Varro described various systems used during his lifetime (*Rust.* 1.8., 3.26). He distinguished between low-growing vines without support and a high form—tall vines with support of stakes in various forms. The first category was used mainly in Spain and Asia, the second in Italy during the lifetime of Varro.⁷⁷⁰ Moreover, Columella wrote about trellised vine plants “two paces” apart in trenches c. 80 m long.⁷⁷¹

Vines were grown in vine nurseries before they were grafted on the rootstock plants in the vineyard—a method used until the early Renaissance and resumed in modern times.⁷⁷² It can be clearly seen on Attic black- and red-figure pottery how acquainted the Etruscans were with various stages of wine-making (growing vines in high trees, harvesting, treading, pressing, and storing). It is however, difficult to know which viticultural traditions were inherited from the Italian peninsula and which were the result of Phoenician or Greek influences, if any?⁷⁷³

⁷⁶⁷ Columella, *Rust.* 4.16.2–4.20.5; Varro, *Rust.* 1.8.1 (*iugatae vineae*); Rytönen 2009, 547.

⁷⁶⁸ Columella, *Rust.* 3.9.2, 11.2.32. Rytönen 2009, 546–548, see also Mladenova 1998, 58–60.

⁷⁶⁹ Pliny, *NH* 14.3.1–8.

⁷⁷⁰ Mladenova 1998, 46–48.

⁷⁷¹ Columella, *Rust.* 3.11, 3.13.2–16.

⁷⁷² Columella, *Rust.* 4.29.8–17.

⁷⁷³ McGovern 2012, 147; 2009, 189–193. He also stipulates that the Etruscans knew of fermented beverages prior to the Phoenicians' arrival. Attic black-figure *kylix* by Exekias, see Boardman 1974, fig. 104.3. Attic black-figure panel-*amphorae* by the Amasis Painter, von Bothmer 1985, 113–117.

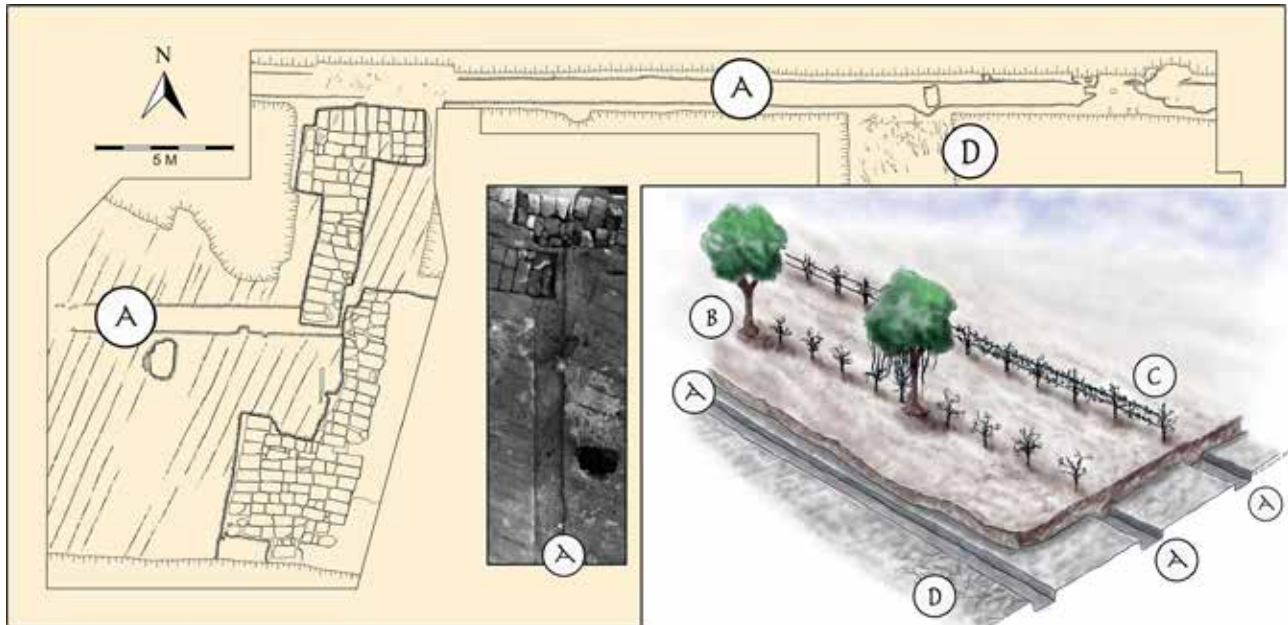


Fig. 204. Plan and photograph of parallel cultivation trenches cut into the bedrock on the Vignale summit (A). Reconstruction of ancient cultivation techniques illustrating how the vines were initially planted between supporting trees (B), or trained on stakes (C). Grooves in the bedrock likely show traces of contemporary farming with a wooden plough (D) (illustrations by R. Holmgren with photograph by B. Blomé).

In the ancient literature from the 1st century BC to the 1st century AD, we gain information from Varro and Columella on the best way to prepare and to organize a vineyard.⁷⁷⁴ The Romans organized their vineyards in parallel trenches with several metres' distance in between. These spaces could be cultivated with other crops and sometimes included pits for trees (*vite domestica*).⁷⁷⁵ The long parallel cultivation trenches on the summit of Vignale (CT1–3, Figs. 75, 78, 204) fall within the fourth phase in a reconstruction of four chronological phases of cultivation technique by Andrea Ciacci and Andrea Zifferero.⁷⁷⁶ These four phases show different cultivation techniques: lambruscaia (*Vitis sylvestris*) in trees,⁷⁷⁷ lambruscaia spontaneously autochthonous growing up living trees as

support,⁷⁷⁸ and the more organized vineyard with support of tree logs especially of elm, poplar, and/or chestnut set in pits, *arbustum morto*.⁷⁷⁹ The fourth phase, estimated to have begun in the mid-4th century BC, deals with dug-out cultivation trenches similar to those found on the Vignale summit.

A paucity of humic layers on the Vignale plateau may have been one reason for digging trenches. Most likely the bedrock cuttings were dug for the vines to root in soil with good drainage.⁷⁸⁰ This was facilitated by using tile fragments and stones—a method described by the ancient agriculturists.⁷⁸¹ At the time of excavation, the cultivation trenches on Vignale were filled by an undisturbed loamy soil mixed with tufa frag-

⁷⁷⁴ Varro, *Rust.* 1.8, 1.25–26, 1.31, 1.36; Columella, *Rust.* 3–4.

⁷⁷⁵ Braconi 2007, 161–165, on the Roman villas outside Rome, Centocelle and Lavinium, Braconi 2010, 153–154; Basile *et al.* 2010, 96–105; Hanell 1962, 310; FB notebook 1960; Pohl 1985, 55, 57–58; *San Giovenale* V:3.

⁷⁷⁶ Ciacci & Zifferero 2007, 266–268, 1) the end of the 2nd millennium BC to the beginning of the Iron Age, 2) second half of the 7th century to the last quarter of the 7th century BC, the “Numa period”, 3) last quarter of the 7th century to the second half of the 4th century BC, 4) the Roman period, from the second half of the 4th century BC and later.

⁷⁷⁷ Ciacci & Zifferero 2007, 266, fig. 15. Pliny the Elder is the only ancient author who has commented upon products made of wild vine, *Plin. HN* 14.12.132, 14.16.18, 14.18.1–4; Ciacci & Zifferero 2007, 253–255; Dalby 2011; *Geoponika* 5:51. On the word *lambrusco* and *labrusca*, see also Petroselli 1974.

⁷⁷⁸ Ciacci & Zifferero 2007, 267, fig. 16.

⁷⁷⁹ Ciacci & Zifferero 2007, 253–255; Cerchiai 2007, 155–159, figs. 1 and 3, vine trees pictured on Greek black-figured vessels. On *arbustum* in the ancient writers, see Braconi 2007, 161–165.

⁷⁸⁰ Huyzendveld 2004; see also trenches and reconstruction at Laurentina Tor Pagnotta and in the surroundings of Rome, Volpe 2009, figs. 1–2, tables 1–2, various examples of cultivation trenches fig. 3 and at Centocelle, figs. 4–5. Trenches and channels were found parallel to the vine trenches, Volpe 2009, 377–378, fig. 5. The trenches dated to the 3rd–2nd centuries BC with a width between 0.60–0.90 m. See also Republican drainage channels at Nepi, Suaria 2006. See also Republican vine trenches at Piazza d’Armi, Veii, in Bartoloni & Pulcinelli 2016, 42–43, fig. 3.

⁷⁸¹ Varro, *Rust.* 1.9.1–7, 1.25; Columella, *Rust.* 2.2.10–11, 3.11.5, 3.12.1–4.

ments and occasional bits of broken tiles⁷⁸²—thus very much in line with the description of the ancient authors.

The four vine trenches recently found in Pian Conserva, Tolfa Mountains (zone B, dated to the middle of 4th century BC), seem to show that one of the four parallel trenches had an additional shorter diagonal section angled into it, which functioned as a drainage channel.⁷⁸³ The trenches seem to be similar to the Vignale examples in all respects but one, that is, the length of the trenches which measure 6–7.5 m. The Vignale trenches are much longer, from 24 to 80 m (see *Table 2*). A possible drainage channel is faintly visible in Vignale's cultivation trenches CT1b–d running a few metres to the north-east of the main trenches (*Fig. 75*).

The function as well as the dating of the cultivation trenches on Vignale is uncertain. The archaeological remains found in the excavated trenches date between the 7th down to the 5th centuries BC. The deposit of bucchero sherds and a lump of organic fibre in the bottom of cistern WI-5, situated within Cultivation Trench CT2b, may help in dating this trench more precisely. The finds in the cistern are dated to the 6th century BC, which may provide us with a *terminus post quem*.

The distance between the three exposed cultivation trenches is rather large, c. 8–10 m. The distance mentioned by Columella is 3–4 m (see also *Table 2*).⁷⁸⁴ The three Vignale trenches were the only ones excavated on the plateau, and the VAP's recent NIR remote-sensing imagery did not show any clear sign of additional bedrock linear features on the summit.⁷⁸⁵ A LiDAR image covering the western part of the plateau shows at least four terraces below the summit. Theoretically these could possibly hide cultivation trenches yet to be explored (*Fig. 58*, above Wall D). If the terraces can be proven to be antique, for example, from the Late Hellenistic or Roman periods, it is reasonable to interpret these as terraces for orchards or small vineyards facing south as described by the ancient agriculturists.⁷⁸⁶

In the exposed bedrock between Cultivation Trenches CT1c and CT2b were random plough marks made by a type of ard (bow-ard?) or operations with other tools for planting crops (*Figs. 157, 204:D*).⁷⁸⁷ The plough marks are difficult to date but likely belong to the same period as the cultivation trenches, as they agree with the ancient use of the intermediary

space (*Table 2*).⁷⁸⁸ The crops cultivated in the space between the trenches may have varied greatly, including cereals, vegetables, and fruit.⁷⁸⁹ Unfortunately, no plant remains were recovered on the Vignale plateau and palaeobotanical analyses are yet to be accomplished. Two parallel cultivation trenches with a distance of 5 m were also found in the Porzarago necropolis, however with no report on additional plough marks.⁷⁹⁰

In discussing the relationship between trees and trenches on Vignale, it is worth mentioning the site of Acquarossa. Here, in Zone F, are seven trenches that are 0.9 m wide and rather shallow, with a spacing of c. 5–9 m.⁷⁹¹ Along the trenches are two rows of square pits measuring c. 1 × 1 m, interpreted as bedrock cuttings for trees which may have functioned as supports for the vines (*Table 2*). Columella preferred using planting holes measuring 0.9 m along each side—the use of planting holes was dependent on the quality of the soil.⁷⁹² He also advocated 1.2 to 3 m between the trenches to allow the use of various tools and/or ploughs.⁷⁹³

On a Vignale aerial photograph from 1960, several large trees are visible, which seem to be in line to the north and west of the Cultivation Trenches CT1–2. It is quite possible that these are rooted deep into ancient pits and as such are indicators of bedrock cuttings similar to the square pits found at Acquarossa (*Fig. 74*).⁷⁹⁴ Unfortunately, such features are neither seen on the NIR photographs, nor visible in the thermographic photographs taken during the surveys in 2007–2009. However, the many wells and cisterns on the western tip are distinctive in the thermographic imagery (IRT) (*Figs. 27, 92*).

During the excavations in the 1960s at Luni sul Mignone, situated where the Mignone and the Vesca rivers meet, nine parallel cultivation trenches were discovered at two areas on the plateau. The excavators date these trenches to the early and late medieval periods, but they may possibly be earlier (Late Etruscan/Roman?) (*Table 2*).⁷⁹⁵

Laura Ricciardi, together with Federico Tron and Mauro Incitti, discovered parallel bedrock trenches, interpreted as trenches for viticulture, as well as other crops at Le Pozze-Fontanile del Sambuco, which is a *villa rustica* c. 2 km north-west

⁷⁸² Rectilinear sections for cultivation trenches while trenches with a concave bottom are used for drainage, see Volpe 2009, 371.

⁷⁸³ Vallelonga 2007, 226–235, fig. 1. The trenches were c. 0.7 m wide, 0.2 m deep and placed at a distance of 1.3–1.8 m, Vallelonga 2012a, 229–230, see also Vallelonga 2012b, 539, fig. 6 with a plan of the four vine cultivation trenches.

⁷⁸⁴ Columella, *Rust.* 5.5.3–4.

⁷⁸⁵ Pohl 1985.

⁷⁸⁶ Columella, *Rust.* 2.1, 8, 5.10.1–4; Varro, *Rust.* 1.25.25; Cato, *Agr.* 6.4, 7.1.

⁷⁸⁷ White 1970, 174–175, pls. 20–21, 23–25, on Roman ploughs.

⁷⁸⁸ See also 'Cultivation trenches CT1–CT3' in *Chapter 4*

⁷⁸⁹ Braconi 2010, 155, "cultivation above and below", Plin. *Ep.* 1.20.16; Columella, *Rust.* 5.6.11.

⁷⁹⁰ Petroselli 1974, 67, n. 55.

⁷⁹¹ Strandberg Olofsson 1984, 31–32, figs. 3, 7–8; Petroselli 1974, 67, n. 55; Thornberg 1996, 18, fig. 1; Wikander 1986, 91, 159, fig. 84: NKd 921–NKh 922.

⁷⁹² Columella, *Rust.* 3.13.2–3.13.6, 4.1–4.1.7. He also preferred a rectangular planting pit, 0.6 in width × 0.9 m in length (depth 0.9 m).

⁷⁹³ Columella, *Rust.* 5.4.1–5.5.3.

⁷⁹⁴ On cultivation trenches and pits at Acquarossa, see Strandberg Olofsson 1984, 31–33, fig. 8.

⁷⁹⁵ Östenberg 1961, fig. 13; 1962, fig. 299. The cuttings were found in Trenches 3 and 5 near the church. We kindly thank Johnny Bengtsson for this information, see also Bengtsson 2001, 12–13, 40; Östenberg 1967, fig. 2.

of San Giovenale. The site had two habitation phases, from c. 350 to the beginning of the 3rd century BC, and c. 280 to 119/95 BC (*Table 2*).⁷⁹⁶

Villa Selvasecca, situated 2 km south-west of San Giovenale, was excavated by the Swedish Institute of Classical Studies in Rome between 1965–1971.⁷⁹⁷ Previously dated to the 2nd century BC, the Etruscan-Roman villa has recently been redated to the 3rd century BC (after 281 BC) with an occupation to the 5th century AD.⁷⁹⁸ The property was probably an Etruscan settlement before the villa was built, as indicated by the presence of Greek pottery and bucchero fragments.⁷⁹⁹ The villa once functioned as a tile and terracotta factory, as indicated by the terracotta moulds, basins, and cisterns found on the site.⁸⁰⁰ Söderlind's suggestion of a site for wine production, as well as a tile and terracotta factory, is interesting. He based his interpretation on the presence of mould fragments with Dionysiac motifs—such as an antefix depicting Silenus' head dating from the middle of the 5th century BC, and a sima fragment with a bunch of grapes dated to the 2nd or 1st centuries BC, arguing for a link between the motif and the local economy.⁸⁰¹ A working area north-west of the villa with a drainage channel and tufa blocks suggests that the villa was part of a larger building complex.⁸⁰² However, neither vine trenches nor presses have been reported from the villa.

Vine trenches are also reported from Magliano in Toscana (Grosseto) in a burial setting dated from the 6th century BC to c. 100 BC/AD 50. The trenches however should be associated with a later context, analogous to the Porzarago necropolis in San Giovenale. Trenches and pits dug into the calcareous bedrock have also been found in the Etruscan necropoleis at Cancellone and Sassone.⁸⁰³ The trenches at Cancellone III and *Tomba Etrusca* had a width of 0.55–0.60 m, similar to a recommended width of 0.50–0.60 m for trenches in Gallia, Sicily, and Rome with a depth of 0.37–0.50 m, according to Cato, Pliny, and Columella.⁸⁰⁴ Parallel cultivation trenches, dated to Middle and Late Republican times, were also found

at Centocelle, Anagnina, L'Acqua Accetosa Laurentina, and Tor Pagnotta (*Table 2*).⁸⁰⁵

The early Etruscan vineyards are more difficult to identify. Nevertheless indirect evidence, in the form of the large numbers of vessels for pouring, drinking, and storing that are present in tombs and habitation areas from the Orientalizing and Archaic periods, provides us with an indication that at least wild vine was used. Whether organized vineyards existed—that is, purposely planted trees for vines, we can only speculate. Figurative vases from the Archaic period, whether imported or local, are rather generalized in their depiction of grape harvesting. Thus it is impossible to determine if the gathering was done in the wild or from organized plantations. As for Mainland Greece, vineyards with plants in trenches usually date from the 4th to 1st centuries BC.⁸⁰⁶

PRUNING THE VINES

Pruning is an essential part of the *chaîne opératoire* of viticulture, in order to increase both the quality and the quantity of the grapes, and has been used by farmers in Italy at least from the Final Bronze Age/Early Iron Age (12th–9th centuries BC), based on findings of the pruning hook (*falx*).⁸⁰⁷ We also know that the Etruscan vine-dressers were familiar with pruning, and according to Pliny the Elder (*HN* 14.14.88) it was forbidden to use wine from unpruned vines in libations and on the funeral pyre. This law was passed to ensure that the vine-dressers pruned the vines, because of the danger involved in climbing the trees.⁸⁰⁸

The discoveries of various shapes of iron or bronze pruning hooks, at various places in Etruria, have also confirmed the literary sources. There are also depictions of pruning hooks. Take, for example, twelve Late Etruscan bronze statuettes which represent youths, nude or dressed in a mantle,

⁷⁹⁶ Ricciardi 1990a, 154–158, figs. 16–18. The final date is based on a bronze coin stamped with M. Fourius Philus 119–93/92 BC, Ricciardi 1987b; Costantini & Giorgi 1987, 83–86 for archaeobotanical remains found in *pozzi* such as hazelnuts, grape pips, olive stones, pips/seeds of figs, pears, barley, and carbonized wood of oak, Ciacci & Zifferero 2007, 252.

⁷⁹⁷ Andrén 1969, fig. 11.5; Berggren 1969, 51–59; 1976.

⁷⁹⁸ Klynne, A. 2006–2007, 55.

⁷⁹⁹ Hemphill 2000, 29; Söderlind 2006, 119, has divided the terracottas into three phases.

⁸⁰⁰ Berggren 1976, 95–97.

