

New methods for the study of the social landscape from the Laietania wine production region of Northeastern Spain

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Introduction

Any historical community establishes relationships with its environment, bringing about a particular historical landscape. Such a landscape may be called social, since it is the result of a society action in relation to the environment. Studying such historical landscapes can generate knowledge about features of a particular society. Such research may even offer more documentation than a strict archaeological or literary analysis because those social features mean nothing without a suitable territorial projection, lacking a necessary context. Analyses of land ownership as well as production forms cannot ignore the territorial variable, which may explain the location of estates near communication routes or in fertile lands.

Following this line, a group of researchers of Northeastern Spain, present-day Catalonia, have been interested in the Roman landscape in recent years. Such interest covers either physical (e.g., evolution of ancient landscape), economic (e.g., production systems, communications) and social aspects (i.e., estates, dependent relationships). We therefore combine diverse documentation from Roman, medieval and present times as well as methodologies borrowed from specialized fields such as epigraphy, toponymy, archaeometry or underwater archaeology. All are needed to study the social landscape of a central region of Catalonia, known in Roman times as *Laietania*.

We started to undertake micro studies so as to reduce such complexity. We believed these micro studies might become general models for economic and social organization. The more particular are the studies we undertake, the more the resulting image of the Laietanian territory becomes richer and more complex. The following pages summarize the results of such studies.

Land ownership

It is fundamental in the study of any ancient society to know the mechanisms and forms of property and land exploitation, the basic means of production around which other production forms took place. This idea applies especially in the Roman world. In Roman society, land was not only the main source of power, but also a symbol

of wealth and status, a refuge for fortunes and the prestige of particular families. Land was therefore a widely desired object for its relationship to social promotion.

Attempting to study forms of land ownerships in the Roman period through archaeological evidence is often considered a fanciful or inaccessible pursuit. Land survey studies and diachronic analyses of settlement patterns on the basis of spatial archaeology have allowed general approaches to the study of forms of land ownership. Such studies, however, cannot provide in any case particular information on the property structure in a specific area. Studies on amphora and ceramic epigraphy may yield more specific information but without the necessary territorial projection. In this sense, places-names, historic phonetics, and landscape morphology preserved in early medieval documentation have been sources hardly taken into account by scholars. Place-names derived from endings such *-anum* or *-ana*, parts of names of Roman *praedia* or *fundi*, are especially signs of the existence of ancient Roman estates.

It is important to remain conscious of the problems raised by the use of place-names, especially those identified in medieval or modern documentation. Place-names are difficult to date, etymologies are prone to error, and there are sometimes minor changes in location. The voluminous documentation of the 9-10th centuries nonetheless provides us a good approach to landscape morphology of this period. Furthermore, this documentation helps us understand the phonetic evolution of place-names from an early stage. Of course, a chronological jump from the early Middle Ages to the Roman period should be critically justified.

The same problems have appeared in the area of Central Italy, in the Umbria, where the survival of medieval place-names such as *Gragnano* or *Agliano* has been clearly described thanks to epigraphy and archaeology of the estates of the *Granii* and *Allii* (Braconi 2003, 41-44). Despite some doubts among researchers, information regarding place-names has been considered very useful when combined with surveys and archaeological research.

In all those cases, perhaps the key problem arises in the relationship between the late establishment of the medieval

sources and the original location from the first and second centuries AD. It is evident that any *fundus* or *praedium* of the colonial period may have been transmitted to other hands over the time. However, in the Roman tradition, the names of the *fundi* were preserved. The name of the first owner was kept at the fiscal level as well as the property register in order not to lose control over the limits of the estate.

The practice seemed quite clear for the land surveyors. When Higinus Gromaticus (L.7-8) gives an example of how to declare the *fundi concessi* in fiscal registrations (*forma*), he quotes the case of a *fundus Seianus*, given to L. Manilius (*Eadem ratione terminabimus fundos exceptos sive concessos, et 'in' forma sicut boja publica inscriptionibus demonstrabimus. Concessos fundos similiter ostendemus, ut 'fundus Seianus concessus Lluici Manilio Sei filie'*). In other words, it keeps the name of the early owner. A similar case is offered by M. T. Varro, who quotes also a *fundus Seianus* that appears to be a referring case (*Cap Rusticae*, III, 2, 7-8).

Other examples may be documented in the gromatic figures (Chouquer-Favory 1992, 50), in which there are remarkable examples of estates that keep their original names despite changes in ownership. Such is the case of '*Dominus Faustianus* (La. 185) given by Publius Scipio' and of *Dominus Manilianus*, whose estate was assigned to the colony *Iulia Constantia*. Furthermore, following the same approach, the *Liber Coloniarum* (La. 239) includes the case of *Volturnum*, in which its territory was assigned according to the *villae* names and their landlords (*ager eius 'in' nominibus villarum et possessorum est adsignatus*). This is an example of how names were preserved over time (Hinrichs 1989, 56).

Probably, coincidence in names has brought about problems for the land surveyors, either at the time of assignment or once land was distributed, especially when a significant amount of time passed between a purchase and a sale. Sicculus Flaccus (Th. 126, 267) recorded this case when he mentioned a *controversia de modo* between two landlords who claimed the same plot with the same name.

Finally, a paradigmatic case refers to the tables of Veleia, examples of landlords of large- and middle-sized landholdings who frequently owned diverse *fundi* or *praedia*. All of these landholdings retained their initial names (CIL XI 1147), probably the names of the original landlords, who kept using them despite the estates' belonging to a single landlord, making easy identification and registration of original estates.

