



# Origins of a new economic union (7<sup>th</sup>-12<sup>th</sup> centuries)

Preliminary results of the nEU-Med project:  
October 2015-March 2017

edited by

Giovanna Bianchi, Richard Hodges



UNIVERSITÀ DEGLI STUDI DI SIENA



nEU-Med

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with contributions by

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*Cover:* Aerial view of excavations at Vetricella (Scarlino, GR) (photo ATS s.r.l.).

Unless otherwise specified, all photos are by the authors of the individual articles.

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## PUBLIC ESTATES AND ECONOMIC STRATEGIES IN EARLY MEDIEVAL TUSCANY: TOWARDS A NEW INTERPRETATION

In this article, our intention is to summarise the salient findings which emerge from the previous articles, to widen our gaze to include contexts outside the project sample area. However, in doing so, we will bear in mind two aspects which are characteristic of the history of this area:

- a) the presence of important public estates, often preceded by important senatorial and imperial properties (see note 4 in the article by BRIANO *et al* above).
- b) the end of the 9<sup>th</sup> and the 10<sup>th</sup>c as the chronological period in which some of the most important changes in the anthropic and natural landscape seem to be concentrated (see PIERUCCINI *et al.*; MARASCO *et al* above).

These findings allow us to embark upon a series of preliminary reflections on how the presence and administration of public property may have influenced the economic dynamics of territories connected to them. At the same time, the reference to the aforementioned timespan leads us to concentrate our attention on a specific historical context, which could have enabled conditions to come about which were at the foundation of changes which affected Vetricella and its territory.

In the first paragraph the issues will be addressed by setting out from an analysis of documentary sources. Thereafter archaeological findings will be explained, or revised, in light of a new interpretative perspective, stimulated by the information which is emerging thanks to the nEU-Med project.

Bearing in mind the series of questions and hypotheses formulated in the first article in this volume (HODGES *above*), in the final paragraph we will try to summarize a series of considerations, with the intention of providing the basis of discussion and reflection for future research strategy.

G.B., S.M.C.

### 1. AN OVERALL VIEW STARTING FROM WRITTEN SOURCES

1.1. A couple of years ago I first began, in collaboration with some young scholars, a research study on the “material foundations” of public power in Tuscia between the 9<sup>th</sup> and 11<sup>th</sup>c. The investigation, which set out from questions relating to the regional political system, offered interesting insights in other fields, too: from the history of the production of

documents to economic history. It is on this latter aspect that we will focus on this occasion, seeking an interaction between the initial results from this work and the data produced so far by the nEU-Med project.

One of the first outcomes of the research is the preparation of a database, “Fiscus”, to contain a census of public properties known in the region between the 8<sup>th</sup> and 13<sup>th</sup>c, updating the last systematic research on this subject, i.e. the one by Fedor Schneider published in 1914 (COLLAVINI forthcoming; SCHNEIDER 1914). Pending its completion, in order to try form an idea of the scale of this patrimony, we can begin from the double dower dated December 937 with which King Hugh concentrated in the hands of his wife, and the wife of his son Lothair (Berta and Adelaide, respectively), many public properties, some of them in Tuscany. Despite the fact that this only offers a partial picture of the public patrimony in the region, the dower has some evident advantages: first, it offers an overall picture, and quantifies approximately the size of the *curtes* recorded. Moreover, it was produced in the first half of the 10<sup>th</sup>c itself, when major material transformations were under way at some of the sites investigated. Finally, and this aspect is no less fundamental, the dower mentions two *curtes* connected to the valleys, and specifically to the sites at the centre of the nEU-Med project: *Cornino* and *Valli*.

The Tuscan properties mentioned in the dower (excluding properties in the Lunigiana area, which was outside the March at the time) consist in 10 or so *curtes*, and three large royal monasteries; in the case of each estate complex, the total number of *mansi* which made it up is indicated. These are generic estimates, to be handled with caution, but the figures are nevertheless impressive: the *curtes* in Tuscany had 880 *mansi*, while the three monasteries, where the rest of the public properties had been concentrated (S. Salvatore of Sesto, S. Salvatore al Monte Amiata, and S. Antimo in the Val di Starcia), possessed 3,500 *mansi* in all<sup>1</sup>.

The best way to form a more concrete idea of the size of this enormous complex of property is to compare it with the only ecclesiastical property in Tuscany known in detail for this phase, the property of the bishopric of Lucca, described in

<sup>1</sup> SCHIAPARELLI 1924, nos. 46, 47 (937); cf. VIGNODELLI 2012, esp. pp. 258, 271-275. The number of *mansi* included in the dower could be surprising, but a comparison with the “ideal size” of the major Carolingian communities of canons, in line with the Council of Aachen of 816 (between 3,000 and 8,000 *mansi* for the largest ones; between 1,000 and 2,000 for medium-sized ones; and between 200 and 300 for the smaller ones, see *Concilium Aquisgranense*, CXXII, p. 401 lines 7-20), suggests that the figure is likely, and that its size was not too big compared to the greater churches of the hearth of the Frankish world.

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the inventories of Peter II at the end of the 9<sup>th</sup> c. It comprised around 500 *mansi*, and thus it was more or less one ninth the size of the royal property in the dowers, and one quarter the size of the S. Salvatore of Sesto monastery property alone (2,000 *mansi*)<sup>2</sup>.

Thus, we are talking about an immense source of wealth, and a very large mass of men and economic production, controlled by the king or by the marquis. To limit ourselves to one example, let us consider the wealth of the monastery of S. Salvatore of Sesto, in the Lucchese countryside: its 2,000 *mansi* must have corresponded to around 10,000 people, much more than the inhabitants of the city of Lucca at the time. In economic terms, the patrimony attested by the dower was, primarily, a collection of *mansi* which guaranteed a very large agrarian income, making the one who held it the biggest economic player in the region, even in quantitative terms alone. However, as well as farming agricultural products, it must also, given the quantities involved, have conserved them, transformed them, and circulated them (although not necessarily commercially). Finally, as we shall see, although the dower is silent on this point, archaeological research is showing that the royal *curtes* (and, of course, the monasteries too, and even more so) were also centres of far from insignificant artisanal production. In short, trying to understand the economic activity of the public estates in its various components means having to deal with a fundamental player in the regional economy of the day, which thus far has been neglected by historical research.

1.2. Staying with the texts which we set out from, let us observe now the spatial structure of the dower (see maps in VIGNODELLI 2012, pp. 258, 273, 280). There are several reasons for this structure, none of which is exclusive. Indeed, it shows what the political fulcrum of public power was in Tuscany in 937, namely the area in which the king and the marquis had most land to distribute in order to ensure political support. It also reveals a series of thoroughfares along which a political power, which was indeed itinerant, moved. Finally – and this is the central point of my argument – it suggests a number of economic strategies put in place by the royal power. In order to understand them, we will focus first on the main nucleus of public properties in Tuscany (the northern one), which was the largest and most complex, examining its spatial distribution and quantitative size. One can identify three main groups of *curtes*. The first is situated in the Valdarno, in the system of lakes north of the river (Lago di Sesto/Bientina) and the area of Pistoia<sup>3</sup>. These *curtes* (to which must be added those of Lucca, Pisa, and Florence, which were still in the hands of

the marquis, including S. Genesio, the *caput curtis* of which is currently being excavated by Federico Cantini) were first and foremost large agricultural businesses, involved in farming (cereals, vines, and olive trees). However, they did not restrict themselves to producing foodstuffs, but also transformed agricultural products and were active in their circulation. Setting out from this basis, obviously, artisanal activities could also develop. They are occasionally suggested by the written sources (such as weaving at Bientina), and also sometimes attested by archaeology investigations (S. Genesio)<sup>4</sup>.

1.3. Meanwhile, the remaining *curtes* in the dower are concentrated in two much more restricted ambits which were, apparently, more marginal both politically and in the royal itineraries: the area facing Monte Pisano (where the patrimony of S. Salvatore of Sesto was situated, and perhaps also the property of the *curtis* of Bientina); and the Maremman coast in the territory of Populonia, and in particular the two valleys investigated by the nEU-Med project, the Cornia valley (*curtis* of *Cornino*) and the Pecora valley (*curtis* of *Valli*). These zones are certainly less rich as for agriculture, being characterized by flat regions interrupted by unproductive hills, and/or extensive wetlands consisting of lakes or lagoons which were the result of stagnation of the waters. Moreover, in the case of the Maremman *curtes*, the distance from the heart of the March must have made it economically irrational to transport, over long distances, products similar to those grown in the Valdarno, to bring them to the marquis' court, sited just outside Lucca's city walls.

