

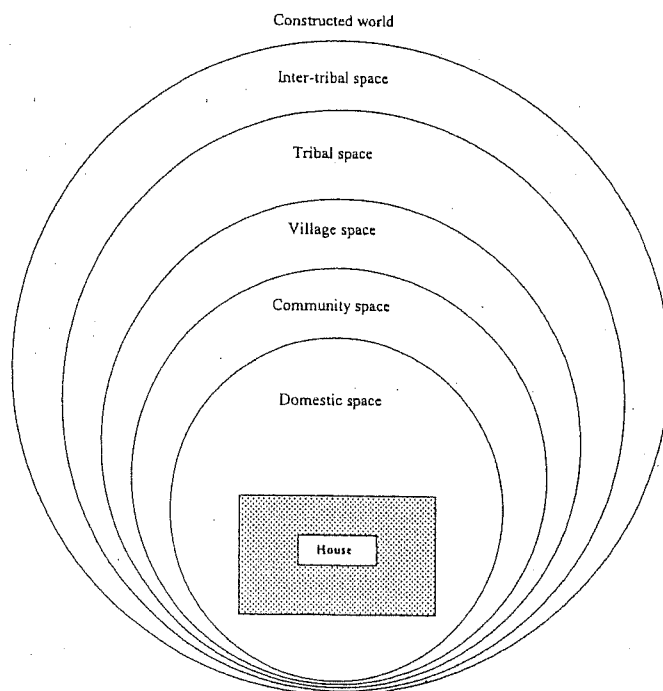
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# One Land, Many Landscapes

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# 17. *Agri fertiles ac silvosi*: landscape, production and trade in north coastal Etruria

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## Abstract

*The topics covered by this paper are landscape, production, and trade in north coastal Etruria (Pisae and Volaterrae territories), from the third century BC to the end of the fifth century AD. The integrated approach provides evidence of territorial resources, settlement patterns, and economic activities in a diachronical frame. Archaeological data give evidence of production and trade of local wine amphorae. We focused on a well-known passage by Scriptores Historiae Augustae which quotes components of the local landscape (woods, fertile, and untilled soils) and the Emperor's interest in improving Etruscan wine production for the annona dole.*

## Methodological introduction

We present here a synthesis of our recent researches in the territories of *Pisae* and *Volaterrae*, (north coastal Etruria) (Figure 17.1). Our ultimate aim is to produce a long-term history of the area (updated synthesis in Pasquinucci and Menchelli 1999). Here, however, we focus on aspects of the late Roman period, from the end of the third century BC to the end of the fifth century AD.

As for the approach, landscape archaeology provides data concerning settlement patterns and economic activity in a territorial context. The archaeometric analyses of finds and the study of written sources (literary, epigraphical, documentary) provide invaluable data to outline the history of the district.

The area was examined using a range of approaches that integrated archaeology, earth science, geography, and toponymy. Especially important were non-destructive diagnostic techniques using archaeological data; epigraphic material, literary and documentary sources; historical records, and cartography (Pasquinucci, Marchisia, *et al.* 2000). This integrated approach provides evidence of territorial resources, settlement patterns, and economic activities in a diachronic frame.

Archaeological data are collected by the integration of intensive survey and stratigraphical excavations; previous chance finds were also checked. Statistical analyses of the ceramic assemblages and counting methods are applied (minimum number of individuals, maximum number of individuals, etc.) and rendered explicit. Morphological and archaeometric analyses of the finds (ceramics, marbles, and metals) are provided in our Laboratorio Topografico-Archeologico, linked with the Laboratorio di Mineralogia applicata all'

Archeologia, University of Genova, and the Laboratoire de Céramologie, CNRS-CRA, Lyon.