In sum, it is believed that the names of *fundi* from the medieval documentation refer to the original landlords of Roman estates. The names survived in the medieval period due to continuity in agricultural exploitation of the estates, at least in the Late Roman period. In other words, this medium or large size will explain why the names survive in the morphological description in the early medieval period, at a time when the estate may have ceased to exist as such. Perhaps of the estate remained only its boundaries,

which were useful indicators for defining and describing the feudal space. Such survival may have more difficult for small estates, which had a less important role as articulators on the medieval landscape.

A recent study has shown the possibilities of the method described above when applied to the *ager Barcinonensis*, the territory near present-day Barcelona (Olesti 2005). There are a few place-names that have retained names related to personal names and the ending *-anum*, *-ana*. These place-names generally identify a *locus*, or *terminus* or *territorium*, in the early medieval period. Many examples have been documented of members of *gentes* from *Barcino* recorded in monumental or funerary epigraphy that can be related to names of *fundi* present in the colonial territory or nearby (Fig. 1. Central Catalan coast with place-names of medieval *fundi*). In fact, most *gentes* present in the epigraphy and the medieval toponymy should be included amongst the wealthiest *gentes* in the colony. This can be observed in their access to local magistracies, their evergetic actions and their promotion in some case to the equestrian and senatorial *ordines*.

Such would be the case of the *gens Minicia*, which seems to be connected to the medieval place-name *Miziano* (CSC 382, 1002), and has two senators among its members (IRC IV 30-32). Another case is the *gens Gavia*, who has a provincial *flamen* among its members (IRC IV 40) and appears to be identified by the place-name *Gavano* (CSC 80, 1011). Similar is the *gens Cornelia*, a family with 30 epigraphic mentions in *Barcino*, one corresponding to an important figure in the Augustan period, recorded in one of the first public monuments of the colony (IRC IV 152) and identified with the place called *Corneliano* (CSC 137, 980). Fourth, the *gens Valeria* stands out as one of the most important families in the colony (26 mentions) and with Augustan individuals, in other words, from the foundational period. Near the colony a *locum ubi dicunt Valleriana* (CSC 31, 949) was documented, with the place-name *Valrano* (*Onm. Cat.*, VII 434, 1052).

Two examples were chosen to illustrate this point because of their exceptionality. The first refers to the *gens Clerania*, a family documented only in *Barcino* in the overall Western provinces by the only inscription of *Clerania Beronice* (IRC IV 184). Such epigraphic exceptionality is confirmed by the existence in the Barcelona neighborhood of a place called *Clerano* (ASPP 13, 1009), which appears in the medieval documents as a reference to a probable ancient settlement (*cum columbario maceries petrarum vel parietes opere antiquo structas*). The other case refers to the *gens Titinia*, a *gens* of clear italic origin, probably related to the colonial *deductio*, which left its mark on a myriad of places (*Tiziano*, St. Feliu de Llobregat, CSC 84, 965; *Tizana*, Maresme, CSC 751, 1093).

Other examples of *gentes* from *Barcino* appearing in the epigraphy and the territory are the *gens Quintia* (with the place-name *Quintiano*, ACB, 9, 1085), the *gens Porcia* (*Porciano* CSC 297, 994), *gens Licinia* (*Liciano*, CSC 233, 989) and *gens Paullia* (*Pauliniano*, CSC 516, 1031), discussed below.



Fig. 1. Distribution of Pascual 1 amphora workshop in NE Spain

Other names of medieval *fundi* created from *cognomina* are known. The *cognomina* of this people is documented in the epigraphy of *Barcino*, such as the *cognomen Octavius* (IRC IV 149, 211), from which *fundus Octaviano* documented at St. Cugat (CSC 245, 990) may come from. Important early and late Roman structures are registered at St. Cugat. Additionally, there are the case of *Primulus* (IRC IV 138, 157, 176), whose name produced *fundus Primiliano* (*in terminos de Primiliano*) (CSC 314, 996), and that of *Silvanus* (IRC IV 66, 135, 144), which led to the place-name of *Silvano* (Banks 1984, 607), located near the Roman villa of Can Cortada.

Also outstanding is the case of *Nymphius*, *cognomen* documented for a freedman and Augustan *sevir*, *Q. Calpurnius Nymphius*, which may be responsible for the medieval *fundus Nimphianus* (ACB, LAEC I, 286, 1091). The specificity of the *cognomen* of a freedman is amazing, as is the survival of the name of the *fundus*. The reference to a *sevir* shows the social promotion of the individual, who probably consolidated his position and his offspring's by purchasing a local estate.

The case of M.Porcus

Following a similar approach, it was thought that perhaps it would be convenient to study the relationship between these individuals and *gentes* and the wine production world. In other words, the hypothesis was that the wealth of some of these lineages present in the monumental epigraphy in the first and second centuries AD, came from important estates. Then, these lineages might be identified with the phenomenon of Laietanian wine, a source of wealth and integration of these territories with the Roman economy. It must be borne in mind that Laetania exported wines to other Western provinces in the first century AD. Examples include the German and British *limes*, as well as Rome itself (Miró 1988; Revilla 1995).

A first case study was of a character documented by the amphora stamp *M.PORCI(us)*, well-recorded in the area of *Baetulo*, and a myriad of shipwrecks and sites around the Lion gulf (Mayet-Tobie 1982; Comas 1997; Carreras-Olesti 2002).

The stamp appears on *amphorae* Pascual 1, produced probably in diverse workshops in the Laetania. There is no complete evidence of the production centre (examples at Badalona, Can Peixau, Gavà, Mataró, Premià de Dalt, Sant Andreu de Llavaneres). The concentration of 77 stamps in the urban excavations of *Baetulo* links the production centre to this city, and the discovery of those stamps at the workshop of Can Peixau (Badalona) seems to confirm that it was produced in this town. However, fabric studies have managed to confirm only the proximity of the amphora production centers *M.PORCI(us)* to *Baetulo*, suggesting that they may have been produced in diverse centers along with other stamps (such as the case of Can Peixau).