⁸⁰¹ Söderlind 2006, 119, 121, figs. 11.2, 5; Klynne, A. 2006–2007, 53, 55.

⁸⁰² Klynne, A. 2006–2007, 55.

⁸⁰³ Marianelli & Rendini 2012, 403–411, figs. 2–8; Marianelli 2011, figs. 2–4.

⁸⁰⁴ Santangeli Valenziani & Volpe 2007, 48; 2012, 61; Marianelli & Rendini 2012, 407.

⁸⁰⁵ On organizing a vineyard during the 4th–6th centuries AD, the depth of trenches and planting holes and when the various working parts should be done, see Dalby 2011, *Geoponica* 3.5:4–7, 11–13, 15–17 and Verg. *G.* 2. 259–273. On cultivation trenches at Centocelle during periods I–III, the 3rd–2nd centuries BC, see, for example, Volpe 2004; Armellini *et al.* 2004, 217–246; Ciceroni 2004, 346–357, figs. 2–4, Period 1B, 348–352, Period 2, 352–354.

⁸⁰⁶ Pikoulas 2012, 58–59, figs. 1–6, Pella in Macedonia (end of 4th century BC), Megara in Attica (4th–1st centuries BC), Nemea (1st century BC), and Thermi di Salonico (4th to the beginning of the 3rd centuries BC). At Makriyalos there were Hellenistic-period pits with drainage systems consisting of parallel trenches.

⁸⁰⁷ Delpino 2007, 140–141, fig. 6; Thomson de Grummond 2018, 35–37, figs. 1–3, see the various shapes of the Etruscan *falx* in appendix A, pp. 48–51. See also White 1967, 85–103, on the vine-dresser's various knives.

⁸⁰⁸ On pruning, see Cato, *Agr.* 32.1–2; Columella, *Rust.* 4.23.1–4.25.3; Plin. *HN* 14.12; Plut. *Vit. Num.* 75–78. Braconi 2010, 153. See, for example, Thurmond 2016, 129–135 on pruning and the equipment used (*falces*).



Fig. 205. An Attic black-figure panel-amphora depicts Dionysos/Fufluns with his kantharos attending the wine harvest. Satyrs are gathering the grapes in high-growing vines (© courtesy of Museo Nazionale Etrusco di Villa Giulia. Archivio fotografico, photograph by Mauro Benedetti).

holding a pruning hook high with the right hand. These bronze figures have been interpreted as depictions of the Etruscan god Selvans by a few scholars. The counterpart of Selvans, the god of fields and forests, was the Roman god Silvanus. A Roman marble relief in Palazzo Massimo alle Terme (AD 130–138) depicts Antinous as Silvanus, holding a pruning hook in his right hand and collecting the grape clusters hanging from a vine.⁸⁰⁹

⁸⁰⁹ Thomson de Grummond 2018, 36, figs. 5–7, 8, see also appendix B, pp. 51–57.

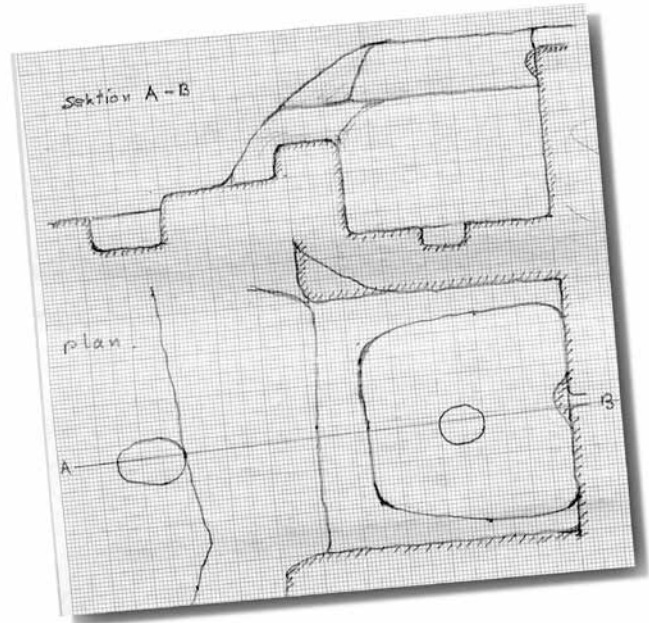


Fig. 206. Sketch of plan and section in C.E.Ö notebook I, 1958, illustrating the wine press located near Tomb 1 in the La Staffa necropolis (drawing by C.W. Welin, courtesy of SIR).

PRESSING THE GRAPES

The ripened grapes were harvested in September–October. Varro advocated that the grapes were ready to be hand-picked between the autumn equinox and the setting of the seven stars. Grapes of various sorts were carefully selected for direct consumption, for conservation, and for other treatments such as drying.⁸¹⁰ The grapes selected for wine-making were collected in baskets, similar to the scene depicted on a 5th-century BC Attic black-figure panel-amphora, where the wine god Dionysos/Fufluns is paying a visit to his vineyard, together with satyrs who are picking the grapes of the high-growing vines (Fig. 205).

Thus we have arrived at the actual pressing of the grapes. Installations for grape pressing, made in stone, have been preserved and allow us to study their different appearances, their placements, and use. These aspects could allow an understanding of how wine has been manufactured in San Giovenale over time. During the first land survey of Vignale in 2006, some installations were found which could be used for grape treading—additional to the already documented bedrock-cut *pe-starole* found along the Etruscan road in the Borgo area, and the ones found in the necropoleis of La Staffa and Porzarago

⁸¹⁰ On picking grapes, see Varro, *Rust.* 1.34–35, 1.54 and Columella, *Rust.* 12.18 on preparations for the wine wine-making.

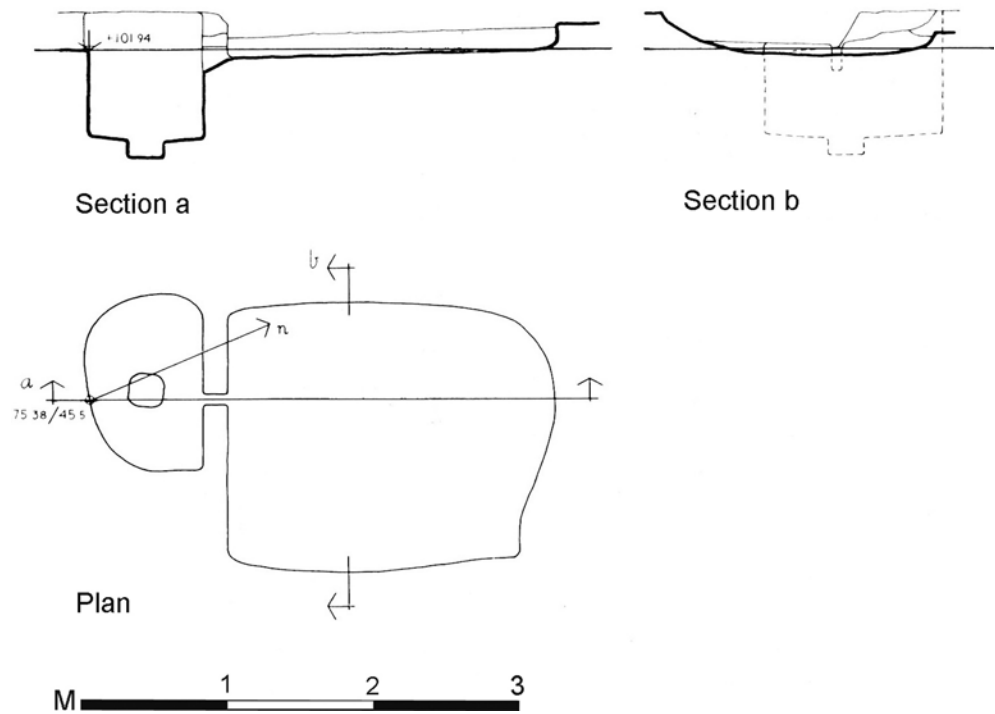


Fig. 207. Bedrock-cut wine press (P.106) found within the necropolis of Porzarago, north-west of the Acropolis in San Giovenale (illustration by B. Blomé, after San Giovenale I:5, fig. 1).

(Figs. 88, 206–207). On types and dimensions of wine presses in Etruria, see Table 3, Graph 1, Chapter 4). Pressing was also performed in free-standing tufa boulders which are very distinctive in their character;⁸¹¹ examples of these were found on the northern and southern slopes of the Vignale plateau (WP1–2, Figs. 81, 84, 87). Elevated vats can be found in the Bridge Complex, along the Fosso della Camerata by the Vesca river, and along the Fammilume brook between the Acropolis and the Porzarago plateau (Fig. 79).

Regarding the remains of pressing installations found in San Giovenale, the shape of the wine presses seems to have changed over time. The ripe grapes, wild or cultivated, were pressed in assorted types of stone or wooden basins—there are no preserved remains of the latter.⁸¹² The outdoor stone presses were of the types described above, cut directly into

the bedrock or out of tufa boulders.⁸¹³ The ancient authors also mention presses inside buildings.⁸¹⁴ The trampling of the grapes—the first pressing—inside buildings was sometimes followed by the use of a *torchio*—that is, a screw press used for the second pressing, that of the resulting grape skins. A modern version of a *torchio a vite* can be seen in Fig. 208.⁸¹⁵ A well-documented technique utilized on the Italian peninsula, in the Roman period, and described by Columella (*Rust.* 11–12), Cato (*Agr.* 18–19), and Pliny the Elder (*NH* 18. 317), is the use of lever presses and screw presses placed on a stone

⁸¹¹ Mori Secci 2005; Masi 2005. Processing the grapes in wine presses called *pestaroles*, *palmenti*, or *pigiatori rupestri*. See also Chapter 4, 'Wine presses (WP)'.

⁸¹² Zifferero 2012; Di Pasquale 2010, 135–138, figs. 1–6, examples of Egyptian sack-like torsion pressing techniques, a simple lever press painted on an Attic black-figure *skyphos*, and examples of Cato's beam and screw presses.

⁸¹³ Backe Forsberg 2005, figs. 39–40, 44a, 52, 62–63; Masi 2005; Val-lalonga 2012b; Santella 1981; Boëthius *et al.* 1962; *San Giovenale* V:3.

⁸¹⁴ Brun 2012, 75, fig. 4. The stone vats were either cut out directly from the bedrock or into huge stone blocks. They may have been covered with a wooden construction in order to protect the grapes and the must from the sun and the rain and to give the treading support to stand upright. See also Dalby 2011, *Geoponica* 6.1–2, here Florentinus is mentioned, another Roman author on farming. He wrote about the vats, how to prepare them before the treading, and how to clean them afterwards. Small squarish cuttings in the rock are probable evidence of some kind of roofing, see Figs. 84, 86. However, the early Roman authors do not mention stone vats. Late wine presses, for example, in Campania and Sicily, were often constructed of stone, bricks, and mortar inside a wine cellar, Botti *et al.* 2011, 14–17, figs. 6–7.

⁸¹⁵ Brun 2012, 81, fig. 8; see, for example, Ciacci & Giannace 2012, tables 2–3.



Fig. 208. R. Guido and F. Santella demonstrating a torchio a vite (screw press for grapes) in L. Santella's wine cellar, in Blera (photograph by Y. Backe Forsberg).

foundation. Pliny described four types of presses and he also wrote about the technical invention of the screw press itself, which was introduced about 25 BC.⁸¹⁶

An early type of a wooden lever press is pictured on an Attic black-figure *skyphos* dated to the end of the 6th century BC, part of the Forman Collection at the Museum of Fine Arts, Boston.⁸¹⁷ Attic black- and red-figured vase paintings illustrate different equipment and methods, such as trampling in a basket or in a wooden or clay vat (the first pressing), and a second pressing of the grape skins and pips using various kinds

of presses (*torchio a vite*) a screw press or a beam press (*torchio a leva*).⁸¹⁸ In Egyptian tomb paintings we can see large vats where the labourers are trampling grapes while holding on to a rope, fastened to a beam above.⁸¹⁹

During the Late Archaic period, an Attic red-figure vase painter depicted a similar method where the trampers pressed the grapes in a basket while standing on a wooden table (or similar) holding on to the rope above.⁸²⁰ Although from a much later period, Wine Press WP2 documented at Vignale has traces of a similar function where a possible post hole for a beam can be seen in its upper vat (Figs. 84, 89).⁸²¹ The must

⁸¹⁶ Plin. *HN* 18. 317 (“*torchio a leva e ad argano/torchi a leva e vite*”). See also Mladenova 1998, 524–537, figs. 26–49, on various types of wine presses such as the lever press (fig. 42), the screw press in figs. 46–49 and wedge presses (figs. 43–44); Mladenova 1998, 431–460, treading vats of type A, a simple hole dug into the soil, type B stone troughs of which one was dated to the 2nd–3rd centuries AD, types C–J of wood (figs. 26–41), and stationary vats of stone and bricks (type E), which were mostly used in Greece (fig. 30). The vats used in Romania were mostly made of wood and/or wicker. The hollow tree-trunk vat named *calcator* was mostly used in Bulgaria (figs. 31–32). The word *calcator* is also common for a wooden wine press in Tuscany. The treading vat made of staves and concave tub- or barrel-shaped (type I) (figs. 37–39), occurred both as portable in Bulgaria and stationary in Albania and Romania at the end of the 20th century AD. Cf. also the wine press (bag-press, Greek beam-press) found in Villa Boscoreale, Pompeii, in Forbes 1955, 131–138, figs. 27–29, 31–32. See, for example, Di Pasquale 2010, 138, figs. 4–6.

⁸¹⁷ Brun 2012, 75, fig. 4; Di Pasquale 2010, 137–138, figs. 3, 5.

⁸¹⁸ Brun 2012, 75; Di Pasquale 2010, 135–137, figs. 1–3; Forbes 1955; Boardman 1974, 52–56, pl. 89; McGovern 2003, on the book cover, a photograph of an Attic black-figure panel-*amphora* close to Exekias, *CVA Museum of Fine Arts* 1, fig. 12.3, a similar wine-making/wine-related scene occurs on an Attic black-figure *amphora* (in the Museo Nazionale Etrusco di Villa Giulia), see Fig. 205, painter unknown. See also the Attic black-figure panel-*amphorae* by the Amasis Painter with a wine-making motif Basel K420 (Würzburg, Martin Wagner Museum), in von Bothmer 1985, figs. 40a–b, 70–71, pl. cat. 19. On lever and wedge presses, see Mladenova 1998, 530–536, figs. 42–44, lever screw press (a combination of lever and screw) fig. 45, and screw presses figs. 46–46.

⁸¹⁹ McGovern 2003, 144–145, fig. 6.6; 2009, pl. 6.

⁸²⁰ Brun 2012, 72, fig. 1.

⁸²¹ See also the treading of grapes with people holding hooks for support on the 4th-century AD mosaic in the mausoleum of Santa Costanza in Rome, in Fig. 194.

from the grapes then flowed into positioned clay vessels, often as half-buried *dolia* which, for example, can be seen on vases in either Attic black- or red-figure motifs.⁸²² Except for the earthenware itself, remains of such treading equipment, common from the Archaic down to the Classical periods, are rarely found in Etruria. The reason for this is obviously the disintegration of the organic material.⁸²³

Recently a small wine press in limestone, placed on four smaller stones, was found in a courtyard at Lattara. This *emporium* with Etruscan influences in southern France has been dated to the 6th–5th centuries BC.⁸²⁴ The press in question, dated to 425 BC, is compared with the one shown on the Attic black-figure panel-*amphora* by the Amasis Painter which depicts the trampling of grapes (*Fig. 209*).⁸²⁵

In the case of vessels sunk into the ground, the 6th-century BC Etruscan farm at Podere Tartuchino might provide an example. Here large *pithoi* were found, one half-buried into the ground and others *in situ* on the floor of Room C. In this establishment the grapes may have been pressed from an installation similar to the grape pressing illustrated on the earlier-mentioned Attic black-figure *skyphos* (drinking cup).⁸²⁶

Locals from Ferruzzano (Reggio Calabria), who still used bedrock-cut presses in the 1950s, have interesting information regarding the preparation of the vats before the trampling of the grapes with bare feet. The upper vat was first filled with water in order to make the walls waterproof. This kept the grape must from seeping into the rock. A clay or wooden stopper was put into the drainage hole to allow the must, the grape skins, the stems, and the pips to rest between 24 and 48 hours before the stopper was removed. The must then

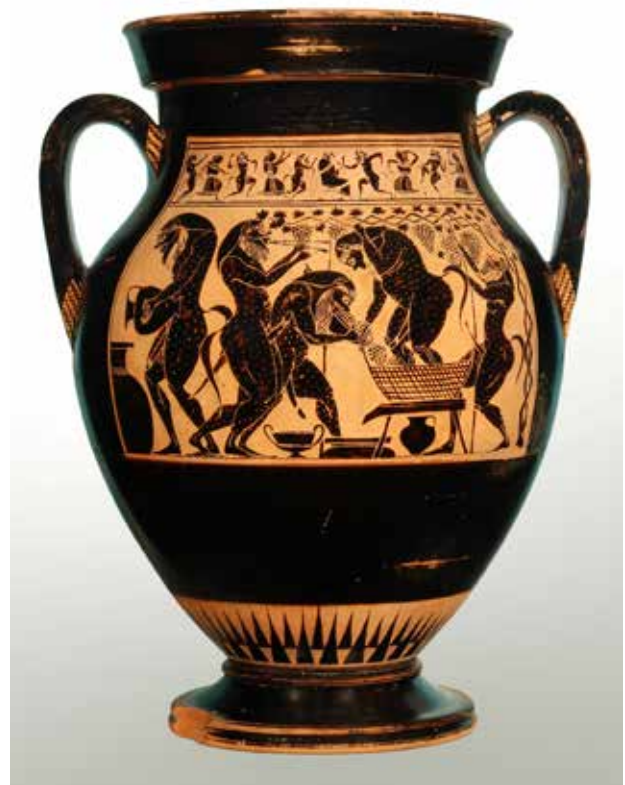


Fig. 209. Attic black-figure panel-amphora by the Amasis Painter showing ancient harvest and pressing methods with baskets, jars, and dolia, (© courtesy of Martin von Wagner, Museum der Universität Würzburg, photograph: P. Neckermann).

⁸²² Cerchiai 2012, 282–284, figs. 7–8. Cf. the Attic black-figure panel-*amphorae* by the Amasis Painter, von Bothmer 1985, figs. 40a–b, 70–71 and the Attic red-figure *krater* by the Leningrad Painter, Museo archeologico principale in Lecce, in Brun 2012, fig. 1.

⁸²³ The anthropologist Olga Mladenova collected and described wooden wine-making equipment (treading vats and wine presses) from the late 1900s to the early 2000s in the Balkans from an ethno-linguistic research approach. She illustrates interesting examples which may provide ideas on how the Etruscan equipment may have looked. Techniques and instruments of winemaking bore several striking similarities to those pictured on Attic vessels, see, for example, Mladenova 1998, 409–574.

⁸²⁴ McGovern *et al.* 2013, 147–152, fig. 3, on the Etruscan transport wine *amphorae* found at Lattara in South France, dated to the 6th–5th centuries BC, and the limestone wine press dated to c. 425 BC found close to the *amphorae*. A number of grape seeds of the domesticated *Vitis vinifera* were discovered in a clay vessel. A 4th-century BC shipwreck at Mallorca contained grape seeds embedded in soil, i.e. they had probably been planted. The shipwreck at Grand Ribaud F near Marseille dated to 515–475 BC also contained wine pips, see also Riva 2017.