## The study area

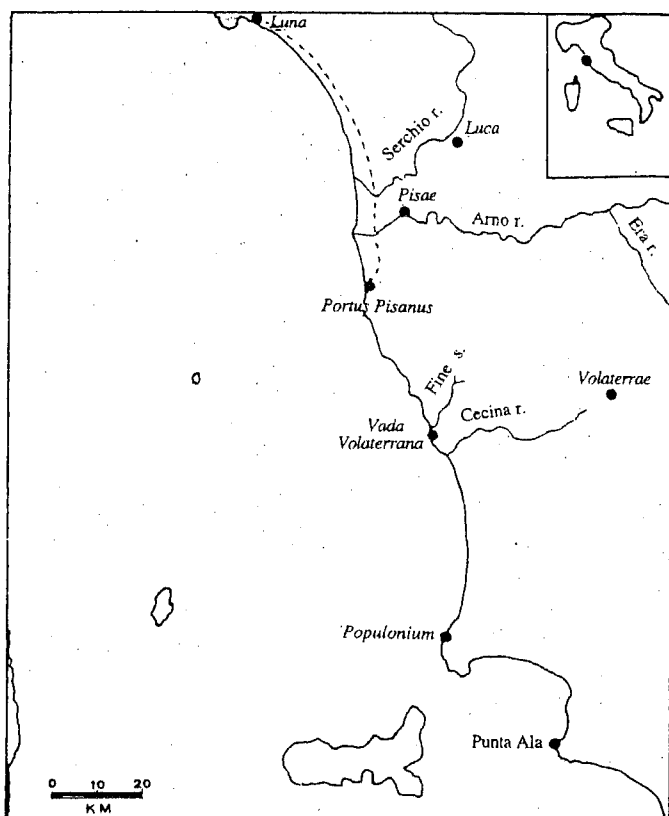
### *Geomorphological and historical aspects*

The studied territories are mostly formed by alluvial Holocene plains (lower Serchio, Arno, Era, Fine, and Cecina rivers valleys), by the Monti Pisani and by calcareous hills in the southern part of the Pisan territory and in the western part of the Volaterran one (Figure 17.2). At present the soil is mainly agricultural in the plains and lower hill-slopes; Mediterranean scrub covers the greatest part of the coastal strip; woods are on the highest slopes of the inner hills.

Since the late Iron Age / early Etruscan period, the main urban centres were *Pisae* and *Volaterrae*; in their districts evidence of villages can be traced back to the early metal ages (Zanini 1997). Protourbanization took place in the shift between late Iron and early Archaic ages (Autori Vari 1997). The process of Romanization was in progress from the third century BC (Pasquinucci and Menchelli 1999, 123–125; Terrenato 1998, 94–100).

### *The ports*

Pre-Roman and Roman ports were located along the ancient coastline: the main ones were *Portus Pisanus* and *Vada Volaterrana*, both active in Hellenistic and Roman times, and probably earlier (Pasquinucci 1999). Other pre-Roman and Roman ports were located both along the ancient coastline, in *Pisa*, and



**Figure 17.1** North coastal Etruria showing the sites mentioned in the text and the ancient coastline (from the Late Archaic to the Imperial period).

along the main rivers Arno and Serchio whose confluence in the town is quoted by ancient sources (Strabo 5.2.5; Rut. Namat. I, 567–568; Schol. Ptol. 3.1.4.) and confirmed by geomorphological research (Mazzanti 1994).

Vada Volaterrana, Portus Pisanus, and Pisae were the sailing ports for medium and/or long distance voyages: Cicero quotes P Quinctius and L Albius Sextius reaching Vada Volaterrana from Rome (Cic., *pro Quinct.*, 6, 24: 81 BC). The same author mentions Pompeius sailing to Sardinia either from Pisae or from Labro (Cic., *ad Quintum fratrem* 2, 5, 3 : 56 BC), in the area of present day Leghorn, where Roman sources of the Imperial period locate Portus Pisanus (Itin. Mar., 501; Rut. Namat., I, 531).

The recent excavations of boats and ships in the northwestern outskirts of Pisa (S Rossore Railway Station, see Bruni 1999) provide evidence of the close links among the town, the agricultural territory, the sea, and the rivers/lagoons that were connected in an integrated navigation system (Pasquinucci and Menchelli 1999, 123).

Judging by the hulls of the ships excavated, the San Rossore boats and ships, dated from the second century BC up to late antiquity, were suitable for coastal and inland navigation.<sup>1</sup> In spite of the remarkable geomorphological changes (coastline progradation, river courses modifications, etc.) that

took place through the centuries, inland navigation continued. In the early sixth century, according to Cassiodorus (*Variae* 5, 17, 6; 5, 20, 3), fishermen were forbidden by King Theoderic from disturbing the navigation in the Arno and Serchio rivers with the construction of weirs.

#### *The rural settlement*

The diachronical pattern of settlements has been identified by surveys. In the Hellenistic period rural villages and farmsteads were scattered in the ager Pisanus and western Volaterranus countryside (Pasquinucci and Menchelli 1999, 124–127; Terrenato and Saggin 1994). They increased in number with the Romanization of the district in the second-first century BC and with the reduction of veterans in the late first century BC.

