

Santa Cristina in Caio (Buonconvento, Si): productive reuse during Late Antiquity and the Early Middle Ages

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The settlement of Santa Cristina developed during the 1st century BC and the site continued to be frequented until the 16th century, when the church, mentioned in 814 AD, was damaged and abandoned. The *vicus* underwent serious transformations during the 4th century, when the baths were closed and a systematic dismantling of the building began. During the 6th century a village of huts developed, in a time in which the original function of the settlement was completely decayed.

Keywords: Productive reuse, roman road network, *thermae*, hut village, *grubenhaus* hat

L'insediamento di Santa Cristina si sviluppa nel corso del I secolo a.C. e continua ad essere frequentato fino al XVI secolo, quando la chiesa attestata nell'814 viene danneggiata e abbandonata. Il vicus subisce importanti trasformazioni nel corso del IV secolo, quando le terme vengono chiuse e si inizia un sistematico smantellamento dell'edificio. Sarà nel corso del VI secolo che si svilupperà un villaggio formato da capanne, in un momento in cui la funzione originaria dell'abitato sarà completamente decaduta.

Parole chiave: *Riusi produttivi, viabilità romana, terme, villaggio di capanne, grubenhaus*

1. Introduction

The project Santa Cristina in Caio is coordinated by the municipal administration of Buonconvento, the University of Siena (Prof. Marco Valentini) and the Soprintendenza per i Beni Archeologici della Toscana, in collaboration with the University of Chieti (Prof. Vasco La Salvia). The first archaeological research in this area was carried out by the Soprintendenza per i Beni Archeologici della Toscana with excavations done between 1992-1994 (Goggioli 1995) and surveys between 1998 and 2003 for the project "Carta Archeologica della Provincia di Siena" (Cenni 2007) (fig. 1).

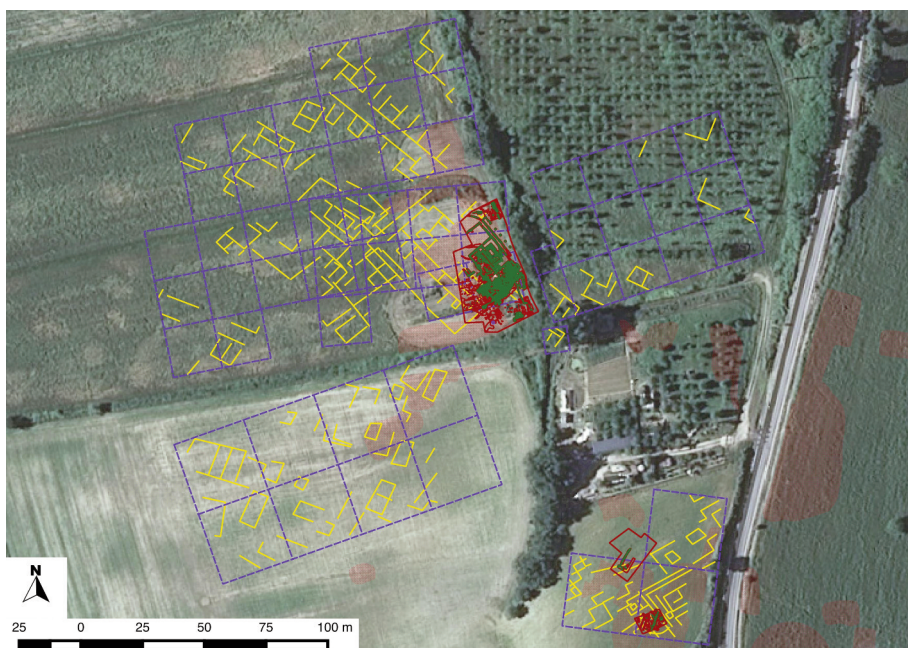


Fig. 1. Survey, magnetometry and excavation on the site of Santa Cristina in Caio.

The toponym derives from a church, today non-existent, mentioned for the first time in 814 AD. Its last ruins were completely demolished in 1787. The first reference we have of the church of Santa Cristina in Caio dates back to the 29th of December, 814 AD. It concerned a *Diploma* by the emperor Ludovico il Pio for the abbey of Sant'Antimo in the valley of Starcia, which confirmed the control of the abbey to the *Caicum Cecilianum*. This also included the *Oratorium* of *Sancta Christina*.

During the 11th century (1051), the possession of the church was reiterated in a written declaration by emperor Henry III in which the church was designated *Plebs*. In 1189 a papal bull by Pope Clement III, cited "*Plebem Sanctae Cristinae in Cajo*" as one of the churches found in the diocese of Siena. In 1216 AD, a document signed by Onorio III chronicled the continued control of the abbey by Sant'Antimo. In 1236 the control of the church was given to San Lorenzo at Percenna; this church was found in a castle controlled by the city of Siena. During the early Middle Ages, this center was probably born by the impulse of the abbey of Sant' Antimo (Cenni 2007, pp. 163-180).