⁸²⁵ von Bothmer 1985, figs. 40a–b, 70–71.

⁸²⁶ Perkins & Attolini 1992, 83–89, figs. 8–12; Perkins 2012, 417–418, figs. 1–2. Brun 2012, 75, fig. 4, Attic black-figure *skyphos* from the Forman Collection at the Museum of Fine Arts, Boston. See also photograph of the cup (Accession number 99.525) in <http://collection.mfa.org>.

flowed into the lower vat where pips and stems amassed in the bottom bowl—later to be collected and put into a screw press for the second pressing.⁸²⁷ For bottom bowls or cavities/depressions in the lower vat in wine presses at San Giovenale and surroundings, and Luni sul Mignone, see *Table 3*. During the 1950s large wooden troughs positioned over large clay or stone jars were used when treading, as documented in, for example, the small town of Barbarano Romano, near San Giovenale.⁸²⁸

Regarding the function of the *pestarole*, or the basin-like structures, one should perhaps add the following: these features, with one or two vats, could have had multiple functions beside that of wine press. The *pestarole* discovered near Nor-

⁸²⁷ Botti *et al.* 2011, 26–27.

⁸²⁸ Fries & Mark 1962, fig. 247. See, for example, different types of modern wooden treading vats used in the Balkans in Mladenova 1998, 431–460, figs. 26–41, esp. fig. 35.

chia by the Cava Buia road along the Biedano river⁸²⁹ have also been interpreted as water basins for dyeing and tanning⁸³⁰—as well as for pressing olives and the processing of hemp.⁸³¹

LOCATION OF THE WINE PRESSES

Wine presses found in Etruria are often located within the settlements or in their vicinity (outdoors or indoors) with placements along streets/roads or along rivers—in the latter case usually by bridges or fords.⁸³² Bedrock-cut presses have also been found in or near necropoleis.⁸³³ As described in *Chapter 4* the documented San Giovenale presses were all placed in open air, either within the settlement area or inside necropoleis. But they have distinctive differences. The three bedrock-cut presses on the Borgo are located along a street in the more densely populated part of the settlement.⁸³⁴ The Vignale presses (WP1 and WP2) dated 5th–13th centuries AD or later, on the other hand are positioned along regional roads, connected to the slopes of the ravines and near the watercourses. Furthermore they are located outside the perimeter walls of the inhabited areas. A massive and meticulously cut wine press of shape 2 was also documented along the northern side of the Fammilume brook (*Table 3*) and dated to 5th–13th centuries AD or later. It is similarly positioned by the water and in a navigable landscape forming a physical link between the Acropolis and the plateau of the Porzarago necropolis. When found, the press with its two vats was concealed by the long, thick stems of *Vitis sylvestris* hanging from the trees (*Fig. 79*). The wine press in the Pietrisco Bridge Complex was found in 1961 (*Fig. 87*).

Placing wine presses near roads and rivers, outside the core settlement, was likely a way of facilitating the transportation of the wine jars after having manufactured the must (grape juice). The fresh must was then transferred for fermentation in large vessels in the vicinity, or transported to other locations. Naturally the roads were also vital for loading the harvest before processing. In this context, questions arise on the particular species of grapes, domesticated or wild, and the location of the presses outdoors. Do we see an indication that the Etruscans and later inhabitants picked the grapes of *Vitis sylvestris* and trod them directly in stone-cut wine presses placed along

rivers and brooks?⁸³⁵ As noted above, plants of wild vine have been discovered along the rivers in Etruria (Tuscany)—for example, along the Mignone water system with its tributaries passing Luni sul Mignone and San Giovenale. Pips of wild grapes have been found in Etruscan settlements, necropoleis, and sanctuaries.⁸³⁶ It is possible that the press at the Bridge Complex (redated to the middle of the 4th century BC or later) as well as the medieval Fammilume press and the WP1 and WP2 presses indicate the use of *Vitis sylvestris*—still today growing wild in the river valleys. A few kilometres north-west of San Giovenale, additional wine presses together with Late Etruscan *amphorae* and seeds of wild grapes were discovered at Le Pozze-Fontanile del Sambuco—a *villa rustica* situated close to the Dogana. It is dated to the middle of the 4th to the beginning of the 3rd centuries BC.⁸³⁷ Thus, the placing of wine presses used for wild vine should not necessarily be associated with the processing of grapes outside farms or residential areas. During the Late Etruscan period, as in later times, both wild and domesticated vines were likely used simultaneously. At Le Pozze-Fontanile del Sambuco, cultivation trenches are however connected to its second phase, dated from the 2nd century BC.⁸³⁸ See also *Table 3*.

As noted above, early wine presses are found in varying locations, but a specific occurrence worth mentioning are those found within necropoleis. It should perhaps be considered peculiar to find wine presses in connection with, or in the near proximity of graveyards, such as in the examples of Norchia and Pian Conserva.⁸³⁹ Although such presses are often considered to be medieval or later, the question arises as to why their placement in (visible?) Etruscan necropoleis was not regarded a sacrilege? At San Giovenale there are two examples where bedrock-cut wine presses were placed within a necropolis. One press is found in the burial site of La Staffa (*Fig. 206*), the other in the Porzarago necropolis (*Fig. 207*). In addition to the examples at San Giovenale, one can note three other examples on Monte Alessio (*Fig. 210*).⁸⁴⁰ At first glance it would indeed

⁸²⁹ Colonna di Paolo & Colonna 1978, 63 n. 9, 101–102, figs. 128–129, 132–134:1–3.

⁸³⁰ Colonna di Paolo & Colonna 1978.

⁸³¹ Vallelonga 2012b, 544.

⁸³² Masi 2012a, 589; Backe Forsberg 2005; *San Giovenale* V:3. Cf. the wine presses on the Borgo summit, *San Giovenale* V:1, fig. 24; V:3; Colonna di Paolo & Colonna 1978, 63, n. 9.

⁸³³ *San Giovenale* I:5, fig. 1 (Porzarago); I:7, fig. 1 (Castellina Camerata).

⁸³⁴ *San Giovenale* V:1; V:3.

⁸³⁵ Plants of wild vine or domesticated vine which have run wild were discovered in spring 2007 on top of the wine press at the Pietrisco Bridge Complex.

⁸³⁶ Ciacci & Zifferero 2005; Ciacci *et al.* 2007; Ciacci *et al.* 2012a; Fries 1962, pl. 30A. Sant'Antonio (Cerveteri), Izzet 2000, 300–333, tables 1–2.

⁸³⁷ Ricciardi 1987b; 1990a, nn. 160–161. Costantini & Giorgi 1987, 83–86 on remains of grape pips and other seeds; Ciacci & Zifferero 2007, 252, vine cultivation trenches were also found near a circular wine press.

⁸³⁸ Ricciardi 1990a, 157. See also Forni 2012, 110, table 1.

⁸³⁹ Masi 2005, 90–92, figs. 8, 10. Wine presses found in or near necropoleis at Norchia, Colonna di Paolo & Colonna 1978; Ciacci *et al.* 2012a, 591–599, Pian Conserva in the Tolfa area; Vallelonga 2012b, 539–540, 560, figs. 4–5, 14–15, 29, Castellina in the Tolfa area.

⁸⁴⁰ La Staffa wine press: plan and section from CEÖ notebook II, 1958, 22, 24, 26–27, 37, 39–40, wine press P106 in the Porzarago

be tempting to understand these presses as intended for use in funeral rites—that is, a wine produced for ritual purposes only. However, an explanation could be that the exposed bedrock amid the tombs simply provided a less labour-intensive way of constructing medieval wine presses. Additionally, we know that some sepulchres were reused as wine cellars, such as in the case of the half-emptied tombs in Vignale's South-western necropolis that show traces of having been reused as cellars—for example, Chamber Tomb V3. In the case of Porzarago, the press should most definitely be associated with the adjacent cultivation trenches found in the 1950s, which have been connected to the medieval period.⁸⁴¹ However, this does not exclude any ritualistic purpose of early wine presses within burial sites elsewhere. Whether Etruscan wine was required to be produced at a certain locality during any given time period or region is open for further research. We know, for example, that libations were performed in connection with so-called funeral rites, similar to those performed upon mounds.⁸⁴² If these required a wine that was produced according to specific procedures is an interesting question. Already mentioned is the Roman reference to a certain law stating that unpruned vines were not to be used within the realm of libation.⁸⁴³ A further example regarding wine presses among Etruscan burials, in San Giovenale, is the press positioned in the Castellina Camerata necropolis.⁸⁴⁴ In 2014, Tobin-Dodd reported additional presses along the small brook that flows through the same burial site.⁸⁴⁵ All these should nevertheless be considered medieval or later features in a long-abandoned Etruscan necropolis.

Aside from Etruscan burial-grounds, there may also be archaeological evidence of a wine press within a sacred setting in San Giovenale—the one situated in the grounds of the “*sacellum*” within the Pietrisco Bridge Complex.⁸⁴⁶ It should be noted though that the press, positioned outside the “*sacellum*”, has also been reused during a later period, together with the redated apsidal structure in this location (Fig. 221). The press could in this case be interpreted as being contemporary with the Byzantine chapel of San Juvenal (Fig. 191). There is



Fig. 210. As a member of the “flying squad”, Östenberg in 1959 registered three bedrock-cut wine presses at Monte Alessio, looking north-east. In the photograph is one of the presses with two vats, positioned on the eastern point of the plateau (photograph by C.W. Welin, courtesy of SIR).

reason to believe that the clerics harvested the wild grapes in the nearby ravines for the pressing of sacramental wine and for more domestic use. As we shall see below in the section ‘Wine for the gods—ritual aspects of wine’ it is often difficult to detach the pragmatic aspects of wine-making from the sacred, since these appear to be closely interwoven.

THE WINE CELLARS—FERMENTATION AND STORING

The fermentation process started when the grapes were trodden and/or pressed, either in the field or near the dwelling. According to the ancient authors, after a few weeks the fermentation process ceased and the wine was decanted into large jars (*dolia*) that had been washed with boiled sea-water and then coated with pitch inside. The filled vessels were lidded with a pitched clay stopper, suitable for long-term storage.⁸⁴⁷ The ancient agriculturists emphasized the importance

necropolis at San Giovenale, see *San Giovenale* I:5, 13, fig. 1, pl. 2; Petroselli 1974, 67, n. 55.

⁸⁴¹ See ‘Cultivation trenches CT1–CT3’ in *Chapter 4*. See also the cultivation trenches P113 and the wine press P106 on the Porzarago plateau in *San Giovenale* I:5, pl. 2.

⁸⁴² See further below in section ‘Wine for the gods—ritual aspects of wine’.

⁸⁴³ Plin. *HN* 14.14.88.

⁸⁴⁴ *San Giovenale* I:7, fig. 1. The wine press is illustrated without any further comments.

⁸⁴⁵ We thank Fredrik Tobin-Dodd for his information on further wine presses. A few smaller ones were located along the Camerata brook (Fosso della Camerata) by VAP during the 2006 survey.

⁸⁴⁶ See discussion below on redating of the *pestarola*, Backe Forsberg 2005, figs. 34b, 44a, 52, 62–63; Colonna & Backe Forsberg 1999.

⁸⁴⁷ Columella, *Rust.* 3.12.20.4–6, Plin. *HN* 14.25, 14.19 mentioned that the *doliae* were coated with pitch 40 days before the placing of the wine into the *doliae*, that is, after the rising of the Dog Star. In Dalby 2011, *Geoponica*, 6:3–4, Anatolios, an 4th-century AD agricultural writer, discussed the importance of pitching the vats before using them and methods of preparing pitch. See also other recipes on pitch, Dalby 2011, *Geoponica* 6:5–8. Fermenting, as well as storing the wine in clay vessels, was the normal procedure before wooden staved barrels replaced them, noted in Mladenova 1998, 586–587. However, wooden barrels were known to the Romans but they preferred the clay vessels according to Pliny the Elder (*HN* 14.133), Varro (*Rust.* 1.13.6), and Strabo (*Geography* 5.1.8). Cf. a relief with wine barrels loaded in a river-boat depicted on Trajan's Column in Rome dated to c. AD 110 in Rytkönen 2009, 544 and colour

of closing the storage vessels properly, in order to keep the wine from spoiling.⁸⁴⁸

The large and thick-walled vessels intended for storage were often placed into bedrock-cut wine cellars, outside or inside buildings near pressing installations. Two wine cellars with stone staircases, O1 and O2, were located in the north-west slope to the west of the Borgo settlement.⁸⁴⁹ In the bottom cavity of cellar O1 a few pottery sherds were found in ashy soil. Here were fragments of a black-glazed *patera* (Morel type 1174b, dated to 250–150 BC)⁸⁵⁰ and two fragmentary *amphorae*, of which one was of Lamboglia-Dr.1A type (Lamboglia 1952) dated to the 3rd–2nd centuries BC, and the other with similarities to an Etruscan wine *amphora* probably of type Py 3B (Py & Py 1985). Cistern O2 contained Attic imports and bucchero tableware as well as storage and kitchen vessels of various fabrics and forms, dated to c. 530/500–430 BC.⁸⁵¹ Therefore it has been difficult to estimate exactly when the two cellars were constructed, but nevertheless these have been dated to Period 4 (4th–2nd centuries BC).⁸⁵² Additionally there were three cellars, O3–O5, discovered along the Etruscan street on the *Spina*. These were provided with stone steps and were positioned among the already discussed three wine presses (Chapter 4, Table 3).⁸⁵³ Pohl has linked these cellars with the cultivation trenches on Vignale.⁸⁵⁴

This concludes the evidence of cellars from the Etruscan period, but there are remains of cellars that are placed above ground—in this case medieval in date. One such edifice was documented as part of Wine Press WP2 below Vignale. This was likely a *cella vinaria* that was constructed in connection to the press itself. Another similar construction could per-

haps be identified in the building remains that were reused as a hunting lodge, this also on the southern slope of Vignale. As already mentioned, when discussing the medieval period it is worth noting that Etruscan chamber tombs have been reused as cellars. Evidence of reuse is clearly evident in several of the chamber tombs around the square of “*La Piazzetta*” in the western end of the Casale Vignale necropolis.

Another way of storing the fermented grape must was in *dolia* which were half-buried in the ground, such as those uncovered in the courtyard of the Etruscan farm of Podere Tartuchino.⁸⁵⁵ We can also see a half-buried *dolium* illustrated on an Attic black-figured panel-*amphora* by the Amasis Painter showing motifs of grape harvest and wine-making (Fig. 209). A large body fragment of a storage vessel, a *dolium* with an Etruscan inscription referring to wine on its exterior, was dated to the 6th century BC and found in building epsilon (ε) at the Gravisca sanctuary.⁸⁵⁶ Examples of half-buried *dolia* can be seen in several storerooms in Villa Sambuco, the Roman *villa rustica* near San Giovenale,⁸⁵⁷ in the courtyards of Casa dei dolii at Ostia (Fig. 211), and at Villa Boscoreale at Pompeii.⁸⁵⁸

In a chapter dedicated to wine production—specifically when touching upon the topic of storing, some words on the content of the jars may be of relevance. Varro described different methods and recipes to preserve selected grapes of special vines for a year or longer. The method used was to put the fresh grape clusters into well-fired vessels, after the stalks had been pitched.⁸⁵⁹ Wine was seasoned with various spices such as herbs, myrrh, honey, resin from terebinth (turpentine), and pitch—a process which involved flavouring and conservation.⁸⁶⁰ Wines were divided in three categories: local wines for regional consumption, “cru” wines produced from regional high-quality grapes, and mass-produced wines

plate 19b. Wooden storage vessels are often depicted on Byzantine and medieval paintings, mosaics, and stone reliefs from e.g., Ostia and Rome, Bendinelli 1931.

⁸⁴⁸ Columella, *Rust.* 4.21.5, 4.21.10, 12.26.1; Plin. *HN* 14.133–135; Rytkönen 2009, 550.

⁸⁴⁹ *San Giovenale* V:1, 68, 133, 149–150, 153, figs. 33, 48, 50, 52, 122, 135, pls. 1–2, fold-out plans 1–2.

⁸⁵⁰ Morel 1981, 9, pl. 6.

⁸⁵¹ *San Giovenale* V:2, 187–189, tables 67–68, pls. 29, 32, 58, 61, 63–64, 83, 101, 114, appendix tables 67–68. Cistern O1 measured 1.30 × 1.60–1.70 m and was 0.80–0.90 m deep with a cavity, 65 cm in diam. and 15 cm deep, at the bottom. Cistern O2 measured 1.30 × 1.10 m with a depth of 0.80 m.

⁸⁵² *San Giovenale* V:2, 187–189, the cellar O1 was probably abandoned and filled during the 3rd or early 2nd century BC; *San Giovenale* V:1, 150, 153.

⁸⁵³ As for the wine presses on Vignale, the abbreviation WP was used for the wine presses found on the *Spina*, where we have three presses, WP1–3. On the location of the Wine Presses WP1–3 and the cellars O3–O5 on the *Spina*, see *San Giovenale* V:1, figs. 13, 24. Wine Press 3 (WP3) was the only press filled with archaeological remains, but with pottery dated to Period 1 (late 7th century to 575 BC) deriving from the habitation on Borgo NW. The installations will be published in *San Giovenale* V:3.

⁸⁵⁴ Pohl 1985, 54–55; 1986; *San Giovenale* V:3.

⁸⁵⁵ Perkins 2012, 415–418, figs. 1–2.

⁸⁵⁶ Johnston & Pandolfini 2000, 72, tav. 14:398.

⁸⁵⁷ Östenberg 1962, 316–319, fig. 290.

⁸⁵⁸ Wikander 2015, 300, reconstruction and plan of the *villa rustica*, Villa Boscoreale at Pompeii with 18 large *dolia* with clay lids (*operculum*) set *in situ* in three rows with numbers and other inscriptions in a courtyard. The vessels had varying capacities (table 1). See also plan and section of the sunken *dolii* in the villa, De Caro 1994, 63–69, figs. 14–15, pls. 7–8a–d. Thirty-five large half-buried *dolia* for wine and olive oil dated from the late 2nd to early 5th centuries AD were found in the courtyard of Casa dei Dolii (Insula I, IV.5) at Ostia in the beginning of the 20th century and in 1996. Several of these large vessels were marked with numbers on the shoulder just below the rim. One *dolium* contained 40 *amphorae*, that is c. 1,040 litres of wine or olive oil. See Fig. 211, and a Roman relief showing a wine merchant's shop with wine *dolia*, from a collection in England, Bendinelli 1931, fig. 245.

⁸⁵⁹ Varro, *Rust.* 1.58, 1.65, 1.68; Columella, *Rust.* 12.44–45, and Plin. *HN* 14.11 have also commented upon this method of storing fresh grapes.

⁸⁶⁰ Mladenova 1998, 572–574; Plin. *HN* 14.127, 14.9, 14.15; Cato, *Agr.* 23.3, and Strabo, *Geography* 4.6.2. Wine-vinegar and vinegar have a low pH value which stops bacterial growth, see Ingemark 2015, 430.