These outlying *curtes* also have another characteristic in common: the number of *mansi* of each of them is relatively low compared to the rest of the public patrimony. So why secure *these very curtes* via the dower? And why administer them as independent *curtes*-based businesses, instead of uniting them with the large holdings of the imperial monasteries which were situated in the same areas? An explanation can be tentatively put forward, by suggesting that they controlled particular resources, which were economically and politically strategic. This would also explain their significant economic importance, attested positively at least in one instance, despite the limited agricultural production guaranteed by the (relatively) few *mansi*<sup>5</sup>.

We shall begin by looking at the northernmost complex, in the case of which, pending archaeological investigation which is more than just occasional, our analysis must set out from the written sources, from the observation of the natural environment, and from known local resources. The *curtes* surrounding Monte Pisano (Nozzano, Avane, and Lugnano, to which was later added the *curtis* of Pappiana, mentioned as of 1014) comprised a limited number of *mansi*

<sup>2</sup> Calculations based on LUZZATI 1979 (considering both the *Inventarium* and the *Breve de feora*). The calculation does not take into account lands rented out by the bishopric, for which it received fixed rents (often ceded as *beneficia*), but which it no longer had effective control over. The Bishop had a list drawn up of these lands too (relating to the *livellarii* of his predecessor, Gherardo), recently published in TOMEI 2012 (worth consulting also for its bibliography on the Lucca inventories).

<sup>3</sup> As well as the assets of the monastery of S. Salvatore of Sesto located in the area adjacent to its site, also belonging to the complex were the *curtes* of Bientina (60 *mansi*), *Cortenuova*/Empoli (70 *mansi*), S. Quirico (40 *mansi*) and *Pionta*, near Pistoia (500 *mansi*). This last *curtis* must have been the one which managed all the holdings of the *comitatus* of Pistoia.

<sup>4</sup> Cf. BIANCHI, CANTINI, COLLAVINI forthcoming. For the traces of weaving in the *curtis* of Bientina see TOMEI forthcoming; for craft production at S. Genesio, see CANTINI 2018.

<sup>5</sup> On the fact that the dower made exceptions, protecting properties from potential usurpers, see LAZZARI 2012 and VIGNODELLI 2012: this leads us to think there was royal planning behind the choice of *curtes* included in the dower, and that it didn't passively record the fiscal properties present at the time in the region.

(Nozzano 40, Avane 60, Lugnano 30)<sup>6</sup>. However, these were located on the south-western slopes of Monte Pisano and on the other rocky outcrop situated immediately to the west of the former (Monte Spazzavento), between Lucca and Pisa, closing off the course of the Serchio. This area was intensively exploited ever since Medieval times for quarries for building stones. If one considers that the rest of the Monte Pisano massif was also public property, primarily by means of the monastery of S. Salvatore of Sesto, it follows that the king and/or marquis had a de facto monopoly over this huge quarry, the products of which provided the material for the construction of churches, city walls and palaces in the lower Valdarno and the plain of Lucca<sup>7</sup>.

Nor was stone for construction the only product, probably: almost on the top of Monte della Verruca, one of the south-eastern hills in the Monte Pisano massif, at least as of the beginning of the 9<sup>th</sup>c, there stood a church which was certainly publicly-owned, given that the few references to it are connected to individuals and institutions, not related to each other, but all close to the power of the king and the marquis. The chapel, dedicated to San Michele, was transformed into a monastery probably by Marquis Hugh at the end of the 10<sup>th</sup>c, although it remained under S. Salvatore of Sesto, and thus part of the fiscal estate system<sup>8</sup>. Why, in financial terms, found a church in a place so apparently devoid of resources, and so geographically remote? Well, the path which, still today, leads to the monastery from the Arno (and from the *pieve* of Caprona, which stands at a bend in the river) passes through an area with large outcrops of slate, suited for the production of roof-tiles. For that matter, stone-quarrying, even if perhaps not explicitly slate, and its transportation all the way to the Arno (presumably to Caprona), on mule-back, are positively attested to in a written source specifically in connection with S. Michele alla Verruca itself, albeit only for the first half of the 12<sup>th</sup>c<sup>9</sup>.

Finally, as confirmation of the great attention to the exploitation of “stone-as-resource” ever since the 10<sup>th</sup>c, and also – something even more significant for us – of the early appearance of forms of productive specialization connected both to this specific resource and to the public sphere, we can

<sup>6</sup> The first mention of Pappiana comes from the date of two diplomas of Henry II (DD. HII, nos. 295, 296); on the later history of the *curtis*, deriving from the March, and on the location of its castle, see CECCARELLI LEMUT 1998, pp. 464, 475-80.

<sup>7</sup> On the use of stone from Monte Pisano, cf. e.g. FRANZINI, LEZZERINI, MANNELLA 2001 and FRANZINI, LEZZERINI 2003; a doctoral thesis in Archaeology is being prepared on this issue by Giuseppe Tumbiolo under the supervision of prof. Federico Cantini.

<sup>8</sup> For a review of the written sources on S. Michele see CECCARELLI LEMUT, SODI, 2017, pp. 223-26 and, for more detail, GIULIANI 2005, who underestimates the centrality of the public element in the history of the monastery, though. The site of S. Michele has been the subject of a long-lasting excavation campaign (1996-2003), the results of which are published in GELICHI, FRANCOVICH 2003 and GELICHI, ALBERTI 2005.

<sup>9</sup> See SCALFATI 2006, n. 166 [1150 c.]: many witnesses refer to the quarrying and cutting of *petras* and *lapides* (it is not clear whether these are two different products, or two ways of referring to the same raw material) also on the part of *magistri* in several different places, including *Serra de Plaia* (which has not been identified with certainty). One of the witnesses stated that *lapides incidit, quos deferebat ad Sarnum et solvebat ei [sc. to the abbot] pretio et alii asinarii*. Cf. ANDREAZZOLI 2003, pp. 44-45, although here it must be said that nothing in the source leads us to believe that the quarry was started with a view to the monastery's reconstruction.

consider the case of Fibbialla in Versilia. Although it does not appear in the dower, Fibbialla was part of a large complex of fiscal land, small elements of which were separated off and ceded to individuals connected to the kings or the dukes of Lucca, while other, larger parts were granted in precarious form to the Cunimundinghi, a prominent family from Lucca, who was part of the marquis' entourage (TOMEI 2017, pp. 121, 133-34, 149-51, 180). The Bishop of Lucca was also one of the beneficiaries of these land-grants: thus, three Fibbialla *mansi* appear in the late 9<sup>th</sup>c *Breve de feora* (the inventory of episcopal assets granted as *beneficia*). However, what we are interested in are not the *mansi*, but the place-name, and the gloss which explains it. Indeed, there is a reference to a *Flabianula Archaria, ubi arche faciunt*<sup>10</sup>. Regardless of what exactly were the *archae* in question (sarcophaguses, articles for the storage of cereals, both, or something else), it is clear that at Fibbialla – in the second half of the 9<sup>th</sup>c – not only were stones quarried and worked, but people were also so specialized in making *arche* that this activity had lent its name to the place itself<sup>11</sup>. Just like nicknames deriving from trades, this is one of the first traces of artisanal specialization conveyed by sources such as charters, notoriously low on information on economic activities other than agriculture. Fibbialla – it needs to be stressed – was certainly for a long time part of a public complex, and its production of raw materials and finished articles must therefore have been directed towards the fisc (at the time, the Adalberti dukes) when the nickname became established, before the end of the 9<sup>th</sup>c. It should also be stressed that the nickname, although never in as explicit a form as in the inventory, was later used regularly until 1063: it is not clear whether this was only a case of inertia, or whether we have to see this fact as the sign of a long-lasting artisanal vocation<sup>12</sup>. In any case, only when the “fiscal economic system” entered its crisis, and then declined, at the end of the 11<sup>th</sup>c, in the context of the collapse and later the dissolution of the March of Tuscia, did this specialized activity seem to disappear. Indeed, from 1081 onwards there is no longer any trace of the nickname; and in the following centuries, given the need to distinguish it from a place in the Pescia area which bore the same name, the nickname which is still part of the modern place-name, *Fibbialla dei Canonici*, became established, the rest of the toponym referring to the Canons of S. Martino of Lucca which became the lords of the castle in the 1120s<sup>13</sup>.

<sup>10</sup> LUZZATI 1979, p. 231: *In Flabianula Archaria, ubi arche faciunt, habet manentes duo et sinditio uno*. Cf. also the parallel *placitum* of 897, the result of the property surveys of Peter II, in which the place name, written by a foreigner notary, is incorrectly given as *Flaviana seu Arcana* (mentioned among the property held by Cunimundo), MANARESI 1955-60, I, n. 102.

<sup>11</sup> Cf. COLLAVINI 2013, p. 71 (with a reference to the source to be corrected) and *passim* for the functions of the *arche*.