In the *Costituto* of Comune di Siena (dated to 1262) a note added in the margins (Rubr. CXIII, Dist. III) reads: "*Item statuimus et ordinamus quod debeat fieri unus pons super Serlatam, in loco unde itur Ciara*

Montalcinensem subtus Sanctam Cristinam". This verifies that the church was clearly visible from the street and could be used as a point of reference for travelling.

In the *Rationes Decimarum Italiae* of 1298-1299, the church of Santa Cristina can be found in the list of 1302-1303, included in the area controlled by the pieve of Percenna (*Plebs S. Laurenti de Perceno*). In 1462, with the institution of the diocese of Pienza, the control of Percenna was given to the new diocese, and with it, the church of Santa Cristina.

During the war of Siena, in the 16th century, the church was badly damaged and never repaired. More recently, Pecci visited the ruins of the church during a trip in the territories of Buonconvento and Montalcino in 1748 and wrote about Santa Cristina, stating, "Non più che tre miglia in distanza da Montalcino esistono tuttavia la chiesa, nominata di Santa Madre chiesa San Matrichese col Bagno di immersione, San Pietro ad Asso, Santa Restituta, Santa Cristina ed altre comprese tra i vescovi Deodato di Siena e Luperiano di Arezzo, per le quali nel 715 nacque lo (rovinoso) giudicato di Liutprando" (Pecci 1748), and "un contrassegno di memorabile antichità" of which "raccontano i più antichi del luogo che si adunassero i Gentili per l'adorazione degli'idoli".

The "Dizionario geografico fisico storico della Toscana", edited by Emanuele Repetti and compiled during the first half of the 19th century, mentioned the destruction of the church in 1786 by the diocese of Montalcino, probably for the reuse of the stones (Repetti 1833-1843).

Interest in the site of Santa Cristina began around the mid-19th century when some human skulls, two tombs at *cappuccina*, some medical tools, bronze artifacts and coins of the roman imperial period that date back to between the 1st and 4th century AD. In 2009 we started our excavation above an anomaly recognized by survey and interpreted as a thermal implant (later confirmed by the excavation).

In 2012 we excavated a trench of circa 80 meters long, opened in the southern part of the field (in correspondence to the other anomalies revealed by magnetometry), starting a new strategy of sampling to understand the potential of the archaeological record. This showed a rich deposit amenable to a *dinamica di versante* (colluvial phenomenon) with a thickness that is hardly perceptible (it could be up to 5 meters deep). The comprehension of these dynamics in the diachrony is fundamental to understand the ecological horizon where the economic production of this area stands.

In this same direction, between 2010 and 2011, vast magnetometric studies were conducted on about 21,000 square metres, showing the presence of a wall alignment in correspondence with the evidence already recognized by survey.

The investigations (non invasive) showed a village composed by multiple aggregative centers. Around Poggio alle Fonti, the excavation of 1992-1994 revealed a portion of a necropolis (between the 2nd century BC and the 6th AD) and some walls that date back to the Roman period.

The village seemed to use the agricultural resources of the area, but nevertheless it remained a mixed economy where one could find the beginnings of artisan and commercial activities as well as the grand thermal implant revealed from our excavations (end of the 1st century BC-mid 4th century AD).

2. The settlement between the 1st and 4th century AD

As regards the Roman imperial period, even up until today, the excavation lets us see the thermal implant, a part of a roman road (*glareata*) found in front of the thermal baths and an artisanal area. The thermal baths were built during the last third of the 1st century BC and went through two big periods of restoration, with the first during the definite abandonment that occurred around the middle of 4th century AD; this is confirmed by the finding of a *foliis* of Constans I (found in the filling of a canalization for flowing water) (for further discussion see Bertoldi, Valenti 2015).

The entrance was found in a compartment seen as an *apodyterium* that at least during the first phase was supposedly mosaicked; following this path, one would usually find the entrance to the *frigidarium* where there was a central *piscina*. Then we would move into the *tepidarium*, where a small tub or fountain stood. The next room is the *sudatio*, which directly received the heat of the principle *praefurnium*; following this room there was the *calidarium*, and above this there was an *alveus*, while in correspondence of the apse we would find a *labrum*.

The last room, to be considered external to the normal itinerary, is a bit harder to interpret, as it is linked to the access to the *gymnasium*, perhaps was as a generic service room (fig. 2).

Of particular interest is the first phase of restorations, dating back to the middle of the 1st century AD. The works in question pertain to the warm rooms, and in particular the transformation of the *sudatio* into a second *calidarium*.

The second phase of restoration has to be contextualized to the beginning of the 3rd century when three small tubs were constructed in the cold rooms and replaced the big *piscina* of the first phase (fig. 3). One of these tubs was mosaicked and can be compared to a *ninfeum* found in the Villa di Tor de' Schiavi in Rome (De Franceschini 2005).