Fig. 211. Examples of half-buried dolia here seen in Casa dei Dolii at Ostia (top and lower left). Three dolia (lower right) with stamps showing their origin from a workshop in the Minturno area and found in the sea, on the Latium coast (from information sign at Ostia in 2016; photographs by Y. Backe Forsberg, © courtesy of Parco Archeologico di Ostia Antica).

for the regional market.⁸⁶¹ The high-quality wine from a special, fast-growing Caeretan vine was particularly appreciated by Columella and the Roman poet Martialis (38–41 AD to 102–104 AD).⁸⁶² The grape must was also used for producing other products such as vinegar and boiled wine (*defrutum*), a syrup used for the preservation of fruits, vegetables, and for medical use with additional herbs.⁸⁶³ The aged and good wine was meant for the noble families

while their household, labourers, and slaves were offered a beverage called *lora*. According to the Roman authors this was produced by mixing grape skins, pips, and stalks with vinegar and sea-water, and was used over the winter.⁸⁶⁴ The grape residue from the pressing was kept for animal food, and also used as fertilizer for the vines.⁸⁶⁵

⁸⁶¹ Rytönen 2009, 537.

⁸⁶² Edlund-Berry 2016b, 19. Columella, *Rust.* 3.9.6; Mart. *Epigrams* 1.3.124.

⁸⁶³ Columella preferred good ripe grapes of the old *Aminaea* vines for this syrup and Pliny the Elder mentioned Scantian wine. Virgil also commented upon the use of syrup; Verg. *G.* 1.295–1.296; Columella, *Rust.* 12.5, wine-vinegar, 11.2.76, 12.19–20 wine syrup; Plin. *HN* 11.4.9, 14.24, 14.80; Cato, *Agr.* 114–115, 122–123, 126–127 medicine; Plin. *HN* 14.11, 14.21, 14.80 vinegar. See also *Geoponica* 8 on recipes for medicinal wine with natural ingredients such as rose petals, dill, wormwood, and various herbs.

⁸⁶⁴ Columella, *Rust.* 12.40.1–2; Cato, *Agr.* 104.1–2; Varro, *Rust.* 1.54.1–3. Varro called this wine *circumcisium*. Plin. *HN* 14.5–6, 14.12. This particular wine was called *thamna*, in Dalby 2011, *Geoponica* 6.13.

⁸⁶⁵ Cato, *Agr.* 25. Columella mentioned in *Rust.* 8.5.22–23, if unripe grapes from wild vine mixed with durum wheat and corn were given to poultry, these were cured of illnesses, and also made them avoid eating the grapes in the vine yard. Urine from humans was excellent for the vines as well as manure from fowl according to Columella, *Rust.* 2.14.2.

POTTERY PRODUCTION FOR LOCAL MARKETING AND TRADE

An important and vital part of the *chaîne opératoire* was the production of vessels of various sizes and purposes.⁸⁶⁶ Making ceramic jars, *dolia* and *amphorae* for fermenting and storing required highly skilled and trained potters—local or itinerant. Perkins stated that large vessels used for the storing of wine, such as *dolia*, were often found on the farms where they were probably produced. *Amphorae* on the other hand, both ordinary and those for transport, were made in the towns. He also suggests that the *dolia*, with their immense size, may have been produced in isolated kilns, with the minerals found in the vessels indicating a local clay source.⁸⁶⁷ A developed infrastructure was very important for both small- and larger-scale wine production. In San Giovenale such solutions can, for example, be seen in the presses and storage facilities close to the road on the *Spina*. Not least, we have seen how the wine press at the Bridge Complex and the position of early medieval presses were strategically located near regional roads and the vine-draped ravines.⁸⁶⁸

Transport *amphorae*, locally produced as well as imported, are found in various contexts—profane as well as sacred. Fragmentary *amphorae* of various fabrics, sizes, and dates have been found in different contexts at San Giovenale and its surroundings.⁸⁶⁹ However, identifiable fragments of just four transport *amphorae* have been discovered in the area, in two separate necropoleis and in one of the wine cellars on the Borgo. If these were locally produced is unclear, but Pohl has discussed the various forms of coarse ware vessels as being locally produced.⁸⁷⁰ However, so far, no pottery kilns have been located in San Giovenale, but the itinerant potter from Caere, *Larice Crepu*, who signed braziers, *dolia* and large terracotta

coffins found at the site, may have produced these items in the settlement.⁸⁷¹ One red ware transport *amphora* (African red slip?) from the southern Bridge Complex, on the northern slope of Vignale that is, was dated to the 2nd century BC.⁸⁷² Furthermore, around and inside the portico-villa at Monte Alessio, Arrentine and terra sigillata bowls were discovered as well as coarse ware, cooking pots, *pithoi*, and wine *amphorae*. The vessels found suggested a date in the 1st century BC or slightly later.⁸⁷³

At an earlier stage, one of the two Etruscan *amphorae* found at San Giovenale seems to correspond with two transport *amphorae* found in the monumental area at Acquarossa.⁸⁷⁴ Also in Acquarossa three Samian and Lesbian vessels are reported from building C in the monumental complex in Zone F and a fourth, a Corinthian *amphora*, in building A. Acquarossa seems to have had trading contacts with Corinth probably during the last quarter of the 7th century or in the beginning of the 6th century BC. Furthermore there were interactions with Samos and Lesbos before the destruction of the city somewhat after 550/530 BC.⁸⁷⁵ Imports of similar *amphorae* are found in tombs at Veii, Cerveteri, Tarquinia, Vulci, and Gravisca.⁸⁷⁶ Margareta Strandberg Olofsson has argued that the *amphorae* dated to the last period at Acquarossa were produced in a workshop at Vulci.⁸⁷⁷ Finds of wine *amphorae* from Vulci dated from the end of the 8th to the beginning of the 6th centuries BC show that wine was produced in Etruria—this contrary to earlier views where imports from Phoenicia and Greece were assumed.⁸⁷⁸ But, it is not surprising that the aristocratic families at San Giovenale, who traded with Athens and other Greek places for pottery such as the Samian and Chalkidian *hydriai*, also imported Greek wine.⁸⁷⁹ At the Etruscan city of Doganella there is also evidence for the production of transport *amphorae*.⁸⁸⁰

⁸⁶⁶ Perkins 2012, 415; Izzet 2007, 26, 36, 89; Miller 2017, 14–19.

⁸⁶⁷ Perkins 2012, 418–421.

⁸⁶⁸ See Chapter 4, on 'Infrastructure—roads, bridges and ramps'.

⁸⁶⁹ 51 *amphorae*, often fragmentary, of various fabrics, sizes, and dates, are published from tombs at San Giovenale (*San Giovenale* I:5; I:8) and 15 examples from the Borgo area (*San Giovenale* V:2, 217, table 77). Among hundreds of fragments of medieval coarse ware fragments in Area F East, a few strap handles of medieval *amphorae* (8th–9th centuries AD) were recognized (*San Giovenale* IV:1, table 1, appendix 4). Four *amphorae* of bucheroid impasto, fine cream ware, and black-glaze ware from Area B on the Acropolis have been reported (*San Giovenale* II:2).

⁸⁷⁰ *San Giovenale* V:2, 216. On transport *amphorae* in tombs, see Colonna 1985, 1718, n. 42. He has reported one Etruscan *amphora* type 3B from a tomb at San Giuliano, one from a tomb in the Valle Vesca (VVIII), and one from Pontesilli (P.S. I:73) at San Giovenale. However, the two fragments from San Giovenale were published as a red impasto wheel-made jar with two vertical ring-handles, *San Giovenale* I:8, 41, no. 15, fig. 24 and a red impasto *dolium* with vertical ring-handles and a flat base, *San Giovenale* I:5, 126, pl. 52, right chamber 2, which for the latter may indicate types 1/2, 4, or 5 according to Py & Py 1985, 74, 78, figs. 2–3. The Pontesilli tomb contained material from the first half of the 6th century and first part of the 5th century BC.

⁸⁷¹ On brazier (inv. no. 61-104) motif no. 1 with inscription, see Pohl 1982, 92–94; *San Giovenale* V:2, pl. 48:C:a-b-2-3-45; Colonna 1997, 61–69.

⁸⁷² Backe Forsberg 2005, fig. 90:32. See also Appendix 1, Fig. 237:65.

⁸⁷³ CEÖ notebook II, 1959.

⁸⁷⁴ Colonna 1985, n. 42.

⁸⁷⁵ Strandberg Olofsson 2003, 82–83. The *amphorae* are now at display in the Museo Nazionale Etrusco Rocca Alborno in Viterbo. According to Plin. *HN* 14.11 the Lesbian wine *Pramnian* was considered of first class when mixed with sea-water.

⁸⁷⁶ Cristofani *et al.* 1985, 23–26, see table on p. 25 showing the distribution of Etruscan and imported transport *amphorae* from the four major Etruscan cities.

⁸⁷⁷ Strandberg Olofsson 2002, 123–133.

⁸⁷⁸ Delpino 2012, 191, n. 11; McGovern 2007, 118–119.

⁸⁷⁹ Two *hydriai* from the cisterns on the Acropolis, *San Giovenale* II:5, 17–18, 32, 45, fig. 1, pls. 1, 14.

⁸⁸⁰ Perkins 2012, 420–421; Rendini 2011b; 2011a; Ciampoltrini & Rendini 2012, 391–305, figs. 4–6 on Etruscan *amphorae* type Py3 (Py & Py 1985) found at Orbetello and Isola di Giglio.

CONSUMPTION AND WINE UTENSILS

Viticulture seems to have been an important part of the aristocratic economy, where vessels connected to small-scale consumption are indirect evidence of wine production and importation.⁸⁸¹ Banquet sets of various fine fabrics have been found in Etruria and in Lazio,⁸⁸² and San Giovenale is no exception. Vessels have been found in houses, wells, cisterns, and in tombs—mainly produced for the Etruscan aristocratic families at San Giovenale, Vignale included. The special set of banquet equipment consisted of vessels for mixing, serving, drinking, and offering.⁸⁸³ In several Etruscan sites, the typical set of a banquet service was often depicted on terracotta relief plaques on public and sacred buildings, and also present in funeral paintings.⁸⁸⁴ Such terracotta plaques have not been discovered at San Giovenale.

The various shapes of wine jugs for pouring, such as the *amphoriskos*, *oinochos*, and *olpe*, and the drinking cups *skyphos*, *kylix*, *kantharos*, and *kyathos* (also used for drawing wine from large vessels into the mixing bowl with water) are often discussed by scholars.⁸⁸⁵ The special pots for mixing wine and water are the *krater* and the *dinos*, also called *thina*.⁸⁸⁶ The banquet service vessels depicted on the already mentioned terracotta relief plaques on public and sacred buildings are also present in houses, tombs, and sanctuaries from various periods.⁸⁸⁷

Assorted Etruscan as well as later vessels connected to wine, both locally produced and imported, are registered in the numerous wells and cisterns on the Vignale plateau (WI-1–9, Table 11), in the “*sacellum*” at the Bridge Complex, on the Borgo and the Acropolis, as well as in tombs.⁸⁸⁸ As mentioned above, the banquet sets were common as burial gifts, both in male and female tombs during the Orientalizing

and Early Archaic periods,⁸⁸⁹ and later, as can be seen in the tombs surrounding San Giovenale.⁸⁹⁰

It is interesting that several names of noble or elite families such as *Urqens/Urfena*, *Laivena*, and *Alsi* were inscribed on bucchero cups and bowls from the “*sacellum*”.⁸⁹¹ It is difficult to demonstrate that these families can be connected to the Etruscan habitation on Vignale, but it is a plausible hypothesis. The family name *Vefula* was recognized on a bucchero cup in House III in Area F East,⁸⁹² and the *Una* family was found in the Borgo habitation quarter.⁸⁹³ *Hanphi* the African, *Zixan*, *Reice*, and *Utre*, all men’s names, were inscribed on bucchero vessels found in the necropoleis surrounding the settlements, probably indicating the owner of the tomb.⁸⁹⁴ During their life they banqueted, sacrificed, and poured libations to the gods and their dead relatives.⁸⁹⁵ These families, including the itinerant potter *Larice Crepu*, seem to originate from different cities such as Tarquinia, Caere, and Umbria (Faliscan territory).⁸⁹⁶

The pottery found in wells and cisterns on the Vignale plateau, as well as on the Acropolis and in the Bridge Complex, is evidence *per se* that the Etruscan aristocratic families and later inhabitants of San Giovenale produced wine for various uses.⁸⁹⁷

⁸⁸¹ Perkins 2012, 414.

⁸⁸² Rathje 1983 on the banquet equipment found at Ficana. See also Rathje 1995; 2013.

⁸⁸³ Firmati 2011a, 65–71; 2011b, 82–85, figs. 2–4, 7–12; Tofani & Zifferero 2011, 94–102, figs. 8–11, 13; Edlund-Berry 2011, 7–13.

⁸⁸⁴ Rathje 1983; 1994; 1995; 2013, 823–829, fig. 44.2–5. On Zone F (building A) at Acquarossa, Strandberg Olofsson 1984, 70–72, 75, 120–127, fig. 48, pl. 3:1–2; Winter 2009, 539–543 (Acquarossa), 557–558 (Vigna Grande Oriveto), 551–553 (Poggio Civitate/Murlo), 559–561 (Ara della Regina in Tarquinia), 561–562 (Ara del Tufo in Tuscania), 564 (Velletri temple).

⁸⁸⁵ Colonna 1973–1974; Bartoloni *et al.* 2012, 201–275; Bellelli & Benelli 2010, 16–26; Rathje 2013; Pieraccini 2013; Di Pasquale 2010.

⁸⁸⁶ Agostiniani 2013, 474–475 on the Etruscan words *culixna* (*kylix*). The Archaic Etruscan inscriptions on the mixing vessel called *thina* (*dinos*) have shown that this type of vessel seemed to belong to women. The word *thina* was interpreted differently in the Late Archaic period, Colonna 1973–1974, 145–149.

⁸⁸⁷ Cf. Note 884.

⁸⁸⁸ Backe Forsberg 2005; *San Giovenale* V:2; IV:1 chapter 4; I:5; I:6; I:7; I:8.

⁸⁸⁹ Riva 2010, 84–107.

⁸⁹⁰ *San Giovenale* I:5; I:6; I:7; I:8.

⁸⁹¹ Backe Forsberg 2005, 123–126; Naso 2017b, 875–876; Olsson 2021, 137–172, tables 8–9.

⁸⁹² *Venel Vefuna* in Area F East, see Colonna 2003, 302–303; 2006, 169, appendix 3. On *Vefuna*, see Morandi Tarabella 2004, 198–199; Olsson 2021, 151, table 8.

⁸⁹³ On *Una* (Faliscan origin), see Morandi Tarabella 2004, 568; Olsson 2021, 162, table 8.

⁸⁹⁴ Steingraber 2013, 658, one family (*gens*) may have owned one special tumulus tomb, which served the family for generations. On Archaic families from Cerveteri such as *Als* and *Crepu*, see Marchesini 2007, 71–72, 96, nn. 35–36, and *Zixana*, *Hanphina Avhircina*, *Reices*, and *Utres* discovered in the necropoleis around San Giovenale, Morandi Tarabella 2004, 51–52, *Reice* 423–424, *Utre* 576. On the Archaic elite families in the Biedano region, see also Olsson 2021, 137–172, tables 8–9. *Urqena/Urfena* family at the Bridge Complex, see *ThLE* 2009, 269, 414; Morandi Tarabella 2004, 572 *Urqena*, *Laivena* 268, n. 570. On *Laiv*, *Laious*, see Maras 2009, 105, 116; Benelli 2014, 84, nn. 2–3, 5.

⁸⁹⁵ Colonna & Backe Forsberg 1999; Backe Forsberg 2005, 123–126, n. 727; Tobin-Dodd 2015, 88–93, table 17. Inscriptions mentioning *Larice Crepu* and *Una* were found on the Borgo, Pohl 1982. See also Olsson 2021, 146–147, table 8.

⁸⁹⁶ Backe Forsberg 2005, 123–125; Tobin-Dodd 2015, 88–93; Colonna 1997, 61–67. See also the connection with the Faliscan family *Una* whose name was found on a rim on a brazier in a *pozzo* on the Borgo. The same cylinder pattern was found on the rim of a sarcophagus in the Pontesilli necropolis and the inscription “*mi unas*” on a bucchero vase: see also chronology tables on families from Cerveteri, in Morandi Tarabella 2004, 142–143, 608–612.

⁸⁹⁷ Cato, *Agr.* 23, 105–115; Columella, *Rust.* 12.19–22, 39–41; Plin. *HN* 14.18, on medical use.

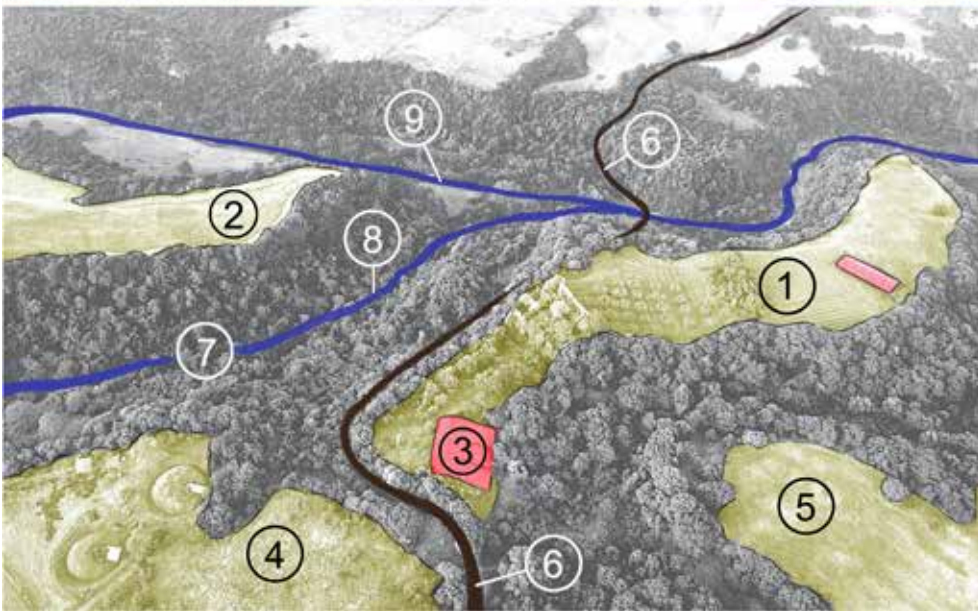


Fig. 212. Aerial view and index photograph of the same view of San Giovenale's central area, looking south-west. Note the Bridge Complex's (7) near position below the tumuli tombs in the Casale Vignale Acropolis (4). Also shown are the Acropolis (1) and the Borgo area (3) with the Vignale plateau at the far left (2). The necropolis of Porzarago (5) is seen right of the Dogana (6) that winds downhill and passes over the river Vesca (9) at the spot where the Pietrisco brook (8) discharges into the Vesca. Red-coloured areas indicate the main excavation sites on the main plateau (photograph and drawing by R. Holmgren).

A banquet and a symposium followed strict rituals and both were initiated with a libation to the gods.⁸⁹⁸ The usual place for these events was the living room/dining room, that is, the *triclinium*. Such an arrangement, with three benches in a U-shape paved with river pebbles, is found in House I in

Area F on the Acropolis.⁸⁹⁹ House I had two building phases, the first dated to the 7th century BC (the hut phase) and the second to c. 625–550/530 BC.⁹⁰⁰ The pottery found in

⁸⁹⁸ *ThesCRA* 2014, vol. I (libation), vol. II (banquet). On libations, see 'Wine for the gods—ritual aspects of wine' below.

⁸⁹⁹ *San Giovenale* IV:1, figs. 266–267; Karlsson 1996.