The chronology of the stamps *M.PORCI* in its two variants (*M.PORC* and *M.PORCI*) is settled, in general, in a date range that goes from 15 BC to AD 25. The problem of this stamp has so far been the identification of the person and his origin. Two decades ago, A. Tchernia (1986, 193) suggested that he may have a Romanized indigenous, due to the important role of *gens Porcia* in the control of the Citerior province during II century BC. More recently, M.J. Pena (1999) opined that the production could be related to an *M.PORCIUS* from Narbone, linked to the Caton family, who may have had some interests in this territory. Finally, Etienne and Mayet (2000), recovering an old hypothesis, proposed a Campanian origin for him. The only evidence for such identifications is the existence of individuals with the same *nomen* in destination ports, evidence that cannot be considered at all conclusive.

It was at this point that we considered it necessary to widen our research field to consider the larger context, making it possible to integrate epigraphic data and data derived from the study of the ancient landscape.

Regarding epigraphy, there seems to be some contradiction in the data. For instance, *Tarraco* documents 16 *Porcii*, 2 at *Dertosa*, and 1 at *Aeso*. If we focus on the Laetania region, 2 *Porcii* are found at *Iluro*, 1 at Canet and Rubí, and 9 at *Barcino*. However, surprisingly no *Porcii* are known in the monumental or funerary epigraphy of *Baetulo*. Of all those characters, only the case of *Barcino* corresponds to an Augustus dating (IRC IV 173, CIL II.4572), an inscription that also presents the *praenomen Marcus*. Taking into account that the foundation of *Barcino* occurred around 15 BC and that it was a colonial *deductio*, it may be possible to identify *M.PORCIUS* from the inscription as one of the first colonists of the new city. There is no way of being certain that he is the same individual as the wine producer, but it is quite significant that he had some freedmen and lived quite near *Baetulo*, where he may have had his businesses. However, this *gens* is not represented in the city of *Baetulo*.

The data from the territorial study are far more interesting. The initial hypothesis was that if the *gens Porcia* had an estate in this area, the estate would be called *fundus Porcianum*, which may have left traces in the medieval or later toponymy (*Porcianum/Porcià*). A study of cartularies from the Count Archive of Barcelona, St. Cugat, Polinyà and Sant Llorenç de Munt, allowed us to locate the place-

name effectively and to fix it with precision in the present territory of Vallès, near the river Besós, near the present town of Montcada i Reixac (for instance, Cartulary of St. Cugat 128, year 978. '*in territorio de Porciano, in locum que vocant Odra'l*'; CSC 297, any 994, '*in Vallense, in terminio de Porciano, iuxta flumen Riopullo*').

This *Porciano* estate corresponds to a fertile land, where wine production was the main activity in the eleventh century. Eighty out of 134 identified cultivated fields belong to vineyards, while the neighboring territories were employed for the production of grains (Alcazar 1998, 84). The estate was crossed by a road heading towards Barcelona (*via, via Calcada* CSC 128, 397), and the explicit mention of *Calciata* leads us to suppose that it was an ancient road, probably of Roman origin (*ad ipsa calciata vel in Porciano*, CSC 384). Finally, the place *Kanalilias* is mentioned in two documents (CSC 377, 384). Nowadays, 'Canaletes' is a place where a Roman villa has been identified, the known villa of Can Canaletes. In fact, a Roman road was documented there, as a milestone from the late third century demonstrates (IRC I 179).

The villa is known only partially (Royo *et al.* 1965), only from surveyed materials. The earlier material comes from the Augustan period and covers an important area. The architectural structure of the Roman villa is under Santa Maria de les Feixes church. Nearby an amphora workshop was discovered. This workshop produced coarse wares and a local version of the amphora Gauloise 4, with a stamp MS (Pascual 1977). Those productions are dated in the second and third centuries AD, thus later than the productions of amphora Pascual 1 and the stamp *M.PORCI*. Nevertheless, it must be borne in mind that the site has not yet been excavated.

The Canaletes villa endured until the fifth century AD, meaning that the *fundus* survived until the Late Empire (genesis date for the medieval toponymy).

Judging from the estate's location, *Porciano* was in the middle of a crossroad, SW Besos River. It is therefore taken as hypothetically part of the *Barcino* territory, but it would have communicated directly with *Baetulo* through the Besos River. This situation may explain a contradictory phenomenon: the *amphorae M.PORCIUS* were exported from the port of *Baetulo* but the epigraphic evidence of this family is found in the territory of *Barcino* and not *Baetulo*. The estate enjoyed excellent communication with the colony by the road that crossed Can Canaletes, but the logical commercial exit was the port of *Baetulo*. If the social life of the family developed in its original territory, the colony, the family used the port *Baetulo* commercially, perhaps because at that time the colony's port was still underdeveloped. The data suggest a final chronological consideration. If, as seems to be the case, *Porciano* is found in the territory of *Barcino*, the estate may have been founded in the process of colony *deductio* in the Augustan period. The name of the *fundus* stems from the first owner, a member of the *Porcia* family who received a plot of land at that time. Therefore, the date of origin of this estate of the *Porcia* family coincides with the amphora

production of M.PORCIUS, a time when an M.PORCIUS lived in *Barcino*, and, finally, a common dating for the Can Canaletas site, with initial Augustan materials. Such coincidence of all these data in the Augustan period appears to be quite remarkable.