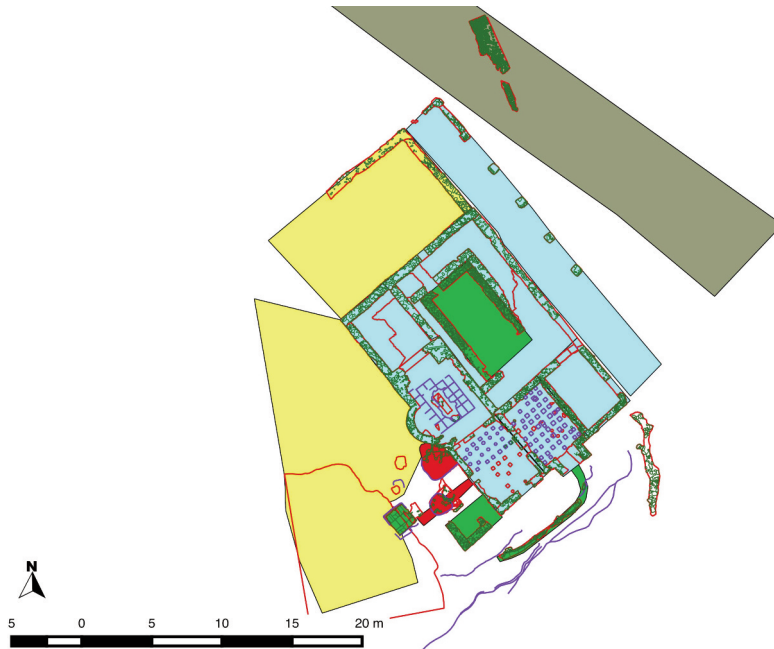


Fig. 2. The thermal implant built during the last third of the 1st century BC.



Fig. 3. The mosaic dated to the mid-3rd century.



Fig. 4. The small bridge on the Ombrone river.

The excavations of Santa Cristina and of the La Befra villa (carried out at the end of the 1970s, see Dobbins 1983) combined with the survey in the territory of Buonconvento, offer a clear vision of the productive organization and commerce in this region between the 1st and the 3rd century AD; alongside the Valley of Ombrone two villas (La Befra and Podere Casalone) and seven farms (Segalari, Poggio Perignano, Palazzina delle Sale, Podere Querce, Podere Giuncheto, Podere Carecerelle, Podere Ponzecco) were identified. The sites in question are linked to Santa Cristina as a market place both for produced items as well for imports (for the sites mentioned, see Cenni 2007). The road network guaranteed these movements; this economic system was composed *in primis* by the river Ombrone and *in secundis* by the main streets and other less important ones. We know that there was another road that connected the Villa of La Befra and Podere Casalone with Santa Cristina due to the presence of a small bridge on the Ombrone river, of which it is still possible to recognize two pillars and a impost (fig. 4). The theme of Roman viability in this area offers a fundamental lesson; in parallel to the excavation we developed a study on the valleys of the Orcia, Arbia and Ombrone. The study is based on GIS analyses (least cost path analysis) and it gave us a way to hypothesize a part of the *Cursus Publicus*. This road network is a *diverticulum* of the Cassia, that linked Chiusi with Siena (Bertoldi 2013) (fig. 5).

After the modern village of Acquaviva di Montepulciano, the street would have passed the hilly ridge to arrive in the valley of Orcia, crossed the municipalities of Pienza and San Quirico di Orcia to reach Torrenieri; after that it crossed the territory of Buonconvento. In this reconstruction the settlement of Santa Cristina should be recognizable as the *mansio Umbro flumen* of the *Tabula Peutingeriana*, the last *statio* before *Sena Iulia*. From the 7th century AD, the last part of this roman road became part of the Francigena.