⁹⁰⁰ *San Giovenale* IV:1, 142, 266–267, 290, 298, figs. 6–9, 11–12. On the finds of House I, phase 1, 67–71, 148–153, figs. 73–95, 280–288, pls. 1, 7, 10–12, 15. On phase 2 (str. 2B and 3A), 77–78, 155, figs. 103–104, pls. 12, 15–16.



Fig. 213. Aerial view over tumulus (Casale Vignale 50) in the Casale Vignale necropolis, looking-north-east (photograph by R. Holmgren).

House I consisted mostly of drinking and eating vessels. Also present were a few Attic black-glazed cups as well as fragments of *dolia* and braziers. Finds of ordinary bucchero, such as a *kantharos*, an *oinochoe*, (and a lamp found in House III, this within the same building complex), indicate that House I was mainly used for drinking purposes—perhaps in the banquetting room there.

House K on the *Spina* had traces of cuttings for *klinae* in a *triclinium*.⁹⁰¹ A third dining room with tufa benches placed in a U-form occurs in the Bridge Complex's "*sacellum*", also interpreted as a funeral house for the aristocratic families—a place for honouring the ancestors.⁹⁰² This seems plausible since the building is located close to the Casale Vignale necropolis with its tumulus and chamber tombs (Figs. 170, 212–213). Laura Pieraccini has argued that wine-making and drinking wine in special vessels, placed in tombs, acted as "symbols and identity markers" for the possessing of land and commerce.⁹⁰³

Pottery of various fabrics, both locally produced and imports,⁹⁰⁴ found in the vicinity of the Bridge Complex in-

cluding the "*sacellum*", comprised a large amount of drinking vessels such as cups, *kylikes*, *kantharoi*, *kyathoi*, goblets, and bowls; *olpai* and *oinochoes* for pouring, as well as *krateres* and *dinoi* for mixing.⁹⁰⁵ This not only indicates that wine was important in daily life, but also for celebrations of the ancestors and for pouring libations to the deities dwelling in the ravines and in the brooks.⁹⁰⁶

On Vignale, Etruscan as well as later pottery of banquet sets, similar to the finds at the "*sacellum*", were found on the western part of the plateau. These derive from the wells and cisterns WI-1–6 and WI-8–9 (Tables 4–7, 11), but also from the Quarry filling next to the large Stone Platform on the summit.⁹⁰⁷

The missing drinking-related equipment at San Giovenale are the metal ladles, the sieves, and the graters. Some rectangular bronze graters, associated with wine drinking, have recently been recorded at San Giovenale, and interpreted as

⁹⁰¹ *San Giovenale* V:3.

⁹⁰² Colonna & Backe Forsberg 1999; Steingraber 2013, 665–666; Backe Forsberg 2005, figs. 34b, 36, 39, 41, 44a, 47, 49.

⁹⁰³ Pieraccini 2016a, 145.

⁹⁰⁴ On Greek imports found at San Giovenale, see Backe Forsberg 2009b, 193–203, figs. 5a–d, 10–11; Backe Forsberg 2005, 60, 75–77, figs. 82, 89, tables 3, 24; *San Giovenale* II:2, pl. 33; V:2, 193–194, pls. 1, 9–10; Backe Forsberg 2009a, tables 70, 81–82 and diagram 9; *San Giovenale* IV:1, 100–101, 118–119, figs. 191–192; II:5, 17–18, 31, 45, figs. 11–13, 23–24, pls. 1, 14; I:5, pls. 12–16, 25–26, 30, 32, 34, 49 (Etruscan black-figure), 54–55. See also Hanell 1962, pl. 35 of a restored Attic black-figure *ampho-*

ra from tomb P3 in the Porzarago necropolis, *San Giovenale* I:5, 32–34, pls. 13–16; I:7, 7, tombs 1–2, fig. 2; I:8, 55, fig. 33.

⁹⁰⁵ Backe Forsberg 2005, 60–77, 96–99, figs. 81–82, 89–92, tables 12–24, 32. Greek and Etruscan names of several of these vessels are known from inscriptions; the Etruscan words are often Greek loanwords, see Colonna 1973–1974; 1988–1989; Bellelli & Benelli 2010, 16–26 on *ulpaia*, *culixna*, *pruxum*, *qutum*, *xalis*, *larnes* (*pitbos*).

⁹⁰⁶ Backe Forsberg 2005, figs. 89–92. On libation vessels, see below, section 'Wine for the gods—ritual aspects of wine'.

⁹⁰⁷ See (Fig. 27, Table 12). The pottery from the northern slope of Vignale is presented in *Appendix 1* (Figs. 233–241, Table 16). See also Backe Forsberg 2005, figs. 23–24, 29–30, 62.

cheese or herb graters for flavouring wine.⁹⁰⁸ The grater is considered a typical object, demonstrating the wealth of the aristocracy/élite. These are mainly found in funerary contexts, for example, in a richly furnished 8th-century BC tomb at Vulci—the Tomb of the Warrior. In burials, these are often found together with other Etruscan banqueting utensils, usually in bronze.⁹⁰⁹ Two bronze graters, used for cheese, nuts, herbs, or other food stuffs, were found in the Hellenistic sanctuary at Cetamura del Chianti. One of these was recovered from a votive pit, while the other was recovered from a Roman refuse pit. Clearly grater continued as a popular item.⁹¹⁰

The wine vessels used for storing, mixing, serving, and drinking in daily life among the aristocratic members of Etruscan and Roman communities can also be found in various sacred rituals. The following section will discuss archaeological finds connected to rituals in San Giovenale.

Wine for the gods—ritual aspects of wine

The symbolic nature of wine and its use as a sacrificial substance over the millennia is a wide-ranging topic. We find evidence of such practices almost anywhere in the world where wine is cultivated—from the remains of prehistoric ceremonies up to the present customs in daily life and sometimes in intricate liturgies. The subject could elucidate some of the material remains found in San Giovenale: after all, religious beliefs had a great influence on nearly all aspects of life during antiquity—so religious beliefs must be considered when interpreting material remains. An analogy would be the understanding of ancient monetary systems by means of coins. Although an ancient coin in itself can give us information

about its origin, dating, materials, exchange, and coinage, we also indirectly know about practices such as their use in wishing-wells, coin-tossing, use as burial artefacts, and payments within specific religious domains.⁹¹¹ In other words, the physical and indirect remains of wine are also manifested in topics such as fertility, altars, libation, monasticism, liturgy, and so forth. Thus the symbolic and imaginary nature of wine would have affected many of the physical remains that are still visible or buried in San Giovenale. Therefore, let us briefly acquaint ourselves with possible ritual expressions using wine, while of course keeping in mind that these are interpretations open for debate. Again, it is often difficult to detach the pragmatic and sacred aspects of wine-making, since they are generally closely interwoven.

THE ARCHAEOLOGICAL EVIDENCE FOR RITUALS AT SAN GIOVENALE

What are the archaeological prerequisites for considering explicit ritual activity? According to Simona Rafanelli and Ingrid Edlund-Berry, there are a few necessary features for identifying sacred areas: a) sacred structures such as cult buildings, temples, *temenos* areas, and altars; b) sacred debris from rituals, for example, the bloody offerings of animals to the gods, inscriptions of teonyms and ritual words; c) images (votives and paintings on vessels); d) containers of different fabrics and with various functions used in rituals (votive deposits).⁹¹²

There are some indications of religious activities and rituals involving wine on the Acropolis, the Borgo, at the Pietrisco Bridge Complex, and on Vignale. No remains of large temple foundations have been found on the San Giovenale Acropolis.⁹¹³ More modest religious structures have been identified: a) the Orientalizing Spring-Sanctuary with an organized cult to the goddess Artemis dated to 725–675 BC, in Area B near the medieval di Vico castle;⁹¹⁴ b) a small underground room with a stone staircase, interpreted by Fuglesang as a small Hellenistic cult-room close to the Artemis fountain;⁹¹⁵ and c) a possible Etruscan Archaic and Late Archaic “*sacellum*” at the

⁹⁰⁸ Ciacci 2005, 123; McGovern 2003, 186, 267–268, common in Hittite libation rituals and in Mycenaean–Minoan contexts, now chemically identified as a mix of Pramnian wine, probably a herbal wine, and barley drunk with a straw; the Homeric grog, similar to the Greek grog *kyknon*, was given to the Greek wounded soldiers according to Xenophon (*An.* 4.5.26), and has not yet been chemically analysed. In Classical times the grog was mostly used in “esoteric religious ceremonies”, McGovern 2003, 298. On the Homeric beverage, see Pieraccini 2013, 817.

⁹⁰⁹ Pieraccini 2013, 817, mentioned 20 examples of metal graters recorded in Italy.

⁹¹⁰ Gran Aymerich & Macintosh Turfa 2013, 383; Sannibale 2013, 102, fig. 6.4. See also Pieraccini 2013, 817–818, figs. 43.6–43.7 on bronze graters as a status utensil found in Orientalizing “princely tombs” along the Tyrrhenian Sea, in Etruscan tombs, for example, at Pontecagnano and Poggio Buco, and in a Hellenistic tomb at Sovana, and in the 4th-century BC sanctuary at Cetamura. The graters provide important knowledge on Etruscan cheese production. An inscription in the sanctuary of Chorsai reported three metal graters as sacred objects, see Thomson de Grummond 2009, 57, 143–144, figs. 18, 180.

⁹¹¹ Holmgren 2004.

⁹¹² Rafanelli 2013; Edlund 1987; Edlund-Berry 2011, 8–10; 2019, 129–134 on the location of urban sanctuaries and evidence of cult places, votive offerings, deposits, and inscriptions.

⁹¹³ Pohl 1984, 93; *San Giovenale* V:3.

⁹¹⁴ *San Giovenale* II:4, 80–83, figs. 1–6. On the medieval castle, see *San Giovenale* VI:4.

⁹¹⁵ Fuglesang unpublished: manuscript of Daniel Fuglesang’s Ph.D. thesis, where the cult-room in Area B is dated to c. 3rd century BC or later. It is situated close to the Spring-Sanctuary. Unfortunately, Fuglesang died before he had finished his thesis. On the cult-room, see *San Giovenale* II:5, 12; II:4, fig. 1 (plan in Area B).

Bridge Complex.⁹¹⁶ The Byzantine and medieval chapel, west of the medieval castle on the Acropolis, is the latest sacred building, still partially standing (Fig. 191).⁹¹⁷ A Hellenistic altar of peperin was also found here, close to the southern entrance of the chapel (Figs. 214, 220).⁹¹⁸

One of VAP's early aims was to investigate whether the summit and the western part of the Vignale plateau had comprised a sacred area with a cult building or even a temple with an associated ritual apparatus—geographically apart from the Acropolis, or if Vignale had a habitation area alongside a distinct cult building.⁹¹⁹ The assumption of a temple area was initially partly based upon a statement written in a notebook from 1960 regarding archaeological remains of a “monumental building” i.e., a large tufa foundation and the finds related to this structure, the monumental Stone Platform (Fig. 155).⁹²⁰ In its vicinity, in 1959–1960 the excavators located ten cisterns and wells. Some of these were excavated but not studied in detail. After examining the content in these features, VAP has found items which may indicate ritual activity on the Vignale summit. These can furthermore be related to the many finds of similar character found within the Bridge Complex.⁹²¹ The absence of larger sanctuaries or temples has also been indicated through VAP's many land and aerial surveys in the area. This is in agreement with Pohl, who has rather argued for small sanctuaries and cult buildings on the Acropolis, including the Borgo.⁹²² Below are some indications of ritual activities from various time periods on the Borgo and the Acropolis, as well as ritual activities documented on Vignale.



Fig. 214. Top of Hellenistic altar found close to the southern entrance of the Byzantine and medieval chapel on the Acropolis (photograph by C.W. Welin, courtesy of SIR).

Deposits in wells and cisterns

Placing pottery and other finds in wells and cisterns may emphasize the importance of treating certain paraphernalia in a dignified way, perhaps ceremonial.⁹²³ If we consider the preserved items found inside wells or cisterns on Vignale as the result of a cleaning process only, then the “waste” would likely have been more extensive in both volume and variety of types.⁹²⁴ The examined water installations (cisterns WI-1, WI-2, WI-5, and WI-6) contained pottery related to wine drinking and eating, as well as terracotta items possibly associated with ritual activities. The homogenous content of cistern WI-6, was both unlike that of the other cisterns, and of special note, and may be interpreted as a ritual deposit dating to the middle of the 6th century BC. The “Pozzo Pacchiarotti” (WI-3), containing 4th–3rd BC century drinking and eating vessels, may be interpreted as either an ancient ritual deposit or a temporary deposit of material from disturbed tombs nearby.

The archaeological items found in, or close to, the water installations likely indicate activities related to cult and rituals associated with wine offerings (libations) to the gods. Various Etruscan dedicatory inscriptions to male and female divinities and ritual words, mostly on drinking vessels, are mainly found

⁹¹⁶ Colonna & Backe Forsberg 1999; Backe Forsberg 2005, 128–135, 158–165, 167–172, tables 39–40, on different functions of the Bridge Complex on the northern side of the Pietrisco brook. The building was interpreted as a natural sanctuary with a “*sacellum*” dated to the 6th century BC and later.

⁹¹⁷ Berggren, E. 1984; Thordeman 1962, 329–340, figs. 306–313; *San Giovenale* VI:4.

⁹¹⁸ Mark 1962, fig. 329; EB notebook 1958. See also *Appendix 3* in this volume. The restored altar is exhibited in *San Giovenale—2500 anni di tradizione vitivinicola dal 25 giugno 2016* in the Museo Nazionale Etrusco Rocca Alborno in Viterbo (Fig. 192); Backe Forsberg & Holmgren 2016a.

⁹¹⁹ The Vignale plateau at *Falerii veteres* had a sanctuary on the eastern part and a habitation on the western, Carlucci *et al.* 2007, 40–45, figs. 1–2, pls. 2–3.

⁹²⁰ FB notebook 1960. As noted above, our conclusion is that the basement/platform of reused tufa blocks of various sizes is of late date, after the construction of the so-called Cultivation Trenches (CT1–3). See further on the Stone Platform in *Chapter 4*. See also the four cultivation phases in Ciacci & Zifferero 2007, 265–268.

⁹²¹ Backe Forsberg 2005, figs. 76, 79, 90–93, basins with four crosswise-placed lug feet (*teglie*), perforated vessels, Etrusco-Corinthian pottery, Etruscan letters and graffiti on drinking pots, see also Colonna & Backe Forsberg 1999.

⁹²² As noted in Pohl 1984, 93.

⁹²³ Nagy 2011, 113, 115.

⁹²⁴ Bailo Modesti *et al.* 2005a, 193–214.

at the Pietrisco Bridge Complex.⁹²⁵ But the inhabitants atop the Vignale plateau have also produced important epigraphic evidence of similar function and use.

Etruscan inscriptions and graffiti on drinking vessels

The epigraphic evidence on banquet sets from the 6th and 5th centuries BC, especially connected to wine rituals, is quite limited on the Vignale plateau compared to San Giovenale in general, *viz.* those found at the Bridge Complex,⁹²⁶ in the Borgo settlement, and in the surrounding tombs (Table 9).⁹²⁷ There are nine Etruscan inscriptions documented on Vignale in all. Seven of these occurred on drinking and eating pots as well as serving vessels of various fabrics and dates in the water installations WI-4, WI-5, and WI-6. The bucchero cup (Cat. no. 16, Fig. 99), found in cistern WI-4, was inscribed with the Etruscan letter M (= š) under the base.⁹²⁸ Another example comes from the bottom of cistern WI-5 where a bucchero base of a cup or bowl was found, with an incised cross X (letter or graffito?) in its interior (Cat. no. 101, Fig. 128).

Noteworthy are the inscriptions found on three bucchero cups from cistern WI-6 (Table 5), namely the inscribed letter N in the centre of the stemmed carinated *kantharos* (Cat. no. 53, Fig. 111), the graffito X inside the stemmed *kantharos* (Cat. no. 52, Fig. 111), and the inscribed cross on the exterior of the ring-base of a coarse ware bowl from cistern WI-6 (Cat. no. 65).

Alongside the seven examples from the water installations, an Etruscan black-glazed bowl with two letters (*ai*) inscribed on the base and dated to the 3rd century BC was found by VAP on the ground surface in the westernmost part of the plateau (Cat. no. 132, Fig. 153). The inscription has been interpreted by Colonna as short for *aiser* meaning “to the gods” and will be discussed below.⁹²⁹ The household vessel, coarse ware/internal red-slip *dolium* with an impressed cross on the exterior of the rim (Cat. no. 153a, Fig. 162), was the only example with graffito found in the Quarry fill. One of the two

Etrusco-Campanian black-glazed bowls which were found on surface in the western tip of Vignale yielded two inscribed letters (*ai*) (Cat. no. 132, Fig. 153), interpreted by Colonna as “to the gods”.⁹³⁰

The nearby “*sacellum*” in the Pietrisco Bridge Complex is an exception with its 48 examples of Etruscan inscriptions and graffiti containing one to 15 letters on Etrusco-Corinthian and bucchero drinking vessels.⁹³¹ The inscriptions were of various categories such as male and female surnames, family names, divinities, and ritual words. The ritual word *mul*, the imperative form of the verb sacrifice, was inscribed on the body of a bucchero *kantharos*. The word *Xi* is present as an exterior inscription on a small Etrusco-Corinthian bowl⁹³²—it is also used in the above-mentioned *Liber Linteus*.⁹³³ Giovanna Bagnasco Gianni has recently interpreted the word *Xi* as the vegetation goddess Xi (Chi) with the same qualities as the goddesses Vei (Demeter) and Uni (Hera).⁹³⁴ Her ideas were presented in a recent article that listed all examples of the word *Xi* as a female chthonic divinity.⁹³⁵ Vesuna or (Vesi?), another female chthonic divinity, was inscribed on a bucchero *kantharos* dated to the middle of the 6th century BC and found at the Bridge Complex.⁹³⁶ The goddess turns up again on a bronze mirror from the 3rd century BC together with her consort Fufluns, together with Heracle and the divinity Svutaf.⁹³⁷ Fufluns’ name does not occur on any vessel at the Bridge Complex, but he is nevertheless present since the wine-drinking containers themselves are represented as the god.⁹³⁸ Dionysos or Fufluns/Bacchus has always been the wine god *per excellence*.

The cult of the wine god flourished during the middle of the 6th century BC or earlier, and Vulci is especially known as the centre for wine-making.⁹³⁹ During the Etruscan period, the Dionysiac iconography on the Attic black- and red-figured pottery imports depicts the involvement of the wine god in the various stages of wine-making. Dionysos paid visits to the vineyard, watching the satyrs climbing the vines, picking clus-

⁹²⁵ Colonna & Backe Forsberg 1999, 63–81; Backe Forsberg 2005, 123–126; *San Giovenale* V:3.

⁹²⁶ Backe Forsberg 2005, 77–79, 99–100, 152–154, 259, figs. 90–92, table 25, appendix 2; Colonna & Backe Forsberg 1999.

⁹²⁷ *San Giovenale* V:2, 216–217, 253, table 85, pls. 22, 24 (bucchero, Period 1), pls. 27–28, 31–33, 48, (bucchero, Period 2), pl. 89 kitchen ware bowl and cup from Period 2 str.; *San Giovenale* IV:1, appendix 3, fig. 194, pl. 12; Pohl 1982, 89–95; *San Giovenale* II:5, Cistern II, pls. 18, 22; Colonna 1997, 61–67. Inscriptions from tombs, see *San Giovenale* I:5, 123, brazier fragment inscribed with letters similar to *Larice Crepu*, cat. no. 9, pl. 52, chamber 9, appendix 1, *List of graffiti* by K. Berggren; *San Giovenale* I:6, 5; I:8, figs. 26, 28.