<sup>12</sup> BARSOCCHINI 1841, n. 1268 (939) *Flabianula Arcaia*; n. 1539 (983) idem; n. 1540 (983) idem; n. 1566 (983) *Flabianula Arcaia*; n. 1654 (991) *Flabianula que dicitur Arcaia*; n. 1716 (997) *Flabianula Arcaia*; Archivio Storico Diocesano di Lucca, Archivio Arcivescovile di Lucca, *Diplomatico*, +C 21 (983) idem; A 17 (1062) *Fabianula que dicitur Arcaia*; ++ B 82 (1063) *Fabianula Arcaia*; ANGELINI 1987, n. 26 (1034) *Fabianula que dicitur Arcaia*. For the unpublished documents, I am indebted to Paolo Tomei, whom I thank for the information.

<sup>13</sup> The first example of the dropping of the nickname is GUIDI, PARENTI 1910, n. 453 (1081): the witnesses include Ugo *de Fabianula* son of the late Pietro. When the *curtis*, now with a castle, was ceded by the Cunimundinghi to the

1.4. Can we make similar considerations also for the *curtes* of the Maremma? I believe we can. In this case, moreover, far more stringent findings, which by and large converge with what has been stated thus far, come from archaeology, including the initial results of the nEU-Med project. Indeed, for the *curtes* of *Cornino* and *Valli*, it is not hard to glimpse characteristic forms of artisanal specialization, connected to the exploitation (and transformation, as seen in the case of *Fibbialla Arcaria*) of raw materials present *in situ*; rare and strategic raw materials, which were vital for a political power whose horizon was at least regional.

We shall start with the Val di Cornia, which is better illuminated by the written sources, before moving on to the Val di Pecora. The great dynastic patrimony centred on the public *curtis* of *Cornino*, which controlled a large part of the lower Val di Cornia, is attested to at least as of the start of the 8<sup>th</sup>c, and is situated in an area which is well-investigated archaeologically (excavations and field-walking). Despite this, its *caput curtis* has not yet been excavated, or even identified with any certainty (see DALLAI *et al.* above). In the dower, the *curtis* is estimated as 30 *mansi*. These were only the remains of the vast Lombard complex: the kings and the dukes of Lucca had detached the more marginal parts of it (like the outer layers of an onion) on behalf of their protégés. The fact that one of those who received the concessions was the Bishop of Lucca explains why we know the area so well<sup>14</sup>.

Despite the land-grants to private individuals – and the probable division of property in the upper Val di Cornia, the so-called *Gualdo regis* – the *curtis* of *Cornino* retained a significant strategic value, and continued to guarantee sizable financial revenue: only this can explain why it was included in the dower, despite its peripheral location. While in 937 it was in the hands of the king, in the 11<sup>th</sup>c it had passed to the Aldobrandeschi, the most powerful family in the Maremma, which in former times had also been Counts of Populonia. Meanwhile, the *curtis* had changed its name, but not its nature. It was called the *curtis* of *Franciano* (a place-name which still exists, in the form *Franciano*, in connection with which, however, no traces have as yet emerged of the *caput curtis*), but it remained – unlike the more usual Tuscan *curtes* known from written texts – not an aggregate of *terra dominica* and *mansi* dotted across a larger or smaller area, but one very large, compact unit of land, precisely delimited (COLLAVINI 2016, pp. 67-68). This was not a unique case in the Val di Cornia, given that the *curtis* di *Gualdo* also had the same characteristics, in the 11<sup>th</sup>c, being detached from the extensive, original public complex, at an unspecified time, and being attested in the mid-11<sup>th</sup>c as being in the hands of the Aldobrandeschi<sup>15</sup>. In this instance, moreover, toponyms

in the hinterland, much more conservative than those in the coastal area, revolutionized by land drainage operations, even allow us to hazard a broad reconstruction of the borders. For that matter, it is possible, although in these cases the sources are ambiguous, that the same occurred also for other *curtes*<sup>16</sup>.

We owe our detailed knowledge of the *curtis* of *Franciano* to the fact that, between late 11<sup>th</sup>c and the year 1121, half of it was ceded by the Aldobrandeschi, first on a precarious basis and later on definitively, to the monastery of S. Quirico of Populonia. The charters relating to these transactions, preserved by the monastery's cartulary, reveal clearly three essential points. The *curtis*, although reduced in size, remained compact, and was situated in the end section of the valley, just back from the coastal lagoon<sup>17</sup>. Despite modest agricultural production (suggested by the fact only 30 of the *mansi* were in the dower, and by the fact the surrounding natural environment was unsuited to agriculture), it guaranteed a substantial income. As soon as it received half of the *curtis* of *Franciano*, the monastery began an operation to reconfigure its identity – from a small local church to a monastery with regional yearnings – attested to both by excavation findings, and by written texts (COLLAVINI 2016, pp. 68-69). The wealth of *Cornino*/*Franciano* derived primarily from control of the coastal salt-works. They are explicitly mentioned in charters and in the 1143 papal privilege; they are attested to by the other medieval sources and by modern cartography; traces, although only concerning late medieval features, have emerged from the excavation of the site of Carlappiano (situated within the space of the *curtis*), investigated in the context of the nEU-Med project (COLLAVINI 2016, pp. 75-76 on the salt-works; for the excavation, see DALLAI *et al.* above).

1.5. Basically converging considerations, although based on a more limited handful of sources, may also be made for the Val di Pecora and the *curtis* of *Valli*. In this case, though, the fact that the bishopric of Lucca had fewer interests in the area makes our knowledge more fragmentary. Originally, the *curtis* of *Valli* must have corresponded to the final section of the *Teupascio* (that is, “king's water”), as it was then called – with a very eloquent name – what is now the Pecora. As well as by analogy with the explicitly attested cases of *Cornino*

Canons of S. Martino, it had disappeared once and for all, see GUIDI, PARENTI 1910, n. 796 (1123), n. 800 (1123), n. 562 (1099), n. 564 (1099), n. 826 (1126) and so on; the new name was not established before the end of the 12<sup>th</sup>c, see *Fibbiella dei Canonici* 2004. For the *Fibbiella* near *Pescia* see BARSOCCHINI 1841, n. 1639 (988), n. 1737 (998) and GHILARDUCCI 1990, n. 21 (1019).

<sup>14</sup> The most detailed analyses of the sources on the *Cornino* are those by CECCARELLI LEMUT 1985 and 2004; cf. also GARZELLA 2005 and COLLAVINI 2016. For the first mentions of the estate complex in the Val di Cornia, dating to the times of King Aripert II and King Liutprand, see VON GLANVELL 1905, III, 191, p. 155, for the dating and interpretation of which cf. TOMEI forthcoming.

<sup>15</sup> Archivio di Stato di Firenze, *Diplomatico, Vallombrosa, S. Maria di Acquabella*, 1053 June 10 (id. 0007438), a copy from 1501, cf. COLLAVINI 1998, pp. 115, 156.

<sup>16</sup> These were the *curtes* of S. Vito (held by the Bishop of Lucca), although its size is attested to by a late charter (and thus it may have only been a recent acquisition connected to the creation of the territorial lordship) and the *curtis* of *Casalappi*, for which we do not have border records, but which is used to identify the location of some property (situated inside the *curtis*) and which thus must have had a “territorial” nature, cf. COLLAVINI 2016, p. 67 and CECCARELLI LEMUT 2004, pp. 6-8, 20 and nt. 108.

<sup>17</sup> GIORGETTI 1873-74, n. 40 (1121): *Petralata est ex una parte et Cornachini et rivus Pertuli currit in Notulo et Notulo vadit in stagno, ex altera parte est terra Sancti Petri de Montevidi et Sancte Marie Grasse et tenet secus stagnum et usque in Notulum* (text corrected on the basis of the original in the Archivio di Stato di Firenze, *Diplomatico, Riformagioni. Atti pubblici*, 1029 January 4 [id. 0000401]). The *curtis*, accordingly, included the lands overlooking the lake with the salt-works, mentioned as being among its adjacent parts, extending on both sides of the Cornia (probably corresponding at the time to the later Corniaccia): to the NW as far as the Notro, to the SE as far as an unspecified point, located before Vignale. It also bordered on land belonging to the royal abbey of S. Pietro of Monte Verdi, and on the lands of another monastery (*S. Marie Grasse*), perhaps St. Mary of Lagrasse, in the area of Carcassonne, confirming its public origin, and the gradual dismemberment of parts of the property complex in favour of individuals or churches linked to royal power.



and Castiglione della Pescaia<sup>18</sup>, this is also suggested by the toponym itself, clearly referring to an area connected to the depression in which the river flowed before forming the lagoon which, back then, covered much of what is now the plain of Scarlino. The sources on this estate complex, although scant, allow some certainties: first, the fact it was part of the public estate. The first notice of *Valli* (and of its *curtis*) comes from the dower of Adelaide (937), which mentions the 50 *mansi* which belonged to her. Meanwhile its continuity until the end of the 10<sup>th</sup>c is suggested by the absence of other references to the site, which remained in the hands of the queen, and later of the monastery of S. Salvatore of Pavia, which she founded. We are led to the same conclusion by the fact that the Aldobrandeschi, who were the main rising power in this area too, could not claim rights over *Valli* at the end of the 10<sup>th</sup>c, but only over Scarlino, a marginal appendage to it, probably detached from the central nucleus of the *curtis* (see KURZE 1981, n. 203, cf. COLLAVINI 1998, pp. 80-85).