Between 42 and 28 BC, a vast *centuriatio* was constructed in the ager Pisanus (Pasquinucci 1995), in the plain north, east and south of the town. Along the *limites*, farmsteads were often set up close to the Hellenistic sites, which seem to have been abandoned and reoccupied.

The structures were standardized: the foundations and the lower part of the walls were built of small and medium sized stones; the upper part was in mudbrick; the *rooves* were covered by tiles and curved tiles. The floors were in *opus spicatum*, *signinum* or in small quadrangular paving stones,

<sup>1</sup> See <http://www.navipisa.it>

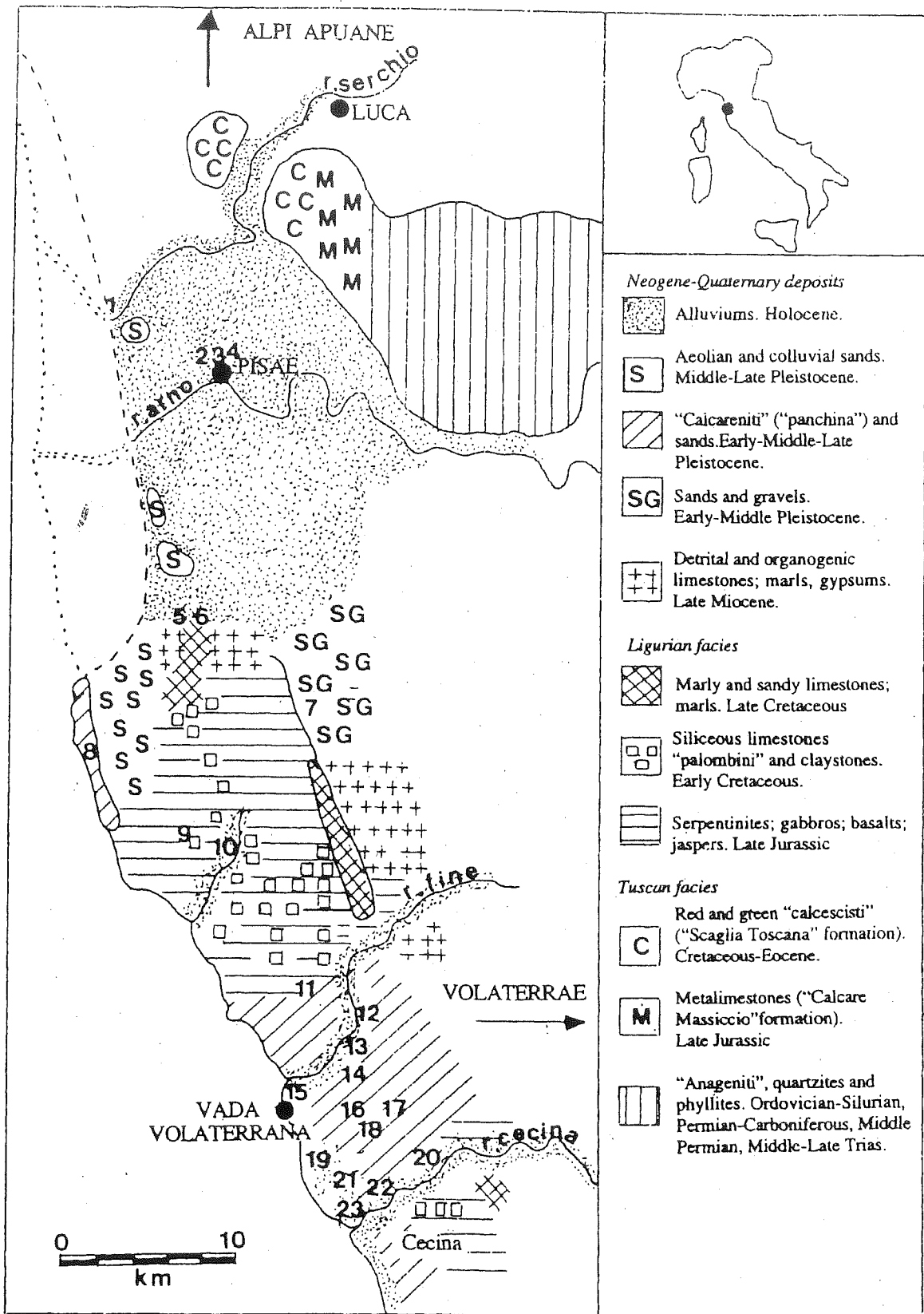


Figure 17.2 Schematic geologic map. Outcrops of material used for ceramic production 1–23; workshop sites from Hellenistic period to the Middle Ages.

according to the room's purpose. Column bricks prove that there were courtyards and/or porches; cornices and windowpanes were found as well (Pasquinucci and Menchelli 1999, 130).