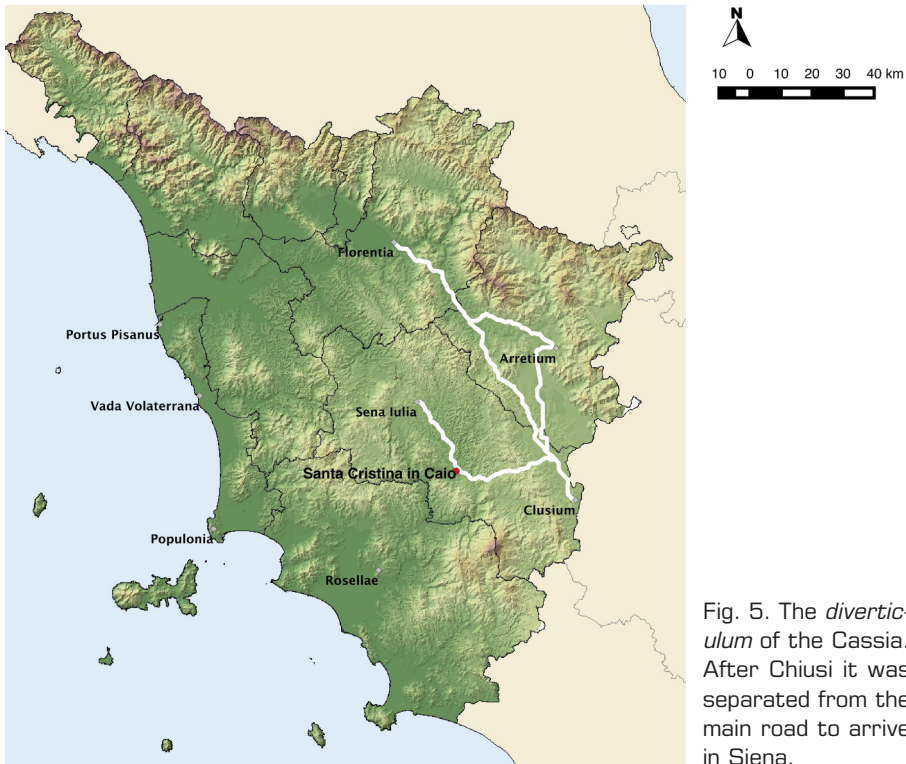


Fig. 5. The *diverticulum* of the Cassia. After Chiusi it was separated from the main road to arrive in Siena.

Between 2013 and 2014 the excavation moved near Poggio alle Fonti (Valenti 2013), where between 1992 and 1994 there had already been some excavations coordinated by the Soprintendenza per i Beni Archeologici della Toscana.

For the Roman imperial phase, we found a large garbage dump of pottery composed primarily of remains of thin walled pottery; despite the clear dominance of this ceramic class, the remains show that the furnaces would have been able to produce roof tiles, tiles, amphorae, antefixes and lamps. For example, three lamp fragments, which we assume were produced locally, were found: in the first lamp, we can see the representation of Mercurio, dating back to the 2nd century AD (Deneauve VIIIA), a second one with Giove Trionfante dating back to the 1st century AD (Deneauve VA) and a zoomorphic handle with the shape of an eagle dating to between the 1st and the first half of the 2nd century AD (Brentchalloff 2009, p. 281, fig. 5.16)². This evidence could indicate that

² Special thanks to Massimo Brando and the Facebook group "Pottery in archeology" for signaling the comparison.

the area also had been occupied with activity related to the production of ceramics during the 2nd century.

3. Productive reuse and reoccupation between 5th and 8th centuries

Concerning the definition of the date of desertion of the baths, we were helped by the numismatic data from the canalization of the water discharge to a certain degree, while there was a noticeable problem the dating the subsequent reuses.

In particular, we asked ourselves how much time might have passed between the closing of the baths and the first reoccupation, the period of the reuses before the abandonment of this context, which should have occurred around the first years of the 8th century AD.

To answer to these questions, we decided to study these contexts though the analytical method of the weighted averages of individual finds. Terrenato and Ricci used such a system in Italy for the first time for studying some of stratigraphy of the northern slopes of the Palatino (Ricci, Terrenato 1998). The two authors confirm that such a tool has not been used to its full potential with ceramics, but it did have better results with numismatics. After twenty years, the weighted averages of individual finds are not yet used to their full potential or in a systematic way (for an example see Campana *et al.* 2005).

Basically, it should proceed with the division of the total number of fragments with the same date for the total years of attestation; for example, if we have 5 fragments of olla dated to the 5th century we would have to divide 5 by 100. Secondly, we assign the result of such an operation (in our case it would be 0.05) to all the years of the 5th century. We also could divide the sequence by year, decade, quarter of a century, half a century, or century; we think that a quarter of a century is the best solution to have a good chronological articulation.

At the end of the classification of all the findings, we proceed to the sum of the various indexes for each quarter of a century and can produce a graphic that should represent the correct order of the ceramic material in the context.

The only limit observed in this kind of system is that each remain should be archived in the same way for each year.

After taking into consideration this type of critique, we decided to use the weighted averages of individual finds to try to answer to each chronological question.

First of all, we wanted to be able to understand when the functional change took place in the area of the thermal baths; while the ceramic

finds from the 1st, 2nd, and 3rd centuries are scarce, we find a noticeable increment in correspondence to the end of the 4th, and during the 5th and 6th centuries. Such an increment is even greater if one considers the large presence of thin walled pottery at Santa Cristina, given the presence of the furnace.

We then took into consideration all of the ceramic attestations in the thermal area and the curve generated has allowed us to observe that the area was repopulated during the last quarter of the 4th century AD.

In this period, we find Africana II D, Anfora di Empoli, Keay LII, Keay XXV (R4 variant), Tripolitana III, Africana I, Keay I B, Africana II C, Cretoise I, Keay XXVI, red engobe ware closed potsherds tav. 67, n. 9 (cfr. Valenti 1995) red engobe ware closed potsherds tav. 77, n. 9 (cfr. Valenti 1995)

So, by the last quarter of the 4th century AD, the thermal bath area came to be newly occupied by a true artisanal workshop dedicated to the spoiling/recycling of useful material and that continued to function for about half a century.

Almost all of the materials used in the construction (and in particular the precious ones) were recovered (for example, the marmoreal and stone decoration, the remains of which we do not have any traces nor do we know what happened to them). There are also clear traces of



Fig. 6. The furnace for glass near the former *calidarium*.