However, things changed radically at the beginning of the 11<sup>th</sup>c. Indeed, *Valli* no longer appears in the diploma of Otto III for San Salvatore monastery (1000): by retiring to a private life (in around 995), Adelaide undermined the structure of the dower, and the very attribution to the monastery of the *curtis* (VIGNODELLI 2012). It therefore once again became a bone of contention on the part of those who aspired to administer those public assets (the March, the families in the marquis' entourage, the comital families, and the royal and marquisate monasteries). Although documentary references are few and far between, this is made clear by the few sources we have. In 1010 we find Rudolph III Aldobrandeschi dating a deed from the castle of *Valli* (CAVALLINI 1972, n. 11; cf. COLLAVINI 1998, p. 96): this must have been a new fortified structure built within the *curtis*, perhaps by the counts themselves. At the time, a phase of fierce civil warfare was coming to an end, fought out over the inheritance of the throne of Otto III (between Arduin of Ivrea and Henry II) and of the March, following the death of Hugh. In Tuscia became victorious the faction led by the Aldobrandeschi and Gherardeschi, favouring Henry II (COLLAVINI 1998, pp. 100-101). It is not surprising that, in this context, the Aldobrandeschi wanted to take over the *curtis* of *Valli* and fortify it, and that they knew how to do so. Indeed, one may suppose that these very political and military events may be the backdrop against which an initial crisis of the site of Vetricella took place, at least in functional terms, if not in terms of its material structures.

In any event, the Aldobrandeschi did not take possession of it definitively, because the reinforcement both of Henry II and of the *ex officio* marquises imposed by him in Tuscany (especially with Ranieri) placed a new question mark over the equilibrium which emerged from the civil war. The Aldobrandeschi had to renounce their control both over S. Pietro of Monteverdi, whose status as a royal abbey was reiterated by a diploma (1014), and, most likely, over the *curtes* of *Valli* and Scarlino<sup>19</sup>. Indeed, we find that, over the following

50 years, possession of *Valli* oscillated between various different individuals and institutions connected to royal power and the marquisate, without anyone taking full control over it: first, the Rolandinghi, a prominent family from Lucca, and later the bishops of Lucca and the S. Bartolomeo of Sestinga monastery<sup>20</sup>. The only known dealings with the Aldobrandeschi were purely negative: in 1055 Count Hugh I, the grandson of Rudolph III who had drafted the 1010 deed from the castle of *Valli*, promised the bishopric of Lucca that he would not damage its property, or vie for ownership of it, in several places, including *Valli* itself<sup>21</sup>. Thus, the sources suggest not only that disputes broke out over the rights to the *curtis*, but also that it may have been broken up between several individuals. This certainly contributed to it losing political and economic importance. There is no further indication that *Valli* retained any economic centrality at the turn of the 12<sup>th</sup>c, unlike *Franciano*. We can attribute this decline both to the subdivision of the *curtis* into several farming properties, and to a crisis in its original vocation for artisanal production.

The few available documents, which, moreover, contain little information regarding the structure of the *curtis* of *Valli*, do not shed light either on its size and exact spatial structure (which, indeed, probably changed over time), or on what the raw material was which led King Hugh to safeguard control over the area, first, and later Adelaide and the S. Salvatore monastery to retain possession of it for a long time, and, finally, the Aldobrandeschi and their opponents to try to take it over after the year 1000. By contrast, clear answers to this question are being offered by the archaeological investigations begun some time ago by Lorenzo Marasco, and now taken further in the framework of the nEU-Med project at the site of Vetricella, which was definitely part of the *curtis* of *Valli*. The significant investments in the site during the course of the 10<sup>th</sup>c, and their connection with other interventions planned in the Pecora valley, and the relationship between these interventions and iron-working, will be discussed below by Giovanna Bianchi (they are also referred to in the other contribution to the volume). What matters here is just to underline that archaeological findings relating to Vetricella (perhaps momentarily the *caput curtis* of *Valli*, or else a specialized appendage of it, geared towards production) fully confirms the developmental trends emerging from the few available texts: an initial, large-scale investment in the mid-10<sup>th</sup>c (connected to the dower), its continuation in the second half of the century (control by Adelaide), and then a crisis at the beginning of the 11<sup>th</sup>c which was a prelude to the site's definitive abandonment in the course of that century (probably connected to the fragmentation of the *curtis*, and its loss of function).

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to have been handed on to other persons, all linked to the *publicum*: clearly it had been reclaimed by the king and reinstated in the circuit of public assets, cf. CECCARELLI LEMUT 1985 for the subsequent history of Scarlino.

<sup>20</sup> For the rights of the Rolandinghi see GUIDI, PARENTI 1910, n. 227 (1048); for the rights of S. Bartolomeo of Sestinga MANARESI 1955-60, III/1, n. 397 (1055), in a interpolated passage of the *placitum*; for the rights of the Bishop of Lucca see the subsequent note.

<sup>21</sup> GHILARDUCCI 1995, n. 97 (1055), the other locations mentioned in the oath are *Sussiano*, *Cangna*, Teupascio, Portigliani and *Monte di Muro*, see COLLAVINI 1998, p. 116; the family's interests in *Valli* re-emerge in the mid-13<sup>th</sup>c, but at the time they derived from a purchase from the Alberti Counts, see COLLAVINI 1998, pp. 329-30.

<sup>18</sup> The fact that the *curtis* of Castiglione was a unified complex, with specific boundaries, emerges from DD. LI, n. †46 (814), although interpolated.

<sup>19</sup> DD. HII, n. 285 (1014); S. Pietro of Monteverdi had been claimed as a possession of the family in 973 (KURZE 1981, n. 203) and, indeed, it was not listed in the 937 dower. Scarlino, in the hands of the counts in 973, also seems

## 2. AN OVERVIEW OF THE ARCHAEOLOGICAL RECORD

The writing of articles, already published, produced during the first few months of the nEU-Med project, has made it possible to draw up certain initial hypotheses regarding the issue addressed in this article, which the findings made with the project's continuation are largely confirming or adding to.

In the publication of research on the monastery of San Quirico di Populonia (*fig. 1*), in the chapter devoted to the promontory between Late Antiquity and the Early Medieval period (GELICHI 2016), Sauro Gelichi, setting out from the results of the recent excavations on the Populonia acropolis, found that, after widespread abandonment beginning in Late Antiquity, the original settlement saw a renewed (albeit limited) vitality between the end of the 8<sup>th</sup>c and especially in the first decades of the 9<sup>th</sup>c. Gelichi suggests that, in those decades, Populonia was made the site, albeit only temporarily, of the *comitatus* of Roselle-Populonia, which at the time was probably in the hands of the Aldobrandeschi counts. The material consequence of this operation can be seen in a number of adaptations of the older features, and especially in the presence of a particular material culture characterized by imported pottery wares, almost wholly absent in the coastal and inland circuits in this territory. The monastery's subsequent connection to the Aldobrandeschi would have helped that political and economic advancement which transformed the monastery from a mere bit-part player to a lead actor, in a geographical area in which the comital dynasty had a prominent public role ever since the Early Medieval period. Indeed, it was the donations of the Aldobrandeschi which increased the quantity and quality of the monastery's holdings, starting with the *curtis* of *Franciano*, above all, with its salt-works, sited near the lagoon of Piombino which, at the close of the 11<sup>th</sup>c, merged with the patrimony of San Quirico (COLLAVINI 2016, and above). Furthermore, it is possible that the monastery also derived from the Aldobrandeschi the rights over the promontory which, in the Later Medieval period, would have justified a series of attempts to repopulate the acropolis, with the intention of establishing a fortified site on the summit area which came under the monastery (BIANCHI 2016). Accordingly, these findings, taken together, reveal a number of new, essential points: the interest in this territory on the part of the public power, to the extent of organizing a seat of power, albeit a provisional one, on the Acropolis; the important role of the Aldobrandeschi counts as public officials; and the value of the wetlands with the presence of significant resources such as salt, which were controlled up until the end of the 11<sup>th</sup>c by a *curtis* which was originally public. We will return to these points later.