The scattered finds give evidence of sheds or outhouses necessary for rural activities. Close to the sites were single burials or necropolises.

Luxury *villae* with a rich *pars urbana* have been identified in coastal ager *Pisanus* and *Volaterranus* (Cherubini and Del Rio 1995; Pasquinucci and Menchelli 1999, 131).

## Economic aspects

### *Manufacturing and agricultural activities*

Following intensive surveys, several kilns were discovered, located along the ancient coastline; in the immediate hinterland, usually along a stream/river; in the urban context (Pisa), along a branch of ancient river *Auser* (Figure 17.2).

Archaeometric analyses of kiln-wasters provide the chemical and mineralogical characterization of the local productions i.e. Gray Hellenistic, Black Glaze, Thin Walled Pottery, *terra sigillata*, coarse pottery, wine amphorae, bricks and tiles (Del Rio *et al.* 1996; Pasquinucci, Capelli, *et al.*, 2000).

From this research it turns out that local pottery production was well integrated within sound economic structures. Throughout antiquity the north coastal Etruria territory was characterized by an intense agrarian production: wine and cereals in the *Pisa* territory (quoted by Pliny, *Nat. Hist.*, 14, 39; *Nat. Hist.*, 18, 86–87 e 109), as well as wood exploitation, shipyards, stone-working (quoted by Strabo 5,2,5); salt production is attested in the coastal *Volaterran* territory (*Rut. Nam.*, I, 475–480). Evidence for olive oil production is given by equipment (decanting tanks) excavated in two *villae* in the coastal ager *Pisanus* and *Volaterranus* (Barsaglini 1999; Donati *et al.* 1997, 14).

### *Trade*

Commercial activities must have been intense and diversified. Since the Archaic up to the late Roman period, the import and export trade of vast hinterlands passed through the *Pisan-Volaterran* ports. Several local products were exported in various exchange mechanisms, both in the short and long distance trade, in the military and civilian markets (Menchelli forthcoming).

The road system (long distance and country roads) was improved through Romanization. Coastal and inland settlements were linked, providing an efficient network between the countryside, the rural and urban markets and the sea/river ports. The main roads were the coastal *via Aurelia*, the *via Aemilia*,

the *via Quinctia* and the *Pisae-Luca* road (Pasquinucci *et al.* 1991) (Figure 17.3).

The peak of economic activities in northern Etruria was in the first and second centuries AD. According to Strabo (5.2.5) valuable timber from *Pisan* woods was sent to Rome to be used as building material. Etruscan *terra sigillata*, mainly from *Arezzo* and *Pisa*, was traded in the whole Roman Empire and, along caravan routes, beyond the Empire frontiers. Local wine amphorae, Dressel 2-4, reached the German *limes* (Thierrin Michael 1992, 50), probably together with *terra sigillata* involved in the military supply (Menchelli 1997; Menchelli forthcoming). In the first half of the second century AD, grain was bought in *Umbria* and *Etruria* to be resold in the *Urban* market (CIL XIV 2852).

The *Punta Ala* shipwreck B (Corsi 1998) gives evidence of the north Etruscan trade in the early decades of the second century AD: *Pisan* late Italian *terra sigillata* stamped by *L Rasinius Pisanus*, *Sex. Murrius Festus*, *L Nonius Flor[?]* travelled southwards with local wine amphorae (*Forlimpopoli* type: see below).

In the third century AD the settlement pattern is characterized by substantial continuity. The earlier farmsteads are still active in the largest part of the territory.

### *Wine production in the middle and late Imperial period*

Numerous amphora kilns identified in the *Pisan-Volaterran* territories prove an abundant wine production in the middle and late Imperial period. From the second up to the fifth century AD the north Etruscan wine amphorae were the 'Spello' (first to second century AD), 'Forlimpopoli' (second to fourth centuries) and 'Empoli' (second to fifth centuries) forms (Figure 17.4). Generally, the distinctive features are a fairly thick rounded rim and flat handles with a central depression and groove, attached to the neck; tapering body and a narrow flat base or a short spike (Menchelli 1990–91; Pasquinucci *et al.* 1998).