Gens Licinia

A second outstanding case study was the *gens Licinia* (Berni *et al.* 2005). The main difference in relation to other cases analyzed in *Barcino*, such as *Cleranius* or *Titinius*, is the fact that *Licinius* is one of the most common gentilities in *Hispania*, and especially in the *Tarraconensis*. According to Abascal (1994), it is the sixth most common name documented in *Hispania*, with 305 inscriptions, 2.62 % of the total. One hundred and sixty-six out of these 305 testimonies include the *praenomen*, such as *Aulus* (1 ex., 0.6%), *Caius* (43 ex., 25.9%), *Marcus* (23 ex., 13.85%), *Lucius* (72 ex., 43.37%), *Publius* (10 ex., 6.02%); *Titus* (4 ex., 2.4%); *Quintus* (12 ex., 7.2%) and *Sextus* (1 ex., 0.6%). Almost half of the examples have *Lucius* as *praenomen*. In the *Narbonensis*, this name is also present with 143 mentions, but only 10 cases include the *praenomen Lucius*. One must bear in mind that wealthy families in the Republican period would transmit *praenomen* and *nomen* to the next generation. Furthermore, freedmen adopted the two first names at the time of manumission.

At the end of first century BC, the first members of this *gens* are documented as being in the *Tarraconensis* province. *L.Licinius LF Serg. Sura* stands out, who is paid tribute at the Berà Arch in the Augustan period. He may also relate to homonymous *duumvirs* at Celsa. Moreover, a *L.Licinius* is recorded as one of the first magistrates of the colony at the end of Ist century BC (IRC IV 162). Therefore, this *gens* appears early to be linked to the first local elites in the *Tarraconensis*.

However, mentions of this *gens* are scarce during the first century AD, so individuals of the name did not reach any prominent positions until the second century AD, such as *Q. Licinius Silvanus Granianus* (IRC I 138), who became patron of *Baetulo*, and especially *L. Licinius Sura*, who was consul three times (Rodà 1970). The career of this individual began in the Domitian reign (as *quatorvir viarum*), and he became councilor in Trajanian times. He kept close ties to *Barcino*, perhaps his birth place, as 21 inscriptions of *Barcino* that mention his name together with his *accensus L.Licinius Secundus* (IRC IV 83-104) and a similar inscription from St. Andreu de Llavaneres (IRC I 23) indicate.

The existence of singular estates belonging to this *gens* is documented by one of *Sura*'s friends, *Caius Licinius Mucino*, landlord of a large estate in the *Laietania*, where he retired in winter (Marcial, I, 49, 19-20). If this *gens* enjoyed a special status in the *Tarraconensis*, and above all in the *Laietania*, it is feasible that, as happens with the *Porcii*, some were related with the wine production. Here again the study of amphora stamps may be of some significance (Berni *et al.* 2005). The results were quite satisfactory.

There are a large number of amphora stamps that may be linked to the members of *gens Licinia*. First is the stamp on Pascual 1 *LICIN(ius)*, present at the Cap Bear 3 shipwreck, 50-25 BC, whose cargo seems to have been uploaded in the area of *Baetulo* and *Iluro* (Carreras and Berni 2002, 365).

A second amphora stamp, *NLIC*, coming from *Baetulo*, seems to correspond to a compound stamp, slave name + landlord. A third case would be *TLIC*, recorded on Dressel 2/4 amphora in La Chretienne H shipwreck (AD 15-20), which may be read as *T(itus) Lic(inius)* or again a compound stamp of a slave name + landlord. Additionally, the La Chretienne H shipwreck includes a stamp *NL.L* that appears to be related to the previous ones and reading a slave name + *L(ucius) L(icinius)*.

The examples of *tria nomina* are even more significant. The first case is the stamp *LLC* coming from Laietanian *amphorae* recovered at Empúries and *Barcino* in the second quarter of the first century AD, which are interpreted as *L(ucius) L(icinius) C(?)*. A second example comes from Giraglia shipwreck, where 28 different stamps appeared on *dolia* and *amphorae* Dr. 2/4 coming from Baix Llobregat and *Barcino*. There, the stamp *LLL* is found, possibly reading *L(ucius) L(icinius) L(?)*. From the *figlina* of St. Miquel de Martres producing *amphorae* Pascual 1 and Dr. 2/4 (Vallès Oriental, Laietania), the stamp *LLQ* turned up, possibly reading *L(ucius) L(icinius) Q(?)*, as well as the stamp *SLL*, also documented at the *figlina* near Can Cabot and *Baetulo*. This last stamp could correspond to either a *tria nomina S(extus) L(icinius) L(?)* or a compound name *S + L(ucius) L(icinius)*.

Other Laietanian stamps can also be included in this list. Among these are *BL*, *CLAR*, *CLB*, *EL*, *L* and *PLO* (Berni *et al.* 2005).

However, it is not the only role of this *gens* regarding the phenomena related to wine production. The study of *dolia* stamps has provided a quite complex production panorama.

We refer to the stamp on *dolia L. LIC(INIUS).CHRES*, with a date range covering the first half of the first century AD. Four sites so far have documented this stamp: *L.LIC. CHRES* at the Can Feu and Castellarnau workshops (Vallès Occidental) as well as the *villa* of Sta. Margarida de Montbui (Anoia), while a variant [?] *LICIN.CHRESIMI* was discovered on a reused *dolia* at *Barcino*.

In the case of the example from Sta. Margarida, the stamp *L.LIC.CHRES* appears with another, *FIDELIS FECIT*, which seems to show that a slave called *Fidelis* was the container's producer while *Luci Licini* was the owner of the contents, i.e., the wine. In the same *villa*, another stamp on *dolium* was documented, *L.ANTONI*. It should be pointed out that the *villa* of Sta. Margarida, unlike Can Feu or Castellarnau, did not produce *amphorae*. This fact may imply that the produced wine was carried by other means (such as *cullei* or *cupae*) to the exit ports.