The subject of the link between the sites which were part of the public holdings, and the possible economic circuits connected to them, is at the centre of an article, in which reference is already made, albeit only in a limited way, to the initial findings of the nEU-Med project (BIANCHI 2018).

In this article, for the end of the 9<sup>th</sup> and the 10<sup>th</sup>c (connected to which was the chronology of the sequences and finds made up until then), it was imagined that Vetricella had played a prominent role in the system of trade between

the coast and the hinterland, precisely owing to the fact it was part of the public holdings, perhaps royal holdings, a point we shall return to later on below. Furthermore, it was suggested that activities involving the storage of goods, and the production of specialized articles, took place at Vetricella, connected especially to the manufacture of iron objects. The vocation of the site, its particular structure, and the already partial data on the organization of its construction processes, liken it to the nearby hilltop centres of Donoratico and Monterotondo Marittimo (*fig. 1*) at which, for contemporary sequences, archaeological investigation had identified similar characteristics, namely a major, monumental change of structure, and the presence of specialized forms of production (sparse glaze pottery at Donoratico; cereal storage at Monterotondo M.mo).

In the article, these sites were called 'out of scale', so as to differentiate them from contemporary sites, which have been the subject of archaeological investigation, and which feature simpler sequences.

One feature which these 'out of scale' sites are said to have had in common was the fact they were public possessions, albeit differing in their origin and their forms of administration. This common origin would justify this kind of economic strategy, which was seen in the article as a typical feature of public power. It was suggested that, at least for the 10<sup>th</sup>c, the public power was one of the main players, rather than a secondary player, in the sphere of economic growth. The creation of 'out of scale' sites, and thus public investment, linked to important transformations in the natural and forest environment, allegedly created the conditions for new links, and new exchanges, between the countryside and the city, helped by the existence of possible extensive economic systems, also connected to each other, administered by the public power.

As in the case of the aforementioned article, so too will we continue here, in this article, to refer to the time period between the second half of the 9<sup>th</sup> and the 10<sup>th</sup>c, in view of the fact that it is to this period that the material evidence so far investigated belongs which is best dated, and which, as a result, can be interpreted most certainly.

As regards the site of Vetricella, as one infers from the articles in this volume (see MARASCO *et al.*, above), after the 2016 excavation campaign, we can posit a series of facts with greater certainty than in the past. The site was definitively abandoned in the course of the 11<sup>th</sup>c; unlike what was believed in the past, the site was not formed only in the course of the 9<sup>th</sup>c, but was established on a pre-existing site dating back to the beginnings of the Early Medieval period, regarding the nature and form of which future archaeological investigations will shed light; it is only as of the last decades of the 9<sup>th</sup>c that large-scale reorganization took place, giving the site its particular layout, already detected in the diagnostic phase. However, this important change took place in several phases: an initial phase involved the creation of the water channels and the moats, with a central building perhaps already present; a second phase, during which the moats were filled in, and an outer wall built, above the fill of the innermost moat, a defensive wall with its lower courses built of masonry, and the upper part perhaps of perishable materials, while in the

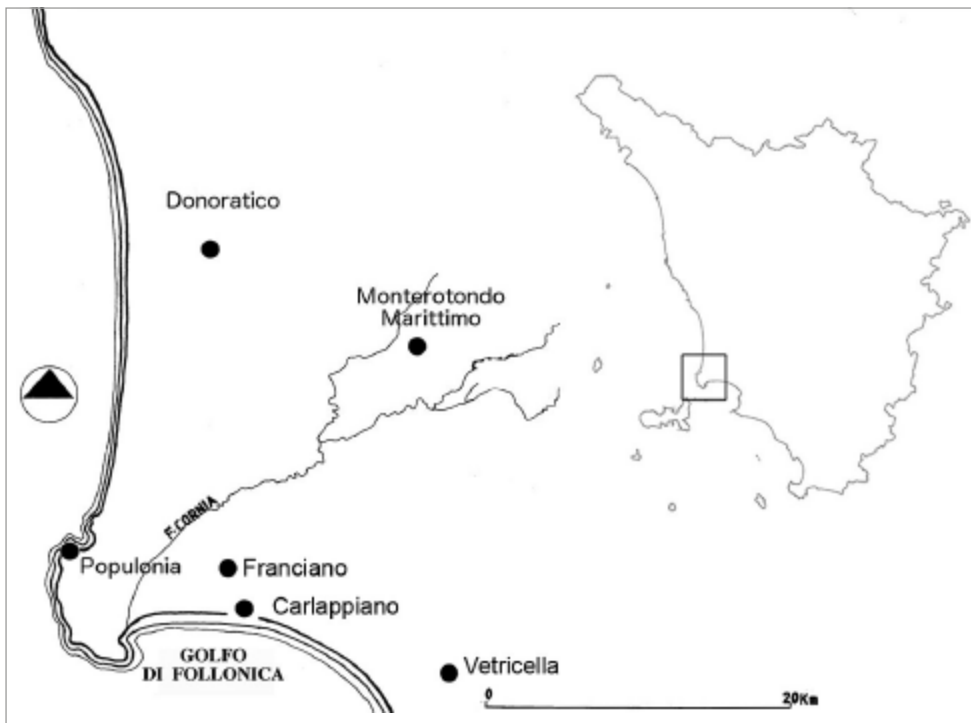


fig. 1 – Map of Tuscany showing location of sites mentioned in this article.

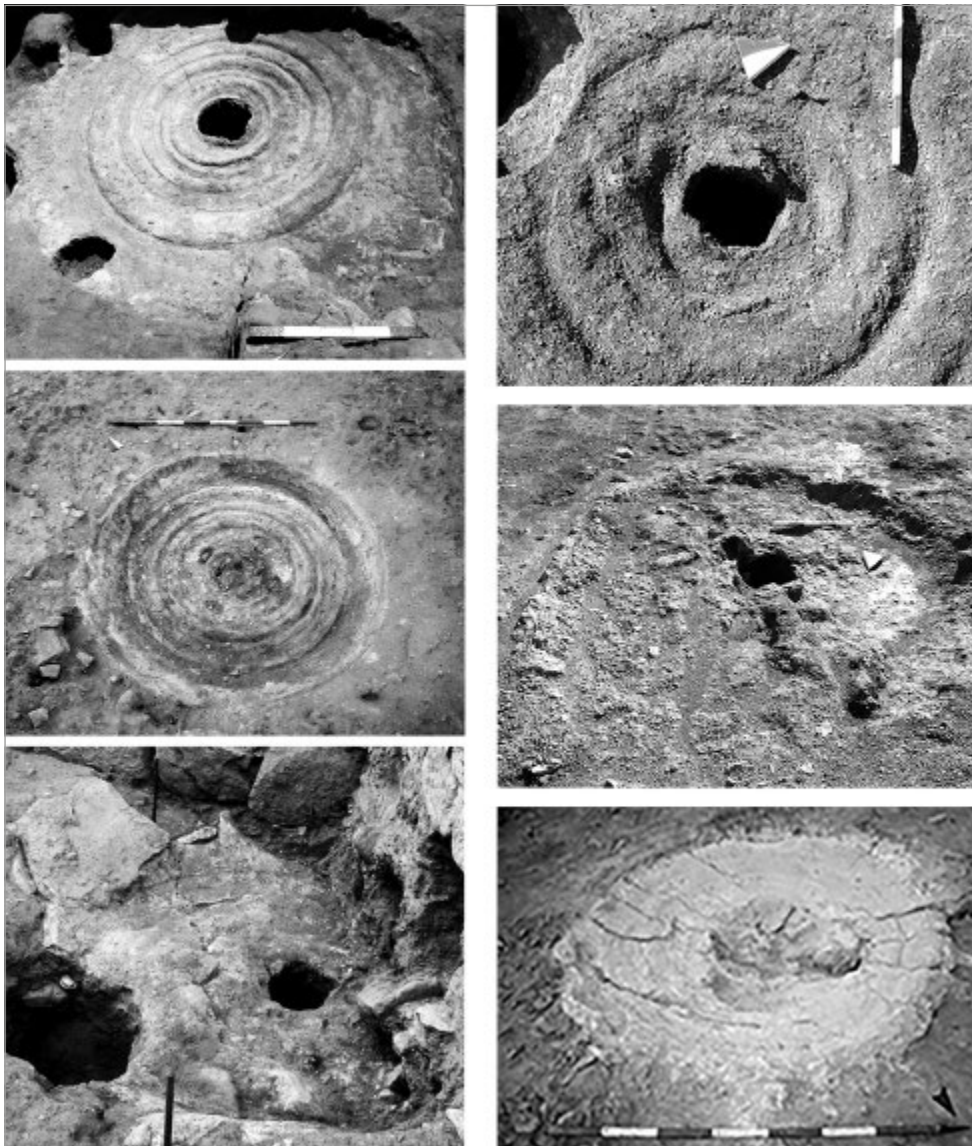


fig. 2 – Mortar mixers: on the left, the three mixers present at Donoratico; on the right, from top to bottom, the mixer at Vetricella and the mixer at Monterotondo Marittimo.

outermost ring a wooden palisade was erected. As shown by the finds, and especially by the numerous radiocarbon dates, the two phases were very close in time to each other, and may be placed between the last decades of the 9<sup>th</sup> and the 10<sup>th</sup>c. Unfortunately the figures from radiocarbon measurements do not enable us to define more limited time periods; this is a problem which we hope to solve with the arrival of new data. Indeed, the period in question, as we know, is associated with a complex history, and dating the transformations more precisely could make a substantial difference in the historical interpretation of the events.