The integrated approach lets us fully appreciate a well known passage in *Scriptores Historiae Augustae*, concerning Aurelianus' life (*Flavius Vopiscus, Aurelianus*, 48):

*'Statuerat et vinum gratuitum populo Romano dare, ut, quem ad modum oleum et panis et porcina gratuita praebentur, sic etiam vinum daretur, quod perpetuum hac dispositione conceperat. Etruriae per Aureliam usque ad Alpes maritimas ingentes agri sunt hique fertiles ac silvosi. Statuerat igitur dominis, locorum incultorum qui tamen vellent, gratis dare atque illic familias captivas constituere, vitibus montes conserere atque ex eo opere vinum dare, ut nihil redditum fiscus acciperet, sed totum populo Romano concederet. Facta erat ratio dogae,*

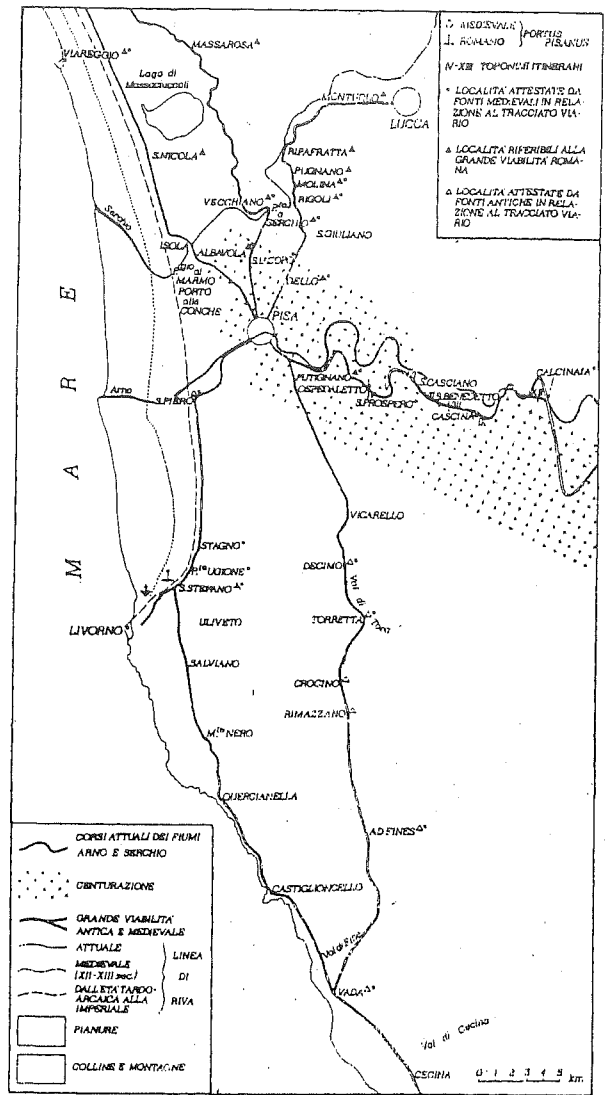


Figure 17.3 The road system (after Pasquinucci and Ceccarelli Lemut 1991).

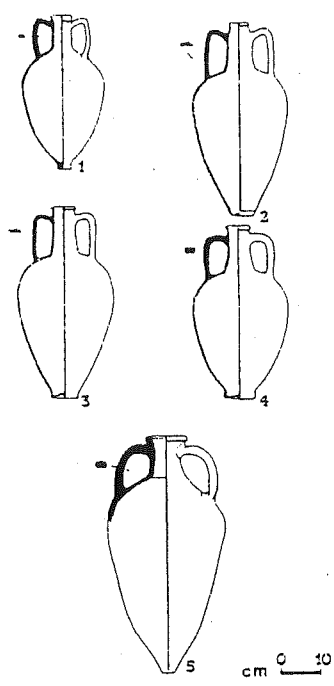


Figure 17.4 North Etruscan Amphorae: 1 - Spello type; 2-4 - Forlimpopoli types; 5 - Empoli type.

cuparum, navium et operum, sed multi dicunt Aurelianum, ne id faceret, praeventum, alii a praefecto praetorii suo prohibitum, qui dixisse fertur si et vinum populo Romano damus, superest, ut et pullos et anseres demus' argumento est id vere Aurelianum cogitasse, immo etiam facere disposuisse vel ex aliqua parte fecisse, quod in porticibus templi Solis fiscalia vina ponuntur, non gratuita populo eroganda sed pretio'