Fig. 2. Three kilns of Pascual 1 and Dressel 2-4 amphorae from Can Feu

Finally, that the existence of an estate of this *gens* close to the territory of *Barcino* was identified by the early medieval place-name of *Liciniano-Liciano*, present Llicà (Vallès Oriental), is well known. The identification of *Liciano* as a *gens Licinia* estate, and perhaps with the powerful *L.Licinius Sura*, had already been put forward by M. Mayer (1996).

From the study of the place-name known since AD 946, some interesting data arise. It is a huge estate, which required a subdivision into *Liciano subteriore* (946) and *Liciano superiore* (958), with good communication since the via Augusta crosses the estate, and it is near the crossroad (with a Republican road coming from Osona). No Roman settlements have yet been documented there, although some agricultural production sites were recorded in the neighborhood. The site of Can Boada Vell (Palau de Plegamans) stands out because a *tegula* with the stamp [TEG]ULA PAULI EX FUN(do) [---]PERIANO (IRC V 139) was found there. The identification of such a character as *Paulus*, *tegulae* producer, is not surprising. It should be borne in mind that the site is located in a medieval estate called *Pauliniano*, as appears in medieval cartularies. He could have been a freedman or individual linked to the hypothetical figure of *Paulus*, landlord of this estate or the close *officina*. An inscription from *Barcino* (IRC IV 98) mentions *M. PAULLUS PAULLINUS* as an *amicus* dedicating one of the 22 stands of *L.Licinius Secundus*. The close location of the probable *fundus Paulinianus* to the *fundus Licinianus* is suggestive. Another dedication comes from *Quintia Severa* (IRC IV 100), which may be related to the estate of *Quintiano*, near *Barcino*.

Finally, but on a more hypothetic level, the location of remains of an impressive early empire villa only 4 Km far from *Liciano*, below present-day Granollers (Uscatescu 2004), should be noted.

In this place, there is a group of storage pits and walls from the Augustan period or the first half of the first century AD. At the end of the first century and early second century, most of the architectural structures from the luxurious villa were constructed, covering an extension of 2.4 Ha., with *thermae* and porch. In the middle of the second century AD, the villa underwent an important renovation in the *pars urbana*, with an accurate decorative programme, which implied a decoration of the baths with *opus musivum*, a pattern of shells in a row, or the presence of *opus sectile* (Uscatescu 2004, 65-66; 95-96). Within the porch, two rectangular *laci* were discovered with a hydraulic coat and molding at the angles, which appear to have been employed to maximize fermentation (Uscatescu 2004, 61).

Summing up, it is a remarkable villa with a rural part that may have been used for agricultural production and likely for wine production. The villa also had a documented urban part with a decorative programme integrated with the representation and standard of living of the Roman imperial elite. One intriguing hypothesis is that this is the *gens Licinia* estate or even *L.Licini Sura*'s one.

The Santa Caterina workshop

In 2001, a first approach to the study of the amphora stamps found at *Barcino* was published (Berni and Carreras 2001), resulting from a systematic collection of all the materials found in the Museu d'Història de la Ciutat and the City Archaeological Service. This collection included all the stamps known by December 1999, a group of 60 stamps, 48 of which were produced in the *Tarraconensis* province. The aim of this initial work was simply to evaluate the importance of the colony of *Barcino* as a commercial centre for either the arrival of products from outside carried on *amphorae* as well as the export of local productions.

In this first work, 16 stamps were recognized as having been produced in the Barcelona Plain and its hinterlands, a territory known in ancient times as *Laietania*, an area of production of abundant wines not always of high quality, as the ancient sources reveal (Martial I.26.9-10; Pliny the Elder NH XIV.71). The *amphorae* produced on the Barcelona Plain probably contained wines from different *villae* of the Laietanian territory, from the Plain and other inland places (Palet 1997, 172-173). Not all the *villae* had their own amphora workshops: some of them ordered containers designated for carrying their wines to neighboring workshops, through the *locatio-conductio* mechanism (Cockle 1981; Rathbone 1993).

If the first work on stamps from *Barcino* managed to collect only 16 stamps from local producers, the recent excavation of Santa Caterina (Barcelona) provided a group of 68 stamps, all of them from the same workshop. Therefore, the image of local production has changed completely; in some cases, new stamps have allowed us to recognize ancient broken stamps and determine families of stamps.

Santa Caterina's production appears to cover a wide date range from the early years of the colony's foundation: there are some stamps dated between 10 BC and 5 AD (Cap de Volt shipwreck) to AD 20, dated by the Chrétienne

C shipwreck (AD 15-20). Some stamps likely continued to be produced later than this date. A chronological coincidence seems to be reflected in some stamps, as well as a typological evolution and firing technique for *amphorae* production.

According to parallels of these stamps, it seems that a soft cream fabric was common in this workshop until around AD 10-15, when the first examples of red fabric turned up. This change in firing techniques likely coincided with a change in typology from Pascual 1 to Dressel 2-4. Hindrances in linking spikes to a typology such as Pascual 1 or Dressel 2-4 makes it difficult to demonstrate this point. However, other workshops such as Can Feu (Sant Quirze del Vallès) registered a similar phenomenon. Can Feu produced in an initial period from 10 BC to AD 15 Pascual 1 in soft cream fabric, but from AD 15 onward manufactured either Pascual 1 or Dressel 2-4 with red-brick fabric (Carbonell and Folch 1998). Transition from one firing technique to the other coincides with the production of some stamps that appear in both fabrics.