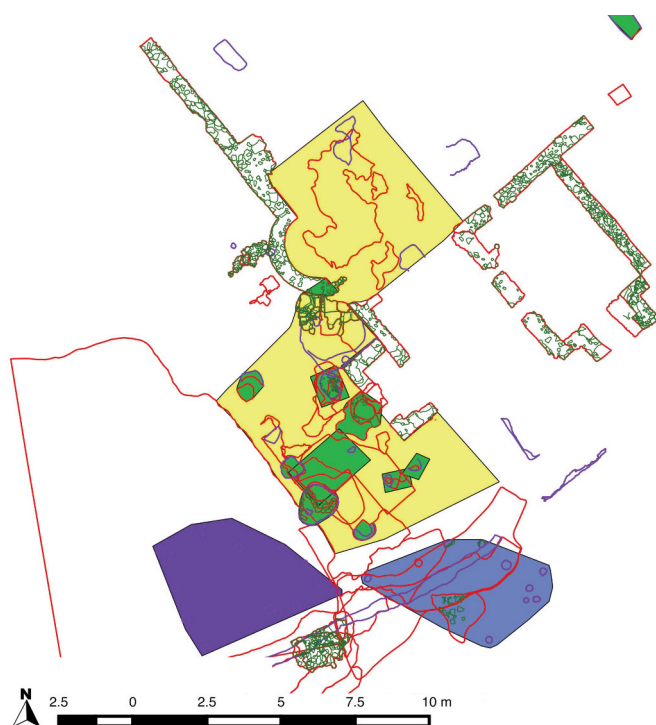


Fig. 7. The metallurgical area near the baths.

glass manufacture (in the presence of a furnace, which is comparable to the site of Torraccia of Chiusi, even if we lack specific productive indicators) and lead manufacture (fig. 6).

At this moment, the first and quite massive metallurgical activity occurred, which was, basically linked to lead and copper production. The raw material came directly from the spoiling of the fistulae, or by the re-fusion of diverse manufactures, present in the thermal baths, such as braziers or water regulators (fig. 7).

We have individuated 7 melting furnaces and 2 possible forges, probably connected to the production of semi-finished materials as well as to the production/reparation of the tools for the conduction of the spoiling. We found elevated structures, the bases and some other parts of which were burnt, even though they didn't have to be very complex; dealing with the spoiled materials did not necessitate the reduction of minerals and so a high temperature wasn't necessary.

The presence of the productive area allows for different interpretations:

1- A public initiative: the institution dedicated to the maintenance and care of the thermal baths, once the implant wasn't functioning any-

more, decided to destroy or allowed the destruction of the structure itself, subcontracting the work to a private and specialized entity, with the intent to recover the materials used in the construction and raw materials through the fusion of metals and the recycling of glass.

2- A private initiative: after a certain period of abandonment and possibly with the lack of a central control, the destruction of the thermal baths could be due to the initiative of individuals, not necessarily the inhabitants of the village.

This activity, very well organized, particularly in its first phase, seems to have been conducted in a centralized way, permitting us to think of a sort of subcontract (La Salvia 2015; Bertoldi, Castiglia 2015). Therefore, although it is not certain, we think that there was a public initiative at the base of the demolition and destruction of the thermal baths.

The Novella di Maggiorano (458 AD), a document dating back to the same period as our metallurgic activity, testifies that all actions of demolition remained closely connected to the decisions of the public authority, meaning the highest expression of Emperor or Senate. Therefore, it is clear that in each context the initiative of extraction from public buildings was carried out through the state.

Although chronologically later, Cassiodorus tells us that in the Goths' construction projects, State authorization was needed for usage of public structures in ruins (Var. II, 23; III, 29; IV, 30). Two other aspects are also confirmed in this manner: the maintenance of public property, given to private individuals was reliant on public authorization and the maintenance of the exclusive State privilege for the use of metallurgic sources (Var. VII, 44).

Similar examples of reuse, coordinated by the public authority, are well documented archeologically; the astonishing case of Piazza della Madonna di Loreto (excavations Metro C) made it clear that the *Athaeneum* of Traiano was reallocation of an area dedicated to the production of copper alloy during the 6th century (Serlorenzi 2010). This evidence testifies without any doubt to the long process of destroying the ancient city. This example shows how some economic phenomena characterize the central and urbanized areas (like Rome) as well as decentralized or peripherals ones, like Santa Cristina.

In our context, this long phase in which materials were reused was followed by half a century of transition, when some private homes were built (fig. 8). We think that a new group of settlers used what was still available, both from the buildings (using the walls as support for the houses) and for the reuse of the original materials.