⁹²⁸ For the M-shaped sign of *tsade* (= š) used in Veii’s alphabet B dated to the mid-6th century BC, see Maras 2019, 141–142, fig. 15.2.

⁹²⁹ Colonna 2007. On votive offerings with inscriptions, public and private gifts, see Nagy 2016, 264–265. Maras 2009, 116–117, on *ais(er)*.

⁹³⁰ Level II, Squares M53/M54. Colonna 2007.

⁹³¹ Colonna & Backe Forsberg 1999; Backe Forsberg 2005, 77–78, 99, 152–154, figs. 79, 90–92, table 25.

⁹³² Colonna & Backe Forsberg 1999, figs. 4–5:17, 8:43, 10:43.

⁹³³ Colonna & Backe Forsberg 1999; Backe Forsberg 2005, table 25.

⁹³⁴ Cf. the cliff sanctuary at Macchia delle Valli (near Barbarano Romano and close to San Giovenale) dedicated to the vegetation goddess Vei/Demeter in Scapaticci 2014.

⁹³⁵ Bagnasco Gianni 2014a, 23–28; 2014b, 133, fig. 8; Maras 2013, 205–206, n. 63; Bellelli 2008, 111–114; Bonamici 2017, 62–63.

⁹³⁶ Colonna & Backe Forsberg 1999, 67, figs. 4:16, 5:17. See also Maras 2009, 104, 264, 267 on *Vesi* (?) Cr co. 1.

⁹³⁷ Wiman & Backe Forsberg 2006–2007; Mastrocinque 2014, 16, 165–167, fig. 16.

⁹³⁸ Pieraccini 2011, 127.

⁹³⁹ Werner 2005. See also Bonamici 2003, n. 317 on wine-making in the sanctuary of Volterra. Iozzo 2004.

ters of grapes and collecting them in baskets. He was always present at every step of the production process as well as at the pouring of libations and the drinking of wine.⁹⁴⁰ As it would seem, a divine presence was felt even where more pragmatic aspects of wine production occurred. The Attic black- and red-figure vessels found in the settlement areas at San Giovenale, in the “*sacellum*” and in the tombs, show that the Archaic Etruscans were probably familiar with the Greek wine god Dionysos and his iconography. A similar pattern can also be seen in the funerary content of many tombs in nearby Blera. For example, an Attic black-figure neck-*amphora*, attributed to the manner of the Greek painter Lysippos found in a *tomba di dado*,⁹⁴¹ in the Necropoli di Pian del Vescovo, shows the reclining god holding a bronze or golden *phiale* (on libation and the *phiale* vessel, see below) in his right hand while a satyr is pouring wine into the vessel from a large column-*krater*. The characters are surrounded by vines with clusters of grapes. Dionysos/Fufluns is often pictured with his typical attributes, a *kantharos* or a *rhyton* and often accompanied by his satyrs and maenads.⁹⁴² The *phiale*, may symbolize the practice of *lekanomantia*, i.e., making a prophecy in a liquid—in this case wine.⁹⁴³ The vine and the ivy branches clearly depicted in the scene symbolize the two aspects of the god, life and death. During later periods the vine branches were replaced by the ivy, a symbol for the god’s chthonic aspect. There are several hypotheses on when and by whom the Dionysos cult was introduced on the Italian peninsula. According to several scholars there was already a well-established Dionysos/Fufluns/Pachies cult at Vulci during the middle of the 6th century BC or perhaps earlier.⁹⁴⁴ Another suggestion is that the cult may have been introduced into the Faliscan area during the 8th century BC by the Greeks.⁹⁴⁵ Other scholars argue for an even later date.⁹⁴⁶

⁹⁴⁰ See Boardman 1974; 1979, Attic black-figure and red-figure vessels with Dionysiac motifs by the Greek painters Exekias, Lysippos, Leagros, Amasis, etc. Virgil has vividly described the rituals in honour of Bacchus in Verg. *G.* 2.

⁹⁴¹ The content of tomb A/1988 is on display in the Museo Nazionale Etrusco Rocca Alborno in Viterbo and the tomb is dated to the second quarter of the 6th to the beginning of the 5th centuries BC. The neck-*amphora* is published together with an Attic red-figured *kylix* by the Brygos Painter found in the same tomb, in Ricciardi 1992; Backe Forsberg 2009b.

⁹⁴² On *rhyta*, see Note 1007.

⁹⁴³ Pieraccini 2011, 134–135, fig. 13.

⁹⁴⁴ Bonfante 1993; Szilágyi 1981; Colonna 1991; Håkansson 2010, 42–61.

⁹⁴⁵ Håkansson 2010, 41–42 on the origin of the wine god and the etymologies of Dionysos, Bacchus, Pach, Fufluns, and Liber, see also Bonfante 1993. Martinelli 2017, 339–348, on “*dionisismo in Etruria*”. Dionysos pictured on Attic black- and red-figure vases, see Isler-Kerényi 2015, 16–39.

⁹⁴⁶ The name Fufluns first appeared on inscriptions in the second quarter of the 5th century BC according to Cristofani & Martelli 1978; Håkansson 2010, 58, n. 158; Van der Meer 2011, 125. In 186 BC the Bacchus

Considering the many examples of Faliscan vessels found at San Giovenale, it is tempting to hypothesize on the possibility that the Faliscans introduced the cult of Dionysos to San Giovenale as a result of the trading connections between these two societies.⁹⁴⁷ Faliscanizing pottery does appear in San Giovenale, where local potters may have produced ceramics, mostly *amphoriskoi* with vertical grooves, which are very similar to the Faliscan *amphoriskoi* (*Cat. no. 160, Fig. 165*).⁹⁴⁸

A few inscribed Faliscan impasto vessels dated to the 7th century BC were found in tombs at Falerii. The inscriptions, which yielded information on epithets of the wine god, confirm the cult of Dionysos/Bacchus among the Faliscan aristocracy during at least the 7th century BC. There is also a Faliscan call: “*Pravius, give the urn to the dear socia*”.⁹⁴⁹ The *socia* was a closed religious association of women. Could such an association have taken a foothold at San Giovenale? And if so, might it support the hypothesis of a female named *Fasthi Alsi* being a devotee or even a priestess of the cult of Vesuna/Vesi(?), the vegetation goddess whose name was inscribed on a bucchero *kantharos*? This goddess was related to Fufluns/Dionysos in his function as the wine god.⁹⁵⁰ Another chthonic divinity, Lurs Larunitla, is inscribed on the bottom of a bucchero cup or a bowl. Lurs seems to have been connected with Laran, the war god.⁹⁵¹ The god Lur, whose name was inscribed on a pottery sherd found at Cetamura in Chianti, has been interpreted as the god of oracle, fate, and fortune.⁹⁵² Recently,

cult was forbidden among the lower and the middle classes in Etruria, due to a threat to the aristocracy in the Senate, Håkansson 2010, 69–72; Ceccarelli 2016, 34.

⁹⁴⁷ A few family names with Faliscan origin inscribed on pottery found at San Giovenale may strengthen this hypothesis, see *Una and Larice Crepu* from the Borgo, in *San Giovenale* V:2, Colonna 1991; 1997; Olsson 2021, 146, 162, table 8.

⁹⁴⁸ See the Faliscinizing pottery esp. *amphoriskoi* with vertical grooves, in Pohl 1981, 62–64; *San Giovenale* V:2, 207–208, pl. 20; IV:1, 68, figs. 78–79, 282, pl. 11; Backe Forsberg 2005, fig. 77, cat. nos. 17–20.

⁹⁴⁹ Moretti *et al.* 1998, 43.

⁹⁵⁰ On the inscription “*mi fasthiia alsiia*”, see Colonna & Backe Forsberg 1999, 66, 78, figs. 4:15, 5:15a–b. The three-lettered beginning of the word *fasthi* (*fas*) has been interpreted in various ways by Colonna, one of which is a sacred place, Backe Forsberg 2005, 99–100, fig. 91:1, table 25. See also Olsson 2021, 141, table 8.

⁹⁵¹ Colonna & Backe Forsberg 1999, 67, 76, figs. 6:37, 10:37; Backe Forsberg 2005, 99, 133, 152, fig. 91:2, table 25.

⁹⁵² Thomsson de Grummond 2009, 181–183, 185, 264, votive feature 1, *Vitis vinifera* grape pips, votive features 2, one grape pip. Hundreds of grape pips (c. 450) were recently found at various levels in Well #1 at Cetamura del Chianti dated to Etruscan, Roman, and medieval times. The grape pips, wild and domestic, have now been analysed, see Thomsson de Grummond 2017, 13–18. On the morphometric analyses of *Vitis* seeds from Well #1, see Bouby *et al.* 2017, 289–293. Grapes were interpreted as ritual offerings together with apples, sorb-apples (the fruit of the service tree), and possibly pears found in a large storage jar (*dolium*) in votive deposit 1 in the courtyard of Building L at Cetamura del Chianti, see Thomsson de Grummond 2009, 51–52, fig. 1; Cottini 2009, 175, 177–179, on samples of *Vitis vinifera*, see pp. 181, 183 and 186. The offerings

a possible wine goddess has been identified at Murlo. In the exhibition catalogue *Vinum—Poggio Civitate and the goddess of wine* from 2015,⁹⁵³ the authors have published 30 interesting stemmed cups in buccheroid impasto and bucchero (*kantharoi* and *kyathoi*), sometimes with a fluted bowl and with an *omphalos* inside. These are decorated with reliefs, mostly on the handles which are shaped as a female figure with long hair and wings. The figures have been interpreted as the fertility goddess Uni/Astarte. Uni is here interpreted as the goddess of wine—a possible predecessor of Fufluns. All the cups are dated to the end of the 7th century BC and were used in banqueting.⁹⁵⁴ Besides Dionysos/Fufluns, Selvans, the Etruscan god of fields and forests, was an important deity. The twelve Etruscan votive statuettes holding *falces* high in their right hand have been interpreted as Selvans and these “reflect a well-developed association between cult and the vineyards.”⁹⁵⁵ No depiction of Selvans has been found in San Giovenale, but a noteworthy connection between Dionysos/Fufluns and Selvans should be mentioned. This regards the wine connection with the forests in terms of the wild vines.⁹⁵⁶

Pouring a libation—acclaiming abundance through wine

The Etruscans’ devotion to their gods and spirits, near water-courses and in the underworld, compelled them to please their entities with sacrifices, especially libations.⁹⁵⁷ As noted earlier, in San Giovenale we find traces of such activities in the extramural “*sacellum*” at the Pietrisco Bridge Complex. Here were documented drinking vessels with dedicatory inscriptions of chthonic and other divinities together with ritual words. Such examples are the inscription of the vegetation and chthonic goddesses Xi and Vesi/Vesuna and the gods Lurs and Laran,

seem to have been burnt on the hearth or the altar. See also the article on the chthonic god Lur in Van der Meer 2009, 217–227. The inscription is also on the upper side of a disc that crowns the top of a South Etruscan bronze candelabrum made in Orvieto or Vulci, dated to c. 400–350 BC. Since candelabra usually are found in tombs, this inscription seems to confirm Lur’s funerary nature, see Van der Meer 2009, 225–226; 2011, 66, 103, (“I [am] of Lur Larunitha”), Taylor 2015, 132, fig. 5 on Lur and Leinth the gods of fate and fortune. On Lurs, see Colonna & Backe Forsberg 1999, 67, figs. 6:37, 10:37; Backe Forsberg 2005, 99, table 25. See also Maras 2009, 116, 266–267, Cr co.6 on the inscription “*mi x...(-) arunithla*”. See further, Biedenharn & Thomson de Grummond 2009, 117, fig. 127, pl. 24.127.

⁹⁵³ Tuck *et al.* 2015.

⁹⁵⁴ The cups were found on Piano del Tesoro, the central plateau of Poggio Civitate, Tuck *et al.* 2015, 10–13, see map and reconstruction of the Orientalizing period on p. 12.

⁹⁵⁵ On Selvans and the twelve statuettes, see above, ‘Pruning the vines’.

⁹⁵⁶ Thomson De Grummond 2018, 48–51, appendix A.

⁹⁵⁷ Zinelli 2003, depictions on pottery referencing fountains, healing cults, and vessels used for water libations. Ricciardi 2003; Bouma 1996a, 282.

besides the word *mul* (sacrifice!).⁹⁵⁸ Together with the perforated vessels found at the Bridge Complex and on the Vignale plateau, these may indicate ceremonial activities for the underworld and the ancestors to the inhabitants.⁹⁵⁹ An analogy to this is the newly found Late Etruscan-Roman cliff sanctuary at Vetralla, where the fertility and chthonic goddess Demeter-Vei-Ceres was venerated.⁹⁶⁰ Traces of possible ritual practices in association with wine have been found in San Giovenale and in some cases also on Vignale. Here as elsewhere, wine was an important beverage in sacrificial rituals as well as in funeral rites. One of the procedures during such occasions was the practice of pouring a wine libation. These could take place at various settings such as banquets, in sanctuaries,⁹⁶¹ inside and outside tombs⁹⁶²—but also on top of the actual sepulchre.

A banquet or a symposium could start with a libation of wine made three times (Etr. *vacil*), usually poured by the head of the family.⁹⁶³ Libations of wine or other liquids could be poured in various ways, such as directly from an *oinochoe* or a *patera* (Lat.) into a receiving vessel occasionally with a small perforation in the bottom simulating a divine absorption (Fig. 215). Pouring a libation required a special vessel either of terracotta or precious metals.⁹⁶⁴ The *patera* is recognized

⁹⁵⁸ Colonna & Backe Forsberg 1999; Backe Forsberg 2005, 77–79, 99, 152–154, figs. 79, 90–92, table 25; Wiman & Backe Forsberg 2006–2007; Maras 2013, 205–206, n. 63. On the Etruscan word *xi*, see Bagnasco Gianni 2014a, 23–28; 2014b, 133, fig. 8, on rituals near water, see Letta 1992, 109–124; 1996, 317–339; 2012, 379–390; Bellelli 2008, 111–114; Bonamici 2017, 62–63.

⁹⁵⁹ Backe Forsberg 2005, 144–145, figs. 89:5, 90:11, 106. See, for example, *Tomba delle Cinque Sedie* in the Banditaccia necropolis at Cerveteri, Steingraber 2013, 665–666; Lulof 2011; The tomb altar in *Tomba Campana 1* at Cerveteri with three bowl-like depressions, connected with channels, probably functioned for libation rituals of honey and milk, and wine and water to the ancestors, as mentioned by Hom. *Od.* 11.24–29; Van Kampen 2011, 139. See also Ceci 2011, 89–90.

⁹⁶⁰ Scapaticci 2014, 138–139.

⁹⁶¹ Examples of Archaic Etruscan and Late Etruscan/Hellenistic *paterae* in sanctuaries, see Backe Forsberg 2005, fig. 90:26. A small bucchero *phiale* and two black-gloss *paterae* in Thomson de Grummond 2009, 113, fig. 121, pl. 23:122; 2000, pls. 6b and 14:13 and a miniature *patera* or stopper in grey coarse ware pl. 24:128; Baglione 2013b, 624–627 on the fragmentary Attic red-figure mesomphalic *patera* attributed to the Brygos Painter (480/470 BC) with a diam. of 41.7 cm found in the southern sanctuary at Pyrgi.

⁹⁶² Pottery and other utensils found in the *dromos* and around the tomb in cemeteries in the northern Etruria, e.g., in Populonia and Vetulonia, are evidence of cultic activities, Riva 2010, 134. On feasting, inside and outside the tomb, see Pieraccini 2016a. See also Firmati 2011a, fig. 8, Cancellone necropolis *tomba 7*, a Hellenistic tomb with drinking and eating vessels together with several *paterai*, now displayed in the Archaeological Museum at Tarquinia. Winter 2009; Steingraber 2013.

⁹⁶³ Pieraccini 2011, 135–136. On *vacil* (libation), see Van der Meer 2007, 83, 126–127 (8.9–10); 2014, 162–163, rituals of prayers and offerings are called *aisna* or *eisna*. A wine or water libation (*thi vacil*) was poured to special gods at the end of the ritual, Van der Meer 2007, 40–41.

⁹⁶⁴ Sannibale 2013, 100–101, the ribbed *patera* of various precious metals with or without omphalos, from the eastern courts, was a valuable

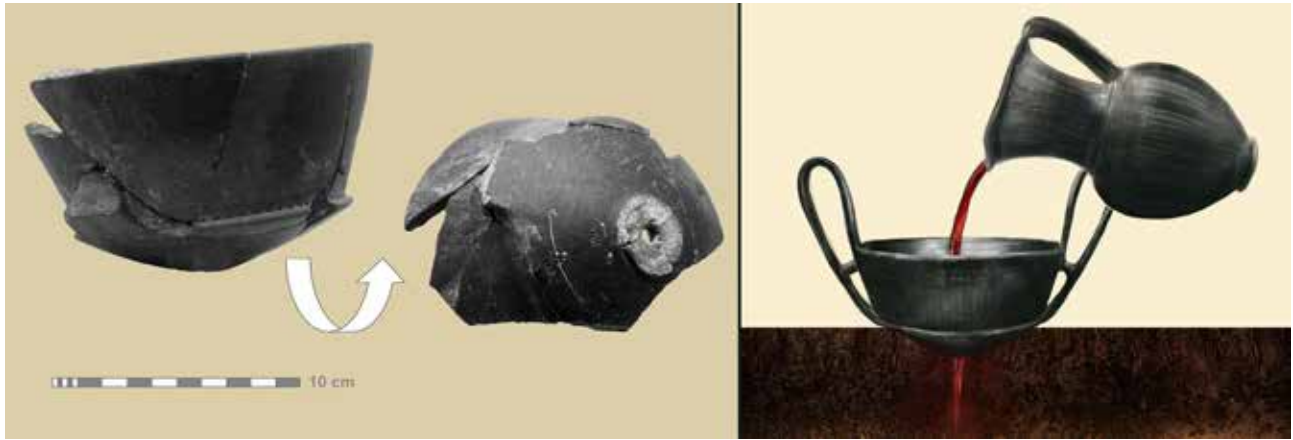


Fig. 215. Left: Bucchero kantharos (stem removed) with perforated hole in bottom used for pouring a libation to the chthonic deities (Cat. no. 55, Fig. 112). Right: reconstruction of its use (illustration by R. Holmgren).

as a shallow bowl with a navel (*omphalos*) in the centre. This vessel was often used together with an *oinochoe*, a trefoil jug filled with different liquids such as wine, milk, or honey. The substance was poured from the *oinochoe* into the *patera* and subsequently onto a fire altar or in to the ground.⁹⁶⁵ In Greek we know the latter as the *phiale*.