With the goal of obtaining more contextual dating for the diverse stamps, we offer the following chronological table:

1st period: 10 BC – AD 10

Productions in soft cream fabric:
I – Cap de Volt shipwreck (10 BC – AD 5)
T – Cap de Volt (10 BC – AD 5) and Els Ullastres shipwrecks (50 BC – AD 25)
PIL
THEOPHIL
O
PHILO
Φ

2nd period of transition: 10 BC – AD 15

Productions in either soft-cream or red-brick fabrics, probably covering a wider date range:
LESB
LAETI
PLOC

3rd period: AD 15 – AD 20

Productions exclusively in red-brick fabric:
P – Planier I (AD 1-15) and Els Ullastres shipwrecks (50 BC – AD 25)
A – Chrétienne C (AD 15-20)
PRI – Chrétienne C (AD 15-20)
AVC
EPAPR

As can be observed, the Santa Caterina workshop produced 15 stamp typologies that with the exception of only a couple of cases (i.e. PHILO, PIL, PLOC) do not seem to be related to one another. This means that each stamp identified a different individual; therefore it cannot be the workshop's owner, at least in all the cases, because this would mean that there was a change of property every two years (15 stamps in 30 years, 10 BC to AD 20). How can

the temporal coincidence of so many stamps in the same workshop be explained?

Interpreting Tarraconensis *amphora* stamps is not an easy task due to their great variety and heterogeneity (Revilla 2004). Sometimes they appear to read as *tria nomina*, at other times *praenomen* and *nomen*, associations of *nomina*, other *cognomina*, or only initials. Some scholars defend that each workshop should be studied individually. Stamps from Santa Caterina are therefore analyzed as individual cases within their epigraphic and geographic context, despite similarities among workshops that should be pointed out.

The presence of great varieties of workshop stamps is common to other *figlinae* in the Baix Llobregat such as Vila Vella (Sant Boi), with 18 variants (Revilla 1995, 190-192); Can Reverter (Sant Vicenç dels Horts), with 10 variants (Revilla 1995, 199-202) and Can Tintorer, with 23 variants (Revilla 1995, 203-208). Not only the Barcelona Plain records workshops with numerous typologies of stamps, but also sites from Vallès such as Can Feu (Revilla 1995, 213-216) with 11 variants or Torre Llauder (Revilla 1995, 249-257) with 36 stamps do. If it is possible that some stamps were not produced locally, this diversity of stamps in the same place requires an explanation.

All seem to suggest that amphora stamps referred to people related to wine production or amphora production from Tarraconensis. Some scholars defend the hypothesis that they identify a variety of people responsible for workshop production, for instance the *figulus* and his workers, some of them being slaves. This interpretation comes from the production of Samian ware (*sigillata*) in the Graufesenque workshop, in which the name of the manufacturer was an important element.

The relationship between craftsmen and containers in the production of amphora is not so relevant, since contents were more important than containers. Therefore, it seems feasible that stamps identified wine producers, not container producers. Regarding the Santa Caterina workshop, most stamps are abbreviated *cognomina*, such as THEOPHIL, PHILO, LESB, LAETI, PRI, AVC, and EPAPR or are combinations of *nomina* and *cognomina*, such as PLOC. Most of these *cognomina* appear to represent Greek names, which are normally associated with slaves or freedmen. If such names represented freedmen, they could identify landlords or agents of landlords (*institores*) from the Barcelona Plain, whose estates were dedicated to wine production. Their wines were probably uploaded to commercial ships in the port of *Barcino*, after filling *amphorae* produced in urban centers such as Santa Caterina (Carreras, 1998).

The presence of stamps from anonymous characters such as freedmen acting as commercial agents likely justifies the fact that the elites of the *Barcino* colony, *ordo decuriorum*, do not normally appear. Only in a few cases do amphora stamps appear to identify senatorial and equestrian individuals such as *Cn.Lentulus Augur* (Tremoleda 2003), *P.Usulenius Veientus* (Tremoleda 1997), *gens Mussidi*