In fact, next to the redistribution of the accumulated materials and

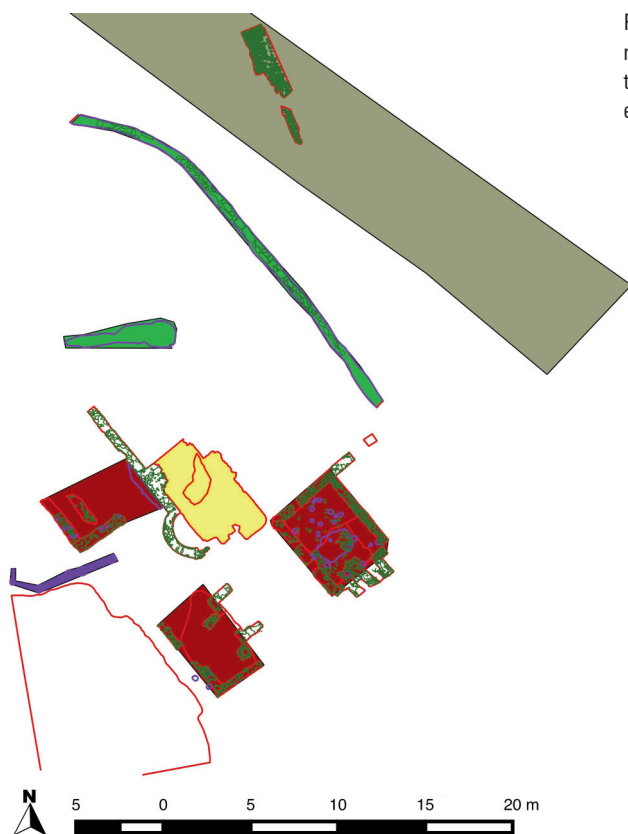


Fig. 8. The houses in mixed techniques: from the second quarter to the end of the 5th century AD.

ruins (in particular the charcoal and slags pertaining to the precedent phase) used as well to level out the new layers of frequentation, we can still find evident traces of the continuation of metallurgic activity, even if not as structured or complex as before. The furnace found inside a structure built in a mixed-material technique exemplifies this phase of the life of Santa Cristina; the function of the thermal building as a mine of raw material was not yet exhausted but, probably, it was no longer possible to find any traces of planned and centralized activities.

We based our dating for this phase on the weighted averages of individual finds; the curve constructed using the dated remains found in the primary stratigraphy of the structures in mixed techniques shows that the village was built just after the abandonment of the productive structures and that the houses were inhabited from the second quarter to the end of the 5th century AD.

The finds collected for this period and composing the anomaly of the curve are: Keay I B, Africana II C, Keay XXVI, Spatheion, coarse ware lid

(cfr. Ciampoltrini 2004, fig. 4, n. 7), red engobe ware closed potsherds (cfr. Valenti 1995, p. 158, tav. 78, n.11), coarse ware olla (cfr. Olcese 1993, pp. 39-68).

In Poggio alle Fonti, during the excavation period in 2013, we found a U-shaped structure that was opened on one side; the building is characterized by a roman wall, a second wall composed of reused stones and a third earthen wall. The U-shaped building is dated to this phase (from the second quarter to the end of the 5th century AD).

What is important to confirm is that in the space between the walls we found a large quantity of metal working's slags and a fragment of ingot; this could be the clue that lets us know of the presence of a more structured productive cycle with respect to the one that is found in the area of the thermal implant.

In each case, one has to consider (at least until now) the total absence of minerals and traces of stable installations like, for example, structures used for the roasting or reduction of mineral. In addition, it is necessary to consider that the surrounding territory isn't characterized by the presence of minerals; the study of this theme, in the future, could clear any uncertainties and eventually develop other lines of research.

To conclude, there is no doubt that we are facing a clear change, embodied in the closure of the baths and the dismantling of the building, but also in the transformations occurring in Poggio alle Fonti; nevertheless, the settlement doesn't seem to have lost its artisanal and commercial functions, since it continued to be in the area of the river Ombrone (an indispensable area for the facility of communication as well as transportation) and the presence road continued, which were clear elements of attraction for the population. A study of the amphoras also demonstrates the functional continuity of the Santa Cristina. This study shows that in the 4th century AD, despite a decrease in the quantity of the containers, there are more extra-Italic productions; a picture of total collapse and crisis does not coincide with the data collected.

The goods from North Africa represent a constant in the stratigraphy, especially during the 4th century AD, which underwent a flux during the 5th century and a definite decline during the first half of the 6th century; this makes clear the significant role of the African market during the mid and late imperial age at least in terms of oil (Africana I, Keay XXV, Tripolitana III), and wine (Keay IB) as well as *garum* (Africana IIC e Africana IID).

As regards the containers used for transport, it is interesting to note that during the 4th and 6th centuries AD, there were not any more importations at Santa Cristina from the internal part of the Italian peninsula, other than the amphora of Empoli. This could be evidence of the

Fig. 9. The huts found in the thermal area.



abandonment of the main road that linked the Val di Chiana to the zones of the Orcia and of Arbia.

The “Mediterranean” importations continued to arrive, which provides evidence of the importance of the Ombrone River as a commercial axis between the coast and the inland of southern Tuscany.

4. From the 6th century: the defunctionalization of the vicus

Starting from the 6th century AD, we can see a true defunctionalization of the *vicus*: some grubenhaus huts were recognized in the area of the thermal baths (fig. 9) as well as Poggio alle Fonti.