In any event, the operations carried out in these phases reveal complex planning with the use of a specialized workforce, and also a large-scale involvement of manpower necessary to dig the moats. The presence of specialists is also proven by the use of mortar mixers (*fig. 2*), which a recent reinterpretation now indicates were definite *markers* not only of specialized knowhow, but also of skilled workers from an external geographical context (BIANCHI 2011). While it is hard, in the case of the first phase, characterized by the moats, to speculate as to the presence and possible form of a central building, this building is certainly easier to define in the second phase. The tower-shaped building, in the exact centre of the circular boundaries, had masonry foundations and a wooden elevation, and it had a large canopy, perhaps on all sides, which covered an area which, at least on the western side, had a sort of flooring made of lime-based mortar. The large amount of pottery found in the 2016 excavation campaign is still largely identified as coming from storage containers, and thus designed for storing food (see BRIANO *et al.*, above), confirming the hypotheses advanced in previous articles on the site's vocation. Given that no other structures were found in the space within the central ring with a residential function, it is plausible that both the interior of the tower, and the external, covered spaces were designed for the storage of various products. The fact that a very large number of iron objects were found (more than 700 finds), including small knives, as well as the presence of numerous pieces of slag from forges, suggests that there may have been a concentration at the site of places where these objects were processed. This hypothesis will only find definitive confirmation with the identification, in future investigations, of the production features themselves, since the bulk of the objects found so far comes from secondary deposits<sup>22</sup>. Moreover, continuation of the research will make it possible to date more precisely this important production phase, which currently oscillates between the end of the 9<sup>th</sup> and the start of the 11<sup>th</sup>c (see MARASCO *et al.*, above).

Recently there had been suggestions that Vetricella had a role in the processing of metals used for coinage, especially silver. Now, in the light of archaeometric analyses conducted on 10<sup>th</sup>c coins, an important initial finding has been made, to be checked as and when the number of samples increases: namely that metals used for coinage were by and large mined in the imperial mines in the Germanic area (BENVENUTI *et*

*al.*, above). Accordingly, any processing connected with silver or other minerals such as copper and silver-bearing lead, if proven with certainty at Vetricella, would have to be related to the production of precious objects, and not to the coin production cycle.

Initial analyses carried out on the forge slag indicate, on the other hand, the presence at the site both of iron, from the Colline Metallifere, and of hematite, from Elba<sup>23</sup>. This finding is to be appraised with caution, however, since the slag analyzed comes from secondary deposits, and is thus not connected to specific sequences. If confirmed, this would be of great importance, because it would attest to the fact that the specialist workers had sufficient knowhow to be able to use minerals from differing contexts, in order to obtain an alloy that was qualitatively superior. Furthermore, in the context of exchange relations with Elba, Vetricella's position on the edge of the lagoon would make more sense: goods from what is now the Gulf of Follonica would have been able to cross the lagoon, both to and from the site.

It is hoped that future excavations may also be able to clarify another point which is still unresolved, namely the presence of an inhabited space. As stated above, the findings from the excavation in the inner circle at the moment rule out such a presence. We still have to find out whether a residential nucleus existed in the spaces between the outer circles, or else in the immediate vicinity of the site.

In the economy of the activities carried out at Vetricella, this detail could, however, be unimportant, since the survey carried out in the recent past attests to the presence of several small agglomerated settlement sites in the plain close to the site, and in particular the presence of one not far from Vetricella which, also thanks to the most recent diagnostic analyses, seems to show a certain solidity and size (MARASCO 2013; MARASCO *et al.*, above).

Thus, if Vetricella was a site where, between the end of the 9<sup>th</sup> and the 10<sup>th</sup>c, goods were stored and products were made, we cannot rule out the possibility that much of its workforce came from the nearby satellite settlement sites.

Vetricella would thus have been at the centre of a system of exchange and resource exploitation where goods and materials would have arrived in order to be stored or worked. This particular role of the site might explain the fact that 17 coins, all datable to between the end of the 9<sup>th</sup> and the start of the 11<sup>th</sup>c, were found here. This is a large number compared to the almost total absence of coins at contemporary sites in the territory already investigated archaeologically (ROVELLI in BENVENUTI *et al.*, above).

The almost monumental layout of Vetricella in both phases, confirmed by the recent excavation, and its central economic role in this portion of the coastal territory, increasingly support the notion that we are looking at a site which was directly administered by the king. This had already been mooted in the past, also owing to its proximity to the *curtis* of Valli (see the remarks made above by Collavini). Future research will make it possible to better define the relationship

<sup>22</sup> The presence of a small forge, and limited stratigraphy associated with possible metal-working, dates only to the phase prior to the site's abandonment (see MARASCO *et al.*, above).

<sup>23</sup> These are the preliminary findings made from specific investigations conducted at the Department of Earth Sciences, Florence, for the preparation of the sample, and by the Actlabs Laboratory (Ancaster, Ontario, Canada) for tests on the same samples.

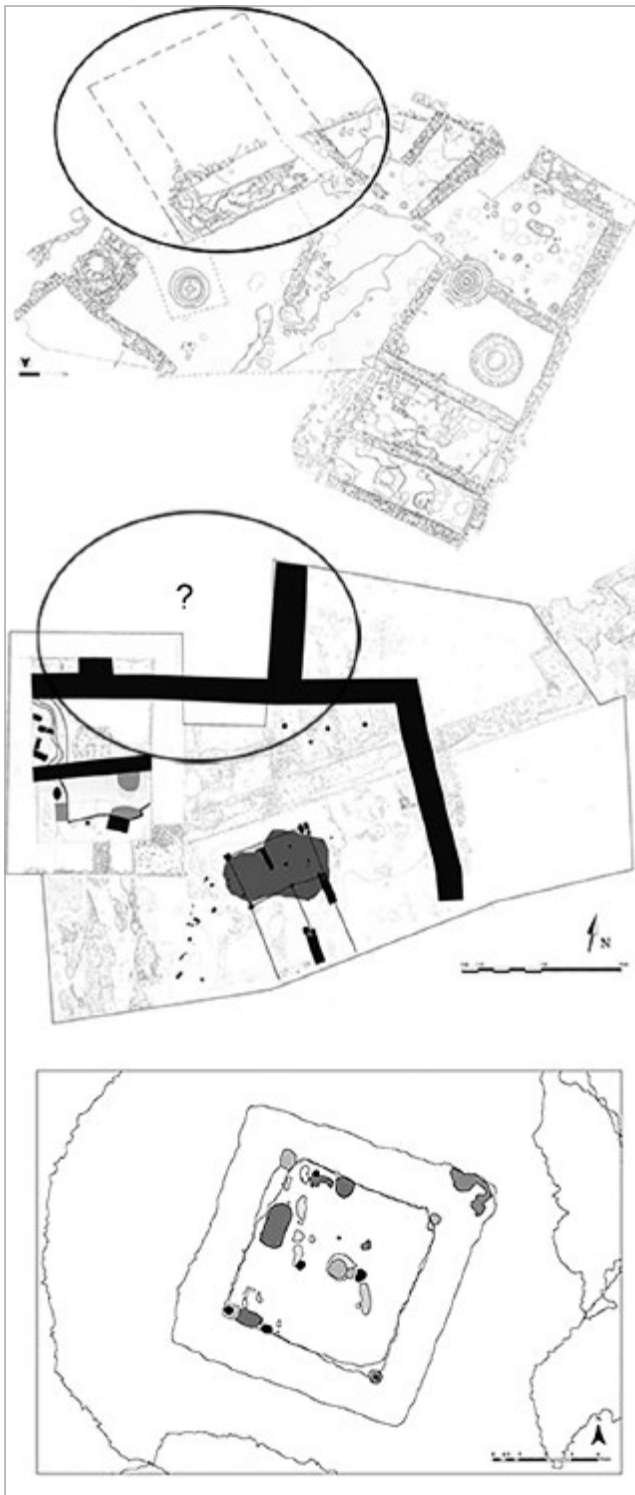


fig. 3 – The towers mentioned in the text: from top to bottom, plan of site of Donoratico, showing the remains of the tower; Monterotondo Marittimo, showing the possible remains of the tower; the robber trench of the perimeter walls of the tower at Vettricella.

between this site and the *curtis* centre itself, thus far believed to coincide with the castle bearing the same name located not far from Vettricella, atop a small hill (CECCARELLI LEMUT 2004, p. 5; CUCINI 1985, pp. 235-236). However, at present we can go by the considerations formulated by Collavini in the previous paragraph, which moot the possibility that

Vetricella was the *caput curtis* of Valli or else a specialized appendage of it.