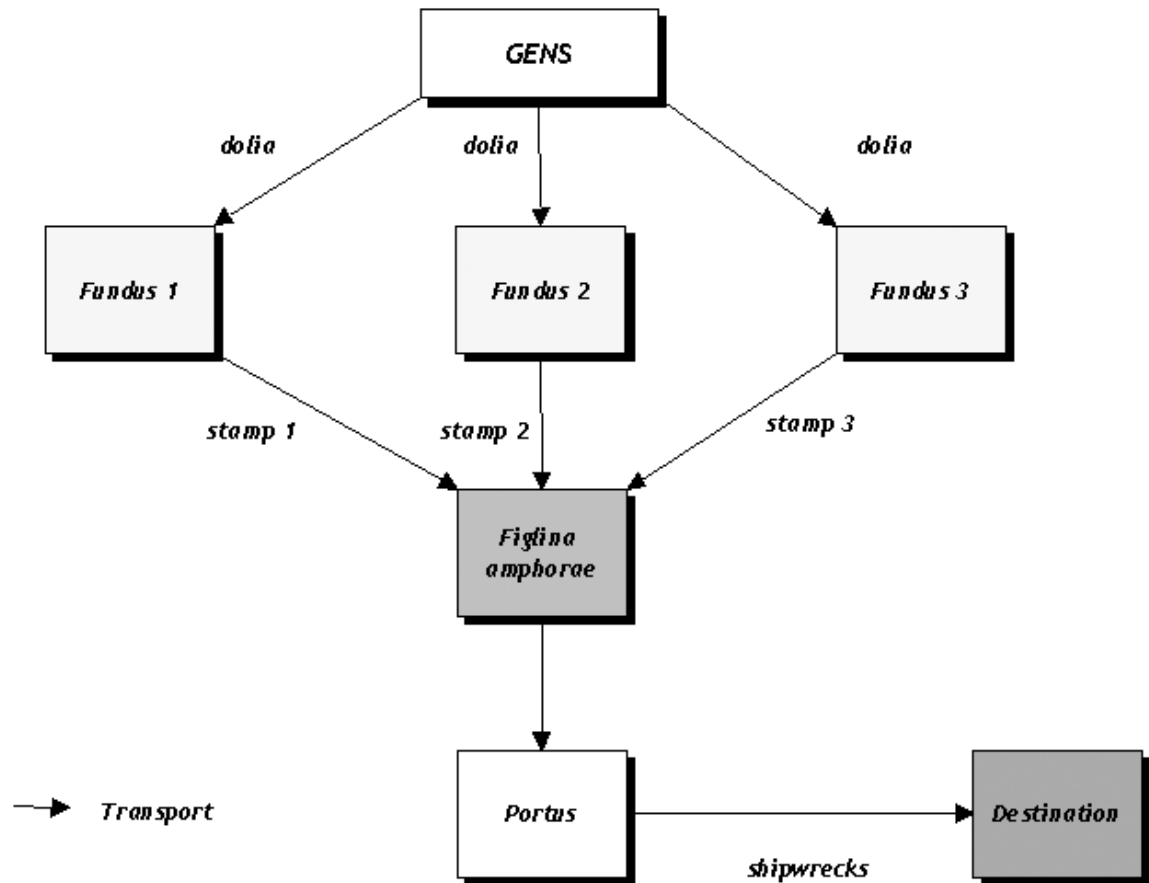


Fig. 3. Theoretical structure of the social landscape

(Barreda 1998), *Cornelii* (Berni, Carreras and Revilla 1998) and *M.Porcius* (Carreras and Olesti 2002). Similar conclusions were drawn from the study of stamps related to *gens Licinia* (Berni *et al.* 2005) and the study of the main *fundi* of Laetania that appear as place-names in the medieval cartularies (Olesti 2005).

Since 218 BC, the *lex Claudia* limited the involvement of the Senatorial class in trade to a ship with a carrying capacity of 300 *amphorae* (Livius, XXI, 63.4; Cirero, Verr.V.18). However, senators attempted to overcome the limitation by using their freedmen in commercial ventures (Raschke 1978; D'Arms 1981; Wallace-Hadrill 1991; García Brossa 1998). Furthermore, the *lex Iunia Norbana* (17 BC) and *Papia Poppaea* (AD 9) reinforced ties between freedmen and owners.

According to this interpretation, Santa Caterina stamps represent the different people responsible for managing wine production estates in the territory of the colony of *Barcino*. In some cases, the same people were the *fundi* landlords and acted as representatives of the great landlords in the region, a kind of *vilicus* or *institores* (Lô 1992; Aubert 1994). The proximity of the *Barcino* port, where wine could be embarked to the main Mediterranean ports, made it unnecessary to fill containers in the same estate or

fundus. On the contrary, it may have been more sensible to carry wine *cullei* or *cupae* to the colony in order to fill it in the amphora produced in the urban workshops.

This will explain why some *villae* close to *Barcino*, such as Sant Pau del Camp or Can Cortada have fields of *dolia*, probably to store wine, but they do not have any amphora workshop to carry their products. Another case is that of the Joaquim Xirau settlement, in which a *lacus* was found and perhaps a wine press, but no amphora workshop, as well as Arxiu Administratiu. Perhaps the production of their own vineyard or other producers' was pressed there and later stored in *dolia*, before being transferred to *amphorae*. This kind of organization with amphora workshops close to the main river and maritime lines was quite common in the province of Baetica (Remesal 1986), in which *villae* producing olive oil were far from the Guadalquivir riverside, while workshops were on the riverside.

If this was the interpretation of Santa Caterina's workshop, people appearing on the stamps may have been people responsible from estates in the colony's surroundings. Only one stamp produced at Santa Caterina, THEOPHILI, was also manufactured in other sites. The same stamp is documented in other workshops of the Baix Llobregat area, such as Vila Vella (Sant Boi), (López 1998) and Sant



Fig. 4. Distribution of medieval name-places of possible Roman fundi

Vicenç dels Horts. Therefore, it is unclear whether this stamp was found accidentally at Santa Caterina or perhaps the workshop produced extra *amphorae* that could not have been produced in other local workshops.

Shipwrecks with Tarraconense cargoes

The study of stamps from Tarraconense shipwrecks by Corsi-Sciallano and Liou (1985) made it clear that any *amphorae* workshop such as Can Tintorer or Can Pedrerol should have had a coastal exit for its exports. In the case of Can Tintorer and Can Pedrerol, located along the Llobregat River, this exit may have the river mouth itself (Izquierdo 1987) or the closest harbour, the city of *Barcino* (Berni and Carreras 2001). It is still difficult to demonstrate that some *amphorae* and other agricultural products from inland areas were stored in *horrea* of ports such as *Barcino*, since no installations have yet been unearthed. Nevertheless, stamps found in the city (Berni and Carreras 2001) show that they came not only from local centers but also from workshops from the Llobregat riverside and the inland regions of Vallès Occidental.

Likewise, amphora stamps recovered in excavations at *Baetulo* show a pattern similar to that of stamps coming from *villae* located on the coastal strip, and also from inland regions such as Vallès Occidental and Llobregat riverside (Comas 1997). Similar evidence appears in *Iluro*, the third most important town in the Laietanian coast, although most are still under study. Without denying a possible direct trade among coastal *villae* or centers with good communication along riversides (Nieto and Raurich

1998), it is believed that most Tarraconense *amphorae* were transported by wagons, pack animals or river boats to the main coastal towns (*Barcino*, *Baetulo* and *Iluro*). They were probably stored there in *horrea* until local or foreign traders bought them and loaded their ships with them.