Several *paterai* of various fabrics and dates have been excavated at San Giovenale, for example, on the Acropolis where a transitional impasto bowl was found at the Spring-Sanctuary.⁹⁶⁶ A Grey bucchero *patera* was furthermore retrieved from the habitation quarters on the Borgo.⁹⁶⁷ There are also two Etrusco-Campanian black-glazed *paterai*, dated to c. 250–150 BC, of which one was in a fragmentary state within cellar O1 on the Borgo, close to the wine presses (*pestarolae*) on the *Spina*.⁹⁶⁸ A small Etrusco-Corinthian *patera* with omphalos

was also documented from the southern bridge abutment, i.e., directly below the northern tip of the Vignale plateau.⁹⁶⁹

Since the *patera* is a ritual vessel connected to funerary rites, these are often depicted on Hellenistic stone sarcophagi, where the deceased is either reclining or lying on his or her back with the vessel—typically in the right hand symbolizing sacrifices to the gods of the underworld. *Paterai* and *oinochoae* are furthermore pictured in relief on Hellenistic and Roman altars and sarcophagi.⁹⁷⁰

With regard to libation it may also be appropriate to touch upon the subject of funerary rituals in the necropoleis, before and after burials.⁹⁷¹ The reclining men and women on

prestige vessel intended for kings and government officials. See, for example, the Attic black-figure neck-*amphora* with a reclining Fufluns holding a *patera* of either gold, copper, or bronze found in a tomb at Blera, now displayed in the Museo Nazionale Etrusco Rocca Alborno in Viterbo. See also Ricciardi 1992, 492, pl. 83b; Backe Forsberg 2009b, 193–203. The vessel may resemble the golden *phialai* found in Nimrud, Ramazzotti 2010, 46, fig. 6b–d.

⁹⁶⁵ Lissarrague 1995, pouring libations of wine, water, milk, or honey from vessels such as *phiale*, *oinochoe*, *choai*, and *hydria*. *Phiale* and *choai* are also strongly connected with funerary rituals. An interesting note in an exhibition catalogue from Poggio Civitate is “young wine” (Etr. *busna vinum*), which was used within the libation ritual in order to invoke the deities, Tuck *et al.* 2015, 10. See also Pieraccini 2011, 135 on the same expression but with a different interpretation of the word *busla*, probably meaning *amphora* (?).

⁹⁶⁶ *San Giovenale* II:4.

⁹⁶⁷ *San Giovenale* II:4, pl. 21:533. Not a single red impasto *patera* has been found at San Giovenale, but they are common in Etruscan tombs at Poggio Buco from c. 750 BC, *San Giovenale* V:2, pl. 26:WA-621.

⁹⁶⁸ Two rock-cut features with lateral staircases, the cisterns O1 and O2, on the north-west slope west of the Borgo, *San Giovenale* V:1, 132,

149–150, figs. 48–49, 121–122, 128, 135; these were dated to period 4 (4th to 2nd centuries BC). On the contents of cisterns O1–O2, see *Notes* 849–851.

⁹⁶⁹ One, quite worn, fine/late cream ware (?) *patera* from the southern side of the Bridge Complex, see *App. 1*, no. 89, Fig. 239 in *Appendix 1*; Backe Forsberg 2005, fig. 90:26.

⁹⁷⁰ Steingraber 2009, 82–83 in the Barbarano Romano Museum and the Archaeological Museum in Tarquinia. See also van Beek 2011.

⁹⁷¹ Damgaard Andersen 1993, 7–66, esp. 29–56, figs. 37, 44, 56a–b, 57c–e. Evidence points to how important the Etruscan ancestral cult was in the society as well as how important the *pater* and the *mater familias* were during the same period. The anthropomorphic figurines and statues found in or beside cremation tomb urns, or sitting in thrones in the tombs, seem to be the ancestors, see fig. 37 (the Montescudaio urn with figurines on the lid eating and drinking in honour of the deceased person). Damgaard Andersen 1993, 3 has suggested that there is a connection between the ancestral cult and the funeral banquet, see also the reconstruction of the funerary urn in a tomb, fig. 44, showing the connection with the ash urn, banquet table, and the throne. See also the statues sitting on thrones in *Tomba delle Cinque Sedie* at Cerveteri, figs. 56a–b, 57c–e. The throne placed outside or inside tombs was a token of the chthonic gods’ presence. Two special types of altars, one used for offerings and one for tomb offerings, and offering tables are connected with ancestor cult and the funeral banquet, Damgaard Andersen 1993, 52–53, 56. See also Pieraccini 2016a, 145; Lulof 2011.



Fig. 216. Photographs of large tumuli showing the remains of stone-built ramps, spanning the trenches surrounding the tombs. These installations, which facilitated access to the top of the tombs, can here be seen in a tumulus (Casale Vignale 51) in San Giovenale (left), compared to a similar stone ramp in Cerveteri (right) (photographs by Y. Backe Forsberg).

the Hellenistic cist lids may illustrate a banquet or a symposium in the afterlife.⁹⁷² Among the pottery debris in San Giovenale's necropoleis, more precisely in the Montevangone tomb (P.S.1 dated to 600–550 BC), fragments of only two small Etrusco-Corinthian *paterai* and one ordinary bucchero were found inside the chamber.⁹⁷³ In addition, tomb P.8 in the Porzarago necropolis contained three bucchero *paterai* dated to 600–525 BC.⁹⁷⁴

During the Archaic period the memorial rituals for the ancestors may have taken place on top of the tumulus and on the roof of a cube tomb.⁹⁷⁵ Two large tumuli, one in the Casale Vignale necropolis (Casale Vignale 51), and another in

the Porzarago necropolis (P.1), have remains of a small stone ramp (bridge) that spanned the trench surrounding the sepulchre, facilitating the approach to the top (Figs. 213, 216).⁹⁷⁶ In San Giovenale though, we find no traces of narrow-cut steps from the ramp up to the top of the mound. On the other hand, such steps were observed on the tumuli at Caere and in the Tolfa Mountains, as well as in Tarquinia and Cortona. It has been suggested that these steps were utilized by the priests and relatives of the deceased.⁹⁷⁷ In addition, the Terrone tu-

⁹⁷² Krauskopf 2006, 70, v.5.

⁹⁷³ *San Giovenale* I:8, 124, P.S.1:51 pl. 54, and P.S.1:52 both with a diam. of 11.7 cm, P.S.1:22, pl. 53.

⁹⁷⁴ *San Giovenale* I:5, 58, P.8:34, 35, 37? (*phiale* or lid) found in the chamber (pl. 28).

⁹⁷⁵ Tobin-Dodd 2015, 53–54; Steingräber 2013, 665–666; 2016, 106–107, n. 13, fig. 9.2–3; Riva 2010, 130. See, for example, Prayon 2010,

75–80, who underlined the general idea of the tumulus with ramp and stairs as a monumental altar.

⁹⁷⁶ Tobin-Dodd 2015, 53, Tomb 240 and Tomb 263.

⁹⁷⁷ Tobin-Dodd 2015, 53, nn. 299–300, Tomb 240, Tomb 263; Riva 2010, 130–133; Steingräber 2013, 665–666; Sannibale 2013, 116–117 on stepped podium, figs. 6.22, 6.24. See Boëthius 1962, 75, fig. 86, a photograph of two large tumuli with constructed stone ramps along the funeral street in Caere. See also the monumental stone altar linked to the large Orientalizing tumulus Sodo II at Cortona used in funeral rituals, Nielsen & Warden 2017, 1327–1328, fig. 71.8–9.



Fig. 217. Aerial view over Necropoli di Pian del Vescovo in Blera, showing cube tombs reached via a connected lateral rock-cut staircase, looking north (photograph by R. Holmgren).

mulus at Blera and the large tumulus at Grotta Porcina both have ramps.⁹⁷⁸

Similar funeral rites and ceremonies for the ancestors may have taken place on the roof of the San Giovenale cube tombs via a lateral rock-cut staircase (Fig. 217).⁹⁷⁹ Here, rituals of different kinds may have been performed at altars situated on

the roof,⁹⁸⁰ and some scholars even interpret the entire cube tomb with its level roof as a monumental altar.⁹⁸¹ Although debris from burnt sacrifices is often discovered on the roof, such remains have not been found on the cube tombs at San Giovenale.⁹⁸² Small or large squares in front of the tombs were also utilized as cult places—such a place in San Giovenale is “La Piazzetta”, situated at one of the western entrances to the Casale Vignale necropolis close to the Dogana (Figs. 218–219).⁹⁸³

⁹⁷⁸ Naso 1996, 154–164, 226, figs. 120–121, 125. For the Grotta Porcina necropolis near Vetralla, see Prayon 1975, 81–85, pls. 48–52, 81 on tumuli with various types of ramps at Cerveteri. On tumulus with ramp and altar on top in the Terrone necropolis at Blera, see Romanelli 1986b, 79–80 and Ricciardi 1990b, 151–152, figs. 1, 8–10. Prayon 2010, 77, figs. 2:1, 5; Gunter 2016, 344 has commented upon specific Etruscan funerary traditions, such as large stone ramps on tumuli used in burial rituals, that indicate foreign elements.

⁹⁷⁹ Tobin-Dodd 2015, 54, 174, cube Tomb 244, in the Casale Vignale burial-ground, and the semi-cube Tombs 102–104, in the Castellina Camerata necropolis. Similar cube tombs with lateral stairs from the Archaic and Hellenistic periods have also been discovered at Blera and San Giuliano, e.g., Necropoli della casetta a Blera, an Archaic semi-cube tomb, tomb 13, at San Giuliano e.g., *Tomba del Cervo*, *Tomba della Regina*. See Steingraber 2013, 656–663; 2009, 13, 60, 63.

⁹⁸⁰ Colonna 1967, 22; Tobin-Dodd 2015, 54.

⁹⁸¹ Tobin-Dodd 2015, 54; Prayon 2012, 202–206; Steingraber 2009, 59–60; 2013, 665–666; Colonna 1967, 22.

⁹⁸² Tobin-Dodd 2015, 54. Burnt debris in connection with altars has been found at other places such as Pisa, Chianciano, and Tarquinia. On funerary rites, see also Van der Meer 2011, 50–62.

⁹⁸³ Tobin-Dodd 2015, 54–55, 174–176. “La Piazzetta” housed tombs dated to the 6th century BC, Tombs 244–249. See also Grotta Porcina with its rounded altar in Steingraber 2013, 666.



Fig. 218. “La Piazzetta” located near one of the western entrances to the Casale Vignale necropolis. Among various chamber tombs, a cube tomb is seen centrally in the photograph with the Dogana passing to its right, looking south-east (photograph by R. Holmgren).

In addition to using the *patera*, the perforated receiving vessel could facilitate the interaction with the chthonic deities and spirits. A perforation in the bottom of an open or closed vessel, such as plates, bowls, cups, jars, and jugs, is one of several indications of ritual activities addressing the chthonic domain (Fig. 215). Similar finds have recently been noted in San Giovenale from the “*sacellum*” at the Pietrisco Bridge Complex, and elsewhere at San Giovenale;⁹⁸⁴ for example, a base of a bucchero cup/bowl (SGBRN 62-626, Y15) and a ring-base of a red-slip jar with a large rounded hole (SGBRN 60-002) in the “*sacellum*”;⁹⁸⁵ and from the north slope of Vignale, an Attic black-figure *kylix* with a joining fragment (App. 1, no. 31, Fig. 235) had a small perforation which may be a mending-hole, and a coarse ware bowl with a pre-fired perforated base (App. 1, no. 59, Fig. 237).⁹⁸⁶ As for the Vignale plateau, a perforated bucchero *kantharos* was present in cistern WI-6 (Cat. no. 55, Figs. 112, 215) as well as the fine/late cream ware bowl with a drilled hole in its base in well WI-3 (Cat. no. 119, Fig. 139).⁹⁸⁷ A black-glazed plate with a large perforation in the base was found in the Borgo habitation⁹⁸⁸ and an Etrusco-

Corinthian bowl/plate with a perforated base was reported from inside a chamber tomb in the Valle Vesca necropolis.⁹⁸⁹

Doubts regarding whether the bases were being deliberately perforated or not were raised in the late 20th century. Examples of household pottery with perforated bases were reported in votive deposits at Satricum and Caere which pointed to a ritual use.⁹⁹⁰ Since then confirming evidence from several sanctuaries has turned up. Fragments of bucchero cups with a perforated base were found in a well on Piano di Comunità at Veii.⁹⁹¹ Red impasto jars with perforations have also been found in a cistern at Piazza d’Armi.⁹⁹² Especially interesting is the hypothesis on the ritual use of bucchero *kantharoi* by Jean José-Maria Gran-Aymerich and Jean MacIntosh Turfa.⁹⁹³ Similar perforations have recently been published from some Etruscan sanctuaries and temples, votive deposits, and near altars⁹⁹⁴—for example, the sanctuaries at Caere, Vigna Parro-

⁹⁸⁴ Backe Forsberg 2005, 80, 102, n. 583, figs. 90, 106, on the functions of perforated vessels see pp. 144–145.

⁹⁸⁵ Backe Forsberg 2005, 80, 145, fig. 106.

⁹⁸⁶ See also Backe Forsberg 2005, 80, 144, figs. 89:5, 90:11, 106, appendix.

⁹⁸⁷ Backe Forsberg 2005, 80, figs. 89:5, 90:11, 106.

⁹⁸⁸ This perforated base is still unpublished. Note 423 in Backe Forsberg 2005, 80 is unfortunately misleading.

⁹⁸⁹ *San Giovenale* 1:8, VVIII:71, fig. 29.

⁹⁹⁰ Maaskant-Kleibrink 1995; Bouma *et al.* 1995, Bouma 1996b; Cristofani *et al.* 2003, 50, pls. 28:333, 30:333, a perforated bowl from the *fosse di fondazione* of the temple at Vigna Parrochiale.

⁹⁹¹ Bellelli Marchesini 2009a, 69, 101, esp. fig. 29:3.

⁹⁹² Van Kampen 2009, 253, fig. 24. See also Acconcia *et al.* 2009, fig. 28:2.

⁹⁹³ Gran Aymerich & MacIntosh Turfa 2013, 397, 400–401 on bucchero *kantharoi* used as ritual vessels. On perforated vessels, see Carlucci & Maneschi 2013, 51–52, 64, 67, nn. 92, 106, figs. 3, 10a–b, 24, 28c; Michetti 2013, 135–137, n. 58, figs. 9, 10c.

⁹⁹⁴ Bellelli 2014, 48, figs. 9–12. A miniature cup with perforated bottom found in votive feature 5, see Thomson de Grummond 2009, 85, fig. 91.

chiale, Gravisca, and Pyrgi.⁹⁹⁵ Lammert Bouke van der Meer has stated that vessels with perforated bottoms were used for libations to the underworld during the 8th century BC, as well as to the deceased in funeral rituals (grave vases).⁹⁹⁶ At Pithekoussai perforated *kraters* put on top of tumuli may be indications of post-burial libations, a custom also used during the 8th century BC in the Kerameikos at Athens. A second-century BC Roman ritual, as understood from a funerary epigram, included pouring a wine libation or other fluids through a terracotta/lead pipe or a perforated *amphora*.⁹⁹⁷

The votive pit was situated close to an earlier cavity from Phase 1 where liquid offerings had been made. See Carlucci & Maneschi 2013, 59–70, figs. 24, 28–29, on ritual perforated vessels from “*edificio γ*” and Piazzale Nord in the sanctuary at Pyrgi. See, for example, Michetti 2013, 136, figs. 9, 10c on the perforated bottom of a closed vessel found on altar ζ.
⁹⁹⁵ Backe Forsberg 2005, chapter 3.4.3 ‘Rituals at the Pietrisco bridge: eating, drinking and libations’, 102, 146–147, nn. 583, 911–913; Beletti Marchesini 2013, 11–40; Carlucci & Maneschi 2013, 41–70, n. 92, figs. 24, 28; Baglione 2000, 337–382; Valentini 1993, 25–26, tipo 11, tav. 5. On the *olpe* from “*edificio β*”, see Gentili 2013, 106–107, fig. 6 and on the discussion of the libation vessel esp. the large Attic *phiale* see p. 107 and fig. 1. See also Baglione 2013a, 73–76, figs. 1–2 on this Attic red-figure *phiale* found in the Southern Sanctuary at Pyrgi and probably painted by the Onesimos Painter 480/470 BC. However, in Baglione 2013b, 624–627, fig. 30.8, the *phialai* has been attributed to the Brygos Painter (480/470 BC). The quite large quantity of Greek black- and red-figure pottery, as well as the Etrusco-Archaic fragments found scattered at the Pietrisco Bridge Complex is important to consider in comparison to the Attic finds at Pyrgi, see Backe Forsberg 2005, 126–127, fig. 82:1–12, tables 37, 40, see also Backe Forsberg 2009b, 193–203, on a fragmentary *kylix* found at the Bridge Complex attributed to the Brygos Painter. Ardovino 1999, 169–187. See also *Caere* 3:1, 154–155, fig. 367:E28.1 the mesomphalic *phiale*, with a cross inscribed on the omphalos. The black-glaze miniature *phiale* with inscription on the outside of the vessel found at Piazzale Nord was probably connected to “*sacello α*”, see Michetti 2013, 140–141, fig. 12.

⁹⁹⁶ Van der Meer 2011, 70–71; Carlucci & Maneschi 2013, 59–70, esp. 64–69.

⁹⁹⁷ One perforated closed achromatic vessel from the altar ζ on fig. 10c interpreted as a vessel used in libations directly onto the ground for the chthonic divinities, see Michetti 2013, 136–137. See also the perforated achromatic Late Etruscan jars from Piazzale Nord, near building α, fig. 28:c and the small perforated Attic black-glaze bowl in building γ used for libations, figs. 22–23.1 and 24. Similar rituals are reported from the Orvieto santuario della necropoli di Cannicella, see, n. 57, Santuario di Policoro n. 58 and Vigna Parocchiale. See also the large jar with perforated bottom found in votive deposit κ in the Santuario Meridionale at Pyrgi: the hole was “*successivamente richiuso con una piccola colature di bronzo*”, 137. At the Santuario Meridionale at Pyrgi (fig. 1) similar rituals with perforated *olpai* as at Pontecagnano, in Bailo Modesti *et al.* 2005a, 210–211, fig. 22. Baglione 2013b, 622, a large impasto jar with perforated bottom found close to the altar λ in the southern sanctuary at Pyrgi used for libation to Demeter and Kore. A coarse ware bowl with inscription and perforation in the base was found in the Late Archaic building at Casale Pian Roseto (Veii), see Di Sarcina 2012b. Ambrosini *et al.* 2009b, fig. 28:2, n. 204, red-brown impasto jars with perforated bases found in the cistern at Piazza d’Armi. Buccheri cups with rather large perforations in the bases made either before or after firing, were found in a deep *pozzo* on Pianoro Sommitale at Veii. Piano di Comunità, see Beletti Marchesini 2009a, 101–102, n. 355, figs. 3.1–2, 4.1–2, 29.1–4, min-



Fig. 219. Chamber tomb 245 in “La Piazzetta” below the Casale Vignale necropolis. Note the later incised Christian cross over the entrance to the tomb, looking north-east (photograph by R. Holmgren).

Objects supporting wine rituals?