Fig. 10. The burials excavated inside a *grubenhaus* on the hill of Poggio alle Fonti.

The settlement planning in this period has the characterization of a village organized around different aggregate centers, dedicated to agricultural activity and to livestock, with marginal hunting activity; a small *grubenhaus* that functioned as a warehouse was placed close to the Roman road. In a second semi-excavated hut the archeozoological evidence shows the presence of sheep, bovines, pigs, but also boar and deer.

The semi-excavated huts are substituted later with ground-level structures near the baths, while a necropolis develops in Poggio alle Fonti (Bertoldi, La Salvia 2015).

The posteriority of the necropolis in relation to all the found evidence is indicated by the fact that some burials cut the furnace's discharge (made of thin walled pottery) and others cut the *grubenhauser* (fig. 10).

From the burials excavated in the first half of the 1990s and between 2013 and 2014, burial equipment of only one can be restituted with certainty; it deals with the deposition of a boy, about 2 years old, characterized by a strong hydrocephalia and the presence of a bronze buckle with an "ardiglione a scudetto decorato a perlinatura" pertaining to a belt from the second half of the 6th century AD (Goggioli 1995, p. 38-39).

The scarcity of relationships between burials and their regularity (except for one of them) lead us to believe that this necropolis was used, at least in the excavated part, for a very short period.

The village seemed to be abandoned, based on the data from the archeological study, between the end of the 7th century and beginning of the 8th; a demographic contraction that could be connected to the phase of the Carolingian Renaissance (Bertoldi et alii in press) maybe at the end of the Lombard *Tuscia* and the difficulties caused by the reorganization of the Carolingian *comitatus* (Henning 2007, pp. 3-40, Henning 2008, pp. 33-53, Henning 2009, pp. 149-173).

For a new attestation of the site, we have to wait until the 9th century AD, when on the 29th of December of 814 AD a *diploma* of Louis the Pious says that the church of Santa Cristina in Caio (along with other lands) belonged to the Abbey of Sant'Antimo (Montalcino).

The fact that the emperor granted the territory of Santa Cristina in Sant'Antimo is indicative of two characteristics: the continuity of public ownership of the place (at least from a fiscal point of view) and the Carolingian political design favoring large ecclesiastical property.

5. Conclusions

From the data collected (excavations, diagnostics and surveys), we can assume that:

- The foundation of the settlement dates back to the 1st century BC; the site is located in an advantaged location from the point of view of artisanal production but especially the commercial network. As recalled by Pucci, speaking about the Gallic context (something that might have general value): "Il *vicus* infatti può raccogliere artigiani – non solo ceramisti – che vi si concentrano per la presenza di certe materie prime, per la presenza della rete viaria e fluviale, perché il sito è un punto di incontro per fiere e mercati."

- From the 1st century A.D. we notice large investments and capital movements in the settlement and its inclusion in a larger commercial network. This is the greatest moment of development of Santa Cristina, which perhaps was realized in the middle of the next century, with the institutionalization of the road that connected Siena with Chiusi.

- The economic engine of Santa Cristina was the accessibility (both terrestrial and fluvial). This site seems to have had its zenith during the 2nd and 3rd century; heavy investments in the baths and their renova-

tions show a still growing settlement, which is confirmed by the indications of magnetometric data.

- Bearing in mind the high level of abstraction for the Roman period and the territory of Buonconvento, we propose a spatial model inspired by Christaller's theory of central place, where Santa Cristina is the economic pole of the central Ombrone valley (from Ponte d'Arbia to La Befà).

- The first changes occur during the 4th century: the closure of the roman baths is symptomatic of the economic recession. The dismantling of the baths is perhaps evidence of the unchanged nature of the public place of Santa Cristina; the set of *spolia* obtained *in situ* was reused for commercial purposes (by the State or maybe behind concession). It's certainly a period of economic recession, which is scaled down by the choices of settlements, production, trade, services and in general all economic activities. Our vision is that in this period there was a sort of spending review, which aimed to cut costs of the state that were no longer needed.

- A radical change only would come during the end of this phase of controlled defunctionalization; in the 6th century AD the public control over the entire area was lost. This type of village would not contribute to the birth of the medieval landscapes, unlike the nascent hilltop sites, which arose from the 7th century onwards in response to other types of economic development.