This hypothesis would lend some sense to the complex composition of Tarraconense shipwrecks, in which mixed cargoes from diverse but not distant *villae* appear. The coastal port was the central point for the whole region and the most suitable place to obtain the wide variety of products from the hinterland. Of course, a commercial ship may have sometimes called to more than one port or even anchored near a coastal villa in order to take on *amphorae*.

In 2002, we reviewed the work of Corsi-Sciallano and Liou (1985), trying to understand the origin of the shipwrecks on the basis of the Tarraconense amphora stamps present in their cargoes (Carreras and Berni 2002). Thanks to an improvement in our knowledge in new workshops and production areas, we discovered a kind of logic in the composition of cargo. Most ships carried amphora from a very close area centered on one of the Laietanian ports.

It is possible to discuss relationships between coastal ports and inland regions when the production centre of an amphora stamp is identified. Today, the origins of only a limited percentage of Tarraconense *amphorae* stamps (around 30%) are known, despite the increasing number of kilns that have been unearthed or surveyed (Revilla 1995). There is always the risk that remains of those workshops

may have completely disappeared, so analyses of stamps and *amphorae* fabrics can be an alternative way to unveil stamps origin.

The variety of Tarraconense *amphorae* found in different shipwrecks also depends on ship size, as well as on the commercial routes employed. For instance, in the early period (second half of the first century BC) of Tarraconensis exports, represented by the Laietana 1 and Pascual 1 *amphorae*, most commercial ships were of small size like Los Ullastres or Cap de Volt (Nieto and Raurich 1998, 121-123). Wine *amphorae* were uploaded in production centers around Maresme, Empordà and Badalona-Barcelona region and transported to Narbone, which was the main port-of-trade for Tarraconense wine. Those ships were probably carrying mainly products originating in Gaul in the return trip to Hispania, as the Flavian Culip IV shipwreck was interpreted (Nieto *et al.* 1986).

These early shipwrecks present heterogeneous cargoes that may be due to the making of few calls to different coastal *villae* or ports where limited number of *amphorae* were uploaded. Ships followed a coastal route towards Narbone, perhaps buying and selling products at every call. Most exports of Pascual 1 *amphorae* may have followed this pattern of preferential trade towards Narbonense along coastal routes. This trade lasted almost 50 years, bringing about a consolidated North-South commercial circuit (Berni 1998, 72-74). Furthermore, this type of sea trade was based on a decentralized production model.

However, a second type of Tarraconense sea trade is recorded from the Augustan to the Flavian period. The new variant is characterized by mid-sized ships carrying chiefly Dressel 2-4 *amphorae* from concentrated areas (Barcelonès, Baix Llobregat, Maresme, Vallès Occidental and Vallès Oriental). It seems these mid-sized ships required a stable port for anchoring and uploading, so *amphorae* were probably stored in the main ports of Tarraconense (*Barcino*, *Baetulo*, *Iluro*...). It must be borne in mind that these ships were safer completely full than half empty. Therefore, completing the whole shipping cargo in only one port, even with ballast, was the most sensible choice of action (Nieto, 1988). The main destinations of these ships were the large ports (Ostia, Puteoli) and cities of the Central Mediterranean (Rome, Carthage, etc.) or military ports of southern Gaul. Gallic wine production appeared to control step-by-step the military markets in the Limes, getting out of the markets other wines such as Tarraconense.

There were two main routes, one crossing near the Balearic Islands through the Bonifacio Straits toward Rome, and a second one following the Gallic coast toward Central Italy. Rome was probably the main market for Tarraconense wines in this period, but some of the Tarraconense

amphorae arriving at Ostia were redistributed to other destinations (probably to Carthage).

Finally, a third typology of sea trade may be represented by the cistern ships that transported most Tarraconense wine in *dolia*, apart from a complement on Dressel 2-4 *amphorae*, some of them coming from Tarraconense and others from Campania. Corsi-Sciallano and Liou (1985, 169-171) recorded at least a few shipwrecks, among these La Garoupe, Ladispoli and Grand-Ribaud (Hernard, Carre, Rival and Dángreaux 1988), with this kind of cargo. It is believed that wine carried in *dolia* was low-quality table wine that was later transferred to other containers before being sold.

Routes of these cistern ships linked the coastal ports of Tarraconense, probably including *Barcino*, with the southern coastal ports of Campania (i.e., *Puteoli*). Wine was the main product transported in those ships in both directions.

Final comments

We have attempted to show a new approach to the study of ancient landscapes, not only from sites distribution of spatial archaeology, but also from other type of sources. These sources are morphological data and toponymy from medieval cartularies, monumental epigraphy, epigraphy of *instrumentum domesticum* (i.e., *amphorae* and *dolia*) and distribution. All these data can be integrated in a unique document that has social landscape as its common reference point.

More than intending to put forward a close interpretation model, our aim is to show a methodology that allows us to develop a hypothesis. The location in the same territory – in this case the Laietanian region – of probable *fundi* of well-off families, wine production places, amphora workshops, distribution of stamps, transport networks, and exit ports allows us to create a solid basis to generate new qualitative information on land ownership and ancient production. Studies on the distribution of *villae* and *officinae* are necessary, but without this qualitative variable they cannot go far beyond a descriptive level. Notwithstanding taking some risks, we believe that only with a holistic approach to ancient landscapes may headways be made in the study of ancient societies and production forms.

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