Regarding the scale of production, at present we can put forward some approximations, setting out from the number of finds made. The aforementioned fragments of storage vessels, mostly identifiable as containers of undecorated, levigated pottery, are indicative of storage on a considerable scale, given that, at other sites in the area, numbers of finds of the same pottery types and chronologies are considerably fewer. The same consideration holds true, exponentially, for iron finds. A large number of iron objects found are of a type which, unfortunately, could belong to a long time period, usually ranging from the Early Medieval period to the middle centuries of the Medieval period. However, the fact that Vettricella was certainly abandoned in the course of the 11<sup>th</sup>c rules out a later chronology for them, and allows them to be dated to the 11<sup>th</sup>c at the latest, when metal finds are few in excavations in Tuscany (BELLI 2015).

The comparison between the finds made at this site and at the other contemporary sites in the area also places the emphasis on another important aspect, namely the apparent absence of repercussions of this production on the surrounding territory.

The same considerations can also be formulated for another site mentioned earlier as being ‘out of scale’. This is Donoratico, where a specialized production of sparse glaze pottery is suggested, attested thus far by the presence of more than 3,000 fragments. There is no parallel for such a statistic at the other sites investigated, where sherds of this pottery ware number a few dozen, at most. The study of this pottery, which is the subject of a doctoral thesis, will certainly provide valuable data for understanding the definite chronology and the destination of this production (for initial considerations, see BRIANO *et al.*, in this volume).

The common features of these ‘out of scale’ sites, therefore, are particularly significant, despite the fact that they were probably public possessions of differing sorts: a property that perhaps came directly under the king in the case of Vettricella; public property granted to important institutions, such as the monastery of S. Pietro in Palazzuolo (Monteverdi Marittimo) in the case of Donoratico; and perhaps the Bishop of Lucca himself, or the same monastery, for Monterotondo Marittimo.

The different natures of these properties does not mean that there was no homogeneous programme of reorganization at the sites, as shown by the fact, already highlighted above, that mortar mixers were found at all of them. The presence of a tower is another feature common to the sites of Vettricella, Donoratico and perhaps Monterotondo Marittimo (fig. 3). This is true in the case of the last of these sites if we interpret as the remains of just such a structure the remains of a very thick wall adjacent to the outer enclosure, which would define a large building, one located, moreover, in a position strikingly similar to the one at Donoratico, in other words connected to the circuit of walls. As a result, a tower could also be interpreted as the sign of a specific vocation of the ‘off the scale’ sites, within which this building could be associated with the storage of specific products, as well as performing the more customary

function of living quarters. For that matter, it is no coincidence that the presence of towers, destined to become the distinguishing feature of the later feudal castles, is indicated by the written documents in this area only in the context of large properties, probably the result of important public grants, as in the case (to remain in this territory) of the *curtis* of S. Vito al *Cornino*, the property of the Bishop of Lucca, and bordering on the public *curtes* of *Franciano* and Valli itself (CECCARELLI LEMUT 2004, pp. 6-8).

It remains to be seen, from future research, whether the most discordant element among these 'out of scale' sites is to be ascribed to this differing nature of the public properties. The discordant element in question is the absence of a clearly defined borgo in the case of the possible public *curtis* of Vetricella, which contrasts with the presence of a definite residential area at Donoratico and at Monterotondo Marittimo (as one deduces from the written and archaeological sources). It may not be a coincidence that this dishomogeneous feature is connected to the differing fates which befell the three sites, given that the definitive abandonment of Vetricella, in the course of the 11<sup>th</sup>c, was matched by a gradual transformation in castles associated with the new territorial seigneurships in the case of Monterotondo Marittimo and Donoratico.

Despite the fervid building activity and production at the 'out of scale' sites, a large part of this territory, both in layout and in terms of pottery production, does not seem to undergo major transformations in this phase, being characterized, up until the later 11<sup>th</sup>c, by local forms of production, albeit in some cases more specialized. This latter fact is borne witness to by the circulation of small transportation vessels made between Roccastrada and the area of Monterotondo Marittimo, discussed in this volume (BRIANO *et al.*, above). However, this could be a sign of the vitality of the rural communities which populated this area with their small élites, a vitality already noted in recent studies which was probably also the reason for the success of this sort of programme, backed by the central authorities (see, for example, BIANCHI 2015). In future investigations, it will be essential to understand whether the absence of any enrichment of the material culture of these communities is indicative of the fact they were almost totally impermeable to this public programme, or whether its impact had consequences in spheres which are yet to be defined.

Analysis of pottery finds in this territory also highlights the lack of imported wares up until the later 11<sup>th</sup>c, barring exceptions such as the heavy glaze found at the acropolis of Populonia, the presence of which is now more plausible if we consider that that location may have been the site of the *comitatus* of the same name (GELICHI 2016).

The study, in this volume, of the pottery finds from *portus Scabris*, situated on the edge of the Gulf of Follonica, shows the very small amount of imported pottery throughout the Early Medieval period also at this maritime port (VACCARO above). Accordingly, this fact would lead one to interpret it more as a stopping-off point along the sailing routes up and down the Tyrrhenian coast, rather than as a full-scale port geared towards trade between the coast and the hinterland.

This kind of picture thus reveals a considerable discrepancy, at least in the 10<sup>th</sup>c, between the almost total absence of commerce or trade movements linked to the Tyrrhenian routes and geared towards the hinterland, and the considerable vitality of projects and changes which we see in rural areas, not only in relation to 'out of scale sites', but also to profound changes in the landscape.

Geomorphological and archeobotanical analyses relating to the former course of the river Pecora, presented in this volume (PIERUCCINI *et al.*, above), date important interventions involving both the course of the river itself and in the surrounding territory especially to the final decades of the 9<sup>th</sup> and 10<sup>th</sup>c, with possible fires designed to clear more land for arable use or pasture. These actions suggest a close link between the site of Vetricella and the new strategies for exploiting the surrounding territory pursued on such a large scale as to leave little doubt as to the fact they were planned as part of a wide-ranging programme connected to important political operators. The creation of the 'out of scale' sites would thus seem, at least for the Pecora valley, to be linked to a project to reorganize the territory.

It is hoped that future investigations in the adjacent Cornia valley may provide equally useful findings for this interpretation. Indeed, in this valley stood another important public possession, the *curtis* of *Cornino*, also mentioned in the dower of Hugh of Arles. In the first paragraph of this article, Collavini suggests that this *curtis*, which initially belonged to the king, later passed to the Aldobrandeschi, counts of this *comitatus*, changing its name to become *Franciano*, and donated, under this name, to the monastery of S. Quirico di Populonia in the course of the 11<sup>th</sup>c. The value of this possession is indirectly reflected by the monastery's economic and political shift up in gear at the time of its acquisition. *Franciano* (and, earlier, the *curtis* of *Cornino*) also comprised the area near the original marsh of Piombino. This zone, as we know from contemporary sources, was characterized by the presence of salt-works. The excavations at the site of Carlappiano enabled the rediscovery of traces of some of these facilities, although they can only be related to the Late Medieval centuries. It is nevertheless possible, as suggested by Dallai, that these features stood in an area which had been set aside for some time for this purpose, and that the older traces (given their perishable nature) of these have been lost, despite the fact that it was possible to infer long frequentation thanks to the pottery found during the survey campaigns (DALLAI *et al.*, above).

If these hypotheses were correct, a scenario never contemplated before in any historical reconstruction would take shape, namely the presence of important nodal sites for production, for managing local resources, and perhaps also possible administrative centres, situated in the coastal area, directly subordinate to the public power. These centres would possibly be connected to other centres in the hinterland, and this link would have formed, or been strengthened, especially in the course of the 10<sup>th</sup>c, when a total reorganization of these sites took place, and a wider, interlinking system was created, geared towards the exploitation of important resources, or to specific forms of production.

G.B.