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References

- P. ARTHUR, M. LEO IMPERIALE (eds) 2015, *VII Congresso Nazionale di Archeologia Medievale* (Lecce, 9-12 settembre 2015), Firenze.
- S. BERTOLDI 2013, *Spatial calculations and archaeology: roads and settlements in the cases of Valdorcia and Valdarbia (Siena, Italy)*, "Post Classical Archaeologies", 3, pp. 89-115.
- S. BERTOLDI, G. CASTIGLIA 2015, *La mensa dell'artigiano: corredi ceramici e quotidianità tra IV e VI secolo d.C. nell'insediamento produttivo di Santa Cristina in Caio (Buonconvento - SI)*, in ARTHUR, LEO IMPERIALE 2015, II, pp. 228-232.
- S. BERTOLDI, V. LA SALVIA 2015, *La necropoli di Santa Cristina in Caio: inquadramento spaziale all'interno dell'insediamento*, in ARTHUR, LEO IMPERIALE 2015, II, pp. 131-135.
- S. BERTOLDI, M. VALENTI 2015, *Santa Cristina in Caio a Buonconvento (Siena): un bilancio interpretativo dopo la sesta campagna di scavo*, "Fold&r - Fastionline Documents & Research". Online in: www.fastionline.org/docs/FOLDER-it-2015-338.pdf (last accessed May 5th, 2016).
- S. BERTOLDI, M. VALENTI, V. LA SALVIA in press, *S. Cristina a Buonconvento (SI). La lunga durata di un centro sulla Cassia*, in *Empor e Mercator: spazi e rappresentazioni del commercio romano*, Atti delle giornate di studi (Chieti, 18-19 aprile 2013).
- D. BRENTCHELOFF 2009, *Lampes en terre cuite moulées et modelées*, in C. GOUDINEAU, D. BRENTCHELOFF (eds), *Le camp de la flotte d'Agrippa a Fréjus. Les fouilles du quartier del Villeneuve* (1979-1981), Paris, pp. 277-284.
- S. CAMPANA, R. FRANCOVICH, E. VACCARO 2005, *Il popolamento tardoromano e altomedievale nella bassa valle dell'Ombrone. Progetto Carta Archeologica della Provincia di Grosseto*, "Archeologia Medievale", XXXII, pp. 461-480.
- F. CENNI 2007, *Carta archeologica della Provincia di Siena (Buonconvento)*, Siena.
- G. CIAMPOLTRINI 2004, *Produzioni ceramiche lucchesi fra VIII e XI secolo. Evidenze dalle stratigrafie dell'area Galli Tassi*, in S. PATITUCCI UGGERI (eds), *La ceramica altomedievale in Italia*, Atti del V Congresso di Archeologia Medievale (Roma, 26-27 novembre 2001), Firenze, pp. 149-162.
- M. DE FRANCESCHINI 2005, *Ville dell'agro romano*, Roma.
- J.J. DOBBINS 1983, *The Excavation of the Roman Villa at La Befa, Italy*, Oxford.
- S. GOGGIOLI (ed) 1995, *Santa Cristina in Caio. Un insediamento nella media valle dell'Ombrone*, Buonconvento, Siena.
- J. HENNING 2007, *Early European towns. The development of the economy in the Frankish realms between dynamism and deceleration AD 500-1100*, in J. HENNING (ed), *Post Roman Towns. Trade and Settlements in Europe and Byzantium*, Vol. 1, *The Heirs of Roman West*, Berlin/New York, pp. 3-40.
- J. HENNING 2008, *Strong rulers - weak economy? Rome, the Carolingians and the archaeology of slavery in the first millennium AD*, in J.R. DAVIS, M. MC CORMICK (eds), *The Long Morning of Medieval Europe*, Aldershot, pp. 33-54.
- J. HENNING 2009, *Revolution or relapse? Technology, agriculture and early medieval archaeology in Germanic central Europe*, in G. AUSENDA, P. DELOGU, C. WICKHAM, *The Langobards Before the Frankish Conquest. An Ethnographic Perspective*, San Marino, pp. 149-173.
- V. LA SALVIA 2015, *L'area produttiva delle terme*, in ARTHUR, LEO IMPERIALE 2015, II, pp. 310-312.
- G. OLCESI 1993, *Le ceramiche comuni di Albintimilium. Indagine archeologica e archeometrica sui materiali dell'area del Cardine*, Firenze.
- G.A. PECCI 1748, *Storia del Vescovado della Città di Siena unita alla serie cronologica de' suoi Vescovi ed Arcivescovi*, Lucca.
- E. REPETTI 1833-1843, *Dizionario geografico, fisico, storico della Toscana*, vol. V, Firenze.
- G. RICCI, N. TERRENATO 1998, *I residui nella stratificazione urbana. Metodi di quantificazione e implicazioni per l'interpretazione delle sequenze: un caso di studio dalle pendici settentrionali del Palatino*, in F. GUIDOBALDI, C. PAVOLINI, P. PERGOLA (eds), *I materiali residui nello scavo archeologico*, Testi preliminari e Atti della tavola rotonda (Roma, 16 marzo 1996), Roma, pp. 89-104.
- M. SERLORENZI 2010, *Testimonianze medievali nei cantieri di piazza Venezia*, "Bollettino d'arte", Vol. speciale, s. VII, pp. 131-170.
- M. VALENTI 1995, *Carta archeologica della Provincia di Siena (Chianti senese)*, Siena.
- M. VALENTI 2013, *Santa Cristina in Caio (Buonconvento - SI): la campagna di scavo 2013*, "Folder Fastionline Documents & Research". Online in: www.fastionline.org/docs/FOLDER-it-2013-300.pdf