This section considers whether the red-slip basin with four crossed lug feet and the terracotta ram’s head (one interpretation of which is a fire dog) from cistern WI-6, already touched upon in *Chapter 4*, may support ritual activities including wine (*Cat. nos.* 48, 67, *Table 5*). These objects are not necessarily directly connected to wine, but were found in the same context as many artefacts that were, and hence support offerings through liquids. The contents of WI-6 differ significantly from the other nearby and examined cisterns and wells—this with emphasis on a particular type of vessels often connected to wine (*Tables 9, 11, Graph 3*). It should be noted however that the relatively few documented water installations on Vignale can not represent all such installations present in the area. The complete specimen of the large four-legged basin together with a few separate lugs of

ature fire dogs (*alari*) were also found in this *pozzo*, fig. 29.8. A jar with perforated base from Pontecagnano, Cerchiai 2017, 305–307, fig. 7. Cf. the Geometric Dipylon amphora (c. 740 BC) with perforated base found in the Kerameikos cemetery in Athens.

the same type (*Cat. nos. 48–51, Fig. 110*), can be dated to the middle of the 6th century BC.⁹⁹⁸ Fragments of a similar type have been found in the debris of the extraurban “*sacellum*” at the Bridge Complex as well as examples from the 8th-century BC votive deposit on the Acropolis.⁹⁹⁹ As shown in *Chapter 4*, this basin is usually found together with a bowl, a jar, and a lid as a set, with similar finds occurring in numerous sacred contexts.¹⁰⁰⁰ However, many examples of this type of basin have also been recovered in the habitation and working quarters on the Borgo.¹⁰⁰¹ In 2004 Zifferero published a new hypothesis on the function of these ritual basins. He proposed that the vessels originated from Latium and spread northwards and that they should function as a cover for baking unleavened bread (*testi di pane*).¹⁰⁰² One type of the vessel has a small vent hole in the wall above one of the lugs which may point to the interpretation as a cover.¹⁰⁰³ His hypothesis has been supported by several scholars.¹⁰⁰⁴ For the time being, the current author Backe Forsberg suggests that the domestic and ritual basins from cistern WI-6 were used for cooking and preparing dough since they lack a vent hole; the dough was used for making *liba* cakes that were used in conjunction with the wine offerings. These wine offerings are indicated by the presence of the perforated vessels and by the inscriptions on others.¹⁰⁰⁵ It is possible that the content of WI-6 represents artefacts that required ritual deposition after the 6th-century BC post-earthquake clean-up.¹⁰⁰⁶ The ram’s head (*Cat. no. 67, Fig. 113*) from the same cistern is another object that may support this assumption. In the context of WI-6 it may be interesting to ask whether the ram’s head can be related to any liquid, perhaps wine? There are several *rhyta* (libation/drinking vessels), both in terracotta and in metal, shaped in the form of a ram’s head, some perforated.¹⁰⁰⁷ If the fragmentary

rams’ heads found on the Borgo formed part of ceramic decorations attached to a cauldron or jar, they may be connected to the use of liquids. If so, the ram’s head from Vignale as a ceremonial object may therefore be indirectly related to the earlier-identified wine offerings.¹⁰⁰⁸ But as stated before, an interpretation of the ram’s head as a terracotta fire dog should not be excluded.¹⁰⁰⁹

Also associated to wine and libation are the altars themselves. Let us therefore briefly touch upon these—even though the nature of altars is too general to give any direct evidence of the use of wine. This may however be an occasion to briefly describe the altars found in San Giovenale, one of which has never been described in detail before. Evidence of religious remains in San Giovenale was confirmed west of the medieval castle in association with the Byzantine and medieval chapel (*Fig. 191*), and dated to *c.* 7th–8th centuries AD and to the 13th century AD.¹⁰¹⁰ Whether the chapel indicates a continuation of an earlier temple or sanctuary is worthy of consideration. Outside the southern wall of Sanctus Juvenalis’ chapel, during the excavation in 1958 Erik Berggren found the upper part of a rectangular grey peperin altar. It is dated to the Hellenistic period *c.* the 4th–3rd centuries BC (inv. no. AP5/58) (*Figs. 214, 220, Appendix 3*).¹⁰¹¹ The surface of the altar table

wine could flow directly into the mouth or onto the ground. *Rhyta* in precious metals or in clay with rams’ heads were particularly popular during the mid-5th century BC. Besides the *kantharos*, Dionysos is often depicted with a *rhyton* in his left hand, for example, on Attic black-figure *amphorae*, *CVA Malibu*, pl. 12 (86.AE.65, fig. 2); von Bothmer 1985, 63, figs. 43, 46. On the symbolism of rams and sheep, see p. 142, n. 65. The drinking horn was replaced by the *kantharos* as Dionysos’ special vessel on Attic pottery, Carpenter 1986, 117–123 and Håkanson 2010, 55, n. 43.

¹⁰⁰⁸ *San Giovenale* II:5; see also a jar from a tomb at Narce, displayed in the Museo Archeologico dell’Agro Falisco at Civita Castellana, De Lucia Brolli 1991, 114, fig. 92.

¹⁰⁰⁹ On terracotta objects out of contexts such as the ram’s head and the female terracotta antefix/*ex voto*, see Berggren & Moretti 1960, 3–4, figs. 1–2; Hanell 1962, 309–310, fig. 282; *San Giovenale* II:5, 11–12, n. 2, 50, fig. 1; V:1, 34, figs. 14–15; V:2, 191, cat. nos. 25–26, see also n. 64. The question is whether the examples are architectural or sculptural terracottas. Pohl in *San Giovenale* V:2 discusses whether the terracotta ram’s head, cat. no. Sp. 25, fig. 15, had functioned as a “gigantic fire-dog or spit-support”, see also the reference in n. 63 where the head might be interpreted as a zoomorphic sacred vessel.

¹⁰¹⁰ Berggren, E. 1984. The first chapel was built in *c.* 7th century AD based on the Forum ware dated to *c.* AD 600 found near the chapel, Berggren, E. 1984, 83–85, figs. 41–44; *San Giovenale* II:2, plan B. The second chapel may have been constructed when the castle was built in the 13th century AD, Hanell 1962, 310. The dates are confirmed by E. Ferracci (pers. comm.), who has examined the medieval pottery from the chapel.

¹⁰¹¹ See further in EB notebook 1958, 61 (SGAP, trench AP5/58 find 3), where also other findings, namely two rectangular peperin blocks, were recorded (*San Giovenale* Archives BI, Vol. 6). The grey peperin altar was highly probably imported to San Giovenale, since this particular type of lithic tufa was not available in the area, see further *Chapter 5*, ‘The archaeological evidence for rituals at San Giovenale’, and in Hanell 1962, 297, 301, figs. 269–270. The altar was restored by Dr Agneta Freccero

⁹⁹⁸ Colonna 1963–1964. On other classifications of the basins, see Zifferero 2000; Bouma 1996a, 377, and ‘Comments on finds in cistern WI-6’ in *Chapter 4*.

⁹⁹⁹ Backe Forsberg 2005, fig. 76. The “*sacellum*” may be called an extramural/extraurban sanctuary, unlike the building in Area B on the Acropolis (named the “Spring-Sanctuary” and interpreted as such); Edlund 1987, 41–42; Edlund-Berry 2006, 120; *San Giovenale* II:4, 82–83, figs. 2, 6; II:4, 13, 46, 75, fig. 2, pl. 24.

¹⁰⁰⁰ Bouma 1996a. See ‘Comments on finds in cistern WI-6’ in *Chapter 4*.

¹⁰⁰¹ *San Giovenale* V:2, 216, pls. 46, 66. See also *San Giovenale* II:2, 22, 28–29, nn. 94–95, pl. 12:15; III:3, 88–89, pl. 10. Bouma 1996a and Maaskant-Kleibrink 1992, 117 have documented similar bowls/basins from habitations.

¹⁰⁰² Zifferero 2004. See also *Note 351*.

¹⁰⁰³ See *Chapter 4*, ‘Comments on finds in cistern WI-6’.

¹⁰⁰⁴ See *Chapter 4*, ‘Comments on finds in cistern WI-6, *Notes 413–415*.

¹⁰⁰⁵ On *liba votiva*, see *Chapter 4*, ‘The use of domestic and sacred four-lugged baking covers’, *Notes 351, 455, 406–419*.

¹⁰⁰⁶ See *Chapter 4*, ‘WI-6 cistern’ and ‘Comments on finds in cistern WI-6’.

¹⁰⁰⁷ Hoffmann 1989, 139, 161, tables 1–2. *Rhyta* with animal heads have been classified in various groups, one the bent vessel similar to the drinking horns which were used as ritual funnels in Dionysiac ceremonies. A few *rhyta* have a small perforated hole at the bottom where the



Fig. 220. The VAP project's permanent exhibition with a focus on Etruscan wine production in San Giovenale. Visible to the right is the Hellenistic altar. The exhibition has been on display at the Museo Nazionale Etrusco Rocca Alborno in Viterbo since 2016 (photograph by R. Holmgren).

carries clear wear and usage marks, most likely connected to the altar being part of the southern entrance into the chapel—which also suggests that the altar was a visible architectural feature during the use of the edifice. An interesting consideration is that the altar in its position may have constituted a “foundation stone” of the chapel itself.

According to the excavation field diary the altar was positioned next to some cist tombs, excavated in the tufa bedrock.¹⁰¹² According to Freccero, who conserved the altar, there are traces of fire on the top of the table.¹⁰¹³ During antiquity, different altars were used depending on function, such as for libation, and blood and bloodless sacrifices, all three usually in combination with fire (Fig. 214).¹⁰¹⁴

There is reason to suggest that the altar was simply inserted in this location in order to form a non-religious function as part of the chapel's entrance architecture. However, the tombs in the area seem to predate the chapel and may derive from the latest period when the altar was reused, that is, during the Late Republican era. The two adjacent blocks of grey peperin indicate that this locality may conceal further remains assigned to

a sacred precinct predating the chapel.¹⁰¹⁵ In this context one should mention some profiled tufa blocks found in the large Late Etruscan wall, east of the castle. These so-called *cyma reversa* mouldings may derive from a temple podium dated to the 5th–4th centuries BC. It is therefore possible that the reused altar may originally have been connected to such a structure.¹⁰¹⁶

A rectangular stone altar was also documented in the apsidal house at the Pietrisco Bridge Complex. The structure was initially interpreted as a Late Etruscan sacred building. But due to its rather complicated chronological phasing, a later interpretation connects the edifice with a possible Byzantine road chapel. The building was assembled of reused Etruscan tufa blocks with an opening towards the west, with a few steps leading up to the entrance. The threshold structure was furnished with a square tufa block, interpreted as an altar (Fig. 221).¹⁰¹⁷ The building's semi-oval shape is not a familiar one in Etruscan architecture, but rather common in Roman and Byzantine times.¹⁰¹⁸

¹⁰¹⁵ On the peperin blocks, see Note 1011.

¹⁰¹⁶ Photographs by Blomé 1984, pls. 2–3 and a drawing in *San Giovenale* I:1; Mark 1962, fig. 329; Pohl 1985, 55–56; Edlund-Berry 2008. See Shoe Meritt & Edlund 2000, who dated the mouldings to the 5th–4th centuries BC; Edlund-Berry 2016a, 273.

¹⁰¹⁷ Backe Forsberg 2005, 56, 156–160, n. 1042, figs. 34a–b, 44c, 52, 54, 56a, 57, 62–63, 98, tables 33–34, 39–40. The building, interpreted as a small chapel and constructed of reused tufa ashlar, was dated to Classical and Hellenistic periods in the thesis, but this dating can be questioned due to the apsidal shape of the construction, which may be Roman or even early medieval. On redating the apsidal building, see ‘Wine press (WP2)’ in Chapter 4.

¹⁰¹⁸ Prayon 1975, 116–148, 178–181, pl. 88; 2012.

in 2016 (see Appendix 3) and since June 2016 has been displayed in the *San Giovenale*—a 2500-year wine tradition permanent exhibition by the VAP at the Museo Nazionale Etrusco Rocca Alborno in Viterbo, Backe Forsberg & Holmgren 2016a.

¹⁰¹² EB notebook 1958, 50–62.

¹⁰¹³ See Appendix 3.

¹⁰¹⁴ Steingraber & Menichelli 2010, esp. on water and chthonic cults, 56–59. See also Burkert 1985, 70–71.

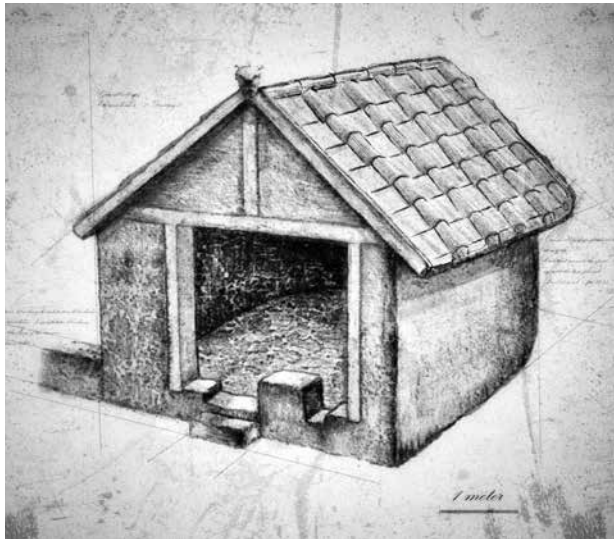


Fig. 221. A suggested Byzantine apsidal road chapel at the San Giovenale Bridge Complex. The edifice was built next to the road (Via Pontalto) with reused Etruscan tufa blocks, and had an opening towards the west. Steps led up to this entrance, where the threshold structure was furnished with a square tufa block, interpreted as an altar (illustration by R. Holmgren).

Vignale and the wine—endnotes

The name Vignale has indicated one part of the plateau's agricultural and economic history. However, it was the re-discovery of the ancient vine cultivation trenches (CT1–3), unnoticed in excavation journals since the early 1960s, that made the current authors aware of the site's association with wine. Locating wild vine in the area also added greatly to the authors' curiosity regarding past viticulture.

The perhaps most important evidence concerns the use of the wine presses over time. Two types of wine presses are represented in San Giovenale—those cut into the bedrock, and presses cut into large free-standing boulders. The first is the older type, and is typical for the Borgo area. These bedrock-cut presses seem to coincide chronologically with the excavated vine cultivation trenches (CT1–3) on Vignale (approximately 4th century BC). The free-standing boulder presses, on the other hand, seem relatively late due to their setting (5th–13th centuries AD, or even later). These were fashioned out of bedrock material that had eroded down the hills after the Etruscan settlement was abandoned. The boulder presses are positioned in a habitat with wild grapes, an association which is often and mistakenly assumed to indicate only the oldest technique of viticulture (i.e., vines grown up trees).

As shown in *Chapter 5*, and in 'Discussion and parallels—manufacturing features' in *Chapter 4*, the development of methods of cultivating grapes involving wild and domesticated vines was far from evolutionary. The various techniques

employed were rather a preference in accordance with priorities. In San Giovenale, during the medieval period, it appears true to say that grapes cultivated on stakes were grown in addition to the wild grapes collected in the ravines. This duality can be seen in scenes in medieval art depicting the harvesting of grapes, as recently highlighted by Claudio Gulli, where grapes climbing the trees are clearly seen alongside more elaborate techniques of vines growing on stakes.¹⁰¹⁹ This dual type of viticulture is also evident in the early literature, where Pliny the Elder recounts both methods being used in tandem, when discussing the wild-harvested wine used for medical treatments.¹⁰²⁰ It should be noted that many of the wine presses in San Giovenale are most likely cut directly out of the bedrock, and are yet to be excavated; the wine presses already documented on the Borgo and the one present near the Porzarago burials are among the few recorded examples. The *pestarole* of the medieval period in the ravines are more easily locatable, due to their elevated position above ground level.¹⁰²¹ It seems highly likely that further excavations on and around Vignale will therefore reveal evidence suggesting that wild grapes were harvested alongside those grown in vine cultivation trenches from at least Late Etruscan times up to just a few centuries ago. The paucity in number and difficulty in access of the wild grapes that can still be spotted in the modern landscape of San Giovenale might suggest that it was the scale of production that limited the use of wild grapes as an integral part of daily life in the past.

Many of the wine presses in San Giovenale were probably frequently utilized in Late Antiquity, not least during the Christian era when wine was an important part of Holy Communion.¹⁰²² For those familiar with this tradition, as it still constitutes an important part of life for many devoted Christians, it is not hard to visualize the importance of ancient wine production in the same context. For the Etruscans, the life-giving forces of the gods required compensation. Blood was the manifestation of life and in offering this, or the fertile blood-like substance of wine, life was repaid in the form of abundance. The red fluid kept the generative machinery spinning through daily household rituals, funerary rites, and sacrifices to the gods.

The Etruscan way of celebrating the chthonic gods was to pour a libation into a vessel, for example, with a perforation in the bottom—when doing so, the drained liquid dis-

¹⁰¹⁹ Gulli 2012, 149–150, fig. 12.

¹⁰²⁰ Plin. *HN* 14.22.18.

¹⁰²¹ For reuses of ancient cavities during the medieval periods in the territories of Barbarano, Blera, and Vetralla, see De Minicis 2003; 2014, 465–469, 476–481.

¹⁰²² Medieval presses are well attested by the Vinum Project, Ciacci & Zifferero 2005. See also the recently found press remains close to a church in the Cimini Mountains in Ceci & Zolla 2014; De Minicis 2018, 129–130, fig. 9.



Fig. 222. The wine tradition continues on the slopes surrounding San Giovenale. From 2005 onwards, San Giovenale Agricola has revived the old wine tradition—now with its celebrated red wine *Habemus* (photographs by R. Holmgren).



Fig. 223. E. Pangrazi, the owner of San Giovenale Agricola and Y. Backe Forsberg discussing the local vine heritage. In the photograph are chest-high chestnut posts used as support for vines (*arbustum morto*) (photograph by R. Holmgren).

solved in a way that signalled a divine acceptance.¹⁰²³ In the Early Christian church, it was equally common to pour the remainder of the wine used in celebration of the Eucharist into a perforated basin. A good example of an early Christian installation of this type is the one found by the Swedish Dead Sea Expedition in a hermitage with an attached chapel. Next to an altar niche, was the mouth of a buried vessel with a perforated bottom, where the wine could be absorbed directly by the porous rock. Since the wine symbolizes the blood and the continuation of life through Christ, it cannot simply be discarded into a drain.¹⁰²⁴ In the Holy Communion, we learn that wine is the blood of

Christ, an echo of the characteristics of Dionysos—who was the wine, life and death.¹⁰²⁵ A common image in Christian iconography, used in poetry and painting during the medieval period, is the depiction of Christ standing inside a wine press.¹⁰²⁶ When the monks of San Giovenale or the Christians of today drink wine from the chalice, neither the shape of the vessel, nor its contents, nor the tribute to the continuation of life has changed. The eschatology is quite different though.

Apart from the religious sphere, cultivation and consumption of wine is still an important part of daily life on Vignale and its surrounding hills (Figs. 222–223).

¹⁰²³ Backe Forsberg 2005. See also *Notes 988–997* on pottery with perforated bottoms from San Giovenale, Satricum, Pyrgi, Caere, and Tarquinia.

¹⁰²⁴ Braconi 2010, 153–158, fig. 3, the cross in paradise, back of the central panel of the ivory triptych of Harbaville, mid-10th century AD (Louvre), a late example of *anadendrás ámpelos* (“vine growing up a tree”). This image could also be seen in the court of Ashurbanipal, and from Nineveh in the mid-7th century BC. Braconi 2010, figs. 1–2. Comments by R. Holmgren. Vine and elm marry well together according to Cato, *Agr.* 1.3, and they later became two important Christian symbols. As well as other trees, the vine has been looked upon as the Tree of Life or the Tree of Knowledge, Mladenova 1998, 22–23. See Holmgren & Kaliff 1997, 337, fig. 17.

¹⁰²⁵ Mladenova 1998; *The Gospel According to St John*, 6:53–54.

¹⁰²⁶ Book of Revelation, 14.18–20, 19.15–16. On “Christ in the wine press”, see Gertsman 2013, 316, fig. 5, Austria, c. AD 1400–1410.