'He had planned also to give free wine to the people of Rome, in order that they might be supplied with it as they were with oil and bread and pork, all free of cost, and he had designed to make this perpetual by means of the following arrangement. In Etruria, all along the Aurelian road as far as the Maritime Alps, there are vast tracts of land, rich and well wooded. He planned, therefore, to pay their price to the owners of these uncultivated lands, provided they wished to sell, and to settle thereon families of slaves captured in war, and then to plant the hills with vines, and by this means to produce wine, which was to yield no profit to the privy purse but to be given entirely to the people of Rome. He had also made provision for the vats, the casks, the ships and the labour. Many, however, say that Aurelian was cut off before he carried this out, others that he was restrained by his praefect of the guard, who is said to have remarked "If we give wine to the Roman people, it only remains for us to give them also chickens and geese". There is, indeed, proof that Aurelian really considered this measure, or rather, made arrangements for carrying it out and even did so to some extent; for wine belonging to the privy purse is stored in the porticos of the Temple of the Sun, which the people could obtain, not free of cost but at a price' (translation by Magie 1954).

Thus according to Flavius Vopiscus, in the late third century AD (270–275) Aurelian tried to provide free wine for the Rome markets. He wanted to buy up uncultivated lands in Etruria along the via Aurelia and in coastal Liguria, for the cultivation of vines. The plan was most probably not brought into effect (Reynolds 1995, 68). The passage is of great interest for the local landscape history because it documents woods, fertile and untilled soils as components of the local landscape.

Significantly, Aurelian was interested in improving Etruscan wine production. This region, in fact, produced wine of different quality, precious ones, (made of *uva Apiana* that was included in the *vitia maxime insignia*: Pliny, 14.24) and mainly cheap *vina tusca* (Mart. I, 26), suitable for the *annona dole*.

Archaeological data prove the presence of Pisan-Volaterran wine on the Roman markets. 'Spello', 'Forlimpopoli', 'Empoli' amphorae were widespread in Urban deposits dated second to fifth centuries AD (Reynolds 1995, 69; Lapadula 1997;

Panella and Tchernia 1994): archaeometric analyses confirm that they were partly coming from north coastal Etruria, in particular, 'Spello' amphorae were produced in the lower Arno valley and close to the Fine mouth (Burrogato and Pannella 1998). In the fourth century AD, the *vinum Tuscum* was one of the four Italian productions quoted by the *Expositio Totius Mundi* (Exp.Tot. Mun., 55).

In late antiquity, while the small/medium farmsteads continued to work, the wine production appears to have been connected at least for the most part with the large *villae* which the workshops probably belonged to. The stamps on Pisan/Volterranean amphorae are rare and not very enlightening as to the management of the workshops, although the senatorial aristocracy was most likely involved both in running the *villae* and trading the agricultural surplus. In the fourth century the whole of northern Tuscia seemed to enjoy prosperity, as shown by frequent building activities both in the towns and in the country (Pasquinucci and Menchelli 1999, 136).

Local amphorae reached several sites in the western Mediterranean coastal strip (Menchelli 1990–91). 'Spello' and 'Forlimpopoli' amphorae probably produced in Etruria have been found in second to third century contexts at Marseille (Lang 1998, 93–94).

'Empoli' amphorae have been found at Tarragona, in deposits dated back to the end of the fourth to the beginnings of the fifth century AD (Pasquinucci *et al.* 1998, 359). At Carthago, in unpublished contexts (Alexandra Uscatescu pers comm) and in shipwrecks in the Sicily channel (McCann 2000). North Etruscan amphorae were successful along the Iberian coasts, as confirmed by the local imitations in *Dianium*. (Gisbert 1998, 393–394).

Most probably the Imperial interest in cheap wine for the *dole* stimulated the north Etruscan production. In other words, the *annona* trade organization drove production for the free market, and the north Etruscan amphorae circulated in the state and private exchange mechanisms, along the same western Mediterranean sea routes.

The continuity in the wine production from the Archaic period up to the late antiquity and beyond (Menchelli *et al.* 1997), proves the solidity of the north Etruscan agrarian structures. Also although the property system might have changed, continuity characterized the rural landscape until the early Middle Ages.

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