### 3. CONCLUSIONS: THE SIGNIFICANCE OF “OUT-OF-SCALE” SITES

In an attempt to draw provisional conclusions, which might help formulate the questions which might guide the continuation of the nEU-Med project, we try to sum up the salient points which have emerged from our interpretation, with the aim of backing up and implementing the considerations set out by Hodges in this volume (HODGES above).

The case of Vetricella, placed alongside Donoratico and Monterotondo Marittimo, has brought to the foreground the presence of sites which display a profound difference in their layout and function, compared to other sites in the same geographical district, which have been the subject of archaeological investigation for some time. At present, their formation can be dated between the final decades of the 9<sup>th</sup> and the 10<sup>th</sup>c. Future investigations, especially at Vetricella and in its surrounding territory, will make it possible to specify its chronology more precisely, also in relation to subsequent, possible adaptations and reorganizations of the sites.

In an attempt to place late 9<sup>th</sup>-11<sup>th</sup>c Vetricella within interpretative frameworks associated with northern Europe, Richard Hodges describes it, for the 10<sup>th</sup>c, as a centre of administration and production on a par with a *solar central place*. This description would fall away in the course of the 11<sup>th</sup>c, when, prior to its abandonment, absorbed within a possible seigneurial district, Vetricella may have only retained the function (perhaps on a reduced scale) of a centre for the production of iron objects, above all.

For Donoratico and Monterotondo Marittimo, the available archaeological findings do not make it possible to adopt, for the 10<sup>th</sup>c, the same definition of *solar central place*. Pending future investigations, we therefore prefer to give the sites analyzed here the more generic definition of ‘out of scale’, to underline their peculiar nature.

On the basis of our current knowledge, we can try, first, to reflect on what these ‘out of scale’ sites *are not*. First and foremost, they are not central places for local trade, because the forms of specialized production do not seem to have any repercussion on the surrounding lands. At the same time, the ‘out of scale’ sites do not seem to be the fulcrums of complex regional or extra-regional trade networks, given the absence of the main indicator of trade itself, namely imported pottery, absent until the later 11<sup>th</sup>c in the hinterland, and present in very scant amounts at coastal ports.

The material record and information from written sources also show, fairly clearly, what these sites *are*. They are very homogeneous sites, belonging to a single property. In fact, they are public possessions managed directly by the royal power, or else entering the possessions of important political figures that received benefits directly from the kings and/or from the marquises, of Tuscany with parts of the public patrimony. Together, these sites, closely comparable to the aforementioned cases coming from northern Tuscany, eventually achieved a significant critical mass, especially as of the 10<sup>th</sup>c, within a unified political space, the March of Tuscany, which was in a phase of full expansion at this time. These sites had forms of specialized production, specific or otherwise, and these activities seem to be placed in a complex economic

context, which was planned by the central power. In the case of Vetricella, its development did not lead to the formation of a settlement, although this was present in other instances, such as at Donoratico, at Monterotondo Marittimo, or, in northern Tuscany, at San Genesio. Future investigations will be able to clarify whether this absence was connected to the particular forms of administration of this public property (which remained under the king’s direct control), to the type of production which characterized Vetricella, primarily (i.e. iron), or, finally, to other factors yet to be identified.

How was the system able to work? On the basis of archaeological findings, above all, we can say that it consisted of a network of sites (*curtis* sites or otherwise) which served the needs of a “very important owner” (the  *fisc*); this had been set up to manage large agricultural holdings, to exploit natural resources, and to produce goods, often of a certain complexity and designed for specific uses: pottery, iron (weapons, and also tools needed for artisanal work, such as the small knives found at Vetricella), stone (military and prestige constructions), foodstuffs, and salt. Again, the exceptional size – compared to standards of the other *curtes* – suggests the development of forms of complex specialization able to create an infrastructure network which lies at the foundation of a system of exchange. At present we can take the view that the circulation of these products did not take actually place, at least initially, in plain commercial forms, since the products made at these centres were probably geared both for the cities and the court, and perhaps for the other ‘out of scale’ sites and the other major public properties. Within this infrastructure network, one of the purposes of the sites situated along roads and the coast was to enable the movement of products, acting as departure points for local products towards the centre of the system, represented, as stated earlier, by the court, the city, and other major public properties.

What is the role of this system in the economic evolution of Tuscany? At present, pending the new findings which will come from our project, and a more detailed and mature reflection, we can already put forward the hypothesis that a truly economic and commercial impact derived, indirectly, from the workings of this system. The public economy linked to the ‘out of scale’ sites and to their territories and resources could, indeed, be that “dark matter”, given little consideration in reconstructions of economic history, that was capable of constituting the conditions (demographic, productive, technological) which underpinned the prodigious, and sudden, dynamism in the economy of Tuscany from the end of the 11<sup>th</sup>c (cf. MOLINARI 2010), when the system, with the crisis of the March of Tuscany, stopped working, and some of the key sites, such as Vetricella, were abandoned, while others saw further and rapid expansion, such as San Genesio.

The crisis of the March, which spelled the end of this public economic system, was also followed by an economic reorganization in the direction of a greater localization, connected in particular to the more marked development of *seigneurie banale*, as happened in the political and social spheres. Some of the original nerve-endings of the estate system, who became important pieces in the process whereby local seigneurships became established, eventually became more closely connected to the local economies, as is shown

by archaeology, becoming in some cases reference points in the new signorial districts (see the cases of San Genesio/San Miniato, Donoratico or Monterotondo Marittimo, cf. CANTINI, SALVESTRINI 2010; BIANCHI 2004; BRUTTINI, GRASSI 2009).

This kind of proposed interpretation would make it possible to explain the conditions – or at least some of the conditions – which allowed Tuscany to become, at the height of the Medieval period, one of the richest regions in Europe, despite a modest aristocratic fabric, fragmented estate ownership, and a limited connection to networks of supra-regional trade prior to the 11<sup>th</sup>-12<sup>th</sup>c (WICKHAM 2005, e.g. pp. 214-16, 387-93; CANTINI 2015).

The validity of these provisional hypotheses will need to be verified on the one hand with the continuation of research in the sample territory, and, on the other hand, by means of a wider and more detailed comparison with other parts of Tuscany and central-northern Italy.

G.B., S.M.C.

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#### Abstract

This article aims to bring together findings from material and documentary sources, with a view to a comparison for the purposes of understanding the appropriate historical context relating in particular to the 10<sup>th</sup>c. The information gathered so far from research shows, indeed, that it is above all at this moment in time that important transformations took place in the nEU-Med project sample area, affecting both natural and anthropic landscapes, as is shown by the transformations involving the site of Vetricella.

Setting out from information that can be gleaned from the double dower, dated to 937, issued by Hugh of Provence, attention is focused in the first part of the article on the foundations of public power in the geographical areas of northern Tuscany and the Maremma area, to highlight the fact that this was a prominent player in the regional economy at the time. This information makes it possible to reveal a parallel relationship between the development of the site of Vetricella and the general economic strategies implemented by this player.

In the second part of the article, the synthesis of the material information deriving from the interdisciplinary investigations makes it possible to see similarities between the transformations that took place at Vetricella in the course of the 10<sup>th</sup>c and those that affected a number of other sites connected to public powers present in the area investigated by the project. This makes it possible to reveal a contemporaneous relationship between actions designed to fortify and expand the sites in question, with a view to creating centres that were often characterized by the production of specialized items.

In the final part of the article, the findings made on the basis of the various sources are brought together to circumscribe as precisely as possible the characteristics of these sites having a public physiognomy, and a different, higher scale of production and settlement than those present in many parts of Tuscany already explored archaeologically, in an attempt to make suggestions as regards what relationship they may have had with the economic growth which was a feature of the 10<sup>th</sup> and 11<sup>th</sup>c.

The nEU-Med project is part of the Horizon 2020 programme, in the ERC Advanced project category. It began in October 2015 and will be concluded in October 2020. The University of Siena is the host institution of the project.

The project is focussed upon two Tuscan riverine corridors leading from the Gulf of Follonica in the Tyrrhenian Sea to the Colline Metallifere. It aims to document and analyze the form and timeframe of economic growth in this part of the Mediterranean, which took place between the 7<sup>th</sup> and the 12<sup>th</sup>c. Central to this is an understanding of the processes of change in human settlements, in the natural and farming landscapes in relation to the exploitation of resources, and in the implementation of differing political strategies.

This volume brings together the research presented at the first nEU-Med workshop, held in Siena on 11-12 April, 2017. The aim of the workshop was to draw up an initial survey of research and related work on the project, one and a half years after its inception. The project is composed of several research units. Each unit covers an aspect of the interdisciplinary research underpinning the nEU-Med project, each with their own methodology. For this first volume of results, it was decided not to give an account of all the work carried out within all the units, but to select those lines of investigation which, at the end of the first year and a half, have made it possible to articulate and develop an interdisciplinary research strategy.

edited by